BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 269 OF 2024

In the matter of:

Sanavvar — Applicant

Vs.

State of Uttar Pradesh — Respondent

Index

Sr. No.	Particulars	Page No.
1.	**Reply** on behalf of Central Pollution Control Board (CPCB) respondent no. 4 in compliance to Hon'ble NGT order dated 05.08.2024 in O.A. No. 269/2024.	
2.	**Annexure-I:** A copy of Hon'ble NGT order dated 21.05.2024 & 05.08.2024, in O.A. No. 269/2024.	
3.	**Annexure-II :** A copy of detailed factual report dated 02.08.2024, filed by City Magistrate, Muzaffarnagar, Uttar Pradesh.	

Filed by Adv Rajkumar
(On behalf of Central Pollution Control Board)

Dated: 18.09.2024
Place: Delhi

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 269 OF 2024

In the matter of:

Sanavvar — Applicant

Vs.

State of Uttar Pradesh — Respondent

REPLY ON BEHALF OF CENTRAL POLLUTION CONTROL BOARD i.e. RESPONDENT NO. 4,

1. That, Hon'ble NGT vide order dated 05.08.2024 has impleaded **Central Pollution Control Board (hereinafter referred as CPCB)** as Respondent no. 4 and has sought the response in the instant Original Application. Thereby, the reply is made in succeeding paragraphs.

2. That at the outset, the answering respondent denies all claims, contentions, allegations and averments against it in the above Original Application (OA) contrary to anything stated or submitted in this reply. Nothing in the OA may be deemed to have been accepted or admitted by the answering Respondent for want of a specific denial save any averment which has been expressly admitted hereinafter.

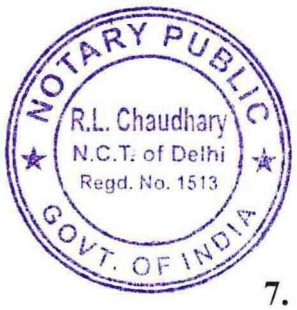
3. That, CPCB is a statutory Board constituted under Section 3 of The Water (Prevention and control of Pollution) Act, 1974. It performs the functions under The Water (Prevention and control of Pollution) Act, 1974, The Air (Prevention and control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986.

4. That, it is humbly submitted that the State Pollution Control Boards/Pollution Control Committees (hereinafter referred as SPCBs/PCCs) have been constituted in States/Union Territories under Water Act, 1974 and under the Air Act, 1981 and empowered to perform the functions and implement the provisions of these Acts in respect of their territorial Jurisdiction.

5. That as per the original application, the primary grievance is about the air pollution being caused by emission of poisonous industrial gases and black smoke by various industrial units located in Muzzaffar Nagar, UP.

SUBMISSIONS BY CPCB, RESPONDENT NO. 4

6. That, the Hon'ble NGT vide order dated 21-05-2024 in the present matter, constituted a Joint Committee comprising of District Magistrate, Muzaffar Nagar, Uttar Pradesh Pollution Control Board (UPPCB) and Central Pollution Control Board (CPCB) to obtain a factual report. The copy of Hon'ble NGT order dated 21-05-2024 is annexed herewith as **ANNEXURE-I.**



7. That, in compliance of Hon'ble NGT order dated 21-05-2024, a joint committee comprising officials from the CPCB, UPPCB and representative from District Administration, Muzaffar Nagar carried out monitoring from July 4th to 6th, 2024, to verify the factual status. It is further submitted that in this matter, City Magistrate, Muzaffar Nagar is the nominated official on behalf of nodal agency i.e. District Magistrate, Muzaffar Nagar.

8. That, the Joint Committee has submitted its report dated 02-08-2024 through City Magistrate, Muzaffar Nagar, before Hon'ble Tribunal. The report is annexed herewith as **ANNEXURE-II.**

9. That, the joint committee found violations of the environmental laws by the industries and suggested/ recommended action points in the joint committee report.

10. That the answering respondent requests the Hon'ble Tribunal to accept the joint committee report and also may accept the suggestive measures/ recommendations of the joint committee.

11. That, the answering respondent craves leave of the Hon'ble Tribunal to file additional reply, if required in future.

12. That in the light of the above submissions, it is respectfully submitted that this Answering Respondent, i.e., CPCB, shall abide by any order(s) or direction(s) passed by this Hon'ble Court in the instant OA.

NOTARY PUBLIC
R.L. Chaudhary
N.C.T. of Delhi
Regd. No. 1513
GOVT. OF INDIA

Ajit Kumar Vidyarthi

(A.K. Vidyarthi)
Scientist 'F'
Central Pollution Control Board

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH, NEW DELHI

ORIGINAL APPLICATION NO. 269 OF 2024

In the matter of:

Sanavvar — Applicant

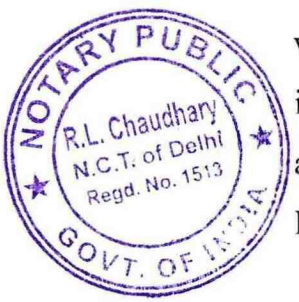
Vs.

State of Uttar Pradesh — Respondent

AFFIDAVIT

I, A.K. Vidyarthi, working as Scientist 'F' in Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi, the Respondent No. 4 in the above matter, do hereby solemnly affirm, declare on oath and state as under: -

1. That I, the deponent herein is authorized representative to represent the Respondent CPCB in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent and authorized to verify, sign and swear this affidavit on behalf of the Respondent CPCB.



2. That the accompanying reply may be read part and parcel of the present affidavit.

3. That the accompanying reply has been drafted and filed under my instructions and authority the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB

and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.

Ajit Kumar Vidyarthi

DEPONENT

ए. के. विद्यार्थी / A. K. Vidyarthi
वैज्ञानिक 'एफ' / Scientist 'F'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
M/o Env. Forest & Climate Change, Govt. of India
परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली–110032
Parivesh Bhawan, East Arjun Nagar, Delhi-110032

VERIFICATION

17 SEP 2024

Verified at New Delhi on this day of _____ 2024 that the contents of the above reply are correct and true on the basis of the records of the case as mentioned in the day-to-day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Ajit Kumar Vidyarthi

DEPONENT

ए. के. विद्यार्थी / A. K. Vidyarthi
वैज्ञानिक 'एफ' / Scientist 'F'
केंद्रीय प्रदूषण नियंत्रण बोर्ड
Central Pollution Control Board
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
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Parivesh Bhawan, East Arjun Nagar, Delhi-110032

NOTARY PUBLIC
R.L. Chaudhary
N.C.T. of Delhi
Regd. No. 1513
GOVT. OF INDIA

ATTESTED
NOTARY PUBLIC
GOVT. OF IND

17 SEP 2024

ANNEXURE I

Item No.15 Court No. 2

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No.269/2024

Sanavvar Applicant

Versus

State of U.P. Respondent

Date of hearing: 05.08.2024

CORAM: HON'BLE MR. JUSTICE SUDHIR AGARWAL JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

Applicant(s): None

Respondent(s): Mr. Pradeep Misra and Mr. DaleepDhyani, Advocates for UPPCB (Through VC)

ORDER

1. This Original Application (hereinafter referred to as '**OA**') under Sections 14 and 15 of National Green Tribunal Act, 2010 (hereinafter referred to as '**NGT Act, 2010**') was registered in exercise of *suo-moto* jurisdiction on the basis of a letter petition dated 16.09.2023 sent by Sanavvar S/o Shamim resident of Sikhera village Tehsil Muzaffarnagar District Uttar Pradesh.

2. Complaint is that huge air pollution is being caused by emission of poisonous industrial gases and black smoke by various industrial units namely Disha Industries Pvt. Ltd., Mahalaxmi Paper Mills, Gulshan Poliwal Limited, K.K. Paper Mill Pvt. Ltd., Alnoor Meeth Plant, Kishti

Paper Mill, Orient Paper Mill, Saras Paper Mill and an industry situated at Jansad Muzaffarnagar which is collecting tyre oil by burning the tyres and thereby causing air pollution.

3. Tribunal in order to have a factual Report, constituted a Joint Committee comprising District Magistrate, Muzaffarnagar, UPPCB (hereinafter referred to as '**UPPCB**') and Central Pollution Control Board (hereinafter referred to as '**CPCB**') vide order dated 21.05.2024.

4. Pursuant to the above order, Joint Committee has submitted its Report dated 02.08.2024 through City Magistrate, Muzaffarnagar. In view of the observations made thereunder and finding violations of environmental laws, we find it appropriate to implead following as respondents:

I. State of UP thorough Secretary, Ministry of Environment and Forest.
II. District Magistrate, Muzaffarnagar
III. UP State Pollution Control Board through Member Secretary
IV. Central Pollution Control Board through Member Secretary
V. M/s Disha Industries Pvt. Ltd., Muzaffarnagar
VI. M/s Mahalakshmi Paper Mills, Muzaffarnagar, UP-251203
VII. M/s Gulshan Polyols Ltd., 09thKm Jansath road, Muzaffarnagar, UP- 251001
VIII. M/s KK Duplex & Paper Mills Pvt. Ltd., 08thKm Jansath road, Muzaffarnagar, UP-251001
IX. M/s Al-Noor Exports, 09thKmvillage-ShernagarJansath road, Muzaffarnagar, UP-251203
X. M/s Shakti Kraft & Tissues (formerly known as M/s Kirti Paper Mill and mentioned as Kishti Paper Mill in OA No. 269/2024)

XI. M/s Orient Board & Paper Mills, 09thKm Jansath road, Muzaffarnagar, UP-251203

XII. M/s Shri Jee Reclaiming Mills Pvt Ltd.

XIII. M/s ASV Reclaiming LLP

XIV. M/s Shri Bankey Bihari Enterprises

XV. M/s Dev Enterprises

XVI. M/s Ramai Enterprises

XVII. M/s Vinayak Industries

XVIII. M/s MMD Green Energy Solutions

XIX. M/s AR. G. Rubber processed oil industries

5. Registry is directed to issue notices to all the above respondents who may file their responses within three weeks after receipt of notice.

6. Considering the seriousness of the issue, we find it appropriate that an Amicus-Curie should be appointed to assist Tribunal on behalf of complainant for proper adjudication of the matter. We accordingly, appoint Shri Rahul Khurana, Advocate (Enrollment No.D/2183/2008) to amicus curie to assist Tribunal who will be paid professional remuneration/fee of Rs.50,000/- per hearing.

7. List for further consideration on 19.09.2024.

Sudhir Agarwal, JM

Dr. Afroz Ahmad, EM

August 05, 2024
Original Application No.269/2024
M

Item No. 3 Court No. 2

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 269/2024

Sanavvar Applicant

Versus

State of UP Respondent

Date of hearing: 21.05.2024

CORAM: HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

ORDER

1. This original application under Sections 14 and 15 of National Green Tribunal Act, 2010 has been registered in exercise of *suo moto* jurisdiction on the basis of a letter petition dated 16.09.2023 sent by Sanavvar, s/o Shamim r/o Sikhreda, District Muzaffar Nagar.

2. The complaint is that huge air pollution is being caused by emission of poisonous industrial gases and black smoke by various industrial units namely Disha Industries Pvt. Ltd., Mahalaxmi Paper Mills, Gulshan Poliwal Limited, K.K. Paper Mill Pvt. Ltd., Alnoor Meeth Plant, Kishti Paper Mill, Orient Paper Mill, Saras Paper Mill and an industry situated at Jansad Muzaffarnagar which is collecting tyre oil by burning the tyres and thereby causing air pollution.

3. In our view, a substantial question relating to environment due to implementation of Scheduled Enactments has arisen in view of the above complaint but before taking any further action in the mater we find it appropriate to obtain a factual report for which we constitute a joint Committee comprising District Magistrate, Muzaffarnagar, Uttar Pradesh Pollution Control Board (hereinafter referred to as **'UPPCB'**) and Central Pollution Control Board (hereinafter referred to as **'CPCB'**).

4. District Magistrate, Muzaffarnagar shall be nodal agency for coordination and compliance.

5. The said Committee shall visit the site of the above industries, collect the relevant information and submit a factual report within two months.

6. List this matter on 05.08.2024.

7. A copy of this order along with complaint be forwarded to District Magistrate, Muzaffarnagar, UPPCB and CPCB by email.

Sudhir Agarwal, JM

Dr. Afroz Ahmad, EM

May 21, 2024
O.A. No. 269/2024
A

Annexure-II

Office of the District Magistrate, Muzaffarnagar

From : City Magistrate
Muzaffarnagar

To,

The Registrar
National Green Tribunal
Principal Bench
New Delhi.
E-mail : judicial-ngt@gov.in

Ref. No. : 500/ओ० ग्र० न० 269/सनव्वर/2024 Dated : 2-8-2024

Sub.- Report in Compliance to the direction issued by Hon'ble National Green Tribunal on 21.05.2024 in O.A. No. 269/2024 Sanavvar Vs State of U.P.

Sir,

With reference to the subject mentioned above kindly find enclosed herewith the Report in compliance of the order issued on 21.05.2024 by Hon'ble National Green Tribunal in O.A. No. 269/2024 Sanavvar Vs State of U.P.

Encl. : As above.

Yours faithfully

(Vikas Kashyap)
City Magistrate
Muzaffarnagar

Copy to :

1. Member Secretary, U.P. Pollution Control Board, Lucknow for information.
2. District Magistrate, Muzaffarnagar for information.
3. Sh. A.K. Vidyarthi, Director (Scientist-F) & Divisional Head, WQM-II, Central Pollution Control Board, New Delhi.
4. Shri Pradeep Mishra, Advocate, Hon'ble Supreme Court/NGT, New Delhi for perusal and necessary action.
5. Chief Law Officer, U.P. Pollution Control Board, Lucknow for information.
6. Chief Environmental Officer (Circle-3), U.P. Pollution Control Board, Lucknow for information.

City Magistrate
Muzaffarnagar

D/Neeraj Mittal/Letter 2024

DETAILED FACTUAL REPORT IN COMPLIANCE TO HON'BLE NATIONAL GREEN TRIBUNAL (NGT) ORDER DATED 21.05.2024 IN ORIGINAL APPLICATION NO. 269/2024 IN THE MATTER OF SANAVVAR VS STATE OF UP

1. SUBJECT MATTER

Matter: Original Application no. 269/2024 titled Sanavvar Vs State of UP

Subject: Detailed factual report in compliance to Hon'ble NGT order dated 21.05.2024in OA No. 269/2024in the matter of Sanavvar Vs State of UP in reference to grievance registered by Hon'ble NGT in exercise of suo moto jurisdiction on the basis of a letter petition dated 16.09.2023 sent by Sanavvar, s/o Shamim r/o Sikhreda, District Muzaffarnagar.

2. HON'BLE NGT ORDER DATED 21.05.2024

Hon'ble NGT in OA No. 269/2024 in the matter of Sanavvar Vs State of UP directed the following vide its order dated 21.05.2024 **(ANNEXURE – I)**:

"*3.In our view, a substantial question relating to environment due to implementation of Scheduled Enactments has arisen in view of the above complaint but before taking any further action in the mater we find it appropriate to obtain a factual report for which we constitute a joint Committee Comprising District Magistrate, Muzaffarnagar, Uttar Pradesh Pollution Control Board (hereinafter referred to as 'UPPCB') and Central Pollution Control Board (hereinafter referred to as 'CPCB').*

4. *District Magistrate, Muzaffarnagar shall be nodal agency for coordination and compliance.*

5. *The said Committee shall visit the site of the above industries, collect the relevant information and submit a factual report within two months.****"***

2.1. Applicant has mainly highlighted the following issues in Original Application No. 269/2024:

i. Significant air pollution is being caused by emission of poisonous industrial gases and black smoke from various industrial units, namely M/s Disha Industries Pvt. Ltd., M/s Mahalaxmi Paper Mills, M/s Gulshan Polyols Ltd., M/s KK Duplex & Paper Mills Pvt. Ltd., M/s Al-Noor Exports, M/s Shakti Kraft and Tissues Pvt. Ltd.*(formerly*

known as M/s Kirti Paper Mill), M/s Orient Board & Paper Mills, M/s Saras Paper Mill and by End-of-life tyres (ELTs) Pyrolysis Oil units industries located in and around Jansath Road, Muzaffarnagar. The complainant also mentioned that these units are operating beyond consented production capacity.

ii. In petition, the complainant has also raised issues related to various health problems such as eye irritation, loss of eye sight, breathing issues, cancer, skin allergies due to air pollution caused by above mentioned industries faced by residents of villages namely Bhagwanpuri, Sikhreda, Dhandhera, Bhandoora, Shernagar, Bilaspur, Nirana and Jat Mujhera.

3. COMPLIANCE REPORT

In compliance of Hon'ble NGT order dated 21.05.2024, 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 July 4th to 6th, 2024, to verify the factual status of the aforementioned issues. In this matter, City Magistrate, Muzaffarnagar is the nominated official on behalf of nodal agency i.e., District Magistrate, Muzaffarnagar.

3.1. Actions taken by the Committee

The details of the actions taken by the committee are as follows:

A. Visit to industries mentioned in the Hon'ble NGT order dated 21.05.2024 namely:

i. M/s Disha Industries Pvt. Ltd., Muzaffarnagar
ii. M/s Mahalakshmi Paper Mills, Muzaffarnagar, UP-251203
iii. M/s Gulshan Polyols Ltd., 09thKm Jansath road, Muzaffarnagar, UP- 251001
iv. M/s KK Duplex & Paper Mills Pvt. Ltd., 08thKm Jansath road, Muzaffarnagar, UP-251001
v. M/s Al-Noor Exports, 09thKmvillage-ShernagarJansath road, Muzaffarnagar, UP-251203
vi. M/s Shakti Kraft & Tissues (formerly *known as M/s Kirti Paper Mill* and mentioned as Kishti Paper Mill in OA No. 269/2024)
vii. M/s Orient Board & Paper Mills, 09thKm Jansath road, Muzaffarnagar, UP-251203

B. Visit to End-of-life tyres (ELTs) Pyrolysis Oil Units in & around Jansath Road namely:

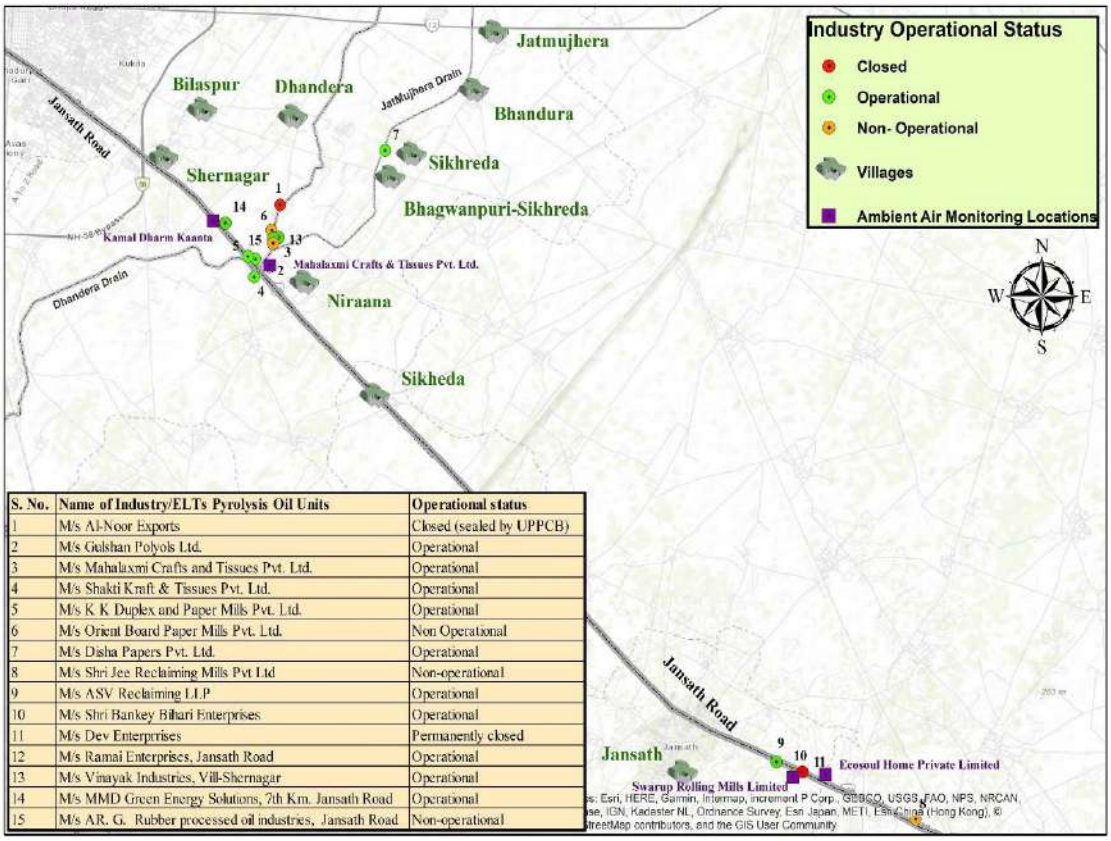
i. M/s Shri Jee Reclaiming Mills Pvt Ltd.

ii. M/s ASV Reclaiming LLP
iii. M/s Shri Bankey Bihari Enterprises
iv. M/s Dev Enterprises
v. M/s Ramai Enterprises
vi. M/s Vinayak Industries
vii. M/s MMD Green Energy Solutions
viii. M/s AR. G. Rubber processed oil industries

C. Survey of 10 villages, namely Bhagwanpuri, Sikhreda, Dhandhera, Bhandoora, Shernagar, Bilaspur, Nirana, Sikheda, Jansath and Jat Mujheda along with interaction with the villagers.

3.2. Location map

The joint committee visited industries mentioned in the Hon'ble NGT order dated 21.05.2024in OA no. 269/2024, ELTs Pyrolysis Oil Units, and a survey of the concerned villages. The map showing industries, ELTs Pyrolysis Oil Units, ambient air monitoring locations and villages is shown in **Figure 1.**



S. No.	Name of Industry/ELTs Pyrolysis Oil Units	Operational status
1	M/s Al-Noor Exports	Closed (sealed by UPPCB)
2	M/s Gulshan Polyols Ltd.	Operational
3	M/s Mahalaxmi Crafts and Tissues Pvt. Ltd.	Operational
4	M/s Shakti Kraft & Tissues Pvt. Ltd.	Operational
5	M/s K K Duplex and Paper Mills Pvt. Ltd.	Operational
6	M/s Orient Board Paper Mills Pvt. Ltd.	Non Operational
7	M/s Disha Papers Pvt. Ltd.	Operational
8	M/s Shri Jee Reclaiming Mills Pvt Ltd	Non-operational
9	M/s ASV Reclaiming LLP	Operational
10	M/s Shri Bankey Bihari Enterprises	Operational
11	M/s Dev Enterprises	Permanently closed
12	M/s Ramai Enterprises, Jansath Road	Operational
13	M/s Vinayak Industries, Vill-Shernagar	Operational
14	M/s MMD Green Energy Solutions, 7th Km. Jansath Road	Operational
15	M/s AR. G. Rubber processed oil industries, Jansath Road	Non-operational

Figure 1 Map showing locations of industries, ELTs Pyrolysis Oil Units and villages visited in the matter of OA no. 269/2024

3.3. Detail of site visit

Out of 8 industries mentioned in Hon'ble NGT order dated 21.05.2024 in OA no. 269/2024, 1 industry namely M/s Saras Paper Mill does not exist as confirmed by UPPCB. Out of 7 industries inspected during July 4-5, 2024, 1 industry namely M/s Al-Noor Exports, 09th KM, Village Shernagar, Jansath Road, was found closed (sealed by UPPCB), 1 industry namely M/s Orient Board & Paper Mills, 09th Km, Jansath Road, was found non-operational due to repair and maintenance activities and the remaining 5 industries were found operational. From 5 operational industries, information regarding statutory documents, production details, boiler details, ash management and air pollution control measures was collected.

Out of 8 ELTs Pyrolysis Oil Units, 4 were found operational, 3were non-operational and 1 unit namely M/s Dev Enterpriseswas found permanently closed.

Detail of samples collected during visit:

Stack emission monitoring in five operational units, work-zone air quality monitoringin four ELTs and ambient air quality monitoring at 4 locations was carried out by UPPCB, effluent samples from one operational unit was collected for verification of ZLD, recipient drain samples from upstream and downstream of the unit were collected and analysis was done at Central Laboratory, UPPCB Head Office, Lucknow. Number of samples collected are as follows:

i. Industries mentioned in Hon'ble NGT order dated 21.05.2024
    a. Effluent – 3
    b. Recipient drain – 2
    c. Stack emission monitoring – 5
ii. End-of-life tyres (ELTs) Pyrolysis Oil Units
    a. Effluent – 2
    b. Work-zone air quality monitoring - 4
iii. Ambient air monitoring – 4 (upwind & downwind direction of industrial clusters)

The committee tried to interact with the complainant in OA no. 269/2024 but the complainant was unavailable. The committee also interacted with the villagers and medical practitioners/primary health centers to discuss about the issues raised in the petition. Photography and videography of the monitoring and sampling processes were carried out during the visit/survey.

Out of the 8 respondent industries in Hon'ble NGT order dated 21.05.2024 in OA no. 269/2024, the detailed inspection of 6 industries namely M/s Mahalakshmi Paper Mills, M/s Gulshan Polyols Ltd., M/s KK Duplex & Paper Mills Pvt. Ltd., M/s Al-Noor Exports, M/s Shakti Kraft Paper Mill, M/s Orient Board & Paper Mills, was already carried out during December,2023-January,2024 by a joint committee comprising of officials from CPCB, MoEF&CC, UPGWD, UPPCB and District Administration in the matter Original Application No. 540/2023 titled Niramaya Jan Utthan Sansthan Vs. State of Uttar Pradesh & Ors. The detailed reports of 06 industries was filed before Hon'ble NGT on 04.04.2024 in the matter of OA No. 540/2023 and the same are annexed as **ANNEXURE-II.** The operational and compliance status of remaining 02 industries, mentioned in Hon'ble NGT order dated 21.05.2024 in OA no. 269/2024, namely M/s Disha Industries Pvt. Ltd., Muzaffarnagar and M/s Saras Paper Mill, Muzaffarnagar was verified.

The report of the joint committee filed before Hon'ble NGT in the matter Original Application No. 540/2023 titled Niramaya Jan Utthan Sansthan Vs. State of Uttar Pradesh & Ors. was accepted by Hon'ble Tribunal and the verbatim of the order dated 08.04.2024 in the matter is as follows:

"***3.*** *The Committee had earlier submitted the interim report and has thereafter, submitted final report on 04.04.2024. In the final report, violation of environmental norms by various industrial units have been found. These units are not before the Tribunal today and they are required to be heard before taking action. It is the responsibility of the UPPCB to give an opportunity of hearing to the units, ascertain the extent of violation, if any, and take remedial/punitive action. For this purpose, the concerned units will be given an opportunity of hearing on the findings which have been recorded by the joint Committee against them and a final conclusion in respect of violation will be drawn by UPPCB only after considering the reply and giving an opportunity to the industrial unit. Learned Counsel appearing for the UPPCB submits that this exercise will be completed within three months.*

4. *Hence, we dispose of the OA directing the Member Secretary, UPPCB to do the needful in terms of the observations made above and take appropriate action including the action of imposition of EC against the industrial units which are found to be violating the environmental norms by UPPCB and file action taken report before the Registrar General of the Tribunal within four months. If found necessary, the matter will be listed before the Bench for consideration."*

4. EXECUTIVE SUMMARY

4.1. Visit to industries mentioned in the Hon'ble NGT order dated 21.05.2024

The committee carried out site visit in 8 industrial units mentioned in the petition, out of which 5 were found operational, 1 unit was non-operational, 1 unit was closed (sealed by UPPCB) and 1 unit does not exist. Out of 5 operational units, all were found complying w.r.t. stack emission norms. Effluent samples collected from unit namely, M/s Disha Industries Pvt. Ltd., Muzaffarnagar indicated non-compliance w.r.t. ZLD condition. The detailed compliance status of industries is given below:

Table 1 Detailed compliance status of industries mentioned in the Hon'ble NGT order dated 21.05.2024

S. no.	Name of unit	Operational status	Validity of CTO issued under Air Act, 1981	Boiler/ Turbine capacity	Air Pollution Control Device and stack height (m)	Fuel used in Boiler	Boiler ash generation (MT/d)	Ash disposal method	Compliance status w.r.t. stack emission norms
1.	M/s Al-Noor Exports, 09th KM, Village Shernagar, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203	Closed due to closure direction dated 24.05.2024 issued by UPPCB	-	-	-	-	-	-	-
2.	M/s Gulshan Polyols Ltd., 09th Km, Jansath Road, Muzaffarnagar, Uttar Pradesh-251001	Operational	Valid	Boiler- 24 TPH (01 no.) and Turbine- 2.75 MW and 2 MW (02 nos.)	Dust collector And Electrostatic precipitators (stack height-65 m)	Rice husk and low Sulphur coal	48.7 MT/d	Dumping in low lying area	Complying
3.	M/s Mahalaxmi Paper Mills, Muzaffarnagar, Uttar Pradesh-251203	Operational	Valid	Boiler-18 TPH (01 no.) & Turbine- 450 KVA (01 no.)	Cyclone, Air pre Heater, Wet scrubber, Bag filter (stack height-35 m)	Bagasse, RDF and rice husk	20.09 MT/d	Dumping in low lying area	Complying
4.	M/s Shakti Kraft and Tissues Pvt. Ltd., 9th Km Jansath Road, Muzaffarnagar 251001 (formerly known as M/s Kishti Paper Mill)	Operational	Valid	Boiler-14 TPH (01 no.) & Turbine- 350 KVA (01 no.)	Multi-cyclone, dust-collector and wet-scrubber (stack height-32 m)	Bagasse and rice husk	4.16 MT/d	Dumped in low lying land owned by the unit	Complying

S. no.	Name of unit	Operational status	Validity of CTO issued under Air Act, 1981	Boiler/ Turbine capacity	Air Pollution Control Device and stack height (m)	Fuel used in Boiler	Boiler ash generation (MT/d)	Ash disposal method	Compliance status w.r.t. stack emission norms
5.	M/s KK Duplex & Paper Mills Pvt. Ltd., 08th Km Jansath Road, Muzaffarnagar, Uttar Pradesh-251001	Operational	Valid	Boiler- 22 TPH (01 no.) & Turbine-3 MW (01 no.)	Bag Filter (stack height-32 m)	Plastic waste, Firewood, Coal, Bagasse & Refuse Derived Fuel (RDF)	172.5 MT/d	Land Filling	Complying
6.	M/s Orient Board & Paper Mills, 09th Km, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203	Non-operational	Valid	Boiler-18 TPH (01 no.)	Bag Filter and Venturi scrubber	-	-	Land filling/brick manufacturing	-
7.	M/s Disha Industries Pvt. Ltd., Muzaffarnagar	Operational	Valid	Boiler-20 TPH & 40 TPH (02 nos.)	Multi cyclone & Wet scrubber installed at 20 TPH boiler and Bag filter installed at 40 TPH boiler (stack height-40 m)	RDF, Coal, Bagasse, waste plant leaves	4.3 MT/d	Land Filling	Complying w.r.t. stack emission norms however, **non-complying w.r.t. ZLD condition and adverse impact on recipient drain**
8.	M/s Saras Paper Mill, Muzaffarnagar	Does not exist	-	-	-	-	-	-	-

4.2. Visit to End-of-life tyres (ELTs) Pyrolysis Oil Units in & around Jansath Road

The committee carried out site visit of 8ELTs Pyrolysis Oil Units, out of which 4 were found operational, 3 units were non-operational and 1 unit was permanently closed. Out of 4 operational units, all were found non-complying w.r.t. regulatory requirements. Out of 3 non-operational units, 2 units were found non-complying w.r.t. regulatory requirements. The detailed compliance status of ELTs Pyrolysis Oil Units is given below:

Table 2 Compliance status of End-of-life tyres (ELTs) Pyrolysis Oil Units

Sr. No.	Name of the unit	Operational status	Production capacity (TPD)	Consent under Air/Water Acts	Hazardous waste authorization	NOC from UPGWD	EPR registration	Digital instrumentation & Automation	Nitrogen purging for reactor cooling	Status of ETP	Compliance status
1	M/s Shri Jee Reclaiming Mills Pvt. Ltd.	Non-operational	20	Yes	No	No	No	No	No	No	Non-compliance
2	M/s ASV Reclaiming LLP	Operational	20	Yes	No	No	No	No	No	No	Non-compliance
3	M/s Shri Bankey Bihari Enterprises	Non-operational	20	Yes	No	No	No	No	Yes	Under commission	Non-compliance
4	M/s Dev Enterprises	Permanently closed	NA	NA	NA	NA	NA	NA	NA	NA	Permanently closed
5	M/s Ramai Enterprises, Jansath Road	Operational	20	No	No	No	No	No	No	Under commission	Non-compliance
6	M/s Vinayak Industries, Vill-Shernagar	Operational	20	Yes	No	No	No	No	No	Installed	Non-compliance
7	M/s MMD Green	Operational	20	Yes	No	No	No	No	Yes	No	Non-compliance

Sr. No.	Name of the unit	Operational status	Production capacity (TPD)	Consent under Air/Water Acts	Hazardous waste authorization	NOC from UPGWD	EPR registration	Digital instrumentation & Automation	Nitrogen purging for reactor cooling	Status of ETP	Compliance status
	Energy Solutions, 7th Km. Jansath Road										
8	M/s AR. G. Rubber processed oil industries, Jansath Road	Non-operational	NA	No	No	No	No	NA	No	No	Self-closed

5. DETAILED REPORT

The report is prepared in three 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 21.05.2024.
- Part 2 (sub-section 5.2) consists of observations and findings of the visit to ELTs Pyrolysis Oil Units.
- Part 3 (sub-section 5.3) provides details about the survey and interactions with residents of the concerned villages.

5.1. Inspection of industries mentioned in the Hon'ble NGT order dated 21.05.2024

The petitioner in the matter of OA No. 269/2024 complained that huge air pollution is being caused by emission of poisonous industrial gases and black smoke by following industrial units:

i. M/s Disha Industries Pvt. Ltd., Muzaffarnagar
ii. M/s Mahalakshmi Paper Mills, Muzaffarnagar, Uttar Pradesh-251203
iii. M/s Gulshan Polyols Ltd., 09th Km, Jansath Road, Muzaffarnagar, Uttar Pradesh-251001
iv. M/s KK Duplex & Paper Mills Pvt. Ltd., 08th Km Jansath Road, Muzaffarnagar, Uttar Pradesh-251001
v. M/s Al-Noor Exports, 09th KM, Village Shernagar, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203
vi. M/s Kishti Paper Mill
vii. M/s Orient Board & Paper Mills, 09th Km, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203
viii. M/s Saras Paper Mill, Muzaffarnagar

The schedule of visit of industries is given below:

Table 3 Schedule of visit of industries mentioned in the Hon'ble NGT order dated 21.05.2024

S. No.	Name of industrial unit	Operational status	Date of inspection
1.	M/s KK Duplex & Paper Mills Pvt. Ltd., 08th Km Jansath Road, Muzaffarnagar, Uttar Pradesh-251001	Operational	July 4, 2024
2.	M/s Disha Industries Pvt. Ltd., Muzaffarnagar	Operational	

S. No.	Name of industrial unit	Operational status	Date of inspection
3.	M/s Gulshan Polyols Ltd., 09th Km, Jansath Road, Muzaffarnagar, Uttar Pradesh-251001	Operational	July 5, 2024
4.	M/s Orient Board & Paper Mills, 09th Km, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203	Non-operational	
5.	M/s Al-Noor Exports, 09th KM, Village Shernagar, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203	Closed (Closure issued by UPPCB)	
6.	M/s Mahalaxmi Paper Mills, Muzaffarnagar, Uttar Pradesh-251203	Operational	
7.	M/s Shakti Kraft and Tissues Pvt. Ltd., 9th Km Jansath Road, Muzaffarnagar 251001 *(formerly known as M/s Kirti Paper Mill)*	Operational	
8.	M/s Saras Paper Mill, Muzaffarnagar	Does not exist	

The map showing location of industries inspected by the committee is given in **Figure 2.**

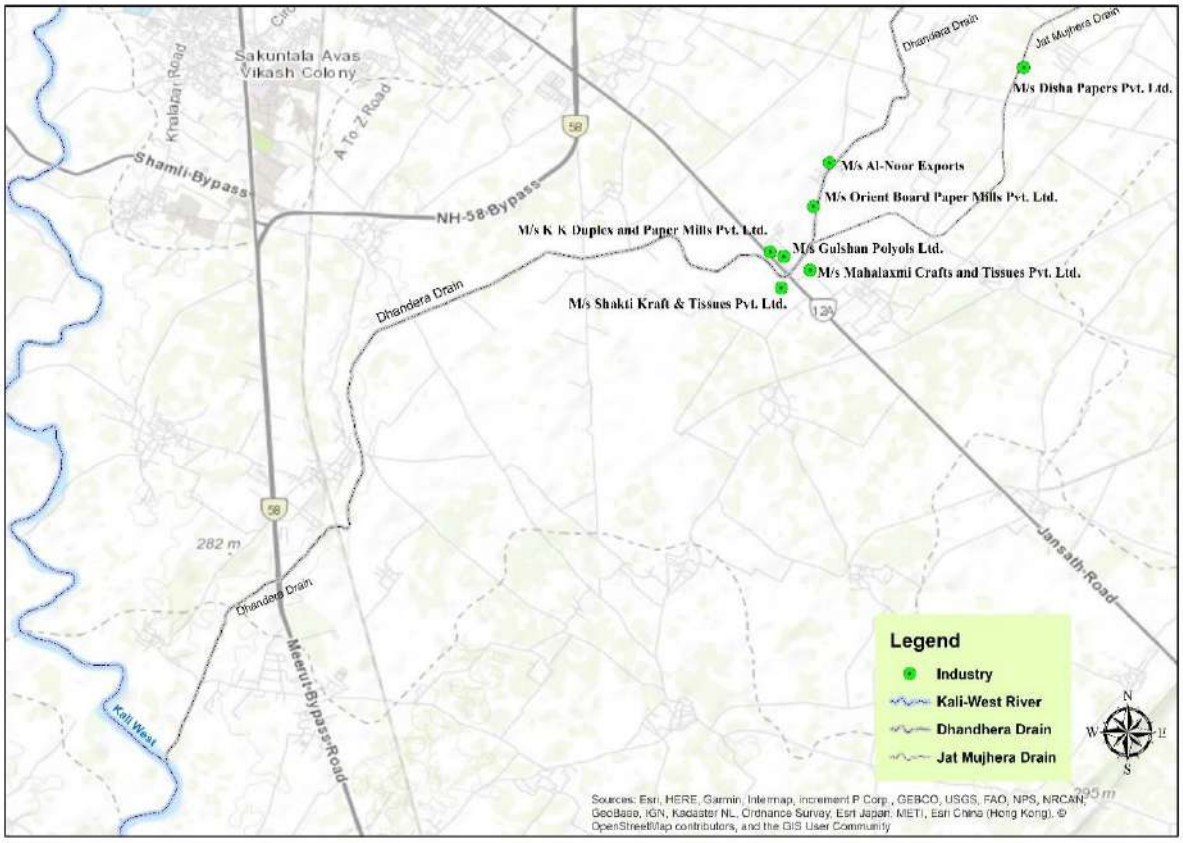


Figure 2 Map showing locations of industries inspected by the joint committee during July 4-5, 2024

The observations made by the joint committee are as follows:

i. M/s KK Duplex & Paper Mills Pvt. Ltd., 08th Km Jansath 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 31.12.2027.
- Unit is having valid Authorization issued under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 29.08.2027.
- 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.
- Unit has obtained registration certificate dated 30.05.2024 for Recycling/Processing of Plastic Waste (Under Rule-13(3) of the Plastic Waste Management Rules, 2016, as amended) for processing of plastic waste of 9500 TPA (Cat-I), 70,000 TPA (Cat-II) & 30,000 TPA (Cat-III) and power to be generated of 26280 TPA. The certificate is valid for a period of one year from the date of issue of the letter.

b. Production detail:

- Consented production: Kraft paper/Duplex board @ 200 MT/day using waste paper as raw material.
- Average production: As per logbook data (Apr-Jun, 2024), the average daily production was 115.4 MT/d.
- Average raw material consumption: As per logbook data (Apr-Jun, 2024), the average daily raw material consumption was 126.1 MT/d.

c. Operational status:

- Unit was found operational during visit on 04/07/2024.

d. Boiler details:

- Unit has installed 02 nos. of boilers (capacities-10 TPH & 22 TPH). One boiler of capacity 10 TPH was found in dismantled condition and the other boiler of capacity 22 TPH (multi fuel based waste to energy boiler with 3 MW capacity turbine) was found operational during visit.
- Unit is using Plastic Waste, Firewood, Coal, Bagasse & Refuse Derived Fuel (RDF) as fuel in the boiler for meeting the steam requirements in

production section. As per logbook data (Apr-Jun, 2024), the average daily fuel consumption in boiler is given below:

Month	RDF (MT)	Processed waste fuel (MT)	Firewood (MT)	Coal (MT)	Bagasse (MT)
Apr, 2024	217.9	73.5	-	9.9	3.7
May, 2024	267.1	74.8	-	12.6	-
Jun, 2024	2157.2	71.9	8.6	9.9	4.7
Total	917.4	73.3	3.1	10.7	2.9

e. Ash management:

- The estimated daily ash generation by the unit is 172.5 MT/d. Unit is disposing boiler ash in low lying areas. Unit has made agreement with Mr. Shahid Malik on 01.04.2024 for use of boiler ash in land filling.

f. Air pollution control measures:

- Unit has provided stack of height 32 m attached with 22 TPH boiler with Bag filter as Air Pollution Control Device (APCD).

g. Stack emission monitoring:

- Particulate Matter (PM) – 32.6 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)-42 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
- Oxides of Nitrogen (NO_X)-54 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)
- **Compliance status: Complying w.r.t notified stack emission norms**.

ii. M/s Disha Industries Pvt. Ltd., Muzaffarnagar

a. Statutory compliance:

- Unit is having valid Consolidated Consent and Authorization (CCA) under Water Act, 1974 and Air Act, 1981 having validity up to 31.12.2025.
- Unit is having valid Authorization under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 29.01.2026.
- Unit is having valid No Objection Certificates (NOCs) for abstraction of ground water from 02 nos. of borewells having validity up to 18.08.2026.

- Unit has obtained registration certificate dated 26.07.2024 for Recycling/Processing of Plastic Waste (Under Rule-13(3) of the Plastic Waste Management Rules, 2016, as amended) for processing of plastic waste of 14235 TPA (Cat-I), 106762.5 TPA (Cat-II), 18505.5 TPA (Cat-III), 2847 TPA (Cat-IV) and power to be generated of 8760 TPA. The certificate is valid for a period of one year from the date of issue of the letter.

b. Production detail:
    - Consented production: Kraft paper @ 300 MT/day using waste paper@375 MT/day as raw material.
    - Average production: As per data provided by the unit, the average daily production during Apr-Jun, 2024was 202.5 MT/d.
    - Average raw material consumption: As per data provided by the unit, the average daily raw material consumption during Apr-Jun, 2024 was 213.9 MT/d.
c. Operational status:
    - Unit was found operational during visit on 04/07/2024 (detailed report attached as **ANNEXURE-III**).
d. Freshwater abstraction:
    - Unit has 02 nos. of borewells, both in functional condition. Electromagnetic flow meter with totalizer found installed at both borewells, however the flow meter installed at the second borewell was in defunct condition.
    - Permitted withdrawal quantity: 1104 KLD
    - Average daily withdrawal quantity: 331.08 KLD from Borewell-1 (No data of groundwater withdrawal from Borewell-2)
    - Specific freshwater consumption: 1.63 KL/MT of paper (specific freshwater consumption is calculated based on data of borewell-1 and for borewell-1, no data is provided by the unit therefore specific freshwater consumption is more).
e. Effluent management:
    - As per CCA, unit is based on ZLD process & effluent from outlet of ETP was being reused in process at paper machine section.

- Treatment scheme: Raw effluent → Hill screen (located within process area) → Bar screen → Equalization tank (02 nos.) → Sedicell → Storage tank → Recycled to Paper machine.
- V – notch found installed at inlet channel of ETP, however no flow meter found installed at outlet line 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 effluent reuse point and analysis results are given below:

Parameter	**Sampling location**		
	ETP inlet	**ETP outlet**	**Effluent reuse point**
pH	5.21	4.98	5.03
TSS (mg/l)	790	860	820
TDS (mg/l)	8170	9380	8760
TS (mg/l)	8960	10240	9580
BOD (mg/l)	2750	3980	3240
COD (mg/l)	22384	40080	31320

It also indicated that ETP is not operated properly as ETP outlet values are more than the ETP inlet. Analysis results of samples collected from trade effluent at ETP inlet does not reflect the typical characteristics of influent (COD ≥ 30,000 mg/l & TDS ≥ 20,000 mg/l) in RCF based paper mill operating on ZLD.

Also, unit has 02 nos. of borewells to meet the fresh water requirement. Flowmeter was installed on both the borewells, however the flow meter at borewell-2 was found in defunct condition, due to which the logbook provided by the unit for last three months regarding freshwater abstraction was not indicating any abstraction from borewell 2. During visit both the borewells were in functional condition and withdrawal of fresh water from borewell-2 cannot be ruled out. Therefore, the specific freshwater consumption of 1.63 kl/MT of product does not reflect the actual freshwater consumption by the unit.

Based on above, it is evident that unit is n**on-complying w.r.t. ZLD condition.**

- Recipient drain: Jat Mujhera drain
- Wastewater characteristics of Jat Mujhera drain at upstream & downstream of unit:

Parameter	**Jat Mujhera u/s M/s Disha Industries Pvt. Ltd.**	**Jat Mujhera d/s M/s Disha Industries Pvt. Ltd.**
pH	6.27	6.29
Colour (Hazen)	300	250
TSS (mg/l)	510	450
TDS (mg/l)	3018	2876
TS (mg/l)	3528	3326
BOD (mg/l)	955	794
COD (mg/l)	4016	3232

- Wastewater quality of Jat Mujhera drain indicate industrial impact due to illegal discharge by M/s Disha Industries Pvt. Ltd.

f. Boiler details:

- The unit has installed 02 nos. of boilers for meeting steam requirements-01 boiler of 20 TPH capacity using bagasse as fuel, and other boiler of 40 TPH capacity using Multi fuel (i.e. RDF, Coal, Bagasse, Waste plant leaves). During visit, both the boilers were found operational.
- The unit has not provided the data for fuel consumption.
- On the day of visit, the unit was using RDF in the boiler without having a registration certificate for Recycling/Processing of Plastic Waste under Plastic Waste Management Rules, 2016. However, the unit provided the registration certificate dated 26.07.2024 after the committee's visit.

g. Ash management:

- As per logbook data (Apr-Jun, 2024), the average daily ash generation was 4.3 MT/d.
- Unit has made agreement with M/s Roshan Bricks on 20.01.2024 for use of boiler ash in land filling.
- Gap of 1.98 MT/day between boiler ash generation and its disposal was observed.

h. Air Pollution Control Measures:

- Unit has provided stack of height 30 m attached with 20 TPH boiler with Multi cyclone & Wet scrubber as APCDs and a stack of height 40 m attached with 40 TPH boiler with bag filter as APCD.

i. Stack emission monitoring:

- Particulate Matter (PM) – 36.8 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)-56 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
- Oxides of Nitrogen (NO_X)-64 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)

j. Compliance status:

- Complying w.r.t notified stack emission norms.
- **Non-complying w.r.t. ZLD condition**.

iii. M/s Mahalaxmi Paper Mills, 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 31.12.2028.
- Unit is having valid Authorization under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 02.10.2027.
- Unit is having valid NOCs for abstraction of ground water from 02 nos. of borewells having validity up to 27.08.2026.

b. Production detail:

- Consented production: Kraft paper @ 200 MT/day and captive power generation @0.425 MW using waste paper @ 220 MT/day as raw material.
- Average production: As per logbook data (May, 2024), the average daily production was 122.4 MT/d, which is within the consented production capacity of the unit.

c. Operational status:

- Unit was found operational during visit on 05/07/2024.

d. Boiler details:

- The unit has installed 01 no. of boiler (capacity-18 TPH) for meeting steam requirements. Unit has also installed a turbine of capacity 450 KVA.
- The unit was using bagasse, RDF and rice husk as fuel in boiler. As per logbook data (Apr-Jun, 2024), the fuel consumption in boiler is given below:

Fuel consumption in boiler (MT/d)			
Month	**Bagasse**	**Rice husk**	**RDF**
April	6.17	5.98	-
May	1.99	3.70	7.37
June	0.06	0.22	11.40
Total	8.22	9.90	18.77

e. Ash management:

- Unit has installed trommel machine for screening of RDF before use in boiler to reduce its ash content. Recycled water from wet scrubber was used to cool down the boiler ash before its transportation for disposal. The unit has made agreement dated 22.01.2024 with M/s Raj Bricks Supply (Khampur, Muzaffarnagar) for manufacturing/processing of bricks and is valid up to one year from the date of agreement. Boiler ash generated from the unit was being utilized in low lying land by the contracted vendor.
- As per logbook data, average ash generation during Apr-Jun, 2024 was 6.77 MT/day (Apr-85.75 MT/day; May-254.05 MT/day; Jun-276.05 MT/day).
- Estimated steam requirement @ 2 T/T of product is 400 MT. Estimated fuel consumption @ 2.75 MT steam/MT of fuel is 145.45 MT. Estimated ash generation is 20.09 MT/d against 6.77 MT/d of average ash generation.

f. Air pollution control measures:

- Unit has provided stack of height 35 m attached with 18 TPH boiler with Cyclone, Air pre Heater, Wet scrubber and Bag filter as APCD.

g. Stack emission monitoring:

- Particulate Matter (PM) – 42.4 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)-48 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)

- Oxides of Nitrogen (NO_X)-56 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)
- **Compliance status: Complying w.r.t notified stack emission norms.**

iv. M/s Gulshan Polyols Ltd., 09th Km, Jansath 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 31.12.2027 for Calcium carbonate unit and validity up to 31.07.2025 & 31.07.2026 for two food processing units.
- Unit is having valid NOCs for abstraction of ground water from 04 nos. of borewells having validity up to 05.06.2025, 10.10.2025, 16.10.2026 and 12.05.2027.

b. Production detail:

- Consented production: Gulshan Polyols Ltd (Food processing units, Unit 1&2) produce food processing products, namely Liquid Glucose, Fructose powder using Rice as raw material and modified starch using agriculture produce like maize as raw material. In addition, calcium carbonate unit (Unit-3) was found producing precipitated calcium carbonate using lime stone as raw material. The detail of consented production is:

Unit Type	Product	Quantity (MT/Month)	Daily quantity (MT/day)
Unit 1 (Food processing)	Native Starch	3750	125
	Modified Starch	1500	50
	Glucose/Fructose Powder	1500	50
	HFCS	900	30
Unit 2 (Food processing)	Dextrose Mono Hydrate (DMH)	300	10
	Dextrose Anhydrous (DAH)	600	20
	Malto Dextrine Powder (MDP)	1500	50
	Liquid Glucose/High Maltose Syrup	1500	50
	Sorbitol Solution	3000	100
Unit 3 (Calcium carbonate unit)	Precipitated Calcium Carbonate	4200	140
	Activated Calcium Carbonate	1800	60
	Ground Calcium Carbonate	1950	65

- Average production: As per logbook data (Apr-Jun, 2024), the average daily production was 270.40 MT/d.

- Average raw material consumption: As per logbook data (Apr-Jun, 2024), the average daily raw material consumption was 292.94 MT/d.

c. Operational status:

- Unit was found operational during visit on 05/07/2024.

d. Boiler details:

- The unit has installed 01 no. of boiler (capacity-24 TPH) for meeting steam requirements. Unit has installed 02 nos. of turbines of capacities 2.75 MW and 2 MW. On the day of inspection, boiler was found operating on the capacity of 23 TPH and turbine was running at 1.9 KW.
- The unit was using rice husk and low Sulphur coal as fuel in boiler. Stack height was 65 m. The unit has made agreement dated 01.07.2023 with a local farmer for dumping of ash in low lying area. The agreement is valid up to 15 months from the date of agreement. As per logbook data (Apr-Jun, 2024), the average daily consumption of low sulphur & volatile coal in boiler was 132.33 MT/d and Rice Husk was 14.46 MT/d.

e. Ash management

- The average daily boiler ash generation was 22.37 MT/d.
- The estimated daily ash generation was 48.7 MT/d:

Particular	Fuel quantity (T)	Ash produced (MT)
Low sulphur & volatile coal	12042	4631.5 (35%)
Rice Husk	1316	245.8 (17%)
Total	13358	4877.3

f. Air pollution control measures:

- Unit has provided stack of height 65 m attached with 24 TPH boiler with dust collector and electrostatic precipitators as APCDs.

g. Stack emission monitoring:

- Particulate Matter (PM) – 43.8 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)-38 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
- Oxides of Nitrogen (NO_X)-44 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)
- **Compliance status: Complying w.r.t notified stack emission norms.**

v. M/s Shakti Krafts and Tissues Pvt. Ltd., 9th Km Jansath Road, Muzaffarnagar 251001 (formerly known as M/s Kishti Paper Mill)

a. Statutory compliance:

- Unit is having valid Consolidated Consent and Authorization (CCA) under Water Act, 1974 and Air Act, 1981 having validity up to 31.12.2024.
- Unit is having valid Authorization under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 having validity up to 23.03.2028.
- Unit is having valid NOCs for abstraction of ground water from 02 nos. of borewells having validity up to 01.05.2027.

b. Production detail:

- Consented production: Kraft paper @ 150 MT/day using waste paper @ 180 MT/day as raw material.
- Average production: As per logbook data (Apr-June, 2024), the average daily production was 97.24 MT/d.
- Average raw material consumption: As per logbook data (Apr-June, 2024), the average daily raw material consumption was 106.93 MT/d.

c. Operational status:

- Unit was found operational during visit on 05/07/2024.

d. Boiler details:

- The unit has installed 01 no. of boiler (installed capacity-14 TPH) for meeting steam requirements. Unit has installed a turbine of capacity 350 KVA.
- The unit is using bagasse and rice husk as fuel in boiler. As per logbook data (Apr-Jun, 2024), the fuel consumption in boiler is given below:

Fuel consumption in boiler (MT)		
Month	**Bagasse**	**Rice husk**
April	23.15	12.32
May	23.08	1.81
June	20.35	4.66
Total	**66.59**	**6.30**

e. Ash management:

- As per logbook data, average ash generation during Apr-Jun, 2024 was 4.16 MT/day (Apr-4.48 MT/day; May-4.17 MT/day; Jun-3.82 MT/day). Average ash generation was 5.7% of the fuel consumption.
- The Boiler ash generated from the unit was being dumped in low lying land (coordinates-29.415581, 77.761030) owned by the unit.

Land used by M/s Shakti Krafts and Tissues Pvt. Ltd., 9th Km Jansath Road, Muzaffarnagar for dumping of fly ash

- Estimated steam requirement @ 2 T/T of product is 194.48 MT. Estimated fuel consumption @ 2.5 MT steam/MT of Bagasse and 3 MT steam/MT of Rice Husk is 76.67 MT/d. Estimated ash generation is 2.72 MT/d against 4.16 MT/d of average ash dumped at yard, which indicates that unit is using legacy ash for dumping in the same land.

f. Air pollution control measures:

- Unit has provided stack of height 32 m attached with 14 TPH boiler with multi-cyclone, dust-collector and wet-scrubber as APCDs.

g. Stack emission monitoring:

- Particulate Matter (PM)-38.9 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3)
- Sulphur dioxide (as SO_2)-18 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3)
- Oxides of Nitrogen (NO_X)-22 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)
- **Compliance status: Complying w.r.t notified stack emission norms.**

vi. M/s Orient Board & Paper Mills, 09th Km, Jansath 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 Authorization Rules, 2016 having validity up to 31.12.2028.
   - Unit is having valid NOCs for abstraction of ground water from 02 nos. of borewells having validity up to 30.03.2027.

b. Production detail:
   - Consented production: 190 MT/day (Kraft paper-110 MT/day; Poster paper and light gram kraft paper-80 MT/day and captive power generation-1.25 MW) from waste paper-240 MT/day.

c. Operational status:
   - Unit was found non-operational during visit. On the day of inspection (July 5, 2024), the unit representative informed that the unit is not operating since July 2, 2024 due to repair and maintenance activities.

d. Boiler details:
   - Unit has installed 01 no. of boiler (capacity-18 TPH) for meeting steam requirements with bag filter and Venturi scrubber as APCD.
   - The unit is using bagasse along with agro waste (mix) as fuel in boiler. The unit has made agreement with M/s Kuchhal Brick Supply for utilization of ash in land filling/brick manufacturing (copy of agreement provided by the unit).
   - During inspection, it was observed that the unit has modified the existing boiler to RDF based boiler. The unit representative informed that the new boiler will be made operational from July 10-12, 2024.

Non-operational machinery at unit

Modification of existing boiler to RDF based boiler

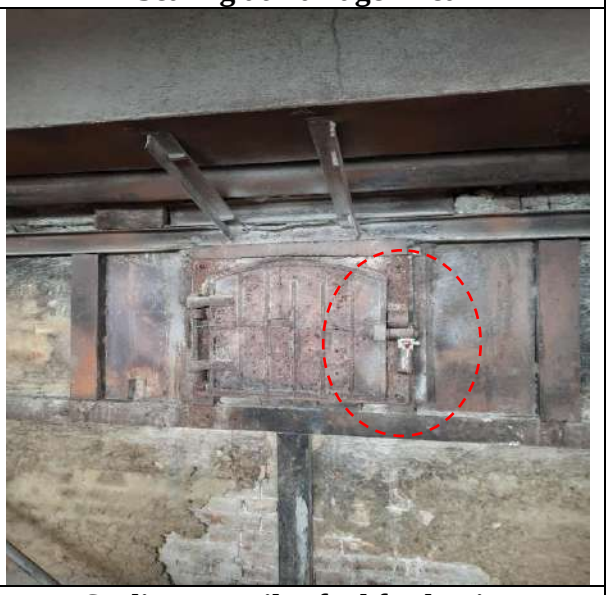
vii. M/s Al-Noor Exports, 09th KM, Village Shernagar, Jansath Road, Muzaffarnagar, Uttar Pradesh-251203:

The unit was found closed on the day of inspection (05.07.2024) due to closure direction dated 24.05.2024 issued by UPPCB (**ANNEXURE-IV).** The joint committee visited the premises of the unit to verify its closure and observed that UPPCB has sealed the Lairage Area, Ritual Area and Boiler fuel feed point. The photographs showing the sealing done by UPPCB are as follows:

Entrance gate of the Unit

Sealing at Lairage Area

Sealing at Ritual Area



Sealing at Boiler fuel feed point

5.1.1. Ambient air quality monitoring

Ambient air quality was also monitored at four locations namely Swarup Rolling Mills Limited, Ecosoul Home Private Limited, Kamal Dharm Kaanta, Jansath Road and Mahalaxmi Crafts & Tissues Pvt. Ltd. in three shifts of 8 hrs interval each. PM_{10} varied as 144.1-168.6 µg/m^3 and the ambient air quality was not meeting the National Ambient Air Quality Standards (notification dated 18/11/2009). The analysis results are tabulated below:

S. no.	Monitoring location	PM10 (µg/m^3)
1.	Swarup Rolling Mills Limited, Muzaffarnagar	138.74-148.62
2.	Ecosoul Home Private Limited	154.60-159.28
3.	Kamal Dharm Kaanta, Jansath Road	188.16-198.28
4.	Mahalaxmi Crafts & Tissues Pvt. Ltd.	168.40-176.22

5.2. Visit of ELTs Pyrolysis Oil Units

End-of-Life waste Tyre Pyrolysis Plant

Pyrolysis is a thermal degradation process conducted in the absence of oxygen or air within a controlled vessel or chamber, so that the combustion of material does not take place. It is a process in which organic materials are thermally decomposed into simpler compounds in the temperature range of 400 - 500 °C in an oxygen-free environment. **Figure 3** depicts a schematic of the pyrolysis process for waste scrap tyres.

Since the products of thermal decomposition are released at different temperature having varying molecular structure, the products are in all phases i.e. solid, liquid and gas. Pyrolysis of tyres and rubber products produce pyrolysis oils, pyrolysis gas (pyro-gas), carbon and steel. The products generated in tyre pyrolysis are as follows:

a) **Pyro Gas:** 20 to 35 percent of a tyre's energy content is typically converted into a combustible gas (Pyro Gas) that is used to fuel the pyrolysis process or is combusted in a flare before it is released. Typically, the components of pyro gas are H, HS, CO, CO_2, CH_4, C_2H_4, C_3H_6 and other light hydrocarbons.

b) **Pyro Oil:** 35 to 50 percent of the output from the process is transformed into a liquid product that varies in quality from saleable fuel oil to lower-value oil blend stock.

c) **Carbon:** The residual solid product referred as Carbon constitutes 25 to 40 percent of the output and contains a mixture of carbon, silica, titanium dioxide, zinc, steel etc.

d) **Steel:** The thin wire, which is used for reinforcement of tyre is extracted out during pyrolysis and is collected at the end, sold in the market as scrap steel.

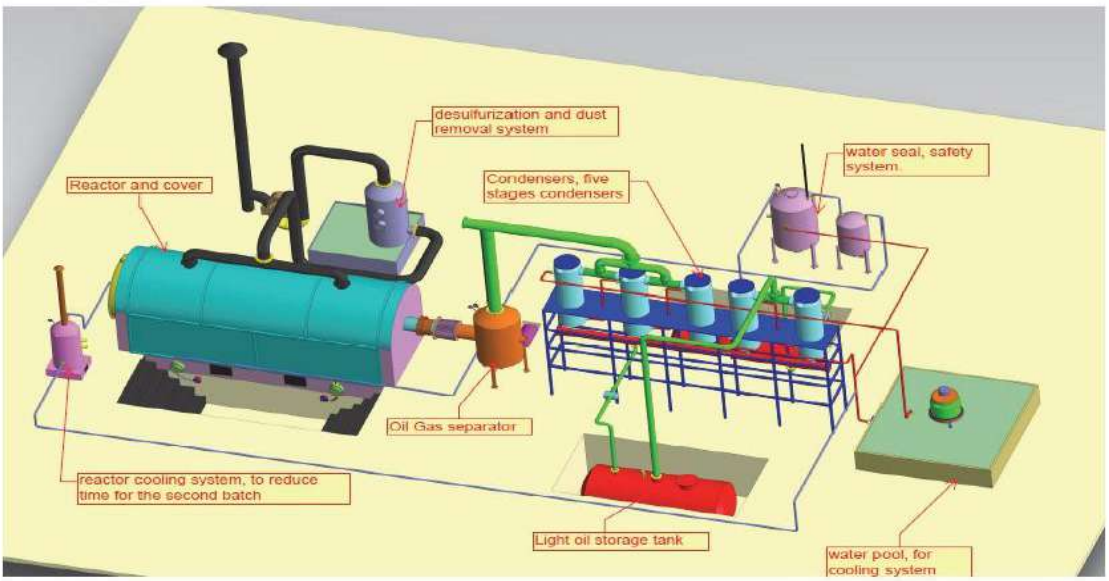


Figure 3 Typical end-of-life waste tyre pyrolysis plant configuration

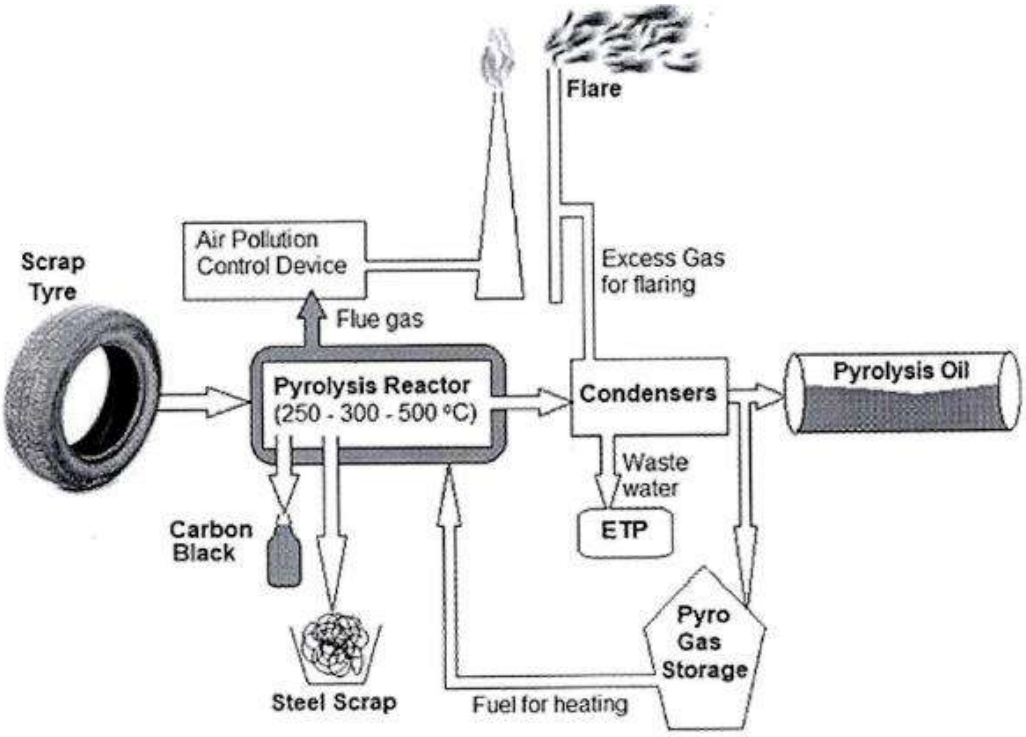


Figure 4 Schematic diagram of waste Tyre Pyrolysis process

The quantity and quality of each product depends on many process variables, including temperature, pressure, and residence time. A preferred quality tyre pyrolysis oil would have molecular weight little above its boiling temperature under normal temperature and pressure. This would help in efficient combustion, and less of soot formation. Waste tyre pyrolysis plant operators are expected to have a control on rate of heating and condensation so as to produce high-quality oils with high calorific values comparable with diesel and gasoline type fuels.

Process Details: Tyre pyrolysis includes feeding scrap tyres into a reactor where they are heated in the absence of oxygen to break down long-chain hydrocarbons (polymers). The reactors are generally 2.1 meters to 2.8 meters in diameter and 6 meters to 6.5 meters in length. Heating of the reactor is carried out through burners that use liquid or gaseous fuel or wood for initial heating. The reactor is rotated slowly during the heating process. The pyro-gas starts generating at around 120°C -150°C. The top of the outer jacket of the reactor is connected to an air pollution control device (APCD), an ID fan, and a stack of about 30 meters in height from the ground for flue gas emissions.

The reactor is maintained at 200°C for 1.5-2.0 hours and then increased to 250°C to 300°C, where it is maintained for 3 to 4 hours. The operating temperature varies from unit to unit,

and in some cases, it goes up to 500°C. The reactor is further connected with a series of condensers where the condensation of gases produces pyrolysis oil. The lighter fraction of the gases (uncondensed pyro-gas) produced in the process is used as fuel for heating the reactor. The excess uncondensed pyro-gas is either flared up or recirculated for reactor heating, or in some cases, stored for subsequent usage. After the completion of the process, the carbon black and steel wire left inside the reactor are taken out. These products are unloaded from the reactor after purging the reactor with nitrogen (N_2).

All inspected units were based on batch process, details of batch process are as under;

In the batch process, feeding is done in batches of a few tons of waste tyres based on the reactor's capacity. The feeding and unloading of reactors in the batch process is carried out manually. In these plants, the tyres are fed to the reactor manually, and at the end of the process, the steel wire and carbon are taken out manually.

A typical batch process functions as follows:

i. Scrap tyres, whole and/or cut, are packed densely into the reactor's chamber.
ii. The reactor is heated up to 300°C to 500°C.
iii. The generation of oil-laden gas starts at 120°C to 150°C. The temperature of the reactor is maintained at 200°C for 2 to 2.5 hours. Then the temperature is further increased to 250°C to 300°C and maintained for another 4-5 hours. In some cases, the operating temperature goes up to 500°C. The bullet-shaped reactor is rotated slowly at 0.5-2.0 revolutions per minute (RPM).
iv. The oil-laden gases (C4 to C30) are passed through multiple condensers, and the oil gets collected in receiver tanks under the condensers.
v. Once the reactor cools down to 50°C, the uncondensed gas is either flared or re-circulated for reactor heating or stored for subsequent usage.
vi. The reactor is purged with nitrogen (N_2) to prevent leakage of unburnt gas.
vii. Due to the internal spiral arrangement, the carbon black flows into the collection bag.
viii. After the removal of carbon black, the reactor door is opened for the removal of steel scrap.
ix. The entire process takes around 14-18 hours.

Other than batch process there are two better process namely; continuous batch process and advance batch automated process. Advance batch automated process, has additional features of mechanical loading & unloading and cooling of reactor by PLC based nitrogen generator

for purging and Alkaline wet scrubber, whereas continuous process uniformly continuous feed rate in the reaction chamber with automation & mechanical loading and unloading.

Standard Operating Procedure (SoP) for Tyre Pyrolysis Plants

- The Ministry of Environment, Forest and Climate Change (MoEF & CC) vide its OM dated November 24, 2015, has notified standard operating procedures (SOPs) for tyre pyrolysis plants using scrap tyres. The SOPs have clearly specified the requisite facilities and standard operating procedures for the production of Tyre Pyrolysis Oil (TPO) from plants based on both batch and continuous processes. The present inspection report examines the unit in light of the SOP dated November 24, 2015.
- In compliance with the Hon'ble NGT order dated January 6, 2020, in O.A. 400/2019, the CPCB submitted a report titled "Study on Adequacy of Tyre Pyrolysis Plants to Meet Environmental Concerns." This study was conducted in collaboration with NEERI and IIT Delhi and report was submitted in October 2021. The detailed report examined seven tyre pyrolysis plants, including ABAP, batch process plants, and continuous tyre pyrolysis plants. The present inspection report focuses on the recommendations of the above report, particularly on existing batch processes and additional features to enhance these processes.
- The Hon'ble NGT, via its order dated October 25, 2021, in O.A. 400/2019, directed the issuance of an appropriate SOP covering siting criteria, threshold limits for plants, carrying capacity, standards for effluents, emissions, hazardous waste, safety measures to prevent accidents, and protection of public health. In response, the existing SOP was revised concerning the recycling of waste tyre scrap for the recovery of Tyre Pyrolysis Oil, Pyro Gas, and Carbon in Tyre Pyrolysis Oil (TPO) unit, and notified dated January 16, 2024, by MoEF&CC, focuses on ABAP and continuous tyre pyrolysis plants.

  The present inspection report examines the tyre pyrolysis plant according to the SOP dated November 24, 2015, which pertains to traditional batch processes, rather than the newer SOP dated January 16, 2024, which is focused on Advanced Batch Process tyre plants. The present inspection report has addressed following topics in detail: Regulatory compliances, plant configuration, production details, wastewater management, air pollution control, occupational health & odour issue and compliance w.r.t. MOEF&CC SOP dated 24.11.2015.

Observations:

In compliance with the Hon'ble NGT's order dated May 21, 2024, in O.A. 269/2024 a joint visit of eight ELTs Pyrolysis Oil Units is conducted by teams of officials from CPCB, District Administration Muzaffarnagar and UPPCB during July 4-5, 2024. The complaint is focussed on ELTs Pyrolysis Oil Units located in and around Jansath road area. The list of the visited industries is as follows:

a. M/s Shri Jee Reclaiming Mills Pvt Ltd
b. M/s ASV Reclaiming LLP
c. M/s Shri Bankey Bihari Enterprises
d. M/s Dev Enterprises
e. M/s Ramai Enterprises
f. M/s Vinayak Industries
g. M/s MMD Green Energy Solutions
h. M/s AR. G. Rubber processed oil industries

The map showing ELTs Pyrolysis Oil Units visited by the committee are shown in **Figure 5.**

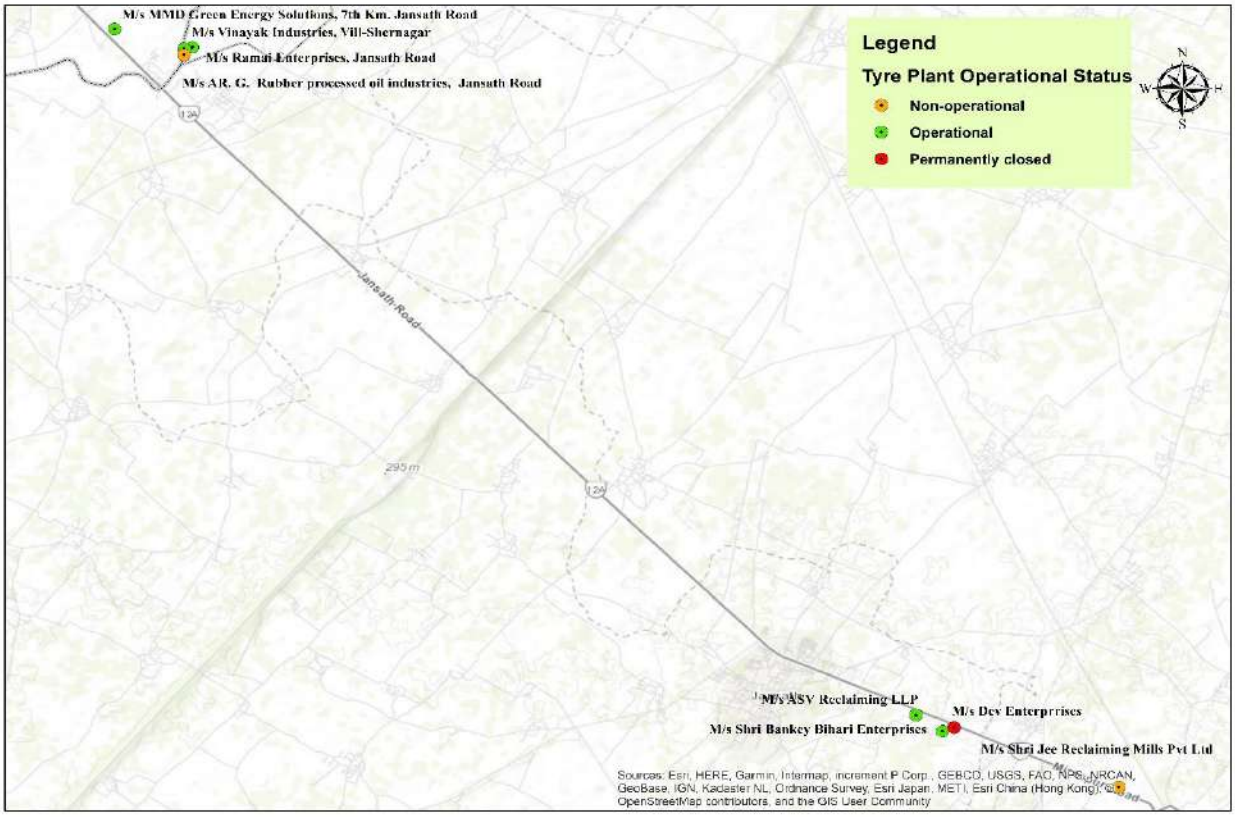


Figure 5 Location map showing ELTs Pyrolysis Oil Units visited by the committee

Based on the inspection, following observation and recommendations are made (detailed reports are attached at **ANNEXURE-V**):

i. **Locations:**

- The inspected tyre pyrolysis units are located in two clusters of four units each along the Jansath Road, Muzaffarnagar. Out of eight units, four units namely; (i) M/s Shri Jee Reclaiming Mills Pvt Ltd, (ii) M/s ASV Reclaiming LLP, (iii) M/s Shri Bankey Bihari Enterprises, and (iv) M/s Dev Enterprises located at South-East of Jansath Road and the remaining four units, namely (i) M/s Ramai Enterprises, (ii) M/s Vinayak Industries (iii) M/s MMD Green Energy Solutions (Operational), and (iv) M/s AR. G. Rubber Processed Oil Industries located at North-West of Jansath Road.
- Both cluster of tyre pyrolysis units are located within a radius of around 10 Kms along the Jansath road.
- Around 10 villages located around the vicinity of both clusters.

ii. **Regulatory Compliance:**

- Most units have valid Air and Water Act consents, except M/s Ramai Enterprises.
- All unit have borewell and estimated freshwater withdrawal is around 7 – 8KL by each unit for purpose of cooling tower/condenser makeup water. However, none of the units have obtained NOC from UPGWD for ground water abstraction.
- None of the units have obtained Hazardous Waste Authorization from UPPCB.
- None of the units are registered for EPR on CPCB portal as a recycler for tyre waste recycling.

iii. **Plant Configuration:**

- All units have two horizontally rotating type pyro reactors, each with a 10-tonne capacity.
- Pyro-reactor are connected to condenser (for cooling of pyro gas), which further connected to the cyclone separator (for separation of oil and gas) and oil storage tank.
- Pyro gas produced during process passes through cyclone separator and used in the reactor for heating purpose.

- Air compressor is installed to mix air with pyro gas for feeding to the reactor for heating.
- Cooling towers are provided for condensing of pyro-gas in the condenser.
- Analog typed sensors for measuring temperature and pressure is provided.
- Oil from condensers is collected in closed vessels and stored in closed tanks.
- Pump systems for oil transfer to storage tanks are observed in all units.
- ID fan and stack of around 30 m height is found installed in all units.
- Stack is attached to jacket of pyro-reactor, to carry flue gas.

iv. **Process Details:**

- All plants have installed reactor on batch mode of operation. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonne of Pyro-Oil (Fuel Oil), 2.4 tonne of carbon, 1.2 tonne of steel and around 1.6 tonne of pyro-gas which is recycled back for heating of reactor.
- Manual feeding of whole tyres is observed instead of a mechanized process.
- Initial heating is done using wood rather than pyro-gas or pyro water as requisite as per SOP. Flaring systems with a minimum height of 30 meters are installed, but no storage balloons for excess pyro gas are provided by the units.

v. Waste Water Management:

- Estimated process wastewater generation as effluent from the process (purge water) and scrubbing system is @ 200-300 l/day/batch. Each unit has 2 reactors so estimated 400-600 liters of effluent is generated on daily basis.
- As per consent unit has to operate on ZLD though recycling of treated effluent via. ETP or using within the process.
- None of the unit has operational ETP which indicates that unit is discharging the generated untreated effluent.
- Wastewater sample has been collected from two units, one from ponding and another from ETP outlet. Wastewater characterises shows, pH – 5.16 to 5.99 against norms of 5.5-9.5, BOD 622 - 3750 mg/l against norms of 30 mg/l, COD 2212 - 42480 mg/l against norms of 250 mg/l, TSS 430 - 920 mg/l against norms of 100 mg/l, TDS 2678 - 9732 mg/l against norms of 2100 mg/l & Total

solids as 3108 - 10652 mg/l which indicate non-compliance of unit w.r.t general discharge norms for BOD, COD, TSS and TDS.

- In absence of operational ETP and small quantity of effluent generation suspected disposal of effluent through tankers cannot be ruled out.

vi. Air Pollution Control:

- All units have installed stack of 30-meter height.
- Wet scrubber is provided as APCD in all units. However, the wet scrubber is found in poor condition.
- Stack monitoring could not be performed in any of the unit due to lacks of spiral staircase and observation platform for monitoring, as required by CPCB guidelines.
- Each pyro chamber of 10 tonne capacity with 8 tonne of end-of-life waste tyre feed produce 1.6 tonne of pyro-gas per day, which is emitted as flue gas after consumption as a fuel.
- Fugitive emission is observed from spillage of carbon in the working area.
- There is no specific emission standard notified for end of life waste tyre pyrolysis plant.
- The work zone air quality monitoring was conducted at four industrial units have consistently shown elevated levels of PM_{10}. M/s ASV Reclaiming LLP shows PM_{10} levels ranging from 168.12 to 186.40 µg/m^3, M/s Vinayak Industries observed levels from 178.8 to 192.46 µg/m^3, M/s MMD Green Energy Solution shows levels between 170.92 and 196.36 µg/m^3, and M/s Ramai Enterprises shows levels ranging from 166.38 to 196.22 µg/m^3. **These values exceed the permissible limit of 100 µg/m^3 for industrial areas.**

vii. **Occupational health and odour issues:**

- Monitoring team felt odour issues in all operational units in the working zone. The odour is rated between 3-7 when rated against the scale of 1-10 with 1 being the minimum and 10 being the maximum odour level.
- Odour is not felt outside working zone.
- No health and odour related issues are reported by nearby resident to Joint monitoring team.
- Workers at the units were in poor working condition, without proper PPE kit, mask and safety gears.

viii. **Observations w.r.t. MoEF&CC SOP dated 24.11.2015**

- Out of eight units, only two units (M/s Shri Bankey Bihari Enterprises and M/s MMD Green Energy Solutions) have provision for cooling of reactor by purging with nitrogen gas.
- Adequate sensors and alarm systems to detect flammable vapours are not provided in any of the unit.
- Most units do not have adequate firefighting systems, including sprinklers, fire hydrants, pumping systems, and water storage. CO_2 fire extinguishers are available in all units.
- Proper records for the supply of carbon black and oil to actual users/processors are not maintained in most of the units.

5.3. Survey and interactions with residents of the concerned villages

The committee conducted survey in 10 villages namely, Nirana, Sikhreda, Jat Mujhera, Bhandura, Jansath, Sikheda, Shernagar, Bilaspur, Bhagwanpuri and Dhandhera. The map showing location of these villages is presented in **Figure 6.**

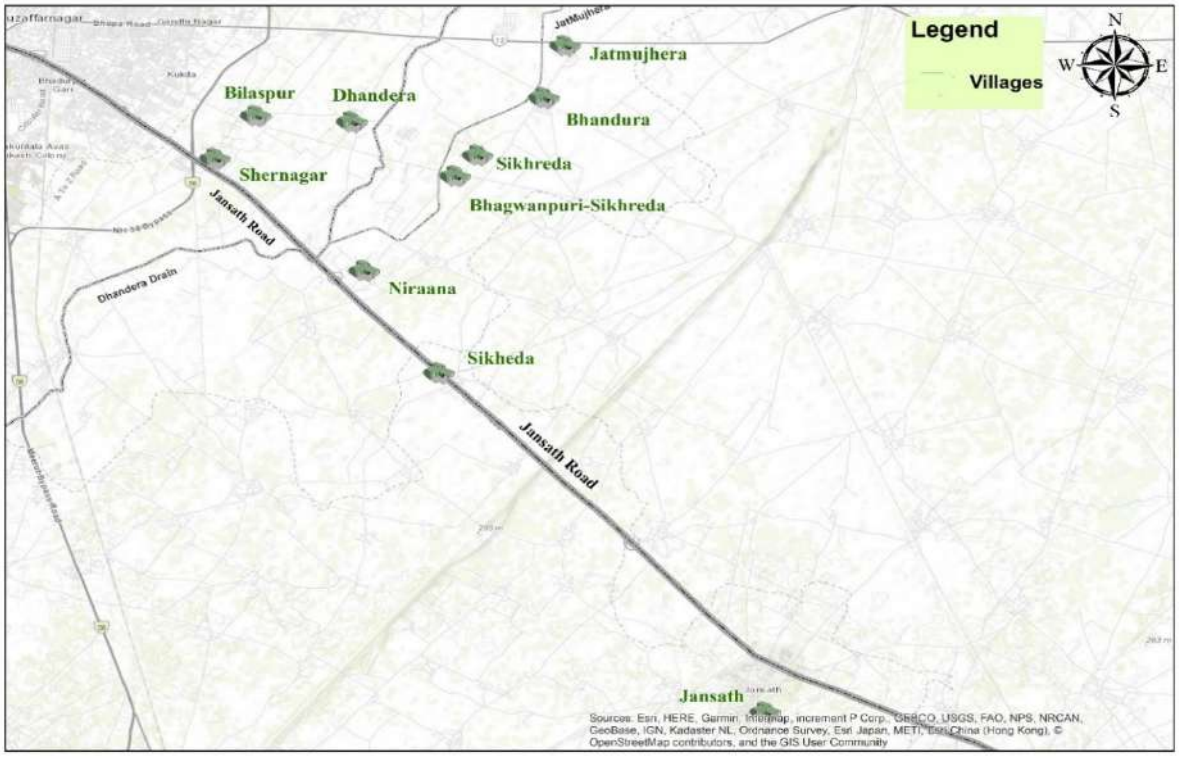


Figure 6 Location map showing villages surveyed by the committee

The team found that only four villages (Nirana, Sikhreda, Jatt Mujhera and Bhandura) reported significant problems related to industrial emissions. Residents in these villages informed that they experience ash deposition on rooftops, crops, and clothing, as well as

health issues such as eye irritation, breathing difficulties, and allergies. In contrast, the other six villages (Jansath, Sikheda, Shernagar, Bilaspur, Bhagwanpuri and Dhandhera) reported only occasional ash presence, primarily during windy condition, with minimal health related complaints. During the visit, despite the rainy season which prevented the deposition of ash during the visit, villagers in Nirana, Sikhreda, Jat Mujhera, and Bhandura reported ongoing problems, including fly ash and soot deposition, poor groundwater quality, and potential health risks. Local health worker confirmed frequent cases of eye irritation due to ash exposure, and some villagers expressed a desire to migrate due to the persistent pollution. The District Agriculture Officer, Muzaffarnagar informed that no case has been reported regarding impact on crops due to operation of industries in the catchment area (**ANNEXURE-VI**). The village-wise detail of survey is given below:

S. No.	Name of village	Issues raised by the villagers/residents
1.	Sikhreda	• Population: ~10,000 • Issues: Eye irritation, lung infections, and breathing problems due to intermittent fly ash emissions from nearby industries.
2.	Bhagwanpuri	• Population: ~ 2,000 • Issues: Deposition of fly ash and dispersion of smoke in the atmosphere, particularly at night. Fly ash deposition on crops was observed during the dry season and winter, no significant impact on crop yield or quality was reported. Despite these issues, no health problems related to air quality were reported
3.	Dhandera	• Population: ~7,000 • Issues: Foul smells, especially on windy days, and ash deposition on crops and fodder, which made animals reluctant to feed. Despite these issues, no health problems related to air quality were reported. During the visit, no ash deposits were observed on buildings or crops.
4.	Bilaspur	• Population: ~8,000-10,000 • Issues: Occasional ash deposition on rooftops and crops, along with foul smells, particularly during windy weather. This ash also affected agriculture by making animals reluctant to feed on ash-covered crops. Eye and breathing problems were common, but no major health issues related to air pollution were reported by most villagers.
5.	Nirana	Population: ~14,000 • Issues: Fly ash deposition on rooftops, crops, and vegetation, leading to eye irritation, eye damage, and breathing problems, particularly among seniors. Noise pollution from industrial boilers was also mentioned. Additionally, poor groundwater

S. No.	Name of village	Issues raised by the villagers/residents
		quality was reported and the adverse impact of fly ash deposition on canopy of fruiting trees, though many noted a recent reduction in industrial air emission problems. • No fly ash deposition on buildings or crops was observed at the time of the visit.
6.	Shernagar	• Population: ~10,000 • Issues: Few residents reported issues with fly ash dispersion and intermittent foul smells from nearby industries on Jansath Road. However, most villagers did not report significant air pollution problems, though occasional fly ash dispersion was noted during windy days. No serious health conditions related to fly ash emissions were reported, and no fly ash deposition on buildings or crops was observed during the visit.
7.	Sikheda	• Population: ~6,000-7,000 • Issues: Occasional deposition of ash and soot on rooftops and clothes drying outdoors, particularly during strong westerly winds. Some residents experienced eye irritation and breathing problems due to occasional fly ash from nearby factories. Despite these issues, no serious health problems were reported, and no ash deposits were observed on houses or crops during the visit.
8.	Jansath	• Population: ~30,000 • Issues: No complaints about air pollution from industrial emissions were reported. No ash deposits or soot were observed on crops or trees during the visit.
9.	Jat Mujhera	• Population: ~4,000-5,000 • Issues: Fly ash deposition on roofs, buildings, and clothing. Ash was also noted on crops, particularly during the dry season and winter, although no deposition was observed during the visit. This ash affected crops and fodder, making them unsuitable for animal feed, and impacted various types of vegetation, including cherry, banana, and vegetable crops. Common health issues included eye irritation, skin allergies, and breathing problems, with some cases of permanent eye damage reported. According to local medical practitioner Mr. K. P. Singh, 1-2 patients daily seek treatment for ash particles in their eyes. The team observed a person with an eye lesion likely caused by fly ash but noted no ash deposition during the visit, possibly due to the monsoon season.
10.	Bhandura	• Population: ~10,000-12,000 • Issues: Over 200-250 residents are reported to suffer from bronchitis and other health issues due to air pollution,

S. No.	Name of village	Issues raised by the villagers/residents
		including eye irritation, skin allergies, and breathing problems from industrial ash. The ash has also caused eye damage in some individuals. Ash deposition on rooftops and outside homes is common, causing difficulties for villagers and impacting crop and fodder quality, with only 50% crop yields near the industries. Although no ash deposition was observed during the visit, villagers reported ongoing issues with ash and soot affecting crops and plantations throughout the year.

6. CONCLUSIONS

6.1. Industries mentioned in the Hon'ble NGT order dated 21.05.2024

- The committee conducted site visits to the eight industrial units mentioned in the petition. Of these, five were operational, one was non-operational, one was closed (sealed by UPPCB) and one does not exist.
- All five operational units were carrying out production within their consented production capacity.
- All units 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.
- 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. All units are complying with the norms.
- The units use various fuels in their boilers, including rice husk, coal, bagasse, RDF, plastic waste, and plant waste leaves.
- Boiler ash generated by the units is either dumped in low-lying land or used for brick manufacturing.
- Units are using dust collectors, electrostatic precipitators, cyclone separators, wet scrubbers and bag filters as air pollution control devices in boiler stacks.
- Stack emission monitoring results showed that all five operational units complied with stack emission norms.

- One unit, namely, M/s Disha Industries Pvt. Ltd., Muzaffarnagar was found non-complying w.r.t. ZLD condition, poor ETP operation and adverse impact on recipient drain.

6.2. End-of-life tyres (ELTs) Pyrolysis Oil Units in & around Jansath Road

All the units were found operating on batch process having two pyro-reactor chamber with capacity of 10 tonnes each. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch, around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonnes of Pyro-Oil (Fuel Oil), 2.4 tonnes of carbon, 1.2 tonnes of steel and around 1.6 tonnes of pyro-gas which is recycled back for heating of reactor.

None of the unit has operational ETP. In the absence of operational ETPs and small quantity of effluent generation, suspected disposal of effluent through tankers cannot be ruled out.

All units were found non-complying w.r.t. regulatory requirements:

- NOC for groundwater abstraction from UP Ground Water Department (UPGWD)
- Hazardous waste authorization from UPPCB
- ZLD condition in CTO issued by UPPCB
- Not having operational ETP
- EPR registration on CPCB portal

All units were found to have non-adherence w.r.t. MOEF&CC SOP dated 24.11.2015 w.r.t. mechanical feeding of raw material, mechanical unloading of carbon, fugitive emission, alarm system, automation, fire safety and occupational health.

6.3. Survey of villages

- Despite the rainy season which prevented the deposition of ash during the visit, villagers in Nirana, Sikhreda, Jat Mujhera, and Bhandura reported ongoing problems, including fly ash and soot deposition, poor groundwater quality, and potential health risks.

7. RECOMMENDATIONS

7.1. UPPCB should take appropriate immediate action including levying environmental compensation and issuing closure direction for non-complying industrial units.

7.2. Industry

- Units shall operate the Air Pollution Control Devices (APCDs) properly so that no emission containing harmful poisonous gases and particulate matter is emitted by industries.
- Units shall conduct regular maintenance of all air pollution control equipment to ensure their optimal performance.
- Units shall ensure scientific storage &disposal of boiler ash.
- Units shall ensure maintain proper records of its fuel consumption in boiler, boiler ash generation and disposal.
- Units disposing of boiler ash through landfilling (such as stowing in mines or reclaiming low-lying areas) must select sites according to the following criteria:
    a. Sites must be properly demarcated and fenced to restrict human and animal intrusion.
    b. After reaching capacity, sites must be properly capped with at least 30 cm of topsoil to promote vegetation growth.
    c. Sites must be properly lined and made impermeable to prevent any contamination of surface water and groundwater.
- Units shall obtain approval from UPPCB for site selection, safe operation and for development of vegetation cover after exhaustion of the capacity of filling site.
- Boiler ash generated by the units shall be utilized for other beneficial purposes, including:
    a. Manufacturing building materials such as bricks, blocks, tiles, fiber cement sheets, pipes, boards, panels, and ash & geo-polymer-based construction materials.
    b. Manufacturing cement and Ready Mix Concrete (RMC).
    c. Construction of road and flyover embankments.
    d. Controlled agricultural use based on soil testing.
    e. Any other eco-friendly purpose as notified from time to time.
- Scattered/haphazard disposal of boiler ash by industrial units, if any, should be completely stopped.

- Industries (having RDF-based boilers) namely M/s Mahalaxmi Paper Mills, Muzaffarnagar and M/s Orient Board & Paper Mills, 09th Km, Jansath Road, Muzaffarnagar shall obtain registration certificate under Plastic Waste Management Rules, 2016 for recycling/processing of plastic waste.
- Units shall maintain proper record regarding generation, storage and disposal of boiler ash.
- M/s Disha Industries Pvt. Ltd., Muzaffarnagar must ensure the compliance of consented ZLD condition and properly operate the ETP.
- Units 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:

I. Pulp & Paper industries

a. All Pulp & Paper industries shall:

- 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.
- 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.
- 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.
- 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.

b. Waste paper/recycle fiber (C1 & C2 category) based industries operating at ZLD must:

- Upgrade/augment their ETP by installing secondary biological treatment (anaerobic-aerobic)
- Ensure 70 % reduction in BOD & TSS after secondary biological treatment stage.
- Ensure that characteristics of recycled water used in process (in closed loop) shall meet BOD <2000 mg/l; COD < 4000 mg/l and TSS < 400 mg/l.

- Unit may explore other advance technologies available like advance oxidation, membrane filtration, electro-oxidation etc. for complete reuse/recycling to ensure ZLD.

c. Waste paper/recycle fiber-based industries (C1 & C2) discharging treated effluent shall:

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

II. Action Plan for management of Non-paper solid waste (i.e., Plastic Waste, Boiler Ash, ETP Sludge) and remediation of 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 Plastics Waste, Boiler Ash and ETP sludge generated by industrial units.

b. Membership and Participation

i. **Membership**: All industrial units within the sector 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.

e. SPV Responsibilities

Special Purpose Vehicle (SPV) Responsibilities in Hazardous Waste Management

The SPV will play a crucial role in ensuring compliance with regulations governing the transportation of hazardous industrial waste.

Responsibilities related to Hazardous Waste Transportation:

i. Manifest System Facilitation:

- The SPV will facilitate the proper use of the six-copy manifest system.
- This includes ensuring generators and transporters understand the color-coded copies and their designated actions:
    - **White Copy:** Forwarded to the State Pollution Control Board (SPCB) by the generator.
    - **Light Yellow Copy:** Signed and returned to the generator by the transporter.
    - **Pink Copy:** Retained by the disposal facility operator.
    - **Orange Copy:** Returned to the transporter by the facility after accepting waste.
    - **Green Copy:** Forwarded to the SPCB by the facility after disposal.
    - **Blue Copy:** Returned to the generator by the facility after disposal.

ii. Awareness and Implementation:

- The SPV will actively promote awareness among member units regarding proper packaging, labelling, and manifest system requirements for waste transportation.
- The SPV will collaborate with SPCBs to ensure member units receive guidance on:
    - Safe handling, storage, and transportation of waste.
    - Accurate labelling of waste containers, including information on corrosive, reactive, ignitable, or toxic properties.

iii. Information Dissemination:

- The SPV will provide member units with access to relevant information regarding the Transport Emergency (TREM) Card (Form 10). This card details the hazardous nature of the waste and necessary emergency measures.

iv. Data Management and Reporting:

- **Transit and Disposal Records**: The SPV shall maintain records of waste transit and final disposal. These records will include details such as transportation routes, disposal sites, and quantities.
- **Quarterly and Monthly Reporting**: The SPV shall submit quarterly and monthly reports to both member units and the SPCBs. These reports will outline waste management activities, progress, and compliance with regulations.
- **Verification by SPCBs and maintaining compliance**: The SPV will collaborate with SPCBs in identifying potential compliance issues and reporting any discrepancies encountered during the transportation process. The SPCBs will verify the accuracy and completeness of the SPV's records. This ensures transparency and accountability in Plastics Waste, Boiler Ash and ETP sludge management practices.

7.3. End-of-life tyres (ELTs) Pyrolysis Oil Units

a. Regulatory compliance:

- All units shall obtain the necessary NOCs from UPGWD for ground water abstraction.
- All units shall obtain Authorization under Hazardous Waste Rules, 2016.
- All units shall register themselves under EPR on CPCB portal for tyre waste recycling to comply with environmental regulations.

b. Process details:

- Upgrade the feed preparation process through implementing mechanized feeding system.
- Replace wood with pyro-water or pyro-gas for initial heating of the reactor.
- Install balloons for storage of excess pyro gas and ensure proper operation of flaring systems.

c. Wastewater management:

- All unit shall install ETPs & ensure its proper operation & maintenance along with records.
- All units shall ensure 100% recycling of treated effluent in the process to ensure ZLD status as per consent

d. Air Pollution Control:

- All units shall properly maintain and operate stacks as per CPCB guideline.
- All units shall ensure removal of carbon through mechanized system without any spillage during the collection of the carbon in the bags.

e. Occupational health and odour issue:

- All unit shall properly maintain pipeline of oil and gas to prevent odour in working zone.
- Purge water (Oil Mixed water) shall be properly stored and treated in ETP to avoid odour issue.
- Proper hygienic working shall be ensured.
- Worker shall be provided PPE Kit, Mask and safety gears.

f. Recommendations w.r.t. MoEF&CC SOP dated 24.11.2015:

- Install digital instrumentation and automated control systems (PLC) for accurate temperature and pressure measurement and process control.
- Implement safety interlocks to cut off heating in case of temperature or pressure increases.
- Implement nitrogen purging systems in all units to cool reactors as per SOP guidelines.
- Install PLC Based Gas Detection Sensors along with Hooters to indicate any flammable vapour leakages.
- Enhance firefighting measures by installing sprinklers, fire hydrants, pumping systems, and water storage.
- Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance.

8. Action Plan

8.1. Action plan for industries

Sr. No.	Activities	Responsible agency	Timeline
1.	Units shall ensure proper operation of Air Pollution Control Devices (APCDs).	All operational units	On regular basis
2.	Units shall conduct regular maintenance of all air pollution control equipment to ensure their optimal performance.	All operational units	On monthly basis
3.	Units, disposing boiler ash through landfilling, shall obtain approval from UPPCB for site selection, safe operation and for development of vegetation cover after exhaustion of the capacity of filling site.	All operational units disposing boiler ash through landfilling	3 months
4.	Registration under EPR on CPCB portal for recycling/processing of plastic waste.	All operational units using RDF-based boiler	3 months
5.	Units shall explore possibility of utilization of boiler ash for other beneficial purposes such as Manufacturing building materials such as bricks, blocks, tiles, fiber cement sheets, pipes, boards, panels, and ash & geo-polymer-based construction materials; cement and Ready Mix Concrete; road and flyover embankments; controlled agricultural use based on soil testing; other eco-friendly purpose as notified from time to time.	All operational units	6 months
Action Plan for non-paper solid waste namely, Plastic Waste, Boiler Ash, ETP Sludge and surface drain			
6.	Constitution of a Society and Special Purpose Vehicle (SPV)	UPPCB and Industrial Cluster	1 month
7.	Agreement and membership for Society and SPV	Industrial Cluster	1 month
8.	Action plan for non-paper solid waste namely, Plastic Waste, Boiler Ash, ETP Sludge and surface drain	Industrial Cluster	2 months
9.	Waste generation and record keeping	Industrial Cluster and SPV	2 months onwards
10.	Verification of end-to-end waste disposal	SPV and UPPCB	2 months onwards
11.	Data management and reporting	Industrial Cluster and SPV	2 months onwards

Units shall also comply with the action plan 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.

8.2. Action plan for End-of-life tyres (ELTs) Pyrolysis Oil Units in & around Jansath Road

Sr. No.	Activities	Responsible agency	Timeline
1.	Obtain NOC from UPGWD for ground water abstraction. Install flow meter on existing borewell & maintain record for daily fresh water abstraction	All operational units	3 months
2.	Obtain Hazardous Waste Authorizations from UPPCB	All operational units/ UPPCB	3 months
3.	Registration under EPR on CPCB portal for tyre waste recycling as an authorised recycler	All operational units	3 months
4.	Installation of mechanized feeding system for waste tyre feed in to the reactor	All operational units	1 month
5.	Provision of use of pyro-water or pyro-gas for initial heating of the reactor by appropriate installation of tank & gas holder	All operational units	6 months
6.	100% recycling of purge water (oil mixed water) in the process to ensure ZLD status as per consent via treatment in ETP or burning in the reactor	All operational units	1 month
7.	Installation of mechanized system for carbon removal from reactor without any spillage	All operational units	3 months
8.	Installation of PLC Based Gas Detection Sensors along with Hooters in work zone to detect any flammable vapour leakages	All operational units	1 month
9.	Installation of PLC based automation system for temperature and pressure measurement and process control in the reactor	All operational units	3 months
10.	Installation of nitrogen purging systems to cool reactors to avoid heat injury	All operational units	1 month
11.	Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance	All operational units	Immediately
12.	Carry out treatability study of	Industries /UPPCB	6 months

Sr. No.	Activities	Responsible agency	Timeline
	purge water	along with expert technical institute	
13.	Ensure proper arrangement for stack monitoring facility as per CPCB guideline	All operational units	3 months
14.	Industry specific emission norms shall be prescribed and incorporated as a consent condition for compliance by all units	UPPCB	6 months

8.3. Villages

Sr. No.	Activities	Responsible agency	Timeline
1.	Organize regular health camps in industrial clusters/villages	Industrial units and Health Department	On monthly basis

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Dr Ajit Kumar Vidyarthi, Director (Scientist 'F') and Divisional Head, WQM-II	Central Pollution Control Board	
3.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
5.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
5.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

ANNEXURE-1

Item No. 3 Court No. 2

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 269/2024

Sanavvar Applicant

Versus

State of UP Respondent

Date of hearing: 21.05.2024

CORAM: HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

ORDER

1. This original application under Sections 14 and 15 of National Green Tribunal Act, 2010 has been registered in exercise of *suo moto* jurisdiction on the basis of a letter petition dated 16.09.2023 sent by Sanavvar, s/o Shamim r/o Sikhreda, District Muzaffar Nagar.

2. The complaint is that huge air pollution is being caused by emission of poisonous industrial gases and black smoke by various industrial units namely Disha Industries Pvt. Ltd., Mahalaxmi Paper Mills, Gulshan Poliwal Limited, K.K. Paper Mill Pvt. Ltd., Alnoor Meeth Plant, Kishti Paper Mill, Orient Paper Mill, Saras Paper Mill and an industry situated at Jansad Muzaffarnagar which is collecting tyre oil by burning the tyres and thereby causing air pollution.

3. In our view, a substantial question relating to environment due to implementation of Scheduled Enactments has arisen in view of the above complaint but before taking any further action in the mater we find it appropriate to obtain a factual report for which we constitute a joint Committee comprising District Magistrate, Muzaffarnagar, Uttar Pradesh Pollution Control Board (hereinafter referred to as **'UPPCB'**) and Central Pollution Control Board (hereinafter referred to as **'CPCB'**).

4. District Magistrate, Muzaffarnagar shall be nodal agency for coordination and compliance.

5. The said Committee shall visit the site of the above industries, collect the relevant information and submit a factual report within two months.

6. List this matter on 05.08.2024.

7. A copy of this order along with complaint be forwarded to District Magistrate, Muzaffarnagar, UPPCB and CPCB by email.

Sudhir Agarwal, JM

Dr. Afroz Ahmad, EM

May 21, 2024
O.A. No. 269/2024
A

ANNEXURE-2

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION REPORT

General Information & Operational Details

1.	**Date of Inspection**	04th January 2024
2.	**Name &Address:**	M/s Al-Noor Exports Vill: Shernagar 9th Km. Jansath Road, Muzaffarnagar (U.P.)
3.	**Spatial Coordinates in Decimal**	Latitude: 29.433218 Longitude: 77.765828
4.	**Operational Status of the unit**	Operational.
5.	**Operational Schedule**	1 shift per day. 25 nos. working days per month (Avg. of Oct.2023 to Dec.2023 logbook data.)
6.	**Consent & Authorization Status**	
	Consent to Operate issued by UPPCB, under Water Act, 1974	Valid till 31/12/2027
	Consent to Operate issued by UPPCB, under Air Act, 1981	Valid till 31/12/2027
	Authorization for Hazardous Waste Disposal issued by UPPCB, under Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016	Valid till 17/09/2025

7.	**Manufacturing Process**	Buffaloes→ Ante-mortem inspection→Lairage→ Stunning→ Hoist & Bleed→Head & Feet→De-hiding→ Evisceration→ Brisket Cut→Carcass Split & Spinal Cord Removal→Meat Inspection→ Final Wash→ Chilling→ Deboning→Dispatch
8.	**Consented and Actual Production**	**A. Consented (permitted) production** (As per CTO): i. Buffaloesto be slaughtered (nos.): 600 ii. Frozen Meat Production (in MTD): 100 TPD iii. Meat Bone Meal and Tallow (in MTD): 60TPD iv. Other By-products: Not specified in CTO. **B. Actual production**: Average figures based on logbook data of 3 months (Oct.2023 to Dec.2023). Buffaloes slaughtered=281nos/day. i. Frozen Meat= 36.74 TPD. (Main Product) ii. Blood Meal = 0.12 TPD. (By- product) iii. Poultry Feed Supplement= 8.44TPD. (By-product)

		iv. Non-Edible Buffaloes Fat (Tallow)= 6.25 TPD. (By- product) Total of all products= 51.55 TPD. (Avg. Yield =183kg/Buffalo)

	Ground Water NOC Status	
	NOC from CGWA / State GWD, as permission to abstract Ground Water	Valid till 27/04/2027
	Fresh Water Source and Consumption	
	Source	Two (2) Bore wells, located within Unit's premises. Both bore-wells have flow meter with flow totalizer.
	Average Water Consumption (KLD)	190 KLD. (Combined for Production process, boiler, domestic and gardening) Average of logbook data of 3 months (Oct.2023 to Dec.2023).
	Specific Water Consumption	3.685KL/Tonne (0.676KL/ Buffaloes).

9.	**Effluent Treatment / Management**	
	Processes from which wastewater streams reaching ETP	Lairage, Slaughtering, Product washing, Floor washing in entire plant.
	Status of ETP	Operational, Continuous operation.
	Designed capacity of ETP	600 KLD
	Samples collected in inspection	Yes. ETP inlet, Aeration tank and Treated (ETP outlet).
	Treatment process and Names of all treatment units	Primary, Physico-chemical, Two stage Biological Aerobic and Media Filtration. Raw wastewater →Screens(Mech. Screens for dung separation)→Equalization Tanks→PE dosing →DAF→ PrimaryTube Settler → Aeration Tanks-1 &2 (in series)→ Secondary Clarifier-1→Aeration Tank-3 → Secondary Clarifier-2→ Holding Tank →PSF and Activated Carbon Filter.
	Name of chemical(s) used in ETP	Bio-enzyme, Poly-electrolyte and Alum. Log book provided.
	Flow meter with totalizer/ V-Notch installed at ETP inlet	No.
	Flow meter with totalizer/ V-Notch	Yes, Electromagnetic (EMF)

	installed at ETP outlet	Instantaneous flow rate Reading: 0.00 m3/hr Totalized Reading: 294520.00 m3
	Logbook maintained:	Yes. Last three months logbooks provided.
	Average Effluent Discharge (KLD) (based on)	175KLD. Avg. of logbook data for 3 months (Oct.2023 to Dec.2023).
	Effluent Discharge in KL/ MT of product (based on logbook)	175/51.55= 3.40 KL/ Tonne. Avg. of logbook data for 3months (Oct.2023 to Dec.2023).
	Energy Meters for ETP	Yes. Three (3). Readings- 4254010; 216383; 89014. Daily Power consumption= 616kWh / day. (Avg. data of 3 months log-book)
10.	Whether unit Recycles the ETP Treated Effluent.	Not in process, but treated effluent used for watering of plants & trees inside the unit premises.
11.	Flow meter and OCEMS status at ETP Outlet and instantaneous values shown on during inspection	Flow meter installed, working. Totalized reading =294520.0 OCEMS: Display was not working. The unit followed-up with instrument supplier for repair of instrument.

12. **Effluent Analysis Report-** Quality of discharged effluent (for all parameters as notified for the UNIT under Environment (Protection) Rules, 1986/ required as per Consents)

Parameter	**ETP inlet**	**ETP Outlet**	**Norms as per consent**	**Compliance w.r.t. consent**
pH	6.8	7.5	6.5-8.5	Complying
BOD (mg/l)	1487	**55**	**30**	**Non-complying**
COD (mg/l)	5560	222	250	Complying
TSS (mg/l)	2834	42	50	Complying
Oil & Grease (mg/l)	-	BDL	10	Complying
TDS	3524	1360	Not applicable	N.A.

In Aeration Tank 1 MLSS (mg/l): 1745; MLVSS (mg/l): 1438.
In Aeration Tank 2 MLSS (mg/l): 2777; MLVSS (mg/l): 2242.
In Aeration Tank 3 MLSS (mg/l): 2997 ; MLVSS (mg/l): 2393.

Additional parameters for GPIs located in Yamuna main stem states;

Parameters	**ETP Inlet (mg/L)**	**ETP Outlet (mg/L)**
Ammonia Nitrogen	96	14

13. **Domestic Sewage Treatment**

Total number of employees working in the Unit	200 (including contract / daily basis workers)
Whether sewage line is segregated from process effluent?	Yes. However, sewage collection system need improvement.
Method of Sewage Treatment/ Disposal	Septic Tank
If STP exists	No
Consented Discharge of Sewage	2.0KLD. (too less for 200 persons, may revised to 5.0KL)
Actual Mode of discharge from the unit	Underground pipeline.

	premises	
	Ultimate disposal point	Through ETP to Dhandera drain.

14.	**Solid Waste Generation and Disposal**	
	Sources of solid waste generation	Production Process waste, Buffaloes residues, ETP Sludge
	Whether the unit has Rendering Plant?	Yes.
	Method of handling of hoofs, horns and similar wastes	Converted in sale-able by-products, through Rendering Plant
	ETP Sludge Dewatering system	Sludge drying beds and Filter press installed.
	Whether Logbooks for Solid Waste Generation and disposal maintained?	Yes. Last three months (Oct.2023 to Dec.2023) logbook data was provided. Total of each month: Oct.2023 =10125kg. Nov.2023=10340kg. Dec.2023= 9250kg.
	Average Solid waste generated	381 kg/day.
	Mode of Hazardous waste disposal / Disposal through TSDF site	TSDF Site through Bharat Oil & Waste Management. Form- 10 provided

15.	**Air Pollution – Emission Sources & Control System**	Sources of air pollution –One (1) Boiler of 3.0TPH. Total No. of Boiler: 1 (operates only General shift) Fuel: Bagasse and Bio-briquettes . Consumption = 2.5 TPD Stack (Chimney) Height = 33Mtr. Ash generation 200kg/day (estimated~8% of fuel consumption). Log-book not maintained. Air Pollution Control Device: Multi cyclone Stack Monitoring carried by UPPCB. Results&Standards: 1 -Flue Gas Velocity: 6.4 m/s. 2-Particulate Matter (PM) mg/Nm3 = 48.8. Standards =80 mg/Nm3
16.	**Plastic Waste**	Broken plastic crates are disposed with hazardous waste, to TSDF site. Empty drums are used for filling of Tallow and Bone meal.

17. **Groundwater Analysis Report**- Quality of Groundwater is compared with Bureau of Indian Standard (BIS) Drinking Water — Specification (Second Revision) IS 10500: 2012.

Colour	pH	Total Alk.	Total Hardness	COD	TDS	Cl⁻	F⁻	NO_3	SO_4	Conductivity
06	7.3	504	461	09	2328	878	BDL	7.84	140	3870

18. **Analysis report of recipient drain (Dhandera drain):**

Sampling location	Parameters (all values are in mg/l except Colour & pH)								
	pH	BOD	COD	TSS	TDS	Sulphate	Nitrate	Phosphate	Sulphide
Up Stream	6.78	70	216	186	1182	56	3.08	2.28	-
Down Stream	6.21	90	265	220	1305	62	3.66	2.94	0.08

**All parameters are in mg/l except pH.*

19. **By-pass** (if any): No by-pass was found.
Analysis Report of By-pass : Not applicable.

20. **Observations:**

i. Unit and ETP were found operational on continuous basis. Due to Magh Mela instructions, slaughtering was about 50% (148Buffaloes/day) of the normal slaughtering (280 to 300 Buffaloes/day).

ii. Unit is engaged in production of Frozen meat, Meat Bone Meal (MBM), Tallow and Poultry Feed Supplement; using Buffaloes live stock as raw material.

iii. Unit has obtained from UP Pollution Control Board, valid (up to 31.12.2027) CCA under Water Act and Air Act for slaughtering of Buffaloes.

iv. Unit has obtained NOC for fresh water abstraction from UP Gr. Water Department for two Borewell. Flow meters found installed at outlet of both bore wells and maintained daily logbook.

v. Specific fresh water consumption and effluent discharge (KL/Tonne of product) are calculated as 3.64 and 3.46, respectively.

vi. Unit has installed ETP having Continuous operation, having design capacity of 600KLD. ETP consist of Primary (Mechanical/automatic Screens for dung separation), Equalization Tanks-2nos., Physico-chemical (DAF and Tube settler), Two stage Biological Aerobic (activated sludge) process comprising of three aeration tanks (two in series) and two secondary clarifiers and Media pressure Filtration.

vii. Treated effluent from ETP outlet, discharged in to Dhandera drain. Inspection team observed some black patches and affected area/ saplings in green belt, due to excess application of effluent.

viii. Analysis results of samples from ETP outlet indicate that treated effluent is **non-complying w.r.t. BOD (55 mg/l**, against discharge norm 30 mg/l).

ix. Boiler ash was stored on own land, for disposal.

x. Housekeeping in ETP area was not satisfactory. Overflow was observed near inlet channel.

	xi. Unit has maintained green area inside its premises and outside along boundary wall. xii. Consented discharge of sewage 2.0KLD is too less for 200 persons, may revised to 5.0KL. xiii. Ammonia gas sensors and alarm system were not installed in Ammonia plant. xiv. Unit representative was not aware with Public Liability Insurance (PLI) provisions.
21.	**Key Issues:** 1) Ammonia gas sensors and alarm system was not installed in Ammonia plant. 2) Unit did not have separate flow meters and log-books for water consumption in Process, boiler and domestic. 3) Log-book of carcass waste, bones and boiler ash generation was not provided. 4) Unit representative was not aware with Public Liability Insurance (PLI) provisions.

22.	**Compliance Status** As per Discharge norms: **Non-complying (w.r.t. BOD)** Overall compliance status: Non-complying

23.	**Recommendations:** 1) Unit shall operate ETP properly so as to comply with discharge norms. 2) Unit shall get repaired at the earliest, the OCEMSinstalled at ETP outlet and ensure 24x7 connectivity with CPCB/UPPCB servers for continuous monitoring. 3) Unit shall maintain log-book of carcass waste, bones and boiler ash generation on daily basis. 4) Unit shall install separate flow meters and maintain log-books for water consumption in Process, boiler and domestic 5) Unit shall implement Public Liability Insurance (PLI) provisions as per the law.

Inspection team details:

Sr. No.	MoEF&CC and CPCB officials	Designation	Organisation	Signature with date
1.	Dr. A.K. Gupta	Additional Director	MoEF&CC Lucknow office	
2.	Mr. C.B. Chourasia	Scientist E	CPCB, Delhi	
3.	Dr. Vivek Rana	RA-I	CPCB, Delhi	
4.	Mr. Muktesh Chaudhari	SRF	CPCB, Delhi	
Sr. No.	**SPCB/SMCG officials**	**Designation**	**Organisation**	**Signature with date**
1.	Mr. Y.K. Mishra	AEE	UPPCB	

2.	Mr. Diwakar Gahlaut	JRF	UPPCB	
3.	Mr. Pushkar Singh	TA	UPGWD	

Photo 1: Main Entrance Gate

Photo 2: Borewell(s) flow meter-1

Photo 3: Borewell(s) flow meter-2

Photo 4: Bones (By-product)

Photo 5: Processing and Products Packing Area

Photo 6: Non-Edible Fat to Tallow Plant

Photo 7: Screens at ETP Inlet

Photo 8: DAF - Chemical Treatment

Photo 9 : Clarifier

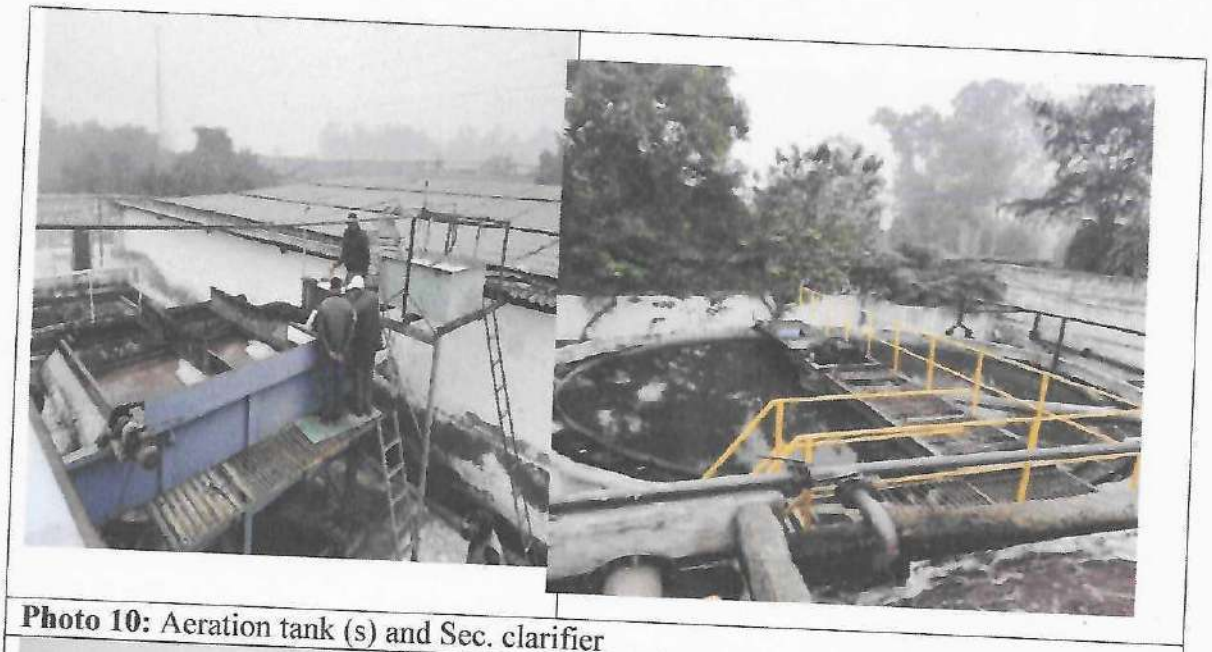


Photo 10: Aeration tank (s) and Sec. clarifier

Photo 11: Pressure Filter and ACF

Photo 12: ETP Outlet channel

Photo 13: OCEMS display

Photo 14: Recipient Drain

Photo 15: Environmental Laboratory

Photo 16: Boiler using Bagasse

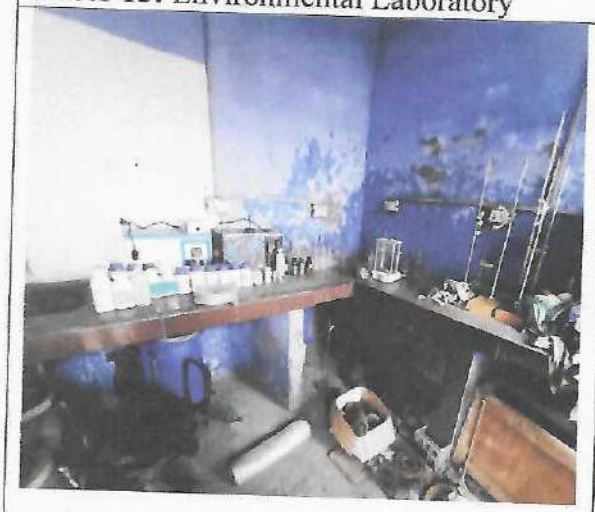


Photo 17: Electrical Meter-1, Electrical Meter-2 and Electrical Meter-3

Photo 18: By-products - Blood Meal, Tallow and Poultry Food Supplement

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INSPECTION REPORT

A. General sectionDate of inspection:11.01.2024

1.	Name of the unit withcomplete postal address:	M/s Gulshan Polyols Ltd. 9th Km. Jansath Road, Muzaffarnagar (U.P)
2.	Spatial Co-ordinates (Latitude & longitude)	N: 29.422521 E: 77.760538
3.	Industry Operational status	Operational
4.	Consent status	Unit has provided 3 separate consent i.e. two for food processing unit (Unit 1& 2) and one for Calcium Carbonate Unit. All units are installed within same premises. Details of consents are as below; **Food processing unit (Unit 1)** Consent dated 16.12.2020 & No: 97585/UPPCB/MNAGAR/CTO/water /Muzaffarnagar/ 2020 available with validity till 31.07.2025 **Food processing unit (Unit 2)** Consent dated 05.07.2021 & No: 129468/UPPCB/MNAGAR/CTO/water /Muzaffarnagar/2021 available with validity till 31.07.2026 **Calcium carbonate unit (Unit 3)** CCA no. 191652/UPPCB/MNAGAR/CTO/BOTH/MUZAFFARNAG Dated 29.11.23 available with validity till 31.12.2027 Attached at Annexure I

B. Production process and infrastructure

5.	**Process**	Manufacturing of processed food using agriculture produce (Rice, Maize etc.)& 1 no. of chemical (Calcium carbonate) using lime stone **Calcium carbonate process** Lime stone → sizing→ washing→ CO gas reaction in lime kiln→Quick Lime (CaO)→ Slaking with water ($CaOH_2$)→Screening→ Packing **Modified Starch** Maize→ Cleaning→ Steeping→ Grinding & separation→ Dryer→ Packing **Grain Processing** Grain Cleaning→ Steeping→ Grinding →Hydrolysis→ Filtration→ Saccharification→ Ion Exchange → Four Effect Evaporator→Batch Evaporator→Packing Liquid Glucose
6.	**Details of raw material**	
	a. Consented value	Not mentioned in consent

b. Actual consumption

Details of raw material consumption are as below:

Unit type	Raw material	Quantity produce (MT/Month)			Total consumption (MT)	Avg. Daily Consumption (MT/day)
		Oct.23	Nov.23	Dec.23		
Unit 1	Maize (dantcorn)	10063.66	9293.98	6966.26	26,323.9	286.13
Unit 2	Rice	176.67	1990.5	2204	4,371.17	47.51
Unit 3	Lime stone	950	743	1251	2,944	32

7. **Production**

a. Consented value

Details are as below:

Unit Type	Product	Quantity (MT/Month)	Daily quantity (MT/day)
Unit 1 (Food processing)	Native Starch	3750	125
	Modified Starch	1500	50
	Glucose/Fructose Powder	1500	50
	HFCS	900	30
Unit 2 (Food processing)	Dextrose Mono Hydrate (DMH)	300	10
	Dextrose Anhydrous (DAH)	600	20
	Malto Dextrine Powder (MDP)	1500	50
	Liquid Glucose/High Maltose Syrup	1500	50
	Sorbitol Solution	3000	100
Unit 3 (Calcium carbonate unit)	Precipitated Calcium Carbonate	4200	140
	Activated Calcium Carbonate	1800	60
	Ground Calcium Carbonate	1950	65

Daily production limit: 550 MT/D

b. Actual production (as per logbook)

Details of actual production are as below (from Oct.23 till 10 Jan,24)

Unit type	Product	Quantity produce (MT/Month)			Total Production (MT)	Daily Production(MT/day)
		Oct.23	Nov.23	Dec23		
Unit 1	Liquid Glucose	14	36.4	39.2	89.6	1.0
Unit 2	Modified Starch	6460.54	5786	4728	16,974.54	184.5
	By product	1956.75	2012.2	1961.53	5,930.48	64.46
	Fructose Powder	30	1140	1536	2,706	29.4
Unit 3	Precipitated Calcium Carbonate	950	743	1251	2,944	32

c. Estimated daily production	Maize product: 248.96 MT/day Rice Product (Liquid glucose + powder fructose):30.4 Calcium carbonate: 32MT/day **Total production: 311.36 MT/day**

	d. Yield (%)	Maize product: 87 % Rice Product: 64 % Calcium carbonate: 100%

8. **Fresh water consumption**

a. NOC from CGWA/other authorized body
Unit has provided UPGWB NOC for 4 borewells. Details are as below;

Unit	Borewell no.	Abstraction limit (KLD)	NOC validity
Unit 1	BW-1	850	16.10.2026
Unit 2	BW-2	1144	10.10.2025
Unit 3	BW-3	504	05.06.2025
	BW-4	1125	12.05.2027

b. Details of borewell	Fourborewells with sealed flow meter found installed
c. Permitted withdrawal quantity	3623 KLD
d. Actual withdrawal quantity	38675 KL (as per logbook data fromOct. 23 to December,23)

Unit	Borewell	Total abstraction (KL)	Daily abstraction (KLD
Unit 1	BW-1	54,074	587.76
Unit 2	BW-2	22,573	245.36
Unit 3	BW-3	0.0	0.0
	BW-4	707	7.68

e. Estimated daily withdrawal quantity	840.8 KLD
f. Specific fresh water consumption	840.8/311.36= 2.7KL/MT of product

g. **Groundwater Analysis Report-** Quality of Groundwater is compared with Bureau of Indian Standard (BIS) Drinking Water — Specification (Second Revision) IS 10500: 2012.
Sample location: Borewell 2
Depth: 190 ft.

Parameters→	Colour	pH	Total Alkalinity	Total Hardness	COD	TDS	Cl^-
Permissible Limit→	15	6.5-8.5	600	600	-	2000	1000
Sample→	BDL	8.0	286	286	BDL	250	16

Parameters →	As	Cd	Cr	Cu	Fe	Pb	Mn	Ni	Zn	Sb	V
Permissible Limit→	0.05	0.003	0.05	1.5	0.3	0.01	0.3	0.02	15		-
Sample →	BDL	BDL	BDL	BDL	0.05	BDL	BDL	BDL	0.01	BDL	BDL

*all values are in mg/l except pH and Colour (PCU)

9. **Effluent Management**

a. Consented discharge value	2975 KLD

	b. Actual effluent generation (as per logbook)	71974 KL (From Oct 23 to 10 Jan. 24 from all 3 unit. No separate flow meter provided for metering at effluent generation points)
	c. Estimated daily effluent generation	705 KLD
	d. Actual recycling of treated effluent within process	No recycling.
	e. Actual effluent Discharge (as per logbook)	68532 KL (From Oct 23 to 10 Jan. 24)
	f. Daily effluent discharge	672 KLD
	g. Losses in ETP %	4.5 %
	h. Specific effluent discharge	672/311.36= 2.16KL/T of produce
	i. Discharge point	Discharge in to Dhandera drain

10. Effluent treatment plant (ETP)

a. ETP consists of	3 separate parallel streams consist of Equalization tank, buffer tank, anaerobic treatment (digesters), primary clarifier and biological treatment followed by common secondary clarifier and filtration system	
b. Installed capacity	3000 KLD combined ETP (as per UPPCB CCA) was provided for treatment of effluent generated in all units	
c. Metering at ETP	ETP inlet	Not provided at ETP inlet, however, flow meters are provided at inlet of each bio-digester and logbooks maintained.
	Recycling points	No recycling
	ETP outlet	Electromagnetic flow meter provided
d. Operational status of ETP	Operation	
	MLVSS/MLSS in aeration tank: 5324/9227 Value indicate that biological system is stabilized	
e. OCEMS at ETP outlet	OCEMS was not installed at outlet of ETP	

f. Effluent Characteristics

Parameters	ETP inlet (Tank 1)	ETP inlet (Tank 2)	ETP inlet (cloth washing)	ETP Outlet	Norms as per consent	Compliance w.r.t. consent
pH	4.2	4.0	5.3	7.3	6.5-8.5	Compliance
Oil & Grease	-	-	-	**22**	10	Non-Compliance
BOD (mg/l)	3012	1048	-	**79**	30	Non-Compliance
COD (mg/l)	8496	3462	3123	**268**	250	Non-Compliance
TSS (mg/l)	543	501	553	**130**	100	Non-Compliance

g. ETP Sludge generation

a. Biological sludge generation (as per logbook)	ETP sludge 932Kg (From Oct 23 to 10 Jan. 24)
b. Daily sludge generation	10 Kg/day
c. Specific sludge generation	0.03 kg/T of product.
d. Estimated sludge generation @ 30 % of inlet TSS load at aeration tank	11.4 kg
e. Sludge Management & disposal	As informed dewatered sludge used in gardening and nursery as manure

	Remark Secondary sludge generation can be utilized as manure after dewatering and stabilization (composting) of organic matter because of its high organic and nutrient content.	
11.	**Air Pollution management**	
	a. Boiler capacity	24 TPH working & 20 TPH as standby
	b. Stack details	Stack (Common for both) Height -65 m, diameter-2.4 m
	c. APCD installed	Dust collectors, Electrostatic Precipitator (ESP)
	d. Estimated steam requirement	Around 500 T/day
	e. Fuel used	Coal and rice husk
	f. Fuel consumption (as per logbook)	15,420MT (From Oct 23 to 10 Jan. 24)
	g. Daily fuel consumption	156 MT/D
	h. Actual Ash generation (As per logbook)	4006 MT (From Oct 23 to 10 Jan. 24) Or 40 T/day
	i. Estimated ash generation @ 8 % of rice husk and @ 35 % of coal consumed	Details of estimated ash generation from Oct 23 to 10 Jan. 24

Particular	Fuel quantity (T)	Ash produce (MT)
Coal	11,447	4,006.45 (35%)
Rice (Husk)/ Bran	3,973	317.84 (8%)
Total		4,324

Estimated daily ash generation 43.7 MT/day.

	j. Disposal of ash generated	Disposed of in low laying area via. Agreement with the farmers
	k. Stack monitoring results	Date of Monitoring: 03/02/2024 by UPPCB Particulate Matter (PM): 41.3 mg/Nm^3 against standard of 80 mg/Nm^3, **Complying**
	Remark Actual ash generation (40 MT/D) is in line with the estimated ash generation (43.7 MT/D) at current production rate. However, unit has to ensure safe disposal of generated ash.	
12.	**Hazardous waste management**	
	Authorization status	Not available
	Hazardous waste generated	As informed by unit representative, no hazardous waste generated in the process.
13.	**Major observation** **a.** Unit and ETP both were found operational at the time of visit dated 11.01.2024. **b.** There are 3 units installed within same premises with same name as M/s Gulshan Polyols Ltd. **c.** Gulshan Polyols Ltd (Food processing units, Unit 1&2) arefound engaged in manufacturing of Food processing products, namely Liquid Glucose, Fructose powder using Rice as raw material and modified Starch using agriculture produce like Maize as raw material. In addition, Calcium carbonate unit (unit 3) is found producing Precipitated Calcium carbonate using lime stone as raw material. **d.** All manufacturing units, installed within same premises, shares common utilities like electricity, stream, common ETP and fresh water etc. **e.** Unit has provided separate consent for all units. Unit has obtained CCA under Air/water Acts for Calcium carbonate unit (validity till 31.12.2027), consent to operate for two food processing units with validity till 31.07.25 &31.07.2026, respectively. **f.** Specific fresh water consumption is calculated as 2.7KL/T of produce. **g.** Unit has installed common ETP (As per UPPCB consent) having treatment capacity of 3000 KLD for treatment of effluent generated in all units. **h.** Common ETP consists ofthree separate parallel streams with Equalization tank, buffer tank, anaerobic treatment (digester), primary clarifier and biological treatment followed by common secondary clarifier and filtration system	

	i. Unit has installed RO plant (10 m^3/hr) for water supply for steam requirement. As informed RO reject is being utilized in coal yard, floor washing, ash quenching and partially discharge into ETP for further treatment. Flow meter with totalizer facility is not provided for reject metering. j. The analysis results of sample collected from aeration tank shows MLVSS/MLSS as 5324/9227 mg/l. Results indicate that the aeration tank of the unit is in stabilized condition k. The analysis results of samples collected from ETPoutlet,on inspection day on 11.01.24, shows pH: 7.3 (against the norms of 6.5-9), **COD: 268 mg/l** (against the norms of 250 mg/l), **BOD: 79 mg/l** (against the norms of 30 mg/l), **TSS: 130** (against the norms of 100 mg/l) and Oil & Grease 20 mg/l (against the norms of 10 mg/l). Results indicate that unit is **non-complying** w.r.t notified discharge norms for BOD, COD, TSS and O&G. l. The analysis results of samples collected from ETP outlet discharge into Dhandera drain on 03.01.2024 during drain monitoring, shows pH: 8.1 (against the norms of 6.5-9), **COD: 251 mg/l** (against the norms of 250 mg/l), **BOD: 59 mg/l** (against the norms of 30 mg/l) and **TSS: 190** (against the norms of 100 mg/l). Results indicate that unit is **non-complying** w.r.t notified discharge norms for BOD, COD and TSS. m. Effluent from ETP outlet discharged in to Dhandera drain. **Key Issues:** i. Unit has not obtained Authorization under Hazardous waste management rules from UPPCB. ii. OCEMS was not installed at outlet of ETP. iii. Flow meters at water consumption points in major sections are not installed. iv. Flow meters are not installed at effluent generation points of all 3 units. v. Unit found non-complying w.r.t notified discharge norms for BOD, COD, TSS and O&G.
14.	**Compliance Status** **Overall compliance status:** Non-complying for the following; • notified discharge norms • hazardous waste authorisation • OCEMS at ETP outlet
15.	**Recommendations:** a. Unit shall install flow meters at inlet points of ETP. b. Unit shall install flow meters at all fresh water consumption point of all 3-production unit. c. Unit shall ensure marking and color coding of all ETP lines. d. Unit shall install OCEMS at ETP outlet and ensure 24x7 connectivity with CPCB/UPPCB servers for continuous monitoring.

16. **Inspection team details:**

S.No.	CPCB officials	Designation	Organisation	Signature with date
1	Mr. C.B. Chourasia	Scientist E	CPCB, Delhi	
2	Mr. Vipin Kumar	RA-III	CPCB, Delhi	
3	Dr. Vivek Rana	RA-I	CPCB, Delhi	
S.No.	**SPCB/UPGWD officials**	**Designation**	**Organisation**	**Signature with date**
1	Mr. Y.K. Mishra	AEE	UPPCB	

	2	Mr. Pushkar Singh	TA	UPGWD	

Fig.1: Entrance Gate

Fig.2: Manufacturing Process area

Fig.3: ETP inlet

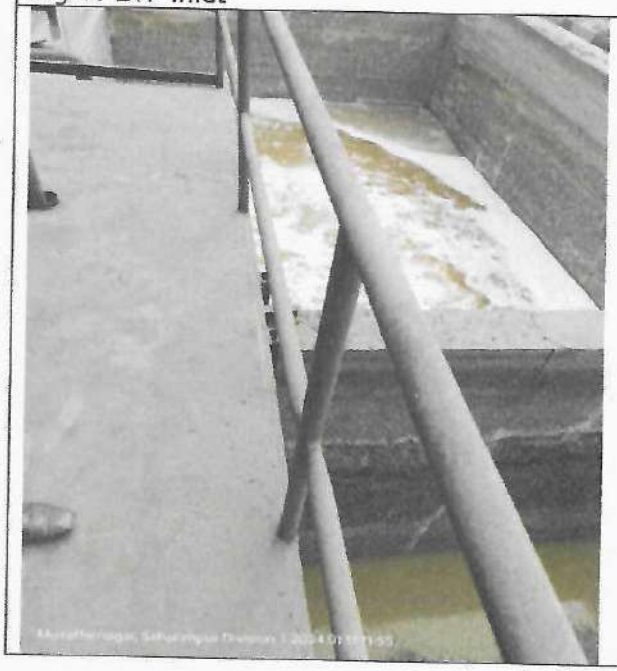


Fig.4: Bio-digester (Anaerobic Treatment)

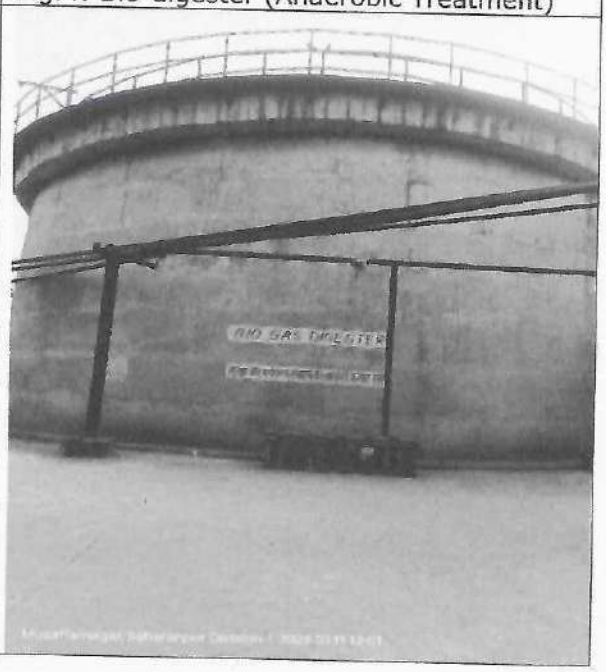


Fig.5: Borewell flow meter

Fig.6: Environmental lab

Fig.7: Aeration tank

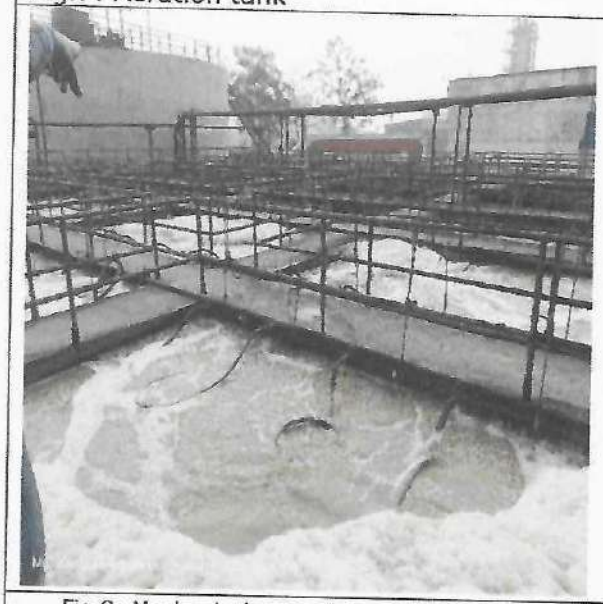


Fig.8: Filtration system

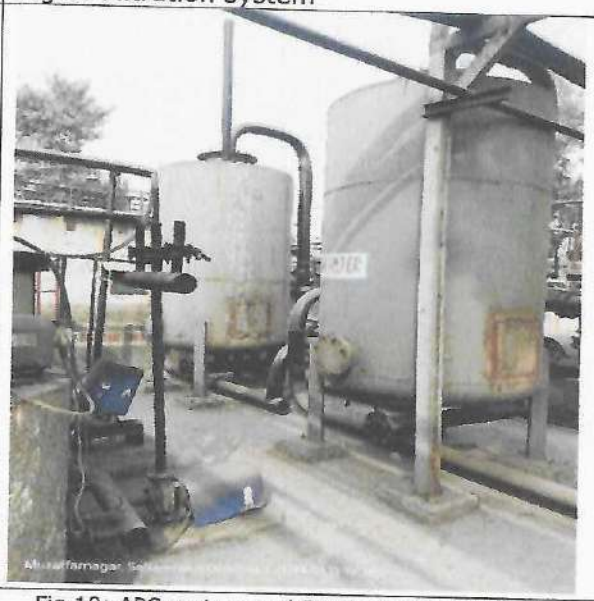


Fig.9: Mechanical system for sludge dewatering

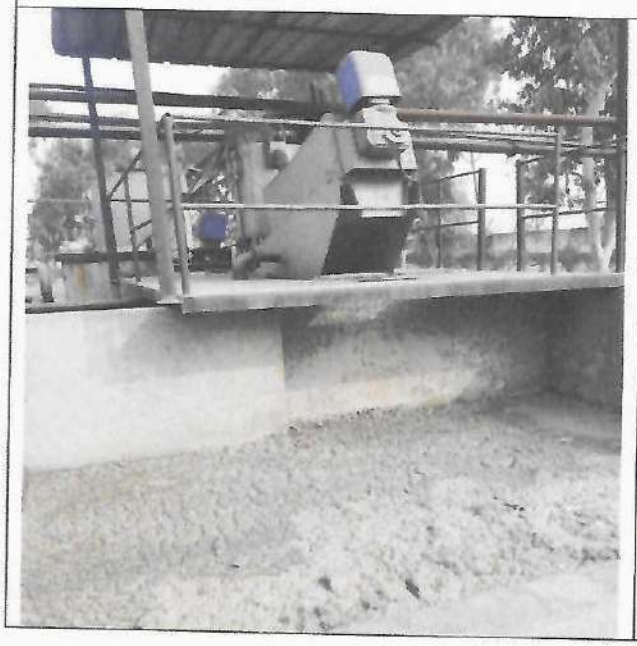


Fig.10: APC system and Stack attached to Boiler

Fig.11:Green belt inside the unit premises

CPCB

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (PULP & PAPER)

A. General sectionDate of inspection:03.01.2024

1.	Name of the unit with complete postal address:	M/s K K Duplex and Paper Mills Pvt. Ltd., Khasra No. 1048, 1088, 1089, 1090, 8.5 KM Jansath Road, Muzaffarnagar, Uttar Pradesh-251001
2.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.42305, 77.75896
3.	Industry Operational status	Operational
4.	Consent status	CCA No. /UPPCB/Muzaffarnagar(UPPCBRO)/CTO/both/MUZAFFARNAGAR/2023 dated 24.02.2023, which is validtill 31.12.2027 (CCA placed at ***Annexure-1***)

B. Production process and infrastructure

5.	**Process**	ManufacturingDuplex board using waste paper-mixed type i.e., imported &indigenous, as per availability Waste Paper→Pulper→ Storage Chest/Dump Chest→High density cleaner→Thickening→ Refining→ Chemical mixing→ Sheet Formation→ Press section→ Dryer Section→M.G.→ Sizing Press→ Calendar→ Coating dryer→Rewinder and Finished paper
6.	**Raw material**	
	a. Consented value	240 MT/day
	b. Actual consumption (as per logbook)	9570 MT (As per logbook provided by the unit of last three months Oct 01-Dec 31, 2023)
	c. Avg.daily consumption	106.33 MT/day
7.	**Production**	
	a. Consented value	Kraft Paper/Duplex Board-200 MT/day
	b. Actual Production (as per logbook)	8711.6 MT (As per logbook provided by the unit of last three months Oct-Dec, 2023)
	c. Avt.daily production	96.79 MT/day (8711.6/90)
	d. Yield (%)	91 % of raw material
	e. Estimated waste produce	9 % of raw material i.e. 21.27 MT/D
8.	**Fresh water consumption**	
	a. NOC from CGWA/other authorized body	NOC for 02 borewells approved by Ground Water Department (NamamiGange& Rural Water Supply Department), Ministry of Jal Shakti, Government of Uttar Pradesh. Validity of both NOCs: from 14.03.2021 to 13.06.2026 (NOCs placed at ***Annexure-2***)
	b. Details of borewell	Two borewells with flow meter with totalizer
	c. Permitted withdrawal quantity	400 KLD
	d. Actual withdrawal quantity	15153 KL(As per logbook provided by the unit of last three months Oct-Dec, 2023)

	e. Avg. daily withdrawal quantity	164.71 KLD	
	f. Specific fresh water consumption	1.74 KL/MT of paper	
9.	**Effluent Management**		
	a. Consented discharge value	ZLD	
	b. Actual effluent generation (as per logbook)	217026 KL (Oct 01-Dec 31, 2023)	
	c. Avg.effluent generation daily	2411.40 KLD	
	d. Actual recycling of treated effluent within process	Partially treated (Primary/ Sedicell)	1915.68 KLD
		Treated effluent (ETP outlet)	463.11 KLD
		Total recycled	2378.79 KLD
	e. Losses in ETP %	1.35 % against typical 2-3 % in form of moisture in generated sludge	
	f. Specific effluent discharge	Nil (ZLD unit)	
10.	**Verification of ZLD**		
	a. Specific fresh water consumption (as per particular 9.f)	1.74 KL/MT i.e. < 2 KL/MT	
	b. Effluent discharge	Nil (ZLD unit)	
	c. Metering of effluent generation & recycling point	Effluent generation	Electromagnetic flowmeter with totalizer installed at feed to sedicelland logbook maintained
		Recycling points	Electromagnetic flowmeter with totalizer installed at ETP treated effluent line to Paper machine, pulper machine and after spray filter. Logbook maintained
	d. BOD/COD characteristics of effluent at ETP inlet	BOD (mg/l)	3780 mg/l
		COD (mg/l)	8292 mg/l
	Conclusion	As per the logbook of ETP inlet and ETP recycling lines, provided by the unit from Oct 01 to Dec 31-2023, effluent generation quantity found as 2411.40 KLD, and quantity of partially/fully treated effluent recycled in plant found as 2378.79 KLD with 1-2 % losses, which justifies ZLD.	
11.	**Effluent treatment plant (ETP)**		
	a. ETP consists of	Inlet – Bar screen - Collection tank – Hill Screen 1 – Hill Screen 2 - Equalization tank – Sedicell – Tube settler – Vibro 1 – Vibro 2 - Spray filter - Treated water storage tank – utilized again in manufacturing process i.e., paper machine, pulper and other utilities. Sedicell, Primary treatment followed by Spray filter	
	b. Installed capacity	4200 KLD	
	c. Metering at ETP	ETP inlet	Electromagnetic flowmeter with totalizer installed at feed to sedicell
		Recycling points	Yes, logbook maintained
		ETP outlet	No
	d. Operational status	Operational	
		Flow at inlet: 126.6m3/hr.	
	e. OCEMS at ETP	Flow meter and we camera installed	

	outlet	
	f. Effluent Characteristics	As mentioned below:

Parameter	ETP inlet	ETP recycle	Norms as per consent
pH	6.3	6.1	Unit is operated at ZLD
Color	10	10	
BOD (mg/l)	3780	4925	
COD (mg/l)	8292	9563	
TSS (mg/l)	762	396	
TDS (mg/l)	12536	12364	

	g. ETP Sludge generation	
	Biological sludge generation (as per logbook)	No biological treatment unit
	Sludge Management & disposal	Sludge generated from ETP is utilized again in process, as informed. No logbook of the same is maintained by the unit.
12.	**Non-paper solid waste management (Plastic waste)**	
	Non-paper solid waste generated (As per logbook)	436.4 MT (as per details provided by the unit from Oct-Dec, 2023), which is used as a fuel on its own waste to energy boiler
	Daily waste generation	4.85 MT/D
	Specific Non-paper solid waste generation	About 5% of paper product, hence OK
13.	**Air Pollution management**	
	a. Boiler capacity	22 TPH waste to energy boiler(multi fuel based) with 3 MW capacity turbine. Unit also have one boiler of 10 TPH capacity, which was found non-operational. As informed by the unit representative, the boiler is not in operation since July-2023. The unit has intimated regarding the same to UPPCB vide letter dated 08.01.2024.
	b. Stack details	Stack Height -30 m
	c. APCD installed	Bag filter
	d. Fuel used	Multi fuel i.e., RDF/Plastic waste/Wood chips/Rice husk
	e. Fuel consumption (as per logbook)	As per the details of fuel consumption of last three months provided by the unit:

Month	Bagasse (MT)	Firewood (MT)	Plastic Waste (MT)	Segregated Combustible Fraction (RDF) (MT)	Total
Oct-23	298.15	0	4417.57	351.8	5067.52
Nov-23	332.85	0	3708.11	583.035	4624.0
Dec-12	0	77.50	4883.40	1005.24	5966.15
Total	**631.01**	**77.50**	**13009.08**	**1940.07**	**15657.67**

	f. Daily fuel consumption	173.97 MT/day
	g. Daily ash disposal	11.67 MT/day As per fly ash disposal details provided by the unit, it has disposed total 1050 MT of fly ash in last three months i.e., 350 MT in Oct-2023, 300 MT in Nov-2023and 400 MT in Dec-2023.

h. Estimated ash generation w.r.t % of fuel consumed

11.36 MT/day

Fuel	% of ash generation	Ash generation (MT)
Bagasse	2.5 %	15.77
Firewood	9 %	6.97
Plastic waste	5%	650.45
RDF	18 %	349.21
Total		1022.40

i. Disposal of ash generated: For disposal of fly ash generating from boiler, unit has done agreement with Sh. AshaabS/o Sh. Abdul Gafoor, Bilaspur, Muzaffarnagar, who is disposing off the fly ash at an open land located near cement warehouse, Jansath road.

14. j. Stack monitoring report: Particulate Matter- 26.2 mg/Nm^3(against 80 mg/Nm^3)

15. **Hazardous waste management**

Authorization status: Valid Authorization dated 30.08.2022 under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 from UPPCB(valid from 30.08.2022 to 29.08.2027).(Authorization placed at ***Annexure-3***)

Copy of agreement with recyclers /TSDF: For disposal of hazardous waste, unit has done an agreement with Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) i.e., M/s Sheetala Waste Management Project, Sikandrabad, Bulandshahar, UP which is valid upto 26.08.2027.
Unit has provided copy of agreement and copy of last four Form-10.

Hazardous waste generated: As per submitted copy of last four Form-10:

Sr. No.	Date of providing waste to TSDF	Process sludge (kg)	Used empty containers (kg)
1	21.12.2022	107	-
2	19.05.2023	112	-
3	26.08.2023	-	70
4	29.11.2023	-	50

16. **Ground water Analysis Report (Borewell within the premises near ETP)**

Parameters	pH	Colour (Hazen)	Conduc-tivity (µS/cm)	TDS	Total Hardness (as $CaCO_3$)	Ca^{2+}	Mg^{2+}	Na^{+}	K^{+}	Cl^{-}	Fl^{-}	SO_4^{2-}	NO_2-N	NO_3-N	P
Values (mg/l)	8.0	BDL	685	408	322	89	24	30	06	53	BDL	59	BDL	BDL	BDL
Permissible limit	6.5-8.5	15	-	2000	600	200	100	-	-	1000	1.5	400	-	-	-

Parameters	Total Alkalinity	COD	As	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Se	V	Zn
Values (mg/l)	236	BDL	BDL	BDL	BDL	BDL	BDL	**0.43**	**9.67**	BDL	BDL	BDL	BDL	BDL	0.02
Permissible limit	600	-	0.01	0.003	-	-	0.05	0.3	0.1	0.02	0.01	-	0.01	-	5

17. **Major observation & Key issues**

a. At the time of inspection, the plant was under shut down due to maintainance and ETP was found operational.

b. Treated effluent was found feeding again at ETP inlet, as the plant was under shut down.

	c. As informed, fresh water from borewell-1, is utilized for production process and fresh water from borewell-2, is utilized for steam generation in boiler after treatment through RO. RO reject is recycling in process, as informed. Flowmeter is installed at RO permeate line and not installed at reject line. **d.** The unit has one multi fuel (RDF/Plastic waste/Wood chips/Rice husk) fired boiler of 22 TPH capacity and 3 MW capacity turbine (waste to energy captive power plant) for in-house use. Bag filter is installed as Air Pollution Control Device (APCD) at Boiler. During inspection boiler was found in operation. At the time of inspection, the boiler was operating at 16 TPH capacity. **e.** The unit has obtained registration certificate for Recycling/Processing of Plastic Waste (Under Rule-13(3) of the Plastic Waste Management Rules, 2016, as amended) for processing of plastic waste of 36,000 TPA quantity of category-III and power to be generated of 0.4 TPA. The certificate is valid upto 31.01.2024. **f.** The unit is receiving plastic waste from other @ 27 paper mills, which is to be fed to 22 TPH boiler for power generation. As per the details provided by the unit, the unit has received plastic waste of 2973.006 MT in October-2023, 3224.179 MT in November-2023 and 5484.094 MT in December-2023 from these paper mills, making total of 11681.279 MT. **g.** Unit is achieving ZLD by recycling the treated effluent in the process. **Key Issue** **a.** Unit is not maintaining the record of fly ash generation, on daily basis.
18.	**Compliance Status** Unit is complying w.r.t. consented condition of ZLD
19.	**Recommendations:** **1** Unit shall maintain record of fly ash generation, on daily basis.

Inspection team details:

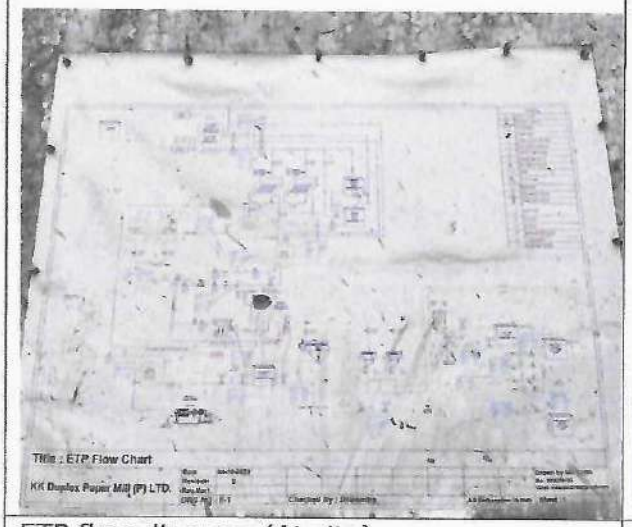
Sr. No.	MoEF&CC/ CPCB officials	Designation	Organisation	Signature with date
1.	Dr. Satya	Sc. 'E'	MoEF&CC	
2.	Dr. R.K. Singh	Scientist D	CPCB, Delhi	
3.	Sh. Imran Ali	AEE	UPPCB	
4.	Sh. Ashish Kumar	Hydrologist	UPGWD	
5.	Ms. Shivangi Goswami	RA-II	CPCB, Delhi	
6.	Mr. Ankit Shukla	SRF	CPCB, Delhi	

	7.	Mr. Maneesh Yadav	JRF	UPPCB	

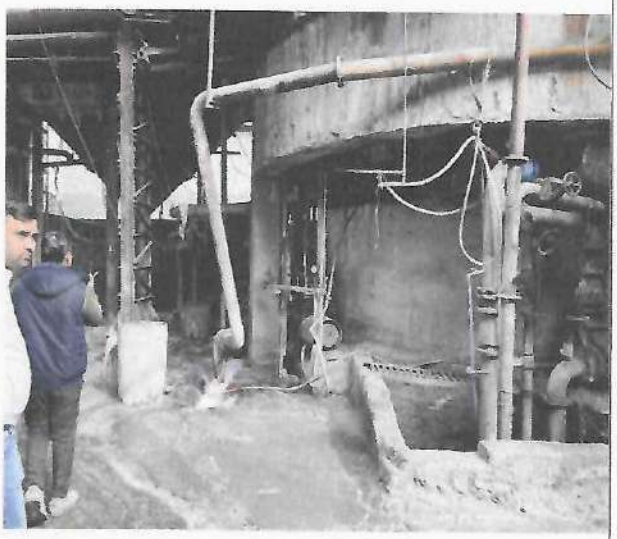
Photographs

Entrance Gate

Flowmeter reading of Borewell No. 2



ETP flow diagram (At site)



ETP

Flowmeter reading of ETP inlet

Sedicell

Boiler feed plastic waste compressor

Boiler area

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (PULP & PAPER)

A. General sectionDate of inspection: 03.01.2024

	Name of the unit withcomplete postal address:	**M/s Mahalaxmi Crafts and Tissues Pvt. Ltd., 9thKm. Jansath Road, Muzaffarnagar(U.P.)**
2	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.420980, 77.763583
3	Industry Operational status	Operational
4	Consent and NOC for ground water abstraction	i. Air Consent dated 21.07.2020 under ref no.: 94305/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/air/MUZAFFARNAGAR/2020 and valid from 02.06.2020to 31.12.2024. Enclosed as Annexure I ii. Water Consent dated 21.07.2020 under ref no.: 94791/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/water/MUZAFFARNAGAR/2020 and valid from 02.06.2020to 31.12.2024 . Enclosed as Annexure II iii. NOC for ground water abstraction from two borewells issued by UPGWD under Registration no. 202106000341 & 202106000382 and same are valid till 27.08.2026. Enclosed as Annexure III

B. Production process and infrastructure

5.	**Process**	Manufacturing of Kraft paper using recycled fiber waste paper (Indian)
6.	**Raw material**	
	a. Consented value	Not mentioned in consent
	b. Actual consumption (as per logbook)	9,794.80 MT (from 01st October, 2023 to 31st December, 2023)
	c. Avg. daily consumption	119.45 MT/day (82 days of production)
7.	**Production**	
	a. Consented value	200 MT/day
	b. Actual Production (as per logbook)	9,666.488 MT (from 01st October, 2023 to 31st December, 2023)
	c. Avg. daily production	117.884 MT/day
	d. Yield (%)	98.69 % of raw material
	e. Non-paper waste production	1.31 % of raw material i.e. 1.57 MT/day
8.	**Fresh water consumption**	
	a. Details of borewell	Two borewells with flow meter found installed
	b. Permitted withdrawal quantity	720 KLD
	c. Actual withdrawal quantity	29853 KL

		(from 01st October, 2023 to 31st December, 2023)	
	d. Avg. daily withdrawal quantity	364.06 KLD (as per logbook) 593 KLD (calculated from effluent discharge , recycle and process loss data)	
	e. Specific fresh water consumption	5.0 KL/MT of product	
9.	**Effluent Management**		
	a. Consented discharge value	400 KLD	
	b. Actual effluent generation (as per V-Notch logbook)	117093 KL (from 01st October, 2023 to 31st December, 2023)	
	c. Avg. daily effluent generation	1,427.96 KLD, based on V-notch data. Considering ~10% losses in process, estimated effluent generation = 1285.2KLD.	
	d. Specific effluent generation	10.9 KL/MT of product	
	e. Actual recycling of treated effluent within process	Partially treated (from Primary clarifier)	851.04 KLD (avg. from 01st October, 2023 to 31st December, 2023)
		Treated effluent (from ETP outlet)	No data available due to unavailability of flow meter at outlet recycle line.
		Total recycled	851.04 KLD
	f. Specific effluent recycle	7.22 KL/MT of product	
	g. Actual effluent discharge (as per V-Notch logbook)	10021 KL (from 01st October, 2023 to 31st December, 2023)	
	h. Avg. daily effluent discharge	122.21 KLD	
	i. Specific effluent discharge	1.037 KL/MT of product, based on log-book data.	
	j. Difference in reported effluent generation, recycled and discharge	Based on specific data =10.9- (7.22+1.037) = 2.64KL/ MT of product. Daily quantity = 117.884 MT/day x 2.64KL/ MT = 311.2KL/day. This indicates poor maintenance of log-book data and un-accounted discharge.	
10.	**Effluent treatment plant (ETP)**		
	a. Treatment Scheme	Screen→Equalization Tank→Hill screen→Primary Clarifier→Aeration Tank→Secondary Clarifier→Pressure Filter and Activated Carbon Filter.	
	b. Installed capacity	Primary Clarifier- 1141 m^3 Aeration Tank- 1064 m^3 Secondary Clarifier- 689 m^3	
	c. Metering at ETP	Effluent generation	No, only V-notch provided
		Partially treated Recycling point	Yes, logbook maintained
		Treated effluent recycle	No flowmeter installed
		Effluent Discharge	No. only V-notch provided along with ultrasonic depth meter
	d. Operational status of ETP	Operational	
		Flow at inlet: 21 cm ≈ 103.091 m^3/hr.	
		MLVSS/MLSS in aeration tank: 1698/3884=0.44 against 0.6 to 0.8	

	e. OCEMS at ETP outlet	OCEMS was found installed at outlet of ETP. However, connectivitywith CPCB & SPCB servers could not be verified during inspection.

f. **Effluent Characteristics**

Parameter	ETP inlet	ETP outlet	Norms as per consent	Compliance w.r.t. consent	Norms as per notified by MoEF&CC	Compliance w.r.t. notified norms
pH	5.6	7.7	7.0-8.5	Comply	7.0-8.5	Comply
BOD (mg/l)	5833	**46**	30	**Non-comply**	30	**Non-comply**
COD (mg/l)	14478	151	350	Comply	350	Comply
TSS (mg/l)	3028	40	500	Comply	500	Comply
TDS (mg/l)	16980	624	-	-	-	-
Oil/Gr.(mg/l)	-	BDL	-	-	-	-

Aeration tank: MLSS- 3884 mg/l; MLVSS-1698 mg/l

g. **ETP Sludge generation**

a. Biological sludge generation (as per logbook)	ETP sludge 250 Kg as per last Form 10.
b. Daily sludge generation	Logbook not provided
c. Specific sludge generation	NA
d. Estimated sludge generation @30 % of inlet TSS load	1.297 MT/day (against 1.1% of product)
e. Sludge Management & disposal	Provided to BOWML (TSDF) for final disposal Form 10 provided as record

11. **Recipient drain details**

a. Name of recipientdrain	Dhandera Drain

b. Recipient drain's analysis report:

Sampling location	Parameters (all values are in mg/l except Colour & pH)								
	pH	**BOD**	**COD**	**TSS**	**TDS**	**Sulphate**	**Nitrate**	**Phosphate**	**Sulphide**
Up Stream	6.59	70	198	184	1165	56	3.22	2.26	-
Down Stream	6.85	82	235	198	901	52	3.02	2.06	1.25

**All parameters are in mg/l except pH.*

c. Sample taken from any other location (if any): No.

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

a. Non-paper solid waste generated (As per logbook)	84.08 MT (from 01st October, 2023 to 31st December, 2023) Plastic waste provided to M/s Harshit Trading Company, Jaipur for further recycling (sales records are provided by unit)
b. Avg. Daily waste generation	1.02 MT/day
c. Specific Non-paper solid waste generation	0.869% of product
d. Potential solid waste generation @3.5 % of paper	4.13MT/Day (estimated)against 1.02 MT/Day (as per logbook) Actual non-paper solid waste (plastic waste) generation is much lower than the estimated value, which indicate poor record keeping.

13. **Air Pollution management**

a. Boiler capacity	18 TPH, Turbine for power generation.
b. Stack details	Stack Height -35 m

	c. APCD installed	Cyclone, Air pre Heater and Wet scrubber
	d. Estimated steam requirement @ 1.8 T/T of paper produce	212.19 T/day
	e. Name of the Fuel used	Bagasse
	f. Bagasse consumption (as per logbook)	3,996.44 MT (from 01st October, 2023 to 31st December, 2023)
	g. Estimated bagasse consumption @ 2.5-3 T steam/ T of bagasse	70.73 to 84.876 T/day
	h. Avg. Daily fuel consumption	48.74 T/day
	i. Avg. Daily ash generation	3.647 T/day (avg. from 01st October, 2023 to 31st December, 2023)
	j. Ash generation w.r.t of fuel consumed (%)	7.48%, which is in-line with use of combined fuel in boiler attached with turbine for power generation
	k. Disposal of ash generated	Ash generated from the unit was being utilized in low lying land by the contracted vendor (agreement copy provided).
	l. Stack Monitoring report	PM-47.4 mg/Nm^3(against 80 mg/Nm^3)
14.	**Hazardous waste management**	
	a. Authorization status	Authorization granted under ref. no.17310/UPPCB/Muzaffarnagar(UPPCBRO)/HWM/MUZAFFARNAGAR/2022 dated 03.10.2022 and valid till 02.10.2027.
	b. Copy of agreement with recyclers /TSDF	Available with Bharat Oil & Waste Management Ltd. Kanpur
	c. Hazardous waste generated	ETP sludge- 250 Kg, Cotton Waste- 50 Kg, Old useless lubricant (grease)- 50 Kg and Old Rubber Belt- 30 Kg in Last form 10 (as per Manifest for hazardous waste (form 10) dated 30.12.2023 provided by unit)

15. **Ground water analysis results**

pH	Color	COD	TDS	Total Hard-ness	Total Alkali-nity	Cl⁻	SO_4^{-}	F⁻	NO_3-N	NO_2-N	Na+	K+	Ca	Mg
7.7	BDL	BDL	296	241	218	19	27	BDL	BDL	BDL	14	05	26	43
PO_4^{3-}	**Cond.**	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Fe**	**Mn**	**Ni**	**Pb**	**Sb**	**Se**	**V**	**Zn**
BDL	478	BDL	BDL	BDL	BDL	BDL	0.15	7.73	BDL	BDL	BDL	BDL	BDL	0.03

**Allparameters are in mg/l except pH & Color (Hazen).*

16. **Observations**

a. Unit has valid Air Consent, Water Consent, Authorization for Hazardous waste disposal and NOC for ground water abstraction from two bore wells.
b. Unit is non-complying w.r.t. notified discharge norms by MOEF&CC for BOD (46 mg/l against 30 mg/l).
c. Unit has agreement with BOWML for TSDF the Hazardous waste generated from process.
d. Unit has agreement with M/s Harshit Trading Company, Jaipur for disposal of Plastic waste /screenings.
e. Boiler ash generated from the unit was being utilized in low lying land by the contracted vendor.
f. Unit does not have mechanical system fordewatering of biological sludge. Existing SDBs are not adequate forrainy and winter season.
g. Gap in reported effluent generation, total of recycled and discharge based on specific data is2.64KL/ MT of product, daily quantity311.2KL/day. This indicates poor maintenance of

log-book and possibility of un-accounted discharge of untreated effluent.

h. Since effluent generation is more than total of recycled and discharge, it indicates un-accounted water abstraction from unidentified bore well.
i. Unit has rain water harvesting system for some area in mill premises.
j. Sludge deposition was observed in recipient drain on upstream and down-stream of the unit.

Key Issues:

i. Unit is non-complying w.r.t. notified discharge norms by MOEF&CC for BOD (46 mg/l against 30 mg/l).
ii. Production 98.69% of total raw material consumed, shows very less non-paper solid waste generation (1.31%), indicate that records / log-book data are not correct.
iii. ETP sludge only 250 Kg (disposed in Oct.2023)not in line with the estimated generation of biological sludge (~0.3 times of daily BOD load removed) indicate that possibility of illegal disposal of biological sludge.This is confirmed by the fact that Unit does not have mechanical system for dewatering of biological sludge.
iv. As per logbook of V-notch data, 311.2 KLD of wastewater (≈31.80 % of total effluent generation) was out of the record, indicates possibilities of non-recorded discharge by the unit.
v. 364.0KLD(as per logbook) against 593 KLD (calculated from effluent discharge, recycle and process loss data) indicates fresh water abstraction from un-identified bore-well.
vi. Logbook of Plastic waste generation shows lesser value (1.02 MT/Day) than minimum estimated (4.13 MT/Day) indicates poor record keeping.
vii. Boiler ash and Plastic waste is not being managed in scientific manner.

17. **Compliance Status**

As per Discharge norms: **Non-complying.**
Overall compliance status: **Non-complying.**

18. **Recommendations:**

i. UP Pollution Control Board may look in to gap of daily quantity of effluent generation, recycled, discharge and take action to prevent un-accounted discharge of effluent.
ii. UP ground water department may look in to matter whether any additional borewells installed by the unit.
iii. Unit shall operate ETP properly, so as to comply with notified discharge norms for treated effluent.
iv. Unit shall install mechanical system for dewatering of biological sludge.
v. Unit shall ensure proper record keeping for generation & disposal of plastic waste & Boiler ash.
vi. Proper record of effluent generation, discharge & recycle should be maintained.
vii. Proper record of sludge generation and disposal should be maintained.
viii. The unit may install flow meter with totalizer at ETP inlet.

19. **Inspection team details:**

S.No.	MoEF&CC/CPCB officials	Designation	Organisation	Signature
1.	Dr. A.K. Gupta	Additional Director	MoEF&CC	
2.	Sh. C.B. Chaurasia	Scientist 'E'	CPCB	
3.	Dr. Vivek Rana	Research Associate-I	CPCB	

	4.	Sh. Muktesh Chaudhari	Sr. Research Fellow	CPCB	
	S.No	**SPCB/CGWA officials**	**Designation**	**Organisation**	
	1.	Mr. Puskar Singh	Tech. Asstt.	UPGWD	
	2.	Mr. Diwakar Dev Gahlot	JRF	RO, UPPCB, Muzaffarnagar	
	3.	Mr. Y.K. Mishra	Asst. Environment Engineer	RO, UPPCB, Meerut	

Photographs

Fig.1: Entrance gate

Fig.2: Manufacturing process area

Fig.3: Flow Meter –Bore well-1

Fig.4: Flow meter - Borewell-2

Fig.3: ETP inlet

Fig.4: ETP outlet

Fig.5: Aeration tank

Fig.6: Recipient drain

Fig.7: ETP outlet flow meter

Fig.8: Flow meter at recycling line

Fig.9: OCEMS display

Fig.10: ETP energy meter

Fig.11: Boiler APC and Stack

Fig.12: Inspection team

Fig.13: Raw Material- a view for micro-plastic layer coating

Fig.14: Raw Material Yard

Fig.15: Plastic waste/ screenings stored

Fig.16: Rain Water Harvesting Tank

Fig.17: Confluence of Jat Mujhera Drain and Dhandhera drain on up-stream of the unit

Fig.18: Sludge deposits in Dhandhera drain on down-stream side

CPCB

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (PULP & PAPER)

A. General sectionDate of inspection: 03.01.2024

1	Name of the unit withcomplete postal address:	**M/s Orient Board Paper Mills Pvt. Ltd.** **9thKm. Jansath Road, Muzaffarnagar(U.P.)**
2	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.428226, 77.763969
3	Industry Operational status	Operational
4	Consent and Ground Water NOC	**Consent underAir Act.** Issue date 12.11.2021; Ref no.:134926/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/Air/MUZAFFARNAGAR/2021 and valid from 16.09.2021 to 31.12.2025. Enclosed as Annexure I. ***Consent*under Water Act.** Issue date12.11.2021 under ref no.: 135333/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/Water/MUZAFFARNAGAR/2021 and valid from 16.09.2021 to 31.12.2025. Enclosed as Annexure II. **NOC for abstraction of ground water** from two borewells issued by UPGWD under Registration no. 202202000070 & 202203000276 and same are valid till 30.03.2027. Enclosed as Annexure III

B. Production process and infrastructure

5.	**Process**	Manufacturing of Kraft paper by using kraft waste paper& Poster Paper by using white waste paper
6.	**Raw material**	
	a. Consented value	240 MT/day
	b. Actual consumption (as per logbook)	Kraft waste paper- 8,177.91 MT&white waste paper- 2,297.895 MT Total= 10,475.805 MT (from 01st October, 2023 to 31st December, 2023)
	c. Avg. daily consumption	95.09 MT/day + 26.72 MT/day = 121.81MT/day
7.	**Production**	
	a. Consented value	Kraft paper- 110 MT/day, Poster paper and light gram kraft paper- 80 MT/day = 190 MT/day
	b. Actual Production (as per logbook)	Kraft paper- 5,337.50 MT & Poster/white packing paper- 2,505.40 MT Total= 7,842.90 MT (from 01st October, 2023 to 31st December, 2023)
	c. Avg. daily production	62.06 MT/day + 29.13 MT/day = 91.19 MT/day
	d. Yield (%)	74.86 % of raw material
	e. Non-paper waste production	25.14 % of raw material i.e. 30.62 MT/day

8.	**Fresh water source and consumption**		
	a. Details of borewell	Two borewells with flow meter found installed	
	b. Permitted withdrawal quantity	615 KLD	
	c. Actual withdrawal quantity	37,200 KL.(Log-book data from 01st October, 2023 to 31stDecember, 2023) However, logbook is erroneous (sudden change in meter readings), without mentioning the reason for the change.	
	d. Avg. daily withdrawal quantity	432.56 KLD	
	e. Specific fresh water consumption	4.74 KL/MT of product	
9.	**Effluent Management**		
	a. Consented discharge value	480 KLD	
	b. Actual effluent generation (as per V-Notch logbook)	26680.80 KL (from 01st October, 2023 to 31st December, 2023)	
	c. Avg. daily effluent generation	310.24 KLD	
	d. Specific effluent generation	3.40 KL/MT of product	
	e. Actual effluent discharge (as per V-Notch logbook)	22167.90 KL (from 01st October, 2023 to 31st December, 2023)	
	f. Avg. daily effluent discharge	257.77 +13.47= 271.24KLD	
	g. Specific effluent discharge	271.24/91.19= 2.974 KL/MT of product	
	h. Actual recycling of treated effluent within process	Partially treated (from Primary clarifier)	39 KLD (avg. from 01st October, 2023 to 31st December, 2023)
		Sludge (from Primary Clarifier)	Nodata available due to unavailability of flow meter at recycle sludge line to process.
		Total recycled	39 KLD
	i. Specific effluent recycle	0.43 KL/MT of product.	
	j. Losses in ETP (sludge moisture and evaporation in Aeration tank)	2-3% % of total effluent generation. This difference is due to improper recording of daily discharge.	
10.	**Effluent Treatment Plant (ETP)**		
	a. Treatment units in ETP	Screen→Equalization Tank→Hill Screen→ Primary Clarifier→Aeration Tank→Secondary Clarifier→MGF	
	b. Installed capacity	Equalization Tank- 8m × 7m × 2.5m = 140 m^3 Primary Clarifier- 6m (dia) × 5.4m (depth) = 152 m^3 Aeration Tank- 18.9m × 8.6m × 4m = 650 m^3 Secondary Clarifier- 6m (dia) × 5.4m (depth) = 152 m^3	
	c. Metering at ETP	Effluent generation	No, only V-notch provided
		Partially treated Recycling point	Yes, logbook maintained
		Primary sludge recycle to process	No flowmeter installed
		Effluent Discharge	Yes, logbook maintained on the basis of V-notch reading, However, Electro mechanical flowmeter was also installed at ETP outlet.
	d. Operational status of ETP	Operational	
		Flow at inlet: 8.6 cm ≈ 153.1 m^3/hr.	
		MLVSS/MLSS in aeration tank: 1105/2628 = 0.42 against required 0.6 to 0.8	

	e. OCEMS at ETP outlet	OCEMS was found installed at outlet of ETP & connected with CPCB & SPCB servers. Readings COD= 94.2, BOD=12.9; TSS= 14.5mg/l and pH=7.75.

f. **Effluent Characteristics**

Parameter	ETP Inlet	ETP Outlet	Norms as per consent	Compliance w.r.t. consent	Norms as per notified by MoEF&CC	Compliance w.r.t. notified norms
pH	7.7	8.3	7.0-8.5	Comply	7.0-8.5	Comply
BOD (mg/l)	152	**40**	30	**Non-comply**	30	**Non-comply**
COD (mg/l)	444	113	350	Comply	350	Comply
TSS (mg/l)	322	10	500	Comply	500	Comply
TDS (mg/l)	**1244**	1176	-	-	-	**Non-comply due to dilution with water in ETP.**
AOX (mg/l)	-	BDL	-	-	1.5 kg/T of product	Comply
Oil & Grease (mg/l)	-	BDL	-	-	-	-

Aeration tank: MLSS- 2628 mg/l; MLVSS-1105 mg/l

g. ETP Sludge generation

a. Biological sludge generation (as per logbook)	180 kg(from 01st October, 2023 to 31st December, 2023). =2.09 kg/day.
b. Estimated sludge generation @ 30 % of inlet TSS load	29.97 kg/day
c. Observation on sludge quantity	ETP sludge generation is much lower than the estimated value, which indicate that possibility of illegal disposal of sludge, which is also confirmed from defunct Belt press and no sludge found on SDBs (dry beds).
d. Specific sludge generation	0.023 kg/MT of product
e. Sludge Management & disposal	Provided to BOWML (TSDF) for final disposal Form 10 provided as record

11. **Recipient drain details**

a. Name of recipientdrain	Dhandera Drain

b. Recipient drain's analysis report:

Sampling location	Parameters (all values are in mg/l except Colour & pH)								
	pH	**BOD**	**COD**	**TSS**	**TDS**	**Sulphate**	**Nitrate**	**Phosphate**	**Sulphide**
Up Stream	7.28	60	176	174	970	42	2.12	1.66	-
Down Stream	6.95	86	238	202	1016	58	3.42	2.64	1

**All parameters are in mg/l except pH.*

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

a. Non-paper solid waste generated (As per logbook)	122.135 MT as per invoiced provided (from October, 2023 to December, 2023). Plastic waste supplied to M/s Dew Resource Management for further processing (sales invoice are provided by unit)
b. Avg. Daily waste generation	1.42 MT/day

	c. Specific Non-paper solid waste generation	1.56% of product
	d. Potential solid waste generation @3.5 % of paper	3.19 MT/Day (estimated) against 1.42 MT/Day (as per logbook) Actual non-paper solid waste (plastic waste) generation is much lower than the estimated value, which indicate poor record keeping.
13.	**Air Pollution management**	
	a. Boiler capacity	18 TPH
	b. Stack details	Stack Height -45 m
	c. APCD installed	Multi Cyclone and Wet scrubber
	d. Estimated steam requirement @ 1.8 T/T of paper produce	164.142 T/day
	e. Name of the Fuel used	Bagasse along with Agro waste (Mix)
	f. Bagasse consumption (as per logbook)	70 MT/day (as informed by the unit's officials)
	g. Estimated bagasse consumption @ 2.5-3 T steam/ T of bagasse	54.71 to 65.66 T/day
	h. Avg. Daily fuel consumption	70 MT/day
	i. Avg. Daily ash generation	1.933 T/day (avg. from 01st October, 2023 to 31st December, 2023)
	j. Ash generation w.r.t of fuel consumed	2.76%
	k. Estimated ash generation @ 2.5 % of estimated fuel consumed	1.75 T/day
	l. Disposal of ash generated	Ash generated from the unit was being utilized in brick manufacturing (contract copy & invoice provided by the unit).
	m. Stack Monitoring report	PM-48.8 mg/Nm^3 (Stack monitoring by UPPCB, on 02 Feb.2024. Report Ref. No.24343650/MuzaffarNagar/2024.
14.	**Hazardous waste management**	
	a. Authorization status	Authorization granted under ref. no. 7577/UPPCB/Muzaffarnagar(UPPCBRO)/HWM/ MUZAFFARNAGAR/2019 dated 21.10.2019 and valid till 20.10.2024.
	b. Copy of agreement with recyclers /TSDF	Available with Bharat Oil & Waste Management Ltd. Kanpur
	c. Hazardous waste generated	ETP sludge- 180 Kg, Cotton Waste- 12 Kg, Used oil & grease- 27 Kg and Rubber waste- 10 Kg (from 01st October, 2023 to 31st December, 2023)
15.	**Ground water analysis results**	

pH	Color	COD	TDS	Total Hardness	Total Alkalinity	Cl^-	SO_4^{--}	F^-	NO_3-N	NO_2-N	Na+	K+	Ca	Mg
7.5	06	17	772	351	449	101	96	BDL	BDL	BDL	96	08	58	50
PO_4^{3-}	**Cond.**	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Fe**	**Mn**	**Ni**	**Pb**	**Sb**	**Se**	**V**	**Zn**
BDL	1200	0.01	BDL	BDL	BDL	BDL	0.12	2.73	BDL	BDL	BDL	BDL	BDL	0.01

**Allparameters are in mg/l except pH & Color (Hazen).*

16. **Major observations:**

a. During inspection, the Kraft paper production (from waste paper) process was not operational. However,Kraft paper production line was operational on next day.

b. Low BOD (152mg/l) in untreated (raw) influent of ETP, indicates dilution in ETP.

c. MLVSS value 1105 mg/l in Aeration tank, is too less against normal range 2500 to 3000mg/l. This indicates that biological treatment process is not stabilized.

d. **Unit is non-complying w.r.t. notified discharge norms by MOEF&CC for BOD (40 mg/l against 30 mg/l) and due to dilution with water in ETP.**
e. Unit has agreement with BOWML for TSDF the Hazardous waste generated from process.
f. Unit has agreement with M/s Dew Resource Management, Hyderabad (Telangana), site facility near ITI, Meerut road, Muzaffarnagar forpre-processing of Plastic waste/ screenings.
g. No green belt / plantation area found in the unit premises.
h. Boiler ash generated from the unit was being utilized in brick manufacturing.
i. Sludge dewatering unit (Belt press) at ETP found in defunct condition. Belt press could not be made functional, despite operator tried to operate different times on both days, before the inspection team. Sludge dry beds were found vacant and no stored sludge was found. This confirms that unit discharges, biological sludge into the adjacent (Dhandhera) drain.

Key Issue

a. Unit is **non-complying w.r.t. notified discharge norms** by MOEF&CC for BOD (40 mg/l against 30 mg/l).
b. Production was 74.86% of total raw material consumed while non solid waste generation 24.14%. However, Plastic waste generation was just 1.56% of product.
c. Sludge dewatering unit (Belt press) at ETP found in defunct condition and no wet / dewatered sludge on SDB.
d. Logbook of Borewell showing multiple incorrect entries.
e. Unit has flowmeter with totalizer at ETP outlet. However, logbook was being maintained on the basis of V-notch reading.
f. No logbook was being maintained for Plastic waste generation & Plastic waste is not being managed in scientific manner.

17. **Compliance Status**
As per Discharge norms: **Non-complying**
Overall compliance status: **Non-complying**

18. **Recommendations:**
i. The unit shall operate ETP properly, particularly Aeration tank, so as to comply with notified discharge norms for treated effluent.
ii. UPPCB to ensure that the unit shall not discharge biological sludge in to the drain.
iii. The unit shall get repaired, operate sludge dewatering unit and maintain log-book of sludge disposal.
iv. Unit must ensure scientific disposal of plastic waste.Unit shall maintain plastic generation and disposal record on daily basis.
v. Unit shall maintain all logbooks properly with correct entries.
vi. The unit shall develop green area within unit premises to comply with consent condition.

19. **Inspection team details:**

S.No.	MoEF&CC/CPCB officials	Designation	Organisation	Signature
1.	Dr. A.K. Gupta	Additional Director	MoEF&CC	
2.	Sh. C.B. Chourasia	Scientist 'E'	CPCB	

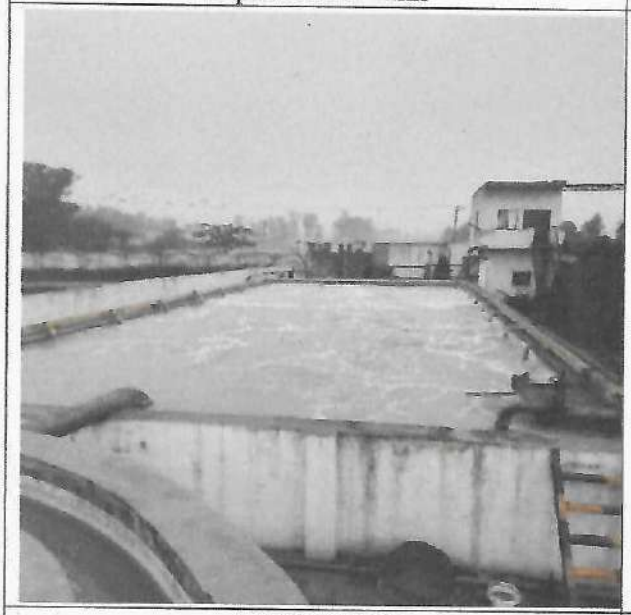
	3.	Dr. Vivek Rana	Research Associate-I	CPCB	
	4.	Sh. Muktesh Chaudhari	Senior Research Fellow	CPCB	
	5.	Mr. Puskar Singh	Tech. Asstt.	UP GWD	
	6.	Mr. Diwakar Dev Gahlot	Junior Research Fellow	UPPCB, Muzaffarnagar	
	7.	Mr. Y.K. Mishra	Asst. Environment Engineer	RO, UPPCB, Meerut	

Photographs

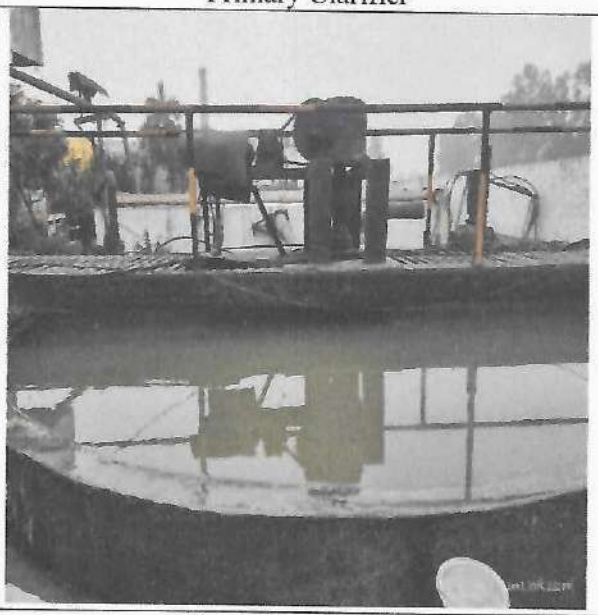
	
Main gate	ETP Inlet

Equalization Tank

Primary Clarifier

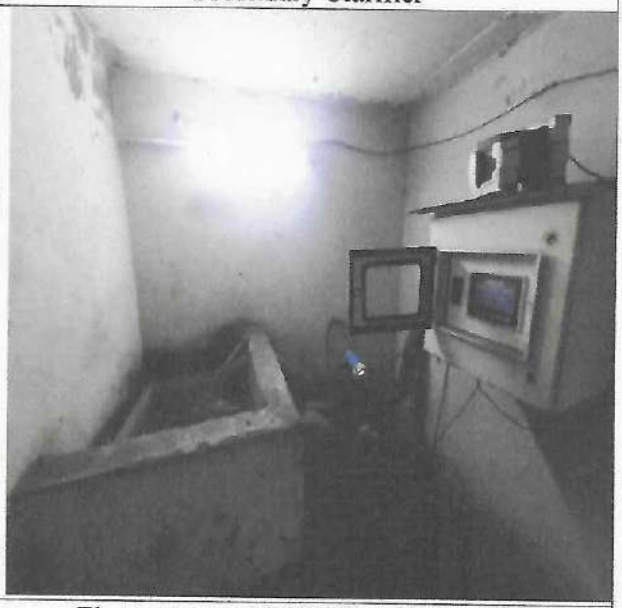


Aeration Tank

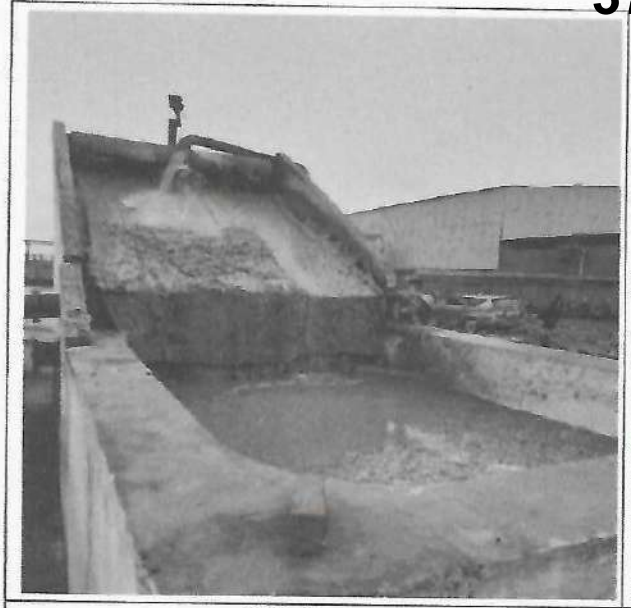


Secondary Clarifier

ETP outlet



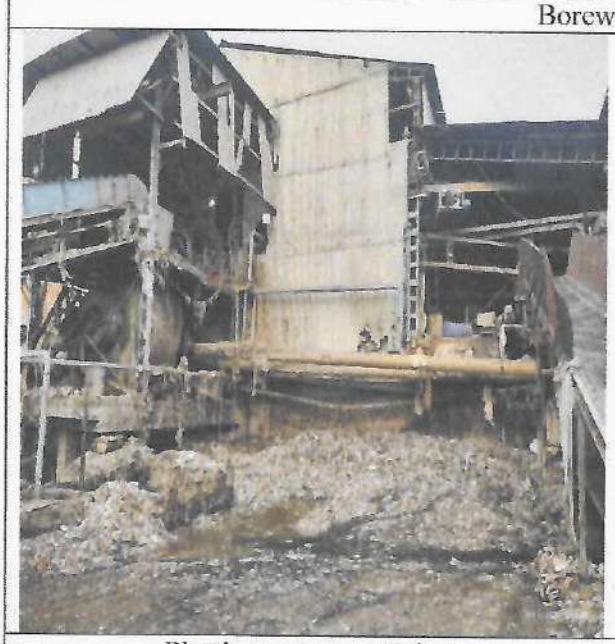
Flowmeter and OCEMS at ETP outlet



Hill Screen

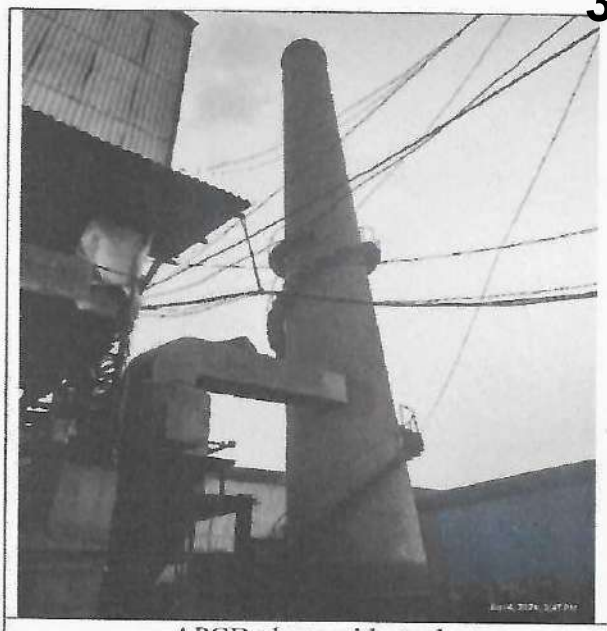
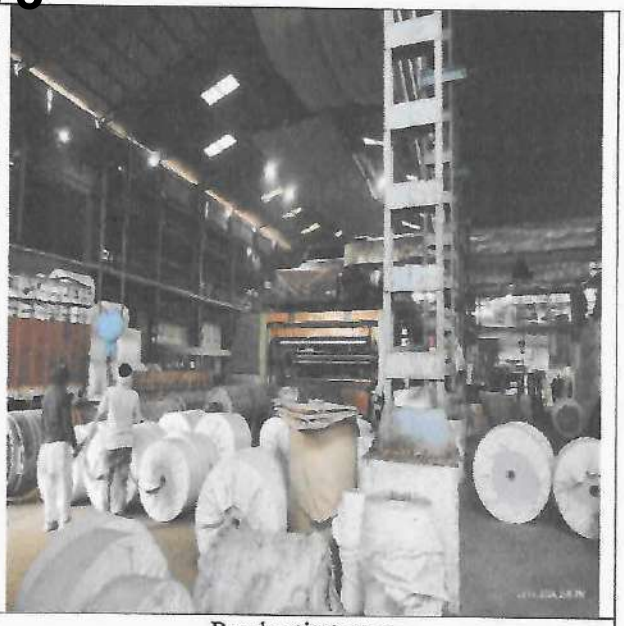
Sealed Samples

Borewell 1 & 2



Plastic waste near Pulper

Plastic waste storage

	
APCD along with stack	Production area

CPCB

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (PULP & PAPER)

A. General sectionDate of inspection:03.01.2024

	Name of the unit withcomplete postal address:	M/s Shakti Kraft Tissues, 9th Km Jansath Road, Muzaffarnagar 251001
	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	29.41895, 77.76024
	Industry Operational status	Operational 24 hours (3 shifts of 8 hours each)
	Consent status	Consolidated consent to operate & authorization (CCA) dated 12.05.2023 with ref no 181877/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/both/MUZAFFARNAGAR/2023 and valid upto 31.12.2024 Enclosed as Annexure-1

B. Production process and infrastructure

	Process	Manufacturing of Kraft paper using recycled fiber (waste paper) of mixed type (imported/ indigenous) as per availability
	Raw material	
	a. Consented value	180 MT/day
	b. Actual consumption (as per logbook)	9092.80 MT (from Oct 2023 to Dec 2023)
	c. Avgdaily consumption	105.73 MT/D
	Production	
	a. Consented value	150 MT/day
	b. Actual Production (as per logbook)	8183.52 MT (from Oct 2023 to Dec 2023)
	c. Average daily production	95.15 MT/day
	d. Yield (%)	90% of raw material
	e. Estimated waste produce	10% of raw material i.e. 10.58 MT/day
	Fresh water consumption	
	a. Details of borewell	One borewell with flow meter
	b. NOC from CGWA/other authorized body	NOC for one borewell from Ground Water Department, Ministry of Jal Shakti, GoUP under Registration no. 202204000410 dated 30.08.2022 and is valid upto 01.05.2027. Enclosed as Annexure-2 NOC applied for installation of 2nd borewell. (Copy not available)
	c. Permitted withdrawal quantity	450 KLD
	d. Actual withdrawal quantity	20081 KL (as per logbook of Oct, Nov & Dec 2023)
	e. Avg daily withdrawal quantity	233.5 KLD
	f. Specific fresh water consumption	2.45 KL/MT of paper
	Effluent Management	
	a. Consented discharge value	ZLD
	b. Actual effluent generation	54815 KL (as per logbook of Oct, Nov & Dec-2023)

(as per logbook)			
c. Avg effluent generation daily	637.38 KLD		
d. Specific effluent generation	6.69 KL/MT		
e. Actual recycling of treated effluent within process	Partially treated (Primary/ Sedicell)	281.83 KLD	
	Treated effluent (ETP outlet) to Machine	353.26 KLD	
	Total recycled	635.10 KLD (6.67 KL/MT)	
f. Actual effluent discharge	As per consent, unit is ZLD and during visit, no effluent discharge and bypass was observed.		

Verification of ZLD

a. Specific fresh water consumption	2.45 KL/MT	
b. Specific Effluent discharge	Not discharging outside	
c. Metering of effluent generation & recycling point	Effluent generation	Sensor based flowmeter and V-notch provided
	Recycling points	Electromagnetic flowmeter with totalizer installed after both hill screen and sedicell.
d. BOD/COD characteristics of effluent at ETP inlet	BOD (mg/l)	13550
	COD (mg/l)	38079

Conclusion

1. Specific freshwater consumption of unit is 2.45 KL/MT, which is < 5m3/t of paper (with power boiler case)
2. High values of BOD & COD indicates closed loop
3. Unit is not discharging outside the premises.

Above observations establish that unit is ZLD

Effluent treatment plant (ETP)

a. ETP consists of	Back Water collection tank – Hill screen – Equalization Tank – Sedicell – Primary Clarifier – Saveall Tank – Machine - Outlet recycled to process	
b. Installed capacity	-	
c. Metering at ETP	ETP inlet	Sensor based flowmeter and V-notch provided
	Recycling points	Electromagnetic flowmeter with totalizer installed after hill screen and at recycling line.
	ETP outlet	NA
d. Operational status	Operational	
	Flow at inlet: 7.58m^3/hr (based on V-notch value)	
	MLVSS/MLSS in aeration tank: NA	
e. OCEMS at ETP outlet	PTZ Camera found installed at ETP.	

f. Effluent Characteristics

Parameter	ETP inlet	Recycling point	Norms as per consent (EP Rules)	Compliance w.r.t. consent
pH	5.7	5.7	-	High values of BOD, COD, TSS& TDS at ETP inlet and recycling point indicate closed loop. however there is no change in characteristics at inlet and recycling point, which indicate that ETP system consisting of sedicell and primary clarifier is not operating and maintained properly.
BOD (mg/l)	13550	13100	-	
COD (mg/l)	38079	36527	-	
TSS (mg/l)	8155	8174	-	
TDS (mg/l)	34260	34576	-	

g. ETP Sludge generation

Biological sludge generation (as per logbook)	NA as no biological unit available
Remark	As per unit, sludge generated from hill screen and primary

	clarifier is used within process
Non-paper solid waste management (Plastic waste)	
Non-paper solid waste generated (As per logbook)	60 tons (for Nov & Dec 2023 as declared by unit). Unit has installed a gasifier for plastic waste disposal with a capacity of 36 MT/day (consented).
Avg daily plastic waste generation	1.01 tons (as per data provided by unit)
Specific Non-paper solid waste generation	1.04 % of kraft paper production (as per unit)
Potential solid waste generation @3.5 % of paper	3.37 MT/day
Remarks	During visit, huge leaps of plastic waste were observed to be lying inside premises. As informed by unit representative, this was the plastic waste (around 60 tonns) generated during November & December months. Since moisture of stored waste could not be dried due to weather conditions, it was not disposed off in the gasifier. However, generation of plastic waste as per unit (1.01 MT/day) is lesser than its potential value of 3.37 MT/day.
Air Pollution management	
a. Boiler capacity	14 TPH
b. Stack details	Stack Height -32 m
c. APCD installed	Multicyclone&Wet scrubber
d. Estimated steam requirement @ 1.8 T/T of paper produce	1.8 T*95.15 MTD= 171.27 TPD
e. Fuel used	Bagasse/ cane silt
f. Fuel consumption (as per logbook)	6212.02 MT (as per data of Oct, Nov & Dec 2023) Avg = 72.23 MT/day
g. Estimated bagasse consumption @ 2.5 T steam/ T of fuel	171.27 TPD steam/2.5 T bagasse= 68.50 ton of bagasse
h. Daily ash generation	Log book not maintained
i. Ash generation w.r.t of fuel consumed (%)	-
j. Estimated ash generation @ 2.5 % of bagasse	1.805 tons
k. Disposal of ash generated	Disposal in an acquired vacant plot 1 km away from unit, (logbook for daily disposal not maintained)
l. Remark	Fuel consumption by unit and estimated fuel are in-line. However, there is no record for ash being generated. As informed, unit owns a plot about 1 km away from its premises and uses it for ash disposal, which is unscientific. However, traces of ash were observed at site along with sludge and soil.
Hazardous waste management	
Authorization status	Authorization granted under Ref No 19709/UPPCB/MuzaffarNagar(UPPCBRO)/HWM/MUZAFFARNAGAR/2023 dated 24.03.2023 with validity upto 23.03.2028 Enclosed as Annexure-3
Copy of agreement with recyclers /TSDF	Available with Sheetala Waste Management Ltd from 17.05.2023 to 16.05.2028 Earlier with Bharat Oil & Waste Management Ltd. Kanpur
Hazardous waste generated	130 kg (used empty container), 20 kg cotton and 40 litres oil, 45 kg PVC drum, 25 kg Waste Oil & Grease and 25 kg waste cotton (as per annual Form-10 dated 27/09/2023, 15.06.203, 21.02.2023)
Groundwater analysis	

Parameters	pH	Color	COD	TDS	Total Hardness	Total Alkalinity	Cl^-	SO_4^{--}	F^-	NO_3-N
Acceptable limit as per BIS IS 10500:2012	6.5-8.5	05	-	500	200	200	250	200	01	45
Results	7.7	07	BDL	640	**312**	**331**	64	92	BDL	BDL
Parameters	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Fe**	**Mn**	**Ni**	**Pb**	**Sb**
Acceptable limit as per BIS IS 10500:2012	0.01	0.003	-	0.05	0.05	0.3	0.1	0.02	0.01	-
Results	0.01	BDL	BDL	BDL	BDL	**1.06**	**0.27**	BDL	BDL	BDL
Parameters	**Se**	**V**	**Zn**							
Acceptable limit as per BIS IS 10500:2012	0.01	-	05							
Results	BDL	BDL	BDL							

Major observation & Key issues

a. Unit has valid consolidated consent to operate, Hazardous authorization from UPPCB & NOC to abstract groundwater for one borewell from UPGWD. Unit has applied for another borewell.
b. Unit uses recycled fiber (mixed type) as raw material (consented-180 MTD; current use-105.73 MTD) and produces kraft paper (consented 150 MTD; current production –95.15 MTD; yield- ~90%).
c. Unit consumes freshwater @2.45 KL/MT of paper and has opted for ZLD.
d. Unit is recycling sludge back from hill screen to pulping mill. Effluent is taken to equalization tank and sedicel and then stored in a collection tank, which is completely recycled, i.e. no effluent discharge.
e. Unit has agreement with Sheetala Waste Management Project (SWMP) for hazardous waste generated from process.
f. Unit disposes plastic waste generated from the process in a gasifier, installed inside premises with capacity of 36 MT/day.
g. The actual plastic waste generation (1.01 MT/day) is much less than the estimated value (3.37 MT/day) indicates poor record keeping.
h. Stack monitoring results indicate Particulate matter value 46.2 mg/Nm^3 which is within prescribed standards of 80 mg/Nm^3.
i. Unit is maintaining ZLD conditions as per consent conditions.

Key issues

a. ETP system is not operating and maintained properly.
b. There is no record maintained for boiler ash generation/disposal.
c. Poor record keeping for plastic waste generation & disposal.
d. There is no electromagnetic/ultrasonic flowmeter with totalizer at ETP inlet, only V-notch & sensor based instantaneous flow-meter installed, which is not very reliable.
e. Hazardous waste (mainly used oil) was lying stored in open drums (covered with cloths).

Compliance Status

As per Discharge norms: Complying w.r.t ZLD conditions

Recommendations:

1. The unit shall install electromagnetic flowmeter with totalizer at ETP inlet.
2. The unit shall obtain NOC for installation of 2nd borewell and install electromagnetic flowmeter with totalizer.
3. The unit shall improve storage of hazardous waste at priority basis.
4. Unit shall maintain proper logbook of plastic waste generation and disposal on daily basis.
5. Unit shall also carry out stack monitoring for Dioxin and Furan from a lab recognized

under E (P) Act during operation of plastic gasifier.

6. Unit shall maintain proper logbook for generation & disposal of ETP sludge and boiler ash.

Inspection team details:

Sr.No.	Name of officials	Designation	Organisation	Signature
1.	Dr Preeti Tripathi	Sc D	MoEF&CC	
2.	Er. Manu Jindal	Scientist-B	CPCB, Delhi	
3.	Ms. Garima Dublish	RA-III	CPCB, Delhi	
4.	Mr. Ashwani K. Singh	RA-II	CPCB, Delhi	
5.	Mr N.M. Tripathi	ASO	UPPCB	
6.	Mr Yashpal Rawat	FA	UPPCB, SRE	

Photographs

Photo 1: Entrance of theunit

Photo 2: Borewell - flow meter

Photo 3: ETP inlet channel

Photo 4: Hill screen

Photo 5: Sedicell

Photo 6: Overflow tank cum storage for recycling

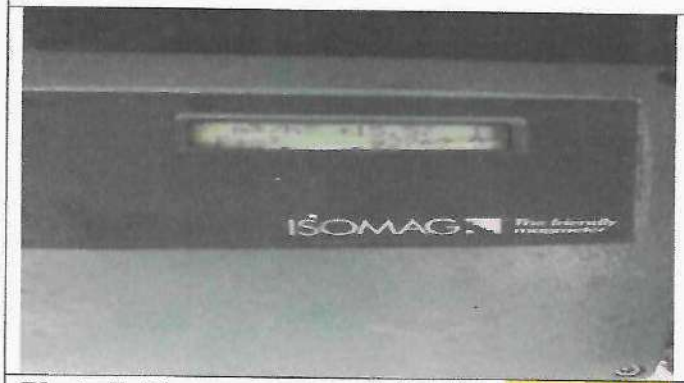


Photo 7: Flowmeter at recycling line after sedicell

Photo 8: Fuel (cane silts) for boiler

Photo 9: Boiler feed

Photo 10: Gasifier for plastic waste

Photo 11: Plastic waste (Nov-Dec 2023)

Photo 12:DG set

Photo 13-16: Vacant plot used for filling with ash and other waste

Annexure - 3

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (PULP & PAPER)

A. General section **Date of inspection: 05.07.2024**

1.	Name of the unit with complete postal address:	M/s Disha Industries Private Limited, 9th km stone Jansath Road, Vill.-Sikhera, Muzaffarnagar-251001, U.P.
2.	Spatial Co-ordinates (Latitude & longitude) in Decimal format only	Latitude- 29.443958 Longitude- 77788879
3.	Industry Operational status	Operational
4.	**Consent status:** Consolidated Consent & Authorization (CCA) dated 21.02.2024 issued by UPPCB, having validity up to 31.12.2025 (Refer Annexure – I)	

B. Production process and infrastructure

5.	**Process**	Manufacturing of Kraft paper using waste paper (imported & indigenous) as raw material
6.	**Raw material**	
	a. Consented value	375 MT/day
	b. Actual consumption (as per data provided by unit)	19045 MT (Apr-Jun, 2024)
	c. Avg. daily consumption	No. of operational days during 01.05.2024 – 04.07.2024 – 89 days **Avg. daily waste paper consumption – 214 MT/day**
7.	**Production**	
	a. Consented value	Kraft Paper @ 300 MT/day
	b. Actual Production (as per data provided by unit)	18023.16 MT (Apr-Jun, 2024)
	c. Avg. daily production	202.51 MT/day (18023.16 /89)
	d. Yield (%)	94.6 % of raw material
	e. Estimated waste produced	5.36 % of raw material
8.	**Fresh water consumption**	
	a. NOC from CGWA/other authorized body	Two separate No Objection Certificates (NOCs) issued by Uttar Pradesh Ground Water Department (UPGWD) for abstraction of ground water from 02 nos. of borewells. Validity of both NOCs: from 19.08.2021 to 18.08.2026 (Refer Annexure – II)
	b. Details of borewell	Unit has 02 nos. of borewells, both in functional condition. Electromagnetic flow meter with totalizer found installed at both borewells, however the flow meter installed at the second borewell was in defunct condition.
	c. Permitted withdrawal quantity	1104 KLD
	d. Actual withdrawal quantity	30129 KL (As per logbook provided by the unit for last three months Apr-24 to June-24)
	e. Avg. daily withdrawal quantity	331.08 KLD from Borewell-1 No data of groundwater withdrawal from Borewell-2

	f. Specific fresh water consumption	1.63 KL/MT of paper (specific freshwater consumption is calculated based on data of borewell-1 and for borewell-1, no data is provided by the unit therefore specific freshwater consumption is more)	
9.	**Effluent Management**		
	a. Consented discharge value	Zero Liquid Discharge (ZLD)	
	b. Actual effluent generation (as per logbook)	118678 KL (As per logbook provided by the unit for last three months Apr-24 to June-24 for ETP inlet)	
	c. Avg. effluent generation daily	1333.46 KLD	
	d. Actual recycling of treated effluent within process	1225.17 KLD	
	e. Losses in ETP %	08 % which is acceptable, considering evaporation losses and also the water content lost along with fibers from Sedicell recycled to Pulper	
	f. Specific effluent discharge	Nil (ZLD unit)	
10.	**Verification of ZLD**		
	a. Specific fresh water consumption (as per particular 9.f)	1.63 kL/MT i.e. < 2 kL/MT	
	b. Effluent discharge	Nil (ZLD unit)	
	c. Metering of effluent generation & recycling point	Effluent generation	V – notch installed at inlet channel of ETP and logbook maintained
		Recycling points	Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine). Logbook maintained
	d. Characteristics of effluent at ETP inlet	BOD - 2750 mg/l; COD - 22384 mg/l; TSS - 790 mg/l; TDS - 8170 mg/l	
	Remark	a. Also, unit has 02 nos. of borewells to meet the fresh water requirement. Flowmeter was installed on both the borewells, however the flow meter at borewell-2 was found in defunct condition, due to which the logbook provided by the unit for last three months regarding freshwater abstraction was not indicating any abstraction from borewell 2. During visit both the borewells were in functional condition and withdrawal of fresh water from borewell-2 cannot be ruled out. Therefore, the specific freshwater consumption of 1.63 kl/MT of product does not reflect the actual freshwater consumption by the unit. b. Analysis results of samples collected from trade effluent at ETP inlet does not reflect the typical characteristics of influent (COD ≥ 30,000 mg/l & TDS ≥ 20,000 mg/l) in RCF based paper mill operating on ZLD. c. ETP is not operated properly as ETP outlet values are more than the ETP inlet.	
11.	**Effluent treatment plant (ETP)**		
	a. Effluent Management Scheme	Raw effluent → Hill screen (located within process area) → Bar screen → Equalization tank (02 nos.) → Sedicell → Storage tank → Recycled to Paper machine	
	b. Metering at ETP	ETP inlet	V – notch installed at inlet channel of ETP and logbook maintained
		ETP outlet	No

		Effluent reuse point	Yes
	c. Operational status	Operational	
		Flow at inlet: V-notch having angle 60 degree & reading during visit – 15 cm i.e. equivalent flow @ 24.8 m^3/hr.	
	d. OCEMS at ETP outlet	Flow meter and web camera installed	

e. Effluent Characteristics

Parameter	ETP inlet	ETP outlet (after primary clarifier)	Effluent reuse point	Norms as per consent
pH	5.21	4.98	5.03	ZLD
BOD (mg/l)	2750	3980	3240	
COD (mg/l)	22384	40080	31320	
TSS (mg/l)	790	860	820	
TDS (mg/l)	8170	9380	8760	
TS (mg/l)	8960	10240	9580	

f. ETP Sludge generation

Biological sludge generation (as per logbook)	a. No biological treatment unit, hence no biological sludge generation b. Sludge generated from Sedicell is recycled back to the process (in pulper)
Sludge Management & disposal	

12.	**Non-paper solid waste management (Plastic waste)**	
	Estimated plastic waste generation @ 3% of raw material	6.42 MT/day
	Avg. daily waste generation (as per logbook)	No data/logbook provided by unit
	Remarks	Unit has made agreement (valid up to 09/11/2024) with M/s Nuvoco Vistas Corporation Limited for disposal of plastic waste generated from production.
13.	**Air Pollution management**	
	a. Boiler capacity	Total 02 nos. of boilers found onsite 01 no. of boiler of 20 TPH capacity and 01 no. of boiler of 40 TPH capacity
	b. Stack details	Stack Height -30 m (20 TPH boiler) Stack Height -40 m (40 TPH boiler)
	c. APCD installed	Multi Cyclone & Wet Scrubber installed at 20 TPH boiler Bag filter installed at 40 TPH boiler
	d. Fuel used	20 TPH boiler – Bagasse 40 TPH boiler – Multi fuel (i.e. RDF, Coal, Bagasse, Waste plant leaves)
	e. Avg. daily Fuel consumption (as per logbook)	No data/logbook provided by unit
	f. Daily ash disposal	As per data provided by the unit, the details of quantity of boiler ash generated and provided to M/s Roshan bricks are as below:

Month	Boiler ash generation (kg)	Boiler ash provided to M/s Roshan Bricks (kg)
April – 2024	117717	80221
May – 2024	133546	70748
June – 2024	131717	55652
Total	382980	206621
MT/day	4.30	2.32

		Remark: Gap of 1.98 MT/day of boiler ash disposal
	g. Estimated ash generation w.r.t % of fuel consumed	Cannot be estimated as unit is using multiple fuels (i.e. RDF, Coal, Bagasse, Waste plant leaves)
	h. Mode of Disposal of ash generated	**Land filling** Unit has made agreement with M/s Roshan Bricks on 20.01.2024 for use of boiler ash in land filling
14.	Stack monitoring report	Particulate Matter (PM) – 36.8 mg/Nm^3 (against the stipulated norm of 80 mg/Nm^3) Sulphur dioxide (as SO_2) – 56 mg/Nm^3 (against the stipulated norm of 600 mg/Nm^3) Oxides of Nitrogen (NO_X) – 64 mg/Nm^3 (against the stipulated norm of 300 mg/Nm^3)
		Remark: Compliance w.r.t. stipulated emission norms.
15.	**Hazardous waste management**	
	Authorization status	Valid Authorization dated 31.01.2021 under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 from UPPCB, having validity upto 29.01.2026. (Refer Annexure - III)
	Copy of agreement with recyclers /TSDF	Unit has provided copy of membership certificate with Treatment, Storage and Disposal Facility (TSDF) i.e., M/s Bharat Oil & Waste Management Ltd., Kanpur Dehat, UP which expired on 25.11.2023. Unit has not provided copy of agreement and copy of last four Form-10.

Hazardous waste generation & disposal:

As per data submitted by unit, the details are tabulated below:

	Name of HW generated	Category of Hazardous Waste as per the Schedules I, II & III of Hazardous waste management rules, 2016	Authorised Quantity	Quantity Generated
a.	Used/Spent Oil	Schedule-I, Cat.5.1	0.450 KL/annum	400 KL
b.	Chemical waste barrels	Schedule-I, Cat.33.1	2.4 Ton/ annum	2 Ton
c.	Contaminated Cotton Rag	Schedule-I, Cat.33.2	0.15 Ton/ annum	125 Kgs

16. **Analysis results of recipient drain (Jat Mujhera drain):**

Parameter	Jat Mujhera drain u/s M/s Disha Industries Pvt. Ltd.	Jat Mujhera drain d/s M/s Disha Industries Pvt. Ltd.
pH	6.27	6.29
Colour (Hazen)	300	250
TSS (mg/l)	510	450
TDS (mg/l)	3018	2876
TS (mg/l)	3528	3326
BOD (mg/l)	955	794
COD (mg/l)	4016	3232

- Wastewater quality of Jat Mujhera drain indicate industrial impact due to illegal discharge by M/s Disha Industries Pvt. Ltd.

17. **Major observation & Key issues**

a. At the time of inspection, the unit and ETP were found operational.

b. Unit has 02 nos. of borewells to meet the fresh water requirement. Flowmeter was installed on both the borewells, however the flow meter at borewell-2 was found in defunct condition, due to which the logbook provided by the unit for last three months regarding freshwater abstraction

	was not indicating any abstraction from borewell 2. During visit both the borewells were in functional condition and withdrawal of fresh water from borewell-2 cannot be ruled out. Therefore, the specific freshwater consumption of 1.63 kl/MT of product does not reflect the actual freshwater consumption by the unit. **c.** Analysis results of ETP inlet and outlet indicated that ETP is not operated properly as ETP outlet values are more than the ETP inlet. **d.** Analysis results of samples collected from trade effluent at ETP inlet does not reflect the typical characteristics of influent (COD ≥ 30,000 mg/l & TDS ≥ 20,000 mg/l) in RCF based paper mill operating on ZLD. **e.** As evident from above observations (b, c & d), it is clear that unit is non–complying w.r.t. ZLD condition. **f.** Effluent from outlet of ETP was being reused in process at paper machine section. **g.** V-notch found installed at inlet channel of ETP, however no flow meter found installed at outlet line of ETP. Unit has installed Electromagnetic flow meter with totalizer at recycled effluent reuse point (i.e. line carrying recycled effluent at paper machine). **h.** The unit has installed 02 nos. of boilers for meeting steam requirements (one boiler of 20 TPH capacity using bagasse as fuel, and other boiler of 40 TPH capacity using Multi fuel (i.e. RDF, Coal, Bagasse, Waste plant leaves)) within the premises. **i.** For meeting emission norms, the unit has installed Air Pollution Control Devices (APCDs). Multi cyclone & Wet scrubber installed at 20 TPH boiler, and Bag filter installed at 40 TPH boiler. During visit, both boilers were found operational and all APCDs were also in operational condition. **j.** On the day of visit, the unit was using RDF in the boiler without having a registration certificate for Recycling/Processing of Plastic Waste under Plastic Waste Management Rules, 2016. However, the unit provided the registration certificate dated 26.07.2024 after the committee's visit. The registration certificate dated 26.07.2024 is for processing of plastic waste of 14235 TPA (Cat-I), 106762.5 TPA (Cat-II), 18505.5 TPA (Cat-III), 2847 TPA (Cat-IV) and power to be generated of 8760 TPA. The certificate is valid for a period of one year from the date of issue of the letter. **k.** Unit has provided copy of report titled "Evaluation of ZLD feasibility for production of 250 TPD Kraft Paper from Waste Paper" prepared by Central Pulp & Paper Research Institute, Saharanpur during May 2023. **l.** Stack monitoring results indicate compliance w.r.t. stipulated emission norms. **Key Issue** **m.** Unrecorded groundwater withdrawal from second borewell. **n.** Characteristics of trade effluent at ETP inlet does not reflect the typical characteristics of influent (COD ≥ 30,000 mg/l & TDS ≥ 20,000 mg/l) in RCF based paper mill operating on ZLD. **o.** Gap in quantity of boiler ash generation and disposal indicate unscientific disposal/poor record keeping.
18.	**Compliance Status** **a. Complying w.r.t notified stack emission norms.** **b. Non-complying w.r.t. ZLD condition.**
19.	**Recommendations:** **1.** Unit shall install new flow meter with totalizer at the second borewell and maintain logbook regarding groundwater withdrawal on daily basis. **2.** Unit shall ensure consistent compliance w.r.t. the ZLD condition. **3.** Unit shall ensure scientific disposal of boiler ash and maintain proper record of its generation & disposal.

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Photographs taken during visit

Entrance gate of the unit

Production area

Raw material

Non-paper solid waste generated by unit

	
Flow meter installed at Borewell-1	**Borewell-2 defunct flow meter**
	
ETP Inlet & Equalization tank	**Treated effluent before recycling to process**

ANN-1

Uttar Pradesh Pollution Control Board
Building. No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010
Phone:0522-2720828,2720831, Fax:0522-2720764, Email: info@uppcb.in, Website: www.uppcb.com

200156/UPPCB/MuzaffarNagar(UPPCBRO)/CTO/both/MUZAFFARNAGAR/2024 **Date: 21/02/2024**

To,

M/sDISHA INDUSTRIES PVT LTD

9th KM Stone, Jansath Road, Village- Sikhera, Muzaffarnagar,MUZAFFAR NAGAR,251001

Consolidated Consent to Operate and Authorisation hereinafter referred to as the CCA (Consolidated Consent & Authorization) under Section- 25 of the "Water (Prevention & Control of Pollution) Act.,1974"and under Section- 21 of the "Air (Prevention & Control of Pollution) Act, 1981" as applicable (to be referred hereinafter as Water Act, Air Act respectively).

Application no. 24224900	**Date :- 2024-01-18**

Consolidated Consent to Operate and Authorization (CCA):

CCA is hereby granted to **M/s DISHA INDUSTRIES PVT LTD** located at **9th KM Stone, Jansath Road, Village- Sikhera, Muzaffarnagar,MUZAFFAR NAGAR,251001** subject to the provisions of the **Water Act, Air Act** and the orders that may be made further and subject to following terms and conditions: -

1.1 This CCA is granted for the period upto 2025-12-31 from the date of issuance of this letter, under Section-25 of the "Water (Prevention & Control of Pollution) Act, 1974.

1.2 This CCA is granted for the period upto 2025-12-31 from the date of issuance of this letter, under Section-21 of the "Air (Prevention & Control of Pollution) Act, 1981.

2. Production Capacity :

S. No.	Declared by the unit		Permitted by the Board
	Raw material (tpd / tpa) Wood, Agro residues: Recycled Fiber (Waste Paper) :	Name of Final Products & By -products with quantity per month	
1	Waste Paper- 375 MT/Day, Rosin, Alum	Kraft Paper- 300 MT/Day, Captive Power Plant-1 MW	Kraft Paper- 300 MT/Day, Captive Power Plant-1 MW

3. Production Process Infrastructure

S. No.	Details	Declared by the unit		Permitted by the Board
		Numbers	Usage / Process operation	

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1	Kraft Paper- 300 MT/Day by using raw material as Waste Paper- 375 MT/Day, Rosin, Alum etc. and Captive Power Plant 1 MW	Kraft Paper- 300 MT/Day by using raw material as Waste Paper- 375 MT/Day, Rosin, Alum etc. and Captive Power Plant 1 MW	Kraft Paper- 300 MT/Day by using raw material as Waste Paper- 375 MT/Day, Rosin, Alum etc. and Captive Power Plant 1 MW	Kraft Paper- 300 MT/Day by using raw material as Waste Paper- 375 MT/Day, Rosin, Alum etc. and Captive Power Plant 1 MW

i. Unit shall obtain prior approval before making any modification in product/process/fuel/plant machinery, failing to which this consent would be deemed void.

ii. The unit shall inform SPCB and CPCB regarding shut down as well as resumption of manufacturing operations.

iii. The unit shall maintain record of daily production in tons per day in a log book duly signed daily by authorized signatory/competent authority.

4. Water Conservation Measures

A. Fresh water consumption

1. Categorization of existing groundwater area: Safe/ Semi critical /Critical// Over-Exploited/ Saline
2. The unit shall obtain NOC of CGWA/SGWA(in case of use of river water, permission from irrigation department)
3. Status of NOC from CGWA/SGWB: Applied/Granted
4. If Granted: Number of NOC and Validity2025-12-31
5. Details of Artificial recharge system/rain water harvesting unit (if any) installed with capacity
6. Details of piezometer installed i.e., numbers with coordinates.
7. This CCA is valid for details w.r.t fresh water as mentioned below:

		Declaration	Permitted
S.No	Source of fresh water	Borewells/river	Borewells/river

* In case of units adopting zero liquid discharge (ZLD), the unit shall withdraw the fresh water only to cater the losses in water accrued during industrial processes.

8. The specific water consumption shall not exceed values mentioned below as per consented product type.

Category	Specific Water Consumption not to exceed
Wood based/Agro based Pulp & Paper Mills producing bleached grades of chemical pulp, papers, paperboards & newsprint Specialty Paper Mills.	<40 KL per Ton of paper produced
Agro-Based & Wood Based Pulp & Paper Mills producing unbleached grades of chemical pulps, papers, and paperboards.	<16 KL per Ton of paper produced
RCF and Market Pulp Based Paper Mills producing bleached grades of papers, paperboards & newsprint	<12 KL per Ton of paper produced
RCF and Market Pulp Based Paper Mills producing unbleached grades of papers and paperboards	<8 KL per Ton of paper produced
RCF and Market Pulp Based Paper Mills producing unbleached grades of papers and paperboards (ZLD)	Without Power Boiler < 2.5 m3 / t paper With Power Boiler < 5 m3/ t paper

9. Unit shall install separate sealed, calibrated Electro Magnetic Flow meters with flow totalizer at all water abstraction sources, utilization lines- process, domestic and boiler.
10. The unit shall maintain record of daily fresh water consumption (initial reading & final reading) in a log book (in m3/day and m3/t paper) duly signed daily by authorized signatory/competent authority.
11. Unit shall maintain separate logbooks for quantity of freshwater consumed in production section, boiler feed, domestics consumption and other points of utilization.
12. All the pipelines carrying fresh water/back water should be coloured as per protocol.

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13. The unit shall install Piezometric well within the premises to monitor the level of ground water and shall analyse the quality of ground water annually.

B. Trade effluent treatment and discharge: -

1. This CCA is valid for the quantity of maximum daily trade effluent discharge as mentioned below:

S.No	CCA is valid for	**Declared by the unit**	**Permitted**
1	ZERO LIQUID DISCHARGE (ZLD)	ZERO LIQUID DISCHARGE (ZLD)	ZERO LIQUID DISCHARGE (ZLD)

2. The quantity of maximum specific trade effluent discharge shall be as specified below:

Category	**Specific Trade Effluent Discharge, not to exceed**
Wood based/Agro based Pulp & Paper Mills producing bleached grades of chemical pulp, papers, paperboards & newsprint Specialty Paper Mills.	<32 KL per Ton of paper produced
Agro-Based & Wood Based Pulp & Paper Mills producing unbleached grades of chemical pulps, papers, and paperboards.	<12 KL per Ton of paper produced
RCF and Market Pulp Based Paper Mills producing bleached grades of papers, paperboards & newsprint	<9 KL per Ton of paper produced
RCF and Market Pulp Based Paper Mills producing unbleached grades of papers and paperboards	<5 KL per Ton of paper produced
RCF and Market Pulp Based Paper Mills producing unbleached grades of papers and paperboards (ZLD)	No discharge is allowed (100% recycle within process)

5. For ZLD unit

i Unit shall recycle all the treated effluent in the industrial process only.

ii Unit shall ensure that no treated/untreated effluent discharged outside the unit premises.

iii Unit shall install the flow meter at recycling point and maintain the logbooks for the same.

iv Unit shall allow to withdraw the fresh water only to cater the losses in water accrued during process.

v Unit shall conduct the water audit and submit the same to SPCB

vi The mill will install PTZ camera at Sedicell / back water storage tank from where the back water recycled, backwater recycling flow meter as well as at ETP (if available)

vii The mill is advised to submit a ZLD feasibility report by a recognized institution to justify its ZLD status.

4. The applicant shall operate Effluent Treatment Plant consisting of Primary, Secondary and tertiary treatment as is required with reference to influent quantity and quality.

5. The treated effluent shall be recycled to the maximum extent (atleast 40%) in the process and the remaining treated effluent after achieving the norms as mentioned below shall be disposed off into the drain-name of drain, first order/second order with Lat. Log. leading to river name of river with Lat. Log.

Parameters	**Norms for Agro based paper mill**	**Norms for RCF bleached pulp & paper mill**	**Norms for RCF unbleached grade paper mill**	**Norms for RCF unbleached grade ZLD paper mill**
pH	6.5 – 8.5	6.5 – 8.5	6.5 – 8.5	No discharge is allowed
TSS, mg/l	<= 30	<30	<30	No discharge is allowed
BOD, mg/l	<= 20	< 20	< 20	No discharge is allowed

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COD, mg/	<= 200	< 150	< 150	No discharge is allowed
TDS, mg/l	<= 1800	< 1600	< 1600	No discharge is allowed
Color, PCU	<= 250	< 150	< 150	No discharge is allowed
AOX, mg/l	<= 8	–	–	No discharge is allowed
SAR	<= 10	< 8	< 8	No discharge is allowed

6. In the case of land application of treated effluent, unit shall submit irrigation management plan prepared by any government technical institute of repute. During no demand period for irrigation, the treated effluent to be stored in a seepage proof lined pond (Lagoon) having 15 days holding capacity only.
7. Effluent Treatment Plant shall be stabilised prior to the resumption of manufacturing operations.
8. The unit shall install a flow meter with totalizer on the recycling pipe line from ETP and the flowmeter should be connected to State/CPCB Server.
9. Flow measuring devices should be provided for measurement of quantity of industrial effluent generated, industrial effluent recycled and industrial effluent discharged. Logbook for the same shall be maintained by unit.
10. The unit shall maintain daily record/log book of raw material (waste paper) consumption, chemical consumption (process & ETP separately), paper production, energy consumption (process & ETP separately).
11. Sampling points should be installed at ETP inlet, ETP outlet, effluent recirculation lines and at other points as deemed necessary.
12. The unit shall install OCEMS at ETP outlet for the parameters flow, pH, TSS, BOD & COD and provide connectivity with CPCB and SPCB server as per the guidelines issued by CPCB.
13. The unit will ensure the continuous and uninterrupted data supply from the OCEMS to the CPCB and SPCB server and periodic calibration of OCEMS.
14. **For Wood based/Agro based paper mill:**

a) The unit shall install Chemical Recovery System for management of black liquor. Appropriate black liquor spillage system should be available to prevent its escape along with other effluent streams.

b) The unit should maintain log book of Chemical Recovery System indicating quantity of black liquor processed, white liquor generated, soda ash produced (if applicable), running hours etc.

c) **In case of any discharge of Black Liquor from the unit the Consent to Operate/Authorization (CCA) issued to the unit shall stand withdrawn with immediate effect.**

15. The unit shall have adequate onsite environmental laboratory facility for qualitative analysis of different effluent stream. and manpower for monitoring and recording TSS, TDS, COD & BOD & MLSS level in ETP inlet and outlet on daily basis.
16. The unit shall set up an Environment Management Cell within unit as per the Charter.
17. The unit shall submit analysis report from the authorized laboratory for all parameters as mentioned for paper unit.
18. All flowmeter should be calibrated annually from recognized institutions/vendor.
19. The unit shall prepare material balance and water balance report annually.
20. The unit shall submit its ETP Adequacy Assessment Report to the concerned State Pollution Board (SPCB).
21. The unit shall get its ETP performance evaluated by a third party annually.
22. The unit shall identify recipient drains/rivulets and their u/s & d/s location in consultation with SPCB and shall carry out monthly monitoring of identified recipient drains at u/s & d/s location through lab recognized under Environment (P) Act, 1986 and shall submit the analysis report on monthly basis to SPCB.

C. **Domestic effluent/Sewage treatment and discharge: -**

1. This CCA is valid for the quantity of maximum daily domestic effluent/sewage discharge as mentioned below:

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S No.	Detalis	Permitted
1.	Maximum daily discharge of sewage	2.0
2.	Treatment facility	SEPTIC TANK
3.	Discharge point	SOAK PIT

* In case of stoppage of functioning of STP, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.

2. The domestic effluent should be treated in the sewage treatment plant so that it should be in conformity with the prescribed norms:

S.No	Parameter	Standard

3. Flow measuring devices should be provided for measurement of quantity of sewage generated, sewage recycled (if any) and sewage discharged. Logbook for the same shall be maintained by unit.
4. Sampling points should be installed at STP inlet, STP outlet, recirculation lines and at other points as deemed necessary.
5. The unit shall maintain daily record/log book of chemical consumption in STP (if any), energy consumption of STP, STP sludge generation and disposal separately.
6. Unit shall explore the possibility to recycle the treated used water shall be utilized in gardening, irrigation, industrial utility and toilet flushing to minimize the fresh water consumption up to 20 % per year.
7. Separate arrangement should be made for collection of industrial and domestic effluent in closed water supply system.

6. Cleaner Technology & Waste Minimization Practices:

Background:

to take appropriate measures in a time bound manner through preparation of individual action plans and implementation of cleaner technology options by the Pulp & Paper mills. To facilitate the Pulp & Paper mills, a Charter for 'Charter for Water Recycling and Pollution Prevention in Pulp & Paper Industries' was formulated. Clean Technology measures mentioned hereunder are indicative of systems, processes and practices that are generally considered essential for achievement of the objectives of the Charter. However, individual unit may opt for technology actually required for implementation according to their requirement and circumstances like scale of operation, system configuration, products portfolio and raw materials etc. Unit shall ensure implementation of the following cleaner technology options within four to six months from the date of issuance of this CCA:

a. Biomethanation of High Pollution Load Stream (like Raw material washings in agro based pulp and paper mills as well as High COD back water stream in RCF based Kraft Paper Mills operating on ZLD
b. Installation of Compressed Biogas System for converting raw biogas into compressed biogas to be used as fuel
c. Oxygen Delignification & ECF bleaching for agro & wood based pulp and paper mills
d. Use of jet aerators for improved biodegradation in aeration tank and increased DO level
e. Press Washers in Pulp Washing to optimize water consumption acceptable under charter
f. Sludge Drying Beds to be discontinued. Only sludge dewatering system, centrifuge etc
g. Appropriate plastic waste disposal system to be installed by RCF based pulp and paper mills
h. Closed loop fiber recovery and backwater system using poly disc filters or DAF (Dissolved Air Floatation) Units

7. Environmental management system

i. Unit shall setup the environmental management cell including unit head, purchase/store manager, process operation head, ETP in charge to effectively monitoring of environmental compliance.
ii. Unit shall setup the environmental laboratory for testing of minimum wastewater quality parameters like pH, TSS, BOD, COD, MLSS and DO, to effectively monitoring of ETP control parameters and ETP discharge norms.

8. Air Pollution Mitigation

i. The unit shall use following fuel and install air pollution control device (APCD) of adequate capacity to comply with following:

S. No.	Equipment	Fuel	Stack height (m)	Air Pollution Control Device (APCD)	Stack Emission standards
1	1 X 20 TPH Boiler	Biomass Fuel-125 MT/Day(ONLY APPROVED FUEL BE PERMITTED AS PER CAQM DIRECTION)	30 Meter Above Stack Height From Ground Level	Multi Cyclone, Wet Scrubber	AS PER CAQM DIRECTION
2	1 X 40 TPH Boiler	RDF (Refuse Derived Fuel)– 390 MT/Day OR Low Sulphur Coal– 150 MT/Day OR Agro Fuel– 300 MT/Day (ONLY APPROVED FUEL BE PERMITTED AS PER CAQM DIRECTION)	40 METER ABOVE STACK HEIGHT FROM GROUND LEVEL	Lime Scrubber, Bag Filter	AS PER CAQM DIRECTION

ii. Operation and maintenance of APCS shall be done in such a way that the emission generated from stacks is always within prescribed norms of the Board.

iii. The unit shall ensure interlocking of air pollution control devises and production processes.

iv. The unit shall operate in a manner so that all emissions be emitted through designated chimney/stack only.

v. Unit <operating in NCR> shall comply with direction issued under Graded Response Action Plan (GRAP) time to time by Hon'ble Supreme Court & Commission for Air Quality Management in NCR and Adjoining Areas (CAQM).

vi. If the CAQM in National Capital Region and Adjoining areas, CPCB or SPCB issues the Closure order against the unit <operating in NCR> the consent shall automatically remain suspended for that period and after ensuring compliance and after the closure order is revoked the consent shall automatically become effective.

9. Noise Pollution Mitigation:

i. Noise from the D.G. Set and other source(s) should be controlled by providing an acoustic enclosure as is required for meeting the ambient noise standards for night and day time as prescribed for respective areas/zones (Industrial and Commercial) which are as follows: -

Standards forNoise level in db.(A) Leq			
Industrial Area		Commercial Area	
Day	Night	Day	Night
75	70	65	55

Day time: from 6.00 a.m. to 10.00 p.m., **Night time:** from 10.00 p.m. to 6.00 a.m.

General Conditions:

1. The Board reserves the right to revoke/add/modify any stipulated condition issued along with CCA at any given time, as may be necessary.
2. In the event of issuance of Closure Direction by CPCB or SPCB to the unit, this CCA shall be deemed revoked during the closure period.
3. If the unit has been issued Show Cause Notice by CPCB or SPCB, compliance has to be achieved within 45 days by the unit. However, if not revoked within 45 days, the Show Cause Notice shall be considered as a Closure direction.
4. In case of non-functioning of ETP and/or STP, production has to be stopped immediately and this Board has to be intimated through a report to be dispatched by fax/phone/email immediately.

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5. In case of stoppage of functioning of air pollution control equipment, production has to be stopped immediately and this Board has to be intimated by fax/phone/email with a report in this regard to be dispatched immediately.
6. This CCA is valid only for products and quantity mentioned in Para 2. Unit shall obtain prior approval before making any modification in product/ process/ fuel/ plant machinery failing which consent shall be deemed revoked.
7. Compulsory documents to be submitted by the Unit: -

(i). Annual return in Form-4 and Waste Disposal Manifest in Form-10 under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, and third party audit report.

(ii). Environment Statement in form – V of Environment (Protection) Rule, 1986.

(iii). Quarterly compliance report of the CCA, photograph of ETP/APCs/Waste Storage Area.

8. The unit shall submit Latest copy of Audited Balance Sheet/C.A. Certificate (Fixed Assets+ Current Assets- Current Liabilities) of the unit at the end of each financial year so the Consent fee payable by the unit may be verified.
9. The unit shall submit Quarterly compliance report of the CCA, photograph of ETP/APCs/Waste Storage Area, Quarterly analysis reports of the samples of effluent, emission, hazardous wastes and ETP sludge from NABL accredited and EPA recognized laboratory.
10. The unit shall inform in advance to SPCB/take prior permission of the SPCB to close manufacturing/production.
11. The unit shall submit calibration certificate of OCEMS at least once in a year to SPCB.
12. made thereunder.
13. If unit is found temporary closed (for the last 24 hour) during inspection and prior intimation of closure is not given by the unit, revocation of the CCA will be initiated as per the law.
14. The unit shall apply before the 60 days of expiry of CCA or any change in production types/production capacity/manufacturing process/capacity enhancement/ outlet for the discharge of effluent or gases emission or sewage waste from the unit etc. or any change in effluent discharge point or emission point.
15. In case of occurrence of an accident, complete details on form must be sent to State Pollution Control Board at the earliest along with details of mitigative and remedial measures taken.
16. The unit shall provide ports in the chimney/stack and facilities such as ladder, platform etc. as per requirement for monitoring the air emissions and the same shall be open for inspection and use at all time) by the Board's staff, the chimney/stack attached to various sources of emission shall be designated by number such as S-1, S-2 etc. and these shall be painted/ displayed to facilitate identification.
17. The modification or installation in the existing pollution control equipments should be done only by prior approval of Board.
18. The unit will have to deposit the revised fee whenever it is notified.
19. Unit is covered under GPI and situated in the catchment area of River Ganges. Hence during Magh mela, unit shall immediately comply with the directions issued by the Board related to operation or temporary closure of the unit.
20. Unit shall abide by the directions/ guidelines given by Hon'ble Courts, MoEF&CC and CPCB/SPCB for protection and safe guard of environment from time to time.
21. Unit shall comply the conditions of Environment Clearance issued by State Level Environment Impact Assessment Authority vide letter no. and dated and Consent to establish (CTE) issued by Board vide letter no.
22. The unit shall develop plantation of tall trees of suitable species on minimum 33% of the land on which the unit is established as per the guidelines set up by the Board vide its Office Order no dated . The copy of this guideline is available at URL http:/www...
23. Whenever due to any accident or other unforeseen act or event, such emission occurs or is apprehended to occur in excess of standards laid down, such information shall be reported to the Board's offices and all other concerned offices. In case of failure of pollution control equipment, the production process connected to it shall be stopped with immediate effect.
24. The person authorized shall implement Emergency Response Procedure (ERP) for which this CCA is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.

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25. The authorized agency shall ensure that on-line data with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emission and solid hazardous waste generated within the factory premises is displayed on Display Board of size 6x4 feet outside the main factory gate within premises.
26. The unit shall maintain and provide 'Inspection Book' at the time of inspection to the Board's officials.
27. The unit shall provide uninterrupted accessibility to the STP's/ETP's inlet and outlet points, Air Pollution Control equipment and stack for smooth sampling/monitoring of pollution control measures.
28. The unit shall maintain good house-keeping. All valves/pipes/sewer/drains etc. must be leak-proof. This consent is being issued with the permission of competent authority.

Specific Conditions:-

1. This CTO is valid only for the production capacity of Kraft Paper- 300 MT/Day by using raw material as Waste Paper- 375 MT/Day, Rosin, Alum etc. and Captive Power Plant 1 MW only at site 9TH KM STONE, JANSATH ROAD, VILLAGE- SIKHERA, DISTRICT-MUZAFFARNAGAR, 251001, U.P.
2. Earlier The Board has issued a CTO Both vide letter no- 180355/UPPCB/MuzaffarNagar (UPPCBRO)/CTO/both/MUZAFFARNAGAR/2023, Date: 27/10/2023 is revoked.
3. The industry must complying the conditions of NOC obtained by UPGWD for abstraction of ground water.
4. This consent is valid only for Zero Liquid Discharge (ZLD). No effluent is allowed to discharge outside the factory premises in any circumstances.
5. Industry shall submit Stack Emission/Ambient Air Quality Monitoring/Analysis report from Boards Laboratory, after issuing this certificate within one month and on quarterly basis by LIMS Portal from a certified / approved laboratory under E.P. Act 1986 to the Board.
6. No plant and machinery shall be installed in the industry without obtaining CTE from UPPCB.
7. The APCS will be maintained and operated in such a manner that emissions always conform to the standard laid down under the E.P Act 1986 as amended.
8. In case of any change in production capacity/ process/raw materials use etc. the industry will have to intimate the Board. For any enhancement of the above, fresh Consent to Establish has to be obtained from U.P. Pollution Control Board.
9. Unit must ensure strict time bound compliance of suggestion/recommendation of "Charter for Water Recycling & Pollution Prevention in Pulp and Paper Industries" formulated by CPCB.
10. The APCS will be maintained and operated in such a manner that emissions always conform to the standard laid down under the E.P Act 1986 as amended.
11. The industry shall comply the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules 2016 and shall obtain authorization for the disposal of hazardous waste.
12. This CTO order shall automatically become invalid on issuance of Closure Order by C.P.C.B/UPPCB and further on Revoking of Closure order, the Consent order shall become valid.
13. As per the directions given by Commission for Air Quality Management in National Capital Region and Adjoining Areas vide its letter no-A-110018/01/2021-CAQM, dated-04.02.2022, industry shall under all circumstances completely switch over to PNG or Bio Fuels. Unit must use Biomass Fuel as per direction given by CAQM.
14. Unit shall comply with direction issued under Graded Response Action Plan (GRAP) time to time by Hon'ble Supreme Court & Commission for Air Quality Management in NCR and Adjoining Areas (CAQM).
15. Operation and maintenance of APCS shall be done in such a way that the emission generated from stacks is always within prescribed norms of the Board.
16. Unit shall comply with the CAQM (Commission for Air Quality Management in NCR and Adjoining

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Areas) direction no. 53 and 62 and other direction issued time to time regarding use of cleaner fuel.

17. Unit shall comply with the CAQM (Commission for Air Quality Management in NCR and Adjoining Areas) direction no. 55, 62 & 68 regarding DG sets.

18. The unit shall be monitored all sources of emissions from Boiler/Thermopack etc. after fuel conversion from Regional Laboratories, UPPCB on payment basis within a month. To ensure emissions parameters as per CAQM order.

19. The Industry will use minimum 20% Bio Briquette as fuel in the Boiler depending upon its availability.

20. The industry shall comply with various provisions of Air (Prevention and Control of Pollution) Act 1981 as amended, Water (Prevention and Control of Pollution) Act 1974 as amended and all other applicable rules notified under E.P. Act 1986 and the various orders issued by the MOEF&CC, CPCB and SPCB in time to time .

21. The industry shall provide adequate arrangement for fighting the accidental leakages/discharge of any air pollutant/gas/liquid from the vessel, machinery etc. which are likely to cause fire hazard including environmental pollution.

22. The industry shall install electromagnetic flow meter at water source and outlet of ETP, and maintain the records of water abstracted and recycled treated effluent. The treated effluent from the Effluent Treatment Plant shall be used completely in the manufacturing process. No Treated water shall be discharge outside the factory premises in any circumstances.

23. Industry shall install/operate at sufficient height from the ground level Open to Network HD PTZ Camera at the outlet of ETP and its URL and password shall be provided to the UPPCB Control room.

24. Industry shall comply with various Waste Management Rules as notified by MoEF&CC i.e. Plastic Waste Management Rules, 2016, Solid Waste Management Rules, 2016, Hazardous and Other Wastes (Management and Transboundary) Rules, 2016, E-waste (Management) Rules, 2016, Construction and Demolition Waste Management Rules, 2016, Battery Rules 2000 and Noise Pollution (Regulation and Control) Rule, 2000.

25. Industry shall install and maintain Online Continuous Effluent and Emission Monitoring System (OCEMS) on ETP and stack & connect it with SPCBs and CPCB server, before start of production as per the direction of CPCB.

26. Industry shall comply the order passed by Hon'ble NGT time to time.

27. The industry shall ensure provisions of Roof Top Rain Water Harvesting system and Ground Water Recharging Proposal/ compliance report should be sent to the Board within One month.

28. Industry shall dispose the hazardous waste through authorized recyclers/TSDF and obtained HWA from the Board after expansion in existing unit.

29. Industry shall not use furnace oil/pet coke as a fuel.

30. Industry shall ensure proper disposal of boiler ash.

PRADEEP SHARMA

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31. This consent is valid only for products and quantity mentioned above. Industry shall obtain prior approval before making any modification in product/process /fuel/ Plant machinery failing which consent would be deemed void.

32. The unit shall submit the audited balance sheet for the current year.

33. The industry should be operated in such a manner that it does not adversely affect the environment and the solid waste generated such as ash etc. be disposed in eco friendly manner.

34. The industry shall abide by orders / directions issued by Hon'ble Supreme Court Hon'ble High Court, Hon'ble National Green Tribunal, Central Pollution Control Board and U.P Pollution Control Board for protection and safe guard of environment from time to time.

35. The industry shall obtain prior consents in the event of any addition of new emission generation sources such as- Boiler/ Furnace/ Heaters/ D.G. Sets or alteration of existing emission sources in accordance with section- 21/22 of air Act 1981 (as amended respectively).

36. The industry shall establish Miyawaki forest inside the factory in sufficient area the treated effluent from the ETP shall be used for forestation.

37. Minimum 33% of the land on which industry is established will be covered by the plantation of tall trees of suitable species as per the guidelines set up by the Board vide its Office Order no.H16405/220/2018/02 dt. 16/02/2018. The copy of this guideline is available at URL http://www.uppcb.com/pdf/Green-Belt-Guidle_160218.pdf.

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Chief Environmental Officer (Circle 3)

Copy to:

Regional Officer, U.P. Pollution Control Board, MuzaffarNagar to ensure the compliance of the conditions imposed in the certificate.

PRADEEP SHARMA

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Date: 2024.02.27 21:40:38 +05'30'

Chief Environmental Officer (Circle 3)

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC029649

VALID FROM 19/08/2021 TO 18/08/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202108000321

Name of the Owner	KARAN SWARUP		
Designation पद	DIRECTOR	Company Name कंपनी का नाम	M/s DISHA INDUSTRIES LIMITED
Company Address कंपनी का पता	9th KM, Jolly Road, Vill. Sikhrera	Authorization Letter प्राधिकार पत्र	Download
Address of the Applicant	310 PATEL NAGAR NEW MANDI MUZAFFARNAGAR	Application No.	MZFN0821NIN0048
Date of Submission	11/08/2021	Specimen Signature	
Location Particulars			
District	Muzaffar Nagar	Block	Municipal Corporation/Nagar Palika Parishad, Muzaffar Nagar
Plot No./Khasra No.	9th KM, Jolly Road, Vill. Sikhrera	Municipality/Corporation	Yes
Ward No./Holding No.			N/A
Particular of the Existing Well and Pumping Device			
Date of Construction/Sinking of the Well	15/01/2013		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	64.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	15.00

Operational Device	Electric Motor	Rate of Withdrawal (m^3/hr.)	92.00
Date of Energization (In Case of Electric Pump)		30/01/2013	
Maximum Allowable Rate of Withdrawal (m^3/hr.):	92.00	Maximum Allowable Running Hours Per Day:	6.00
Maximum Allowable Annual Extraction of Ground Water:	165600	Recharge Required	165600.00

- This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (2) for extraction of ground water at a rate not exceeding that as shown at Sl. (3j), for Running Hours per day as shown at Sl. (3k), and for maximum allowable annual extraction of ground water as shown at Sl. (3k) and is valid subject to the observance of the conditions stated overleaf.
- Holder of this NOC is hereby directed to assure annual recharge of 165600.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

Piezometer is a borewell /tubewell used only for measuring the water level by lowering the tape/ sounder or automatic water level measuring equipment. It is also used to take water sample for water quality testing when ever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum of 50 m distance from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about 4" to 6".
- The depth of the piezometer should be same as is case of the pumping well from which ground water is being abstracted. If, more than one piezometers are installed the second piezometer should monitor the shallow ground water regime. It will facilitate shallow as well as deeper ground water aquifer monitoring.
- No. of piezometers to be constructed & Type of water level monitoring mechanism shall be as per below table:

S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
			Manual	DWLR with Telemetry
1	< 10	0	0	0
2	11 - 50	1	1	0
3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tube wells has been stopped for about four to six hours.

- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.
- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
- A Permanent display board should be installed at piezometer/Tube wells site for providing the location, piezometer/ tube well number, depth and zone tapped of piezometer/tube well for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
-
- SPECIFIC CONDITIONS:
- **(A) For Industrial User:** No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- **(B) Infrastructural User:** The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date :28/04/2023

Place:Muzaffar Nagar

This certificate is electronically generated and does not require digital signature

GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)
Ministry of Jal Shakti
Government of Uttar Pradesh

Form 8 (C)

[See Rule 8(1)]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW / EXISTING WELL FOR INDUSTRIAL/ COMMERCIAL/ INFRASTRUCTURAL OR BULK USER OF GROUND WATER

[Under Section 14 of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

AUTHORIZATION/ NO-OBJECTION CERTIFICATE NO: NOC033717

VALID FROM 19/08/2021 TO 18/08/2026

{UIS10(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019}

Registration No.: 202108000322

Name of the Owner	KARAN SWARUP		
Designation पद	DIRECTOR	Company Name कंपनी का नाम	M/s DISHA INDUSTRIES LIMITED
Company Address कंपनी का पता	9th KM, Jolly Road, Vill. Sikhrera	Authorization Letter प्राधिकार पत्र	Download
Address of the Applicant	310 PATEL NAGAR NEW MANDI MUZAFFARNAGAR	Application No.	MZFN0821NIN0049
Date of Submission	11/08/2021	Specimen Signature	

Location Particulars

District	Muzaffar Nagar	Block	Municipal Corporation/Nagar Palika Parishad, Muzaffar Nagar
Plot No./Khasra No.	9th KM, Jolly Road, Vill. Sikhrera	Municipality/Corporation	Yes
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	06/02/2013		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	55.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	15.00

Operational Device	Electric Motor	Rate of Withdrawal (m^3/hr.)	92.00
Date of Energization (In Case of Electric Pump)		15/02/2013	
Maximum Allowable Rate of Withdrawal (m^3/hr.):	92.00	Maximum Allowable Running Hours Per Day:	6.00
Maximum Allowable Annual Extraction of Ground Water:	165600	Recharge Required	165600.00

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- Holder of this NOC is hereby directed to assure annual recharge of 165600.00 cubic meter, as specified under the application form within the given time period.

GENERAL CONDITIONS:

- Holder of this NOC is hereby directed to fill from 1(A) for registering his/her well within 90 days as mentioned in application form shall only started after registration of his/her NOC.
- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- All Users abstracting ground water in excess of 100 m3/d shall be required to submit impact assessment report prepared by an accredited consultant from CGWA and National Accreditation Board for Education and Training (NABET). The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc. within three months of completion of the same to Ground Water Department Uttar Pradesh. The list of accredited Individuals/ Institutions is available on the official web-portal of CGWA.
- For the purpose of measuring and recording the quantity of ground water extracted, every said user shall affix digital water flow meters (conforming to BIS/ IS standards) having telemetry system in the abstraction structure, which record rate and quantum of extraction, at outlet of pumping devices and it shall be presumed that the quantity recorded by the meter has been extracted by the said user, until the contrary is proved. The rate of extraction of ground water from the well shall not exceed to the recorded rate from water meters
- The concerned Authority reserves the right to stop extraction of ground water from the well due to quality hazards or any other reasons, if the situation so demands
- In case of any change of ownership of the existing well, fresh registration has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the existing well of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this registration
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this registration is found to be incorrect during verification at any subsequent stage , this registration is liable for cancellation.
- The Certificate of Authorization/ NOC shall be valid for a period of five years from the date of issue. The applicant shall have to apply for renewal through a fresh application, at least ninety days prior to expiry of its validity.
- Construction of piezometers and installation of digital water level recorders with telemetry shall be mandatory for user. Depth and zone tapped of piezometer should be commensurate with that of the pumping well. The data, obtained from digital water level recorders shall be made available to this office on monthly basis
- **Guidelines for Installation of Piezometers and their Monitoring**

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S.No	Quantum of Ground water withdrawal (cum/day)	No.of piezometers required	Monitiring Mechanism	
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1	< 10	0	0	0
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3	50- 500	1	0	1
4	> 500	2	0	2

- The measuring frequency should be monthly and accuracy of measurement should be up to cm. the reported measurement should be given in meter upto two decimal.
- For measurement of water level sounder or automatic water level recorder (AWLR)/ Digital Automatic water level recorder (DWLR) with telemetry system should be used for accuracy.
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- All the details regarding coordinates, reduced level (with respect to mean level), depth, zone taped and assembly lowered should be provided for bringing the piezometer into the Hydrograph Monitoring System for Ground Water Department, Uttar Pradesh, and for its validation.
- The ground water quality has to be monitored twice in a year during pre-monsoon (May/June) and post-monsoon (October/November) periods. Quality may be got analyzed from NABL approved lab. Besides, one sample (1 lt capacity bottle) to the concerned Director, Ground Water Department, Uttar Pradesh, for chemical analysis.
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- Any other site specific requirement regarding safety and access for measurement may be taken care of.

- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars I information furnished by the applicant in his application for issuance of this permit is found to be incorrect during verification at any subsequent stage, this permit is liable for cancellation.
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- SPECIFIC CONDITIONS:
- (A) For Industrial User: No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:
- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC)/ PHD Chamber of Commerce & Industries / Laghu Udyog Bharati certified auditors and submit audit reports within three months of completion of the same to Ground Water Department Uttar Pradesh. All such industries shall be required to reduce their ground water use by at least 20% over the next five years through appropriate means.
- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in General Condition no.10 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3 /day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 50 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Monthly water level data shall be submitted online to the Ground Water Department, UP.
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- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution.
-
- (B) Infrastructural User: The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions
- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data online to Ground Water Department, UP as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by District Ground Water Management Council.
- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3 /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

Date 28/04/2023

Place Muzaffar Nagar

This certificate is electronically generated and does not require digital signature

ANN-3

UTTAR PRADESH POLLUTION CONTROL BOARD

TC-12V, Vibhuti Khand,Gomti Nagar, Lucknow-226010

Phone:0522-2720828,2720831 Fax:0522-2720764 Email: info@uppcb.com Website: www.uppcb.com

Ref. No : 13532/UPPCB/MuzaffarNagar(UPPCBRO)/HWM/MUZAFFARNAGAR/2020

Dated :31/01/2021

To,

M/s DISHA INDUSTRIES LIMITED

9th KM, Jansath Road,Village- Sikhera, Muzaffarnagar,MUZAFFAR NAGAR,251001

Tehsil : Jansath

District :MUZAFFARNAGAR

Sub :- Authorisation issued under the provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

1. Number of authorization and date of issue 13532 and 31/01/2021 .
2. Reference of application (No. and date) 10207230 and 20/12/2020 .
3. Mr KARAN SWARUP of M/s DISHA INDUSTRIES LIMITED is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, utilization, storage and disposal or any other use of hazardous or other wastes or both on the premises situated at within premises .

Details of Authorisation

S No.	Category of Hazardous Waste as per the Schedules I,II and III of these rules	Authorised mode of disposal or recycling or utilization or co-processing, etc.	Quantity(ton/annum)
1	Schedule-I, Cat. 5.1 Used or spent oil	Through TSDF	0.450 KL/Annum
2	Schedule-I, Cat. 33.1 Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	Through TSDF	2.4 Ton/Annum
3	Schedule-I, Cat. 33.2 Contaminated cotton rags or other cleaning materials	Through TSDF	0.15 Ton/Annum
4	Schedule-I, Cat. 34.2 Sludge from treatment of waste water arising out of cleaning / disposal of barrels / containers	Through TSDF	100 Ton/Annum

1. The authorization shall be valid for a period of 29/01/2026 from the date of issue of this letter .
2. The authorization is subject to the following general and specific conditions (please specify any conditions that need to be imposed over and above general conditions, if any) .

A **General Conditions of Authorization -**

1. The authorised person shall comply with the provisions of the Environment (Protection Act, 1986, and the rules made there under .

2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Board .
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization .
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorisation .
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time .
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and penalty .
7. It is the duty of the authorised person to take prior permission ot the State Pollution Control Board to close down the facility .
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation .
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained .
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation .
11. The importer or exporter shall bear the cost of Import or export and mitigation of damages if any
12. An application for the renewal of an authorisation shall be made as laid down under these Rules .
13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Changes or Central Pollution Control Board from time to time .
14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year .
15. The Unit will file the renewal application at least 2 months prior to the expiry of this Order.

B Specific Conditions of Authorization

1. The unit will submit the proof of depositing the requisite processing fees of application in a month otherwise this authorization will stands automatically cancelled.
2. The wastes must be safely collected in leak proof containers and shall be duly marked in a manner suitable for handling, storage and transport and the packaging shall be easily visible and be able to withstand physical conditions and climatic factors. All hazardous waste containers/bags shall be provided with a general label as given in Form 8. The storage area should be at an isolated spot in the premises and must be fenced, covered and duly marked.
3. The authorized person/agency shall ensure that no adverse impact on the air, soil and water including groundwater takes place due to activities for which authorization has been requested. Comprehensive safety measures must be followed in handling of wastes and the staff must be properly trained.
4. It is brought to your notice that as per the order dated 14.11.2003 passed by the Hon'ble Supreme Court in W.P. (c) 657 of 1995, no industry covered under Hazardous Waste (Management and Handling) Rules, 1989 (as amended) shall be allowed to operate without valid authorisation. It is also provided in the same order that industries which are not complying with the conditions shall

not be allowed to operate. Hence in case you fail to apply for authorisation before its expiry or fails to comply with conditions of the earlier authorisation issued to you, closure order shall be issued against your industry without any further notice.

5. The applicant must file returns on prescribed Form 4 along with a compliance report of this letter. You should also maintain records on Form-3 and present it to Board's inspecting officials.

6. In case of occurrence of an accident, complete details on Form-11 must be sent to U.P. Pollution Control Board at the earliest along with details of mitigative and remedial measures taken.

7. It is also the mandatory duty of the occupier of industry as well as operator of a facility to develop suitable waste treatment and disposal facility and the design of the facility must be approved by the Board. Details along with the project report must be sent in this regard within fifteen days of receipt of this letter, otherwise the industry shall become member of a common TSDF and the industry shall start sending the Hazardous waste already stored along with the Hazardous waste generated at present at this TSDF. The proof of valid membership of TSDF along with proof of disposal of hazardous waste to TSDF shall be sent to U.P. Pollution Control Board within three months.

8. The authorised person shall not receive, collect, or store any hazardous waste from any unauthorised occupier or generator of hazardous wastes. In case any hazardous wastes is sold to any other reprocessing unit it must be ensured that such unit is fully complying with environmental requirements and has a valid authorisation of the Board.

9. In no case any hazardous wastes shall be disposed off on land, in any drain or stream. All spillages of hazardous chemicals, used containers of hazardous chemicals such as flammable, corrosive, explosive and toxic nature must be safely collected and stored. Non-compatible wastes must be suitably and safely handled.

10. Proposal regarding waste minimization and reuse of wastes must be sent. Details of any recovery/ reuse system must be sent within two months.

11. It is within the powers and functions of the U.P. Pollution Control Board to suspend/ cancel the authorization issued under the Rule- 6(2) of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

12. The stored waste shall not be taken out of the storage area except with the written permission of the State Pollution Control Board in this regard.

13. You are directed to display online data outside the main factory gate with regards to quantity and nature of hazardous chemicals being handled in the plant including waste water and air emissions and solid hazardous waste generated within the factory premises. Necessary compliance should be sent within fifteen days of receipt of this letter.

14. It is the mandatory duty of the authorised person to comply with the guideline for transportation of hazardous waste in accordance with Rule 18 of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Guidelines in this regard have been issued by Central Pollution Control Board from time to time.

15. You are directed to provide the complete details regarding the quantity of hazardous waste stored in the factory premises within a month.

16. You are directed to provide all hazardous waste generated in the factory to any TSDF operating in the state for the treatment and disposal and send the compliance report to the U.P. Pollution Control Board at the earliest.

17. Status report of hazardous waste stored in premises available storage capacity and future action plan for permanent safe disposal of hazardous waste shall be submitted within one month. .

18. Ground water monitoring report of premises shall be submitted within one month.

19. Industry will follow the various provisions of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

(Authorized Signatory)

Nishi Kumar Chauhan Digitally signed by Nishi Kumar Chauhan
Date: 2021.02.02 17:18:57 +05'30'

UTTAR PRADESH POLLUTION CONTROL BOARD

Copy to: To the Regional Officer, U.P.Pollution Control Board, Muzaffarnagar for information and necessary action .

Nishi Kumar Chauhan Digitally signed by Nishi Kumar Chauhan
Date: 2021.02.02 17:19:07 +05'30'

CEO/EE, I/C Circle

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड ANNEXURE-4

UTTAR PRADESH POLLUTION CONTROL BOARD

संदर्भ संख्या H11429 / सी-3 / जल ... / 2024 दिनांक: 24-5-2024

सेवा में,

मै0 अलनूर एक्सपोर्ट्स,
जानसठ रोड,
मुजफ्फरनगर।

पंजीकृत

यह कि मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर जोकि भैंस/भैंसा की स्लाटरिंग कर फ्रोजन मीट के उत्पादन हेतु उपरोक्त वर्णित स्थल पर कार्यरत है, जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम 1974 यथासंशोधित की धारा–47 के अतर्गत एक कम्पनी है।

यह कि मा0 राष्ट्रीय हरित अधिकरण मे योजित ओ0ए0 सख्या 715/2023 मो0 मुस्तकीम बनाम पर्यावरण वन एवं जलवायु परिवर्तन मंत्रालय व अन्य में पारित आदेश दिनांक 06.12.2023 के अनुपालन में तथा उद्योग के विरूद्ध मो0 मुस्तकीम पुत्र श्री फरजंदा निवासी–618 चरथावल रूरल जनपद मुजफ्फरनगर से प्राप्त शिकायस के क्रम में क्षेत्रीय कार्यलय मुजफ्फरनगर के अधिकारियो द्वारा दिनांक 14.12.2023 मे पायी गयी कमियो के दृष्टिगत उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर के विरूद्ध जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम 1974 की धारा–33ए के अन्तर्गत बोर्ड के पत्र संख्या H06923/सी–3/जल–557/मु0नगर/2024 दिनांक 14.02.2024 के द्वारा कारण बताओ नोटिस जारी किया गया है।

उद्योग द्वारा कारण बताओ नोटिस दिनांक 14.02.2024 के अनुक्रम में अपने पत्र दिनांक 27.02.2024 के माध्यम से अपना प्रत्युत्तर प्रेषित किया गया है। जिसमे कहा गया है कि बोर्ड के अधिकारियो द्वारा किये गये निरीक्षण पायी गयी कमीयो के उपरान्त उक्त सभी कमियो को दूर करने का हमने सभी प्रयास शुरू कर दिया है। ई.टी.पी पर स्थापित ओ. सी.एम.एस में एम.यू.वी.एक्स कार्ड खराब था जिसे हमने नया परचेज कर लिया अब यह कार्य कर रहा है। ब्वायलर से सम्बद्ध चिमनी पर स्थापित ओ.सी.ई.एम.एस को भी रिपेयर करा दिया गया है और अबं यह भी कार्य कर रहा है। प्लांट में स्थापित डी.जी सेट में हम बायो डीजल यूज करते है। अपने प्रत्यावेदन के साथ इकाई द्वारा निम्न दस्तावेज संलग्न किया गया है।

(A). Environment statement in form-V,
(B). Quarterly Compliance report of the CCA
(C) Hazardous Effluent/Hazardous waste sample for laboratory testing.

उद्योग को प्रेषित कारण बताओ नोटिस दिनांक 14.02.2024 के अनुक्रम में इकाई द्वारा अपने प्रत्यावेदन में उद्योग में स्थापित 03 डी.जी. सेट जिनकी क्षमता क्रमशः 1680 केवीए एवं 1270 केवीए एवं 850 केवीए पर RECDs तथा Dual fuel system स्थापित किये जाने के संबंध में कोई सूचना नहीं दी गयी है। उक्त के अतिरिक्त Report on 24 compendium point for slaughter house units to the board- की भी सूचना प्रत्यावेदन मे नही दी गयी है।

अग्रेतर मा0 राष्ट्रीय हरित अधिकरण में योजित ओ0ए0 सख्या 540/2023 निरामया जन उत्थान संस्थान बनाम स्टेट ऑफ यू0पी0 एण्ड अदर्स में पारित आदेश दिनांक 12.09.2023 के अनुपालन मे गठित संयुक्त समिति (पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, जिला प्रशासन, यू0पी0 ग्राउण्ड वाटर डिपार्टमेन्ट एवं उ0प्र0 प्रदूषण नियत्रण बोर्ड) द्वारा उद्योग का निरीक्षण दिनांक 04.01.2024 को किया गया तथा जल नमूने एकत्रित किये गये, जिनका विश्लेषण केन्द्रीय प्रदूषण नियंत्रण बोर्ड, नई दिल्ली की प्रयोगशाला द्वारा किया गया। केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा तैयार की गई आख्या के अनुसार उद्योग मे स्थापित उत्प्रवाह शुद्धिकरण संयंत्र के आउटलेट से लिये गये जल नमूने में प्रचालक BOD = 55 mg/l पायी गयी, जो कि मानकों से अधिक है। संयुक्त समिति द्वारा उद्योग के विरूद्ध निम्नवत् संस्तुतियां की गयी हैं :–

1- Unit shall operate ETP properly so as to comply with discharge norms.
2- Unit shall get repaired at the earliest; the OCEMS installed at ETP outlet and ensure 24x7 connectivity with CPCB/UPPCB servers for continuous monitoring.
3- Unit shall maintain log-book of carcass waste, bones and boiler ash generation on daily basis.
4- Unit shall install separate flow meters and maintain log-books for water consumption in Process, boiler and domestic.
5- Unit shall implement Public Liability Insurance (PLI) provisions as per the law.

उद्योग के विरूद्ध राज्य बोर्ड द्वारा जारी कारण बताओ नोटिस दिनांक 14.02.2024 के क्रम में उद्योग द्वारा दिये गये प्रत्युत्तर में दिये गये तथ्यों के भौतिक सत्यापन हेतु उद्योग का निरीक्षण क्षेत्रीय कार्यालय, मुजफ्फरनगर के प्राधिकृत अधिकारियों द्वारा दिनांक 29.02.2024 को किया गया। निरीक्षण के समय उद्योग संचालित पाया गया। निरीक्षण के समय उद्योग प्रतिनिधि को राज्य बोर्ड द्वारा जारी कारण बताओ नोटिस दिनांक 14.02.2024 की प्रति उपलब्ध करायी गयी।

निरीक्षण के समय उद्योग में स्थापित उत्प्रवाह शुद्धिकरण संयंत्र के सतत् अनुश्रवण हेतु स्थापित OCEMS की मरम्मत का कार्य प्रगति पर पाया गया। निरीक्षण के समय उद्योग में स्थापित उत्प्रवाह शुद्धिकरण संयंत्र के अन्तिम निस्तारण बिन्दु से जल नमूना एकत्रित कर क्षेत्रीय कार्यालय मुजफ्फरनगर की प्रयोगशाला में जमा कराया गया। प्राप्त विश्लेषण आख्या के अनुसार जल नमूने में प्रचालक BOD=48 mg/l, COD=328 mg/l एवं TSS=76 mg/l पायी गयी, जो कि बोर्ड मानकों से अधिक है। पशुबधशाला इकाई के द्वारा केन्द्रीय प्रदूषण नियंत्रण बोर्ड की "Revised comprenhensive Industry documentation of Slaugher House" का एवं 24 कम्पेडियम का अनुपालन नहीं किया जा रहा है एवं इकाई के विरूद्ध जन शिकायत प्राप्त है। इकाई को राज्य बोर्ड द्वारा वर्ष 2027 तक सहमति निर्गत है। जिसकी शर्तो का उल्लंघन होता पाया गया। क्षेत्रीय कार्यालय, मुजफ्फरनगर के पत्र दिनांक 04.03.2024 द्वारा उद्योग के विरूद्ध जारी कारण बताओ नोटिस दिनांक 14.02.2024 की पुष्टि किये जाने की संस्तुति की गयी है।

उद्योग द्वारा प्रस्तुत प्रत्यावेदन 27.02.2024 में उल्लिखित तथ्यों की सत्यापन आख्या एवं उद्योग के पूर्व निरीक्षण दिनांक 04.01.2024 में पायी गयी कमियों के संबंध में उद्योग से पुनः स्पष्टीकरण प्राप्त किये जाने हेतु क्षेत्रीय अधिकारी मुजफ्फरनगर को बोर्ड के पत्र दिनांक 21.03.2024 द्वारा समस्त तथ्यों का उल्लेख समहित करते हुए आख्या प्रेषित किये जाने हेतु निर्देश दिये गये है। तत्क्रम में उद्योग का पुनः निरीक्षण क्षेत्रीय कार्यालय, मुजफ्फरनगर के प्राधिकृत अधिकारियों द्वारा दिनांक 23.03.2024 को किया गया। निरीक्षण के समय उद्योग संचालित पाया गया। उद्योग को राज्य बोर्ड द्वारा जारी कारण बताओ नोटिस में दिये गये निर्देशों के अनुपालन की अद्यतन स्थिति निम्नवत् पायी गयी।

क्र. सं	कारण बताओ नोटिस में दिये गये निर्देश	उद्यमी द्वारा दिये गये प्रत्यावेदन दिनांक 27.02.2024 में दिये गये तथ्य	निरीक्षण दिनांक 23.03.2024 में पाये गये तथ्य
1.	उद्योग के ई0टी0पी0 पर स्थापित Online Continuous Effluent Monitoring System एवं बायलर से सम्बद्ध चिमनी पर स्थापित Online Continuous Emission Monitoring System (OCEMMS) केन्द्रीय प्रदूषण नियंत्रण बोर्ड/उ0प्र0 प्रदूषण नियंत्रण बोर्ड के सर्वर से लिंक नहीं पाया गया।	ई0टी0पी0 पर स्थापित Online Continuous Effluent Monitoring System (OCEMS) का MUVX Card खराब था, जिसे हमने नया Purchase कर लिया है और अब यह कार्य कर रहा है। बायलर से सम्बद्ध चिमनी पर स्थापित OCEMS को भी रिपेयर करा दिया गया है और यह भी अब कार्य कर रहा है।	उद्योग को जारी कारण बताओ नोटिस दिनांक 14.02.2024 के क्रम में कार्यालय द्वारा दिनांक 29.02.2024 को किये गये निरीक्षण के समय उत्प्रवाह शुद्धिकरण संयंत्र के सतत् अनुश्रवण हेतु स्थापित OCEMS की मरम्मत का कार्य प्रगति पर पाया गया था। पुनः निरीक्षण दिनांक 23.03.2024 में OCEMS संचालित पाया गया, परन्तु केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड के सर्वर से सम्बद्ध नहीं पाया गया। निरीक्षण के समय उपस्थित उद्योग प्रतिनिधि द्वारा अवगत कराया गया कि बायलर से सम्बद्ध चिमनी पर स्थापित Online Continuous Emission Monitoring System केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड के सर्वर से सम्बद्ध करा दिया गया है।
2.	उद्योग द्वारा राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्र वायु गुणता प्रबन्धन आयोग, नई दिल्ली द्वारा दिये गये निर्देशानुसार उद्योग में स्थापित 03 डी0जी0 सैट, जिनकी क्षमता क्रमशः 1680 केवीए, 1270 केवीए एवं 850 केवीए पर RECDs तथा Dual fuel system स्थापित नहीं पाया गया, जो कि राष्ट्रीय राजधानी क्षेत्र और निकटवर्ती क्षेत्र वायु गुणता प्रबन्धन आयोग नई दिल्ली द्वारा दिये गये निर्देशों का उल्लंघन है।	प्लांट में स्थापित डी0जी0 सैट्स में हम बायो डीजल use करते हैं।	उद्योग में स्थापित 03 डी0जी0 सैट्स पर वर्तमान निरीक्षण दिनांक 23.03.2024 तक RECDs तथा Dual fuel system स्थापित नहीं पाया गया।

3	उद्योग द्वारा निम्नलिखित रिपोर्ट / प्रपत्र प्रेषित नहीं किया गया है :– A. Environment Statement in Form-V. B. Quarterly compliance report of the CCA. C. Hazardous effluent/hazardous waste samples for laboratory testing. D. Report on 24 Compendium Point for Slaughter Houe Units to the Board.	A. Environmental Statement संलग्न है। B. Quarterly Compliance Report संलग्न है। C. Hazardous effluent/hazardous waste samples संलग्न है। D. ———	A. उद्योग द्वारा Environmental Statement प्रत्यावेदन दिनांक 27.02.2024 के साथ संलग्न किया गया है। B. उद्योग द्वारा Quarterly Compliance report of CCA के अन्तर्गत जल नमूनों की मान्यता प्राप्त प्रयोगशाला से करायी गयी विश्लेषण आख्यायें प्रेषित की गयी हैं। C. Hazardous effluent/hazardous waste samples के अन्तर्गत ETP Sludge की रिपोर्ट मान्यता प्राप्त प्रयोगशाला से कराकर प्रेषित की गयी हैं। D. उद्योग द्वारा 24 Compendium Points पर आख्या प्रस्तुत नहीं की गयी है।

मा0 राष्ट्रीय हरित अधिकरण में योजित ओ0ए0 संख्या 540 / 2023 निरामया जन उत्थान संस्थान बनाम स्टेट ऑफ यू0पी0 एण्ड अदर्स में पारित आदेशों के अनुपालन में गठित संयुक्त समिति द्वारा उद्योग के विरूद्ध की गयी संस्तुतियों के संबंध में उद्योग के निरीक्षण दिनांक 23.03.2024 के दौरान उद्योग से अनुपालन आख्या प्रेषित किये जाने हेतु निर्देश के क्रम में उद्योग द्वारा अपना प्रतिउत्तर ई–मेल के माध्यम से दिनांक 22.04.2024 एवं 04.05.2024 को प्रेषित किया गया है। जिसका विवरण निम्नवत् है:–

दिनांक 22.04.2024 को प्रेषित अनुपालन आख्या

1. These parameters are kept in mind –
   a. Regular Monitoring
   b. Proper Maintenance
   c. Efficient Treatment Process
   d. Chemical Management
   e. Optimized Operation
   f. Compliance Documentation
   g. Training and Awareness
   h. Continuous Improvement
2. The unit has been repaired; OCEEMS has been installed at the ETP outlet has been established for continuous monitoring.
3. Log books of carcass waste, bones and boiler ash generation are maintained daily. Copy attached
4. The work of separate flow meters for process, boiler and domestic water consumption has been started. Log book will be submitted to you soon after installation
5. Public liability insurance provision as per law is under process.

उद्योग के निरीक्षण दिनांक 23.03.2024 के दौरान उद्योग के उत्प्रवाह शुद्धिकरण संयंत्र के अन्तिम निस्तारण बिन्दु से जल नमूने की प्राप्त विश्लेषण आख्या में समस्त प्राचलकों का मान बोर्ड मानकों के अनुरूप पाया गया है। परन्तु उपरोक्त तालिका के निरीक्षण दिनांक 23.03.2024 में पाये गये तथ्य के कम संख्या 01 में वर्णित है कि निरीक्षण दिनांक 23.03.2024 में उत्प्रवाह शुद्धिकरण संयंत्र के सतत् अनुश्रवण हेतु स्थापित OCEMS संचालित पाया गया, परन्तु केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं उ0प्र0 प्रदूषण नियंत्रण बोर्ड के सर्वर से सम्बद्ध नहीं पाया गया। कम संख्या 02 में वर्णित है कि उद्योग में स्थापित 03 डी0जी0 सैट्स पर वर्तमान निरीक्षण दिनांक 23.03.2024 तक RECDs तथा Dual fuel system स्थापित नहीं पाया गया। कम संख्या 03 में वर्णित है कि उद्योग द्वारा 24 Compendium Points पर आख्या प्रस्तुत नहीं की गयी है।

अतएव जनहित एवं जन साधारण को स्वच्छ वातावरण प्रदान करने के लिए यह आवश्यक है कि उद्योग का संचालन रोका जाये।

अतः जल(प्रदूषण निवारण तथा नियंत्रण) अधिनियम 1974 की धारा 33ए के अन्तर्गत राज्य बोर्ड को प्रदत्त शक्तियो के अधीन उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर के विरूद्व सक्षम अधिकारी के अनुमोदनोपरान्त बोर्ड के पत्र संख्या H06923/सी–3/जल–557/मु0नगर/2024 दिनांक 14.02.2024 द्वारा जारी कारण बताओ नोटिस के निर्देशों की पुष्टि कर निम्नलिखित बन्दी आदेश तत्काल प्रभाव से जारी किये जाते हैः–

1. यह कि मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर को बोर्ड के पत्र दिनांक 30.12.2022 द्वारा निर्गत सहमति को निलम्बित (Suspend) किया जाता है।
2. यह कि उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर के उत्पादन/संचालन कार्य को तत्काल प्रभाव से बन्द कर दे।
3. यह कि सक्षम अधिकारियो से यह अपेक्षा की जाती है कि मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर को मिलने वाली बिजली, पानी तथा अन्य सुविधाओं को तत्काल प्रभाव से बन्द कर दे।

इसके अतिरिक्त मा0 एन0जी0टी0 द्वारा पारित आदेश के अनुक्रम मे सी0पी0सी0बी0 द्वारा विकसित की गयी मैथडोलॉजी के अनुसार उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर पर सक्षम अधिकारी के अनुमोदनोपरान्त बोर्ड के निरीक्षण दिनांक 14.12.2023 से दिनांक 29.02.2024 की अवधि तक उल्लंघनकारी दिवस मानते हुए रू0 30,000/– प्रतिदिन की दर से कुल 78 दिवसो हेतु कुल रू0 23,60,000/–(तेइस लाख साठ हजार मात्र) की पर्यावरणीय क्षतिपूर्ति अधिरोपित की जाती है तथा निर्देशित किया जाता है कि पर्यावरणीय क्षतिपूर्ति की धनराशि को उ0प्र0 प्रदूषण नियंत्रण बोर्ड के यूनियन बैंक आफ इण्डिया, वैभव खण्ड, गोमती नगर, लखनऊ स्थित बैंक खाता संख्या–705020100021O4, आई0एफ0एस0सी0 कोड UBIN0570150 मे 15 के अन्दर जमा करें। अन्यथा की दशा मे अधिरोपित पर्यावरणीय क्षतिपूर्ति की धनराशि को भू–राजस्व की भाँति वसूली कराये जाने की कार्यवाही प्रारम्भ कर दी जायेगी।

सक्षम अधिकारी द्वारा पत्र निर्गमन हेतु अधिकृत।

Atulesh yadav

मुख्य पर्यावरण अधिकारी (वृत्त–3)

प्रतिलिपि–निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु।

1. जिलाधिकारी, मुजफ्फरनगर को इस अनुरोध के साथ कि कृपया संबंधित अधीनस्थ को उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर को तत्काल बन्दी सुनिश्चित कराये जाने हेतु निर्देशित करने का कष्ट करें।
2. पुलिस अधीक्षक, मुजफ्फरनगर को इस अनुरोध के साथ कि कृपया संबंधित अधीनस्थ को उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर को तत्काल बन्दी सुनिश्चित कराये जाने हेतु निर्देशित करने का कष्ट करें।
3. मुख्य पर्यावरण अधिकारी, डब्लू0एम0डी0 1/2, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, लखनऊ।
4. अधिशासी अभियन्ता, विद्युत वितरण खण्ड, उ0प्र0 पावर कार्पोरेशन लि0, मुजफ्फरनगर को इस निर्देश के साथ कि कृपया उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर की विद्युत आपूर्ति तत्काल विच्छेदित कराना सुनिश्चित करे।
5. अधिशासी अभियन्ता, जल संस्थान, मुजफ्फरनगर को इस निर्देश के साथ कि कृपया उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर की जल आपूर्ति तत्काल विच्छेदित कराना सुनिश्चित करे।
6. क्षेत्रीय अधिकारी, उ0प्र0प्रदूषण नियंत्रण बोर्ड, मुजफ्फरनगर को इस निर्देश के साथ कि उद्योग मै0 अलनूर एक्सपोर्ट्स, जानसठ रोड, मुजफ्फरनगर की बन्दी सुनिश्चित करायें तथा अनुपालन आख्या बोर्ड मुख्यालय प्रेषित करें।

Atulesh yadav

मुख्य पर्यावरण अधिकारी, (वृत्त–3)

o/c

Annexure-5

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of life waste tyre pyrolysis plant)

A. General section **Date of inspection: 05.07.2024**

1.	Name of the unit with complete postal address:	M/s AR. G. Rubber processed oil industries, Jansath Road	
2.	Spatial Co-ordinates (Latitude & longitude	29.425615, 77.764368	
3.	Contact details	Not available	
4.	Industry Operational status	Non-operational	
5.	Consent status	Air/ Water Consent	Not available
6.	**Observations:** • Unit found non-operation at the time of inspection. • No contact person was available. Doors were found closed		
7.	**Recommendations:** • The unit shall remain closed until it meets regulatory standards and obtains necessary approvals for reopening. • The pyrolysis process shall be aligned with batch processes as outlined in the MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015.		

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Main Entrance of the Unit

Figure 2 Lock at main entrance gate

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of Life waste tyre pyrolysis plant)

A. General section **Date of inspection:04.07.2024**

1.	Name of the unit with complete postal address:	M/s ASV Reclaiming LLP, Panipat-Khatima Marg, Jansath-Mirzapur Road, Vill- Talda, Muzaffarnagar-251314	
2.	Spatial Co-ordinates (Latitude & longitude	29.322763, 77.87229	
3.	Contact details	Mr. Ankit Bansal-9568290000 Bansalankit590@gmail.com	
4.	Industry Operational status	Operational	
5.	Consent status	Air Consent	CCA with validity till 31.07.2025
		Water Consent	
		Extended producer responsibility certificate	Not available

B. Production process and infrastructure

6.	**End of Life waste tyre pyrolysis Process**	Batch process, 2 Pyro-reactor each with 10 Tonne capacity, each batch has residence time of 14-18 hrs (8 hour of heating time and 6-10 hour of cooling time)	
7.	**Production**		
	a. Consented Capacity (TPD)	18 TPD-(Fuel oil-10, Carbon-4, Steel wire-4 TPD)	
	b. Plot area provided (m^2)	11.5 Bigha (5148 m^2)	
	c. Actual production (as per logbook)	Logbook not maintained	
8.	**Process Requirement as per MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015**		
	a. Programmable Logic Controller (PLC) based system for control of temperature and pressure inside the reactor provided		No
	b. Compressor/ air blower has to be installed for mixing of air with pyre water for fuel feed		Yes
	c. Mechanized system for removal of char provided		No
	d. Pressure and temperature sensor provided in pyrolysis chamber		Yes
	e. Arrangement made for adequate capacity for Nitrogen purging		Not provided
9.	**Fresh water consumption**		
	a. NOC from UP ground water department	Not available	

	b. Details of borewell	2 No. Borewell without flow meter		
	c. Actual withdrawal quantity	Not available, logbook not maintained		
	d. Estimated Freshwater Consumption	6-7 KLD		
10.	**Effluent Management**			
	a. Consented discharge value (KLD)	To be operated on ZLD		
	b. ETP design capacity	Not installed, however effluent found collected in unlined permeable pond & sample is collected for analysis		
	c. Estimated Effluent generation	200 – 300 liters per day per reactor (400-600 liters per day for the unit)		
	a. Effluent Characteristics			
	Parameter	**Unlined permeable pond inside Unit premise**	**General discharge norms**	**Compliance status**
	pH	5.99	5.5-9.5	complying
	BOD (mg/l)	**622.0**	30	**Non- complying**
	COD (mg/l)	**2212.0**	250	**Non- complying**
	TSS (mg/l)	**430.0**	100	**Non- complying**
	TDS (mg/l)	**2678.0**	2100	**Non- complying**
11.	**Air Pollution management**			
	a. Stack details	Stack Height - 30 m, diameter- 10 inch		
	b. APCD installed	Wet scrubber provided		
	c. Fuel used	Wood for fire initiation followed by pyro gas		
	d. Actual Fuel consumption	No record maintained		
	e. Stack monitoring results	Stack monitoring could not be performed due to lack of appropriate platform with stair as per CPCB guidelines		
12.	**Hazardous waste management**			
	Authorization status	Not available		
	Copy of agreement with recyclers /TSDF	Not available		
	Hazardous waste generated	No record provided		
	Disposal details of waste generated	No record provided		
13.	**Safety measure adopted**			
	Sensors along with alarm system to detect any leakage of flammable vapors installed	No		
	Fire detectors, fire hydrant & CO_2 type fire extinguisher provided	Only CO_2 type fire extinguisher available		
14.	**Compliance Status: Non-complying w.r.t. regulatory requirement -** • NOC for groundwater abstraction from UP ground water department (UPGWD) • Hazardous waste authorization from UPPCB • ZLD condition in CTO issued by UPPCB • Not having ETP • General discharge standards • EPR registration on CPCB portal			

	Non-adherence w.r.t MOEF&CC SOP dated 24.11.2015 - Mechanical feeding of raw material, mechanical unloading of carbon, fugitive emission, alarm system, automation, fire safety and occupational health
15.	**Observations:** **Regulatory Compliance:** • The unit has obtained valid Consent under Air/Water Acts from UPPCB for production of 18 TPD (Fuel oil-10, Carbon-4, Steel wire-4 MTD) through recycling of end of life waste tyres. • Estimated requirement of freshwater by the unit is from 3 to 7 KLD for purpose of cooling tower/condenser makeup water. The unit have 2 bore well to meet the freshwater requirement, however, the unit has not obtained NOC from UPGWD for ground water abstraction. • The unit do not have Hazardous Waste Authorization from UPPCB. • The unit is not registered under EPR as tyre waste recycler. **Production Details:** • Unit has 2-pyro reactor chamber, each having capacity of 10 tonne. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonne of Pyro-Oil (Fuel Oil), 2.4 tonne of carbon, 1.2 tonne of steel and around 1.6 tonne of pyro-gas which is recycled back for heating of reactor. • Each reactor chamber generates 1.6 tonnes of pyro-gas daily which is released as flue gas after being used as fuel. The flue gas passes through an attached stack, with a wet scrubber serving as the Air Pollution Control Device (APCD). The stack is connected to the reactor chamber's jacket. • Manual feeding of whole tyres is observed instead of a mechanized process. • Initial heating is done using wood rather than pyro-gas or purge water as requisite in SOP. • Flaring systems with a minimum height of 30 meters were installed, but no storage balloons for excess pyro gas were observed as requisite in SOP. • Manual unloading practices is observed in the unit in place of mechanized spillage-free arrangements for carbon removal leading. **Waste Water Management:** • Estimated process wastewater generation as effluent from the process (purge water) and scrubbing system is @ 200-300 l/day/batch. Unit has 2 reactors so estimated 400-600 liter of effluent is generated on daily basis. • As per consent unit has to operate on ZLD though recycling of treated effluent via. ETP or using within the process. • The unit has not installed the ETP and the effluent was found disposed in unlined pond within the premises. • The wastewater sample were collected from unlined pond. • Analysis results of sample collected shows pH 5.99 against norms of 5.5-9.5, BOD 622.0 mg/l against norms of 30 mg/l, COD 2212.0 mg/l against norms of 250 mg/l, TSS 430 mg/l against norms of 100 mg/l, TDS 2678 mg/l against norms of 2100 mg/l & Total solids as 3108.0 mg/l which indicate non-compliance of unit w.r.t general discharge norms for BOD, COD, TSS &TDS. The characteristics of ponding water reflect the high strength organic load effluent. • The unit does not have ETP which indicates either unit is discharging the generated untreated effluent through tankers or contaminating the ground water via. Ponding in permeable tank. **Air Pollution Control:** • Stack of 30-meter height is installed.

	• Wet scrubber is provided as APCD. However, the wet scrubber is found in poor condition, with rust and leakage. • Stack monitoring could not be performed due to lacks of spiral staircase and observation platform for monitoring, as required by guidelines. • Fugitive emission is observed from spillage of carbon in the working area. • There is no specific emission standard notified for end of life waste tyre pyrolysis plant. • Work zone air quality has been assessed in the process area of the unit. The results indicate high level of PM_{10} with value varying from 168.12 to 186.40 µg/m3 against the permissible limit of 120 µg/m3 for industrial area. • Ambient air quality was assessed in the vicinity of the unit at two locations namely; Ecosoul Home Pvt. Ltd and Swaroop Rolling Mills, Jansath road. • High level of PM_{10} is observed at both locations with value varying from 138.74 to 159.28 µg/m3 against the permissible limit of 120 µg/m3 for industrial area and 60 µg/m3 for residential & rural area. **Occupational Health and Odour Issue:** • Monitoring team felt odour in the working zone. The odour is rated as 5 when rated against the scale of 1-10 with 1 being the minimum and 10 being the maximum odour level. • Odour is not felt outside the working zone. • Workers at the unit were in poor working condition, without proper PPE kit, mask and safety gears. **Observations w.r.t. MOEF&CC SOP dated 24.11.2015** • There is no arrangement of reactor cooling by purging with nitrogen. • Adequate sensors and alarm systems to detect flammable vapors is not provided in the unit. • The unit do not have adequate firefighting systems, including sprinklers, fire hydrants, pumping systems, and water storage. CO_2 fire extinguishers were available in the unit. • Proper records for the supply of carbon black and oil to actual users/processors are not maintained.
16.	**Recommendations:** **Regulatory Compliance:** • Unit shall obtain the NOC from UPGWD for ground water abstraction • Unit shall obtain Hazardous Waste Authorizations from UPPCB. • Unit shall register themself under EPR on CPCB portal as tyre waste recycler to comply with environmental regulations. **Production Details:** • Unit shall upgrade to implement a mechanized feeding system. • Unit shall replace wood with purge water or pyro-gas for initial heating of the reactor by installing balloons for storage of excess pyro gas and ensure proper operation of flaring systems. **Wastewater management:** • Install ETPs & ensure its proper operation & maintenance along with records. • The unit shall ensure recycling of treated effluent in the process to maintain ZLD status as per consent **Air Pollution Control:** • Stack shall be properly maintained and operated as per CPCB guideline. • Ensure removal of carbon through mechanized system without any spillage

	during the collection of the carbon in the bags. **Occupational Health and Odour Issue:** • Leakage from pipeline of oil and gas need to repaired to prevent odour in working zone. • Purge water (Oil Mixed water) shall be properly stored and treated in ETP to avoid odour issue. • Proper hygienic working shall be ensured. • Worker shall be provided PPE Kit, Mask and safety gears. **Recommendations w.r.t. MOEF&CC SOP dated 24.11.2015** • Unit shall install digital instrumentation and automated control systems (PLC) for accurate temperature and pressure measurement and process control with safety interlocks to cut off heating in case of temperature or pressure increases. • Implement nitrogen purging systems to cool reactors as per SOP guidelines. • Install PLC Based Gas Detection Sensors along with Hooters to indicate any flammable vapour leakages. • Enhance firefighting measures by installing sprinklers, fire hydrants, pumping systems, and water storage. • Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance.

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Unit main entrance

Figure 2 Tyre stored inside unit premises

Figure 3 Unit premises

Figure 4 Process Area

Figure 5 Pyro-reactor running at the time of inspection

Figure 6 Stored fire wood for initial burning of pyro-reactor.

Figure 7 Wet scrubber found leaking at the time of inspection

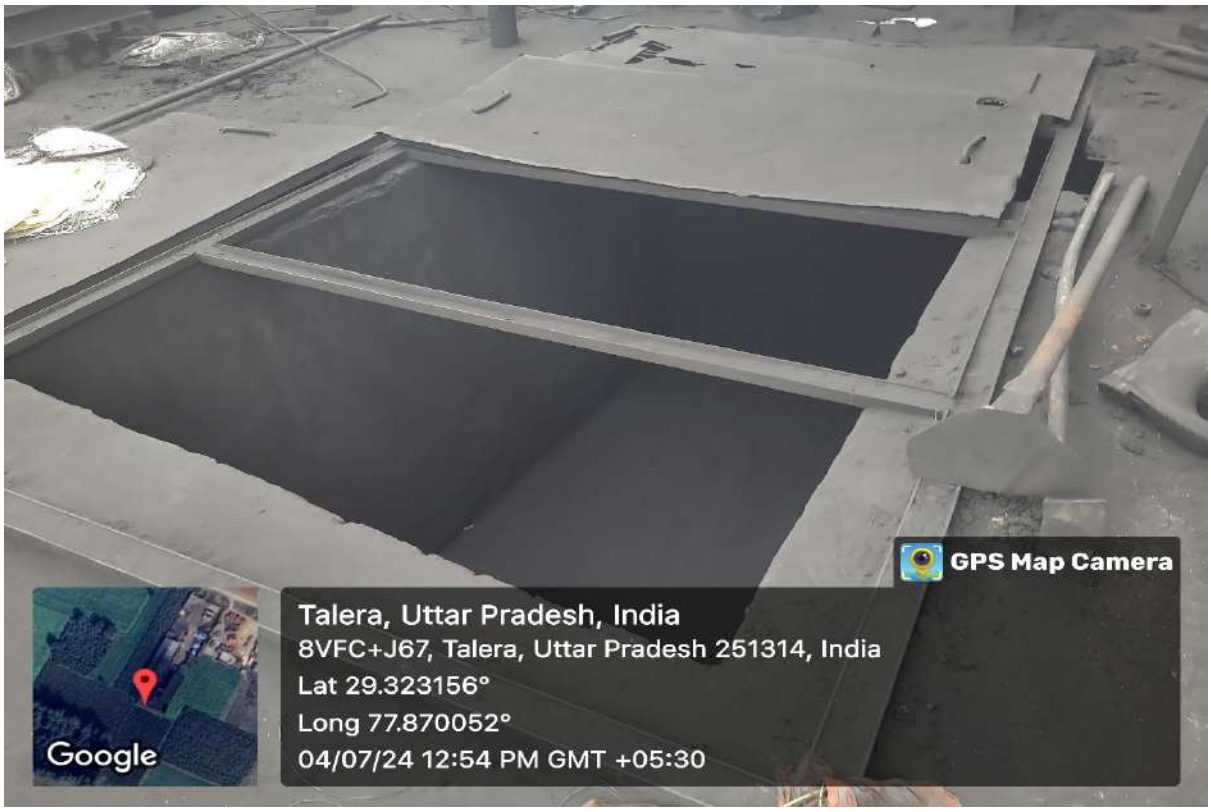


Figure 8 Char storage tank

Figure 9 Storage area of fuel wood and scrap

Figure 10 Ponding of wastewater inside unit premises.

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of life waste tyre pyrolysis plant)

A. General sectionDate of inspection:04.07.2024

1.	Name of the unit withcomplete postal address:	M/s Dev Enterprises, Jansath-Mirzapur Road, Vill-Talda, Muzaffarnagar-251314	
2.	Spatial Co-ordinates (Latitude & longitude	29.320795, 77.877887	
3.	Contact details	Not available	
4.	Industry Operational status	Non-operational Unit found in dismantled state	
5.	Consent status	Air/ Water Consent	Not available
6.	**Observations:** • Unit found in dismantled state at the time of inspection. • No contact person was available.		
7.	**Recommendations:** • The unit shall remain closed until it meets regulatory standards and obtains necessary approvals for reopening. • The pyrolysis process shall be aligned with batch processes as outlined in the MOEF&CC's Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015		

Joint Committee:

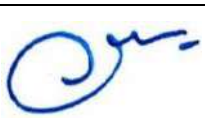
S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Main Entrance of the Unit

Figure 2 Process area

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of life waste tyre pyrolysis plant)

A. General section **Date of inspection: 05.07.2024**

1.	Name of the unit with complete postal address:	M/s MMD Green Energy Solutions, 7th Km. Jansath Road, Vill. Shernagar, Muzaffarnagar-251001	
2.	Spatial Co-ordinates (Latitude & longitude	29.429656, 77.75412	
3.	Contact details	Amit Bansal-9716854991	
4.	Industry Operational status	Operational	
5.	Consent status	Air Consent	CCA available with validity till 31.07.2024
		Water Consent	
		Extended producer responsibility certificate	Not available

B. Production process and infrastructure

6.	**End of Life waste tyre pyrolysis Process**	Batch process, 2 Pyro-reactor each with 10 Tonne capacity, each batch has residence time of 14-18 hrs (8 hour of heating time and 10 hour of cooling time)	
7.	**Production**		
	a. Consented Capacity (TPD)	17 TPD	
		Pyrolysis oils	10 TPD
		Char	4 TPD
		Steel	3 TPD
	b. Plot area provided (m^2)	5 Bigha, 3750 m^2	
	c. Actual production (as per logbook)	Logbook not maintained	
8.	**Process Requirement as per MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015**		
	a. Programme Logic Controller (PLC) based system for control of temperature and pressure inside the reactor provided		Not available
	b. Compressor/ air blower has to be installed for mixing of air with pyre water for fuel feed		Yes
	c. Mechanized system for removal of char provided		Direct from vessel through valve
	d. Pressure and temperature sensor provided in pyrolysis chamber		Yes
	e. Arrangement made for adequate capacity for Nitrogen purging.		Available Nitrogen cylinder $4m^3$
9.	**Fresh water consumption**		
	a. NOC from UP ground water department	Not available	

	b. Details of borewell	1 No. without flow meter
	c. Actual withdrawal quantity	Not available, logbook not maintained
	d. Estimated Freshwater Consumption	6-7 KLD
10.	**Effluent Management**	
	a. Consented discharge value (KLD)	To be operated on ZLD as per consent
	b. Actual effluent generation (KLD) (as per logbook)	Data not available
	c. ETP design capacity	ETP not installed
	d. Estimated Effluent generation	200 – 300 liters per day per reactor (400-600 liters per day for the unit)
11.	**Air Pollution management**	
	a. Stack details	Stack Height -100 feet., diameter- 10 inch
	b. APCD installed	Wet scrubber
	c. Fuel used	Wood for fire initiation followed by pyro gas
	d. Actual Fuel consumption	No record maintained
	e. Stack monitoring results	Stack monitoring could not be performed due to lack of appropriate platform with stair as per CPCB guideline
12.	**Hazardous waste management**	
	Authorization status	Not available
	Copy of agreement with recyclers /TSDF	Agreement available
	Hazardous waste generated	Data not available
	Disposal details of waste generated	Data not available
13.	**Safety measure adopted**	
	Sensors along with alarm system to detect any leakage of flammable vapors installed	Not provided
	Fire detectors, fire hydrant & CO_2 type fire extinguisher provided	Only fire extinguisher provided
14.	**Compliance Status: Non-complying w.r.t. regulatory requirement -** • NOC for groundwater abstraction from UP ground water department (UPGWD) • Hazardous waste authorization from UPPCB • ZLD condition in CTO issued by UPPCB • Not having ETP • EPR registration on CPCB portal **Non-adherence w.r.t MOEF&CC SOP dated 24.11.2015 -** Mechanical feeding of raw material, mechanical unloading of carbon, fugitive emission, alarm system, automation, fire safety and occupational health.	
15.	**Observations:** **Regulatory Compliance:** • The unit has obtained valid Consent under Air/Water Acts from UPPCB for production of 17 TPD (Fuel oil-10 TPD, Carbon-4 TPD, Steel wire-3 TPD) through recycling of end of life waste tyres. • Estimated requirement of freshwater by the unit is from 3 to 7 KLD for purpose of cooling tower/condenser makeup water. The unit have 2 bore	

well to meet the freshwater requirement, however, the unit has not obtained NOC from UPGWD for ground water abstraction.
- The unit do not have Hazardous Waste Authorization from UPPCB.
- The unit is not registered under EPR as tyre waste recycler.

Production Details:
- Unit has 2-pyro reactor chamber, each having capacity of 10 tonne. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonne of Pyro-Oil (Fuel Oil), 2.4 tonne of carbon, 1.2 tonne of steel and around 1.6 tonne of pyro-gas which is recycled back for heating of reactor.
- Each reactor chamber generates 1.6 tonnes of pyro-gas daily which is released as flue gas after being used as fuel. The flue gas passes through an attached stack, with a wet scrubber serving as the Air Pollution Control Device (APCD). The stack is connected to the reactor chamber's jacket.
- Manual feeding of whole tyres is observed instead of a mechanized process.
- Initial heating is done using wood rather than pyro-gas or purge water as requisite in SOP.
- Flaring systems with a minimum height of 30 meters were installed, but no storage balloons for excess pyro gas were observed as requisite in SOP.
- Char removal is handled through valve of pyro chamber manually, no mechanised system was available for same.

Waste Water Management:
- Estimated process wastewater generation as effluent from the process (purge water) and scrubbing system is @ 200-300 l/day/batch. Unit has 2 reactors so estimated 400-600 liter of effluent is generated on daily basis.
- As per consent unit has to operate on ZLD though recycling of treated effluent via. ETP or using within the process.
- The unit has not installed the ETP.
- In absence of operational ETP and small quantity of effluent generation suspected disposal of effluent through tankers cannot be ruled out.

Air Pollution Control:
- Stack of 30-meter height is installed.
- Wet scrubber is provided as APCD. However, the wet scrubber is found in poor condition, with rust.
- Stack monitoring could not be performed due to lacks of spiral staircase and observation platform for monitoring, as required by guidelines.
- Fugitive emission is observed from spillage of carbon in the working area.
- There is no specific emission standard notified for end of life waste tyre pyrolysis plant.
- Work zone air quality has been assessed in the process area of the unit. The results indicate high level of PM10 with value varying from 170.92 to 196.36 $\mu g/m^3$ against the permissible limit of 120 $\mu g/m^3$ for industrial area.
- Ambient air quality was assessed in the vicinity of the unit located at Kamal Dharamkata, Jansath road.
- High level of PM_{10} is observed with value varying from 188.16 to 198.28 µg/m3 against the permissible limit of 120 µg/m3 for industrial area and 60 µg/m3 for residential & rural area.

Occupational Health and Odour Issue:
- Monitoring team felt odour in the working zone. The odour is rated as 4 when rated against the scale of 1-10 with 1 being the minimum and 10 being the maximum odour level.
- Odour is not felt outside the working zone.
- Workers at the unit were in poor working condition, without proper PPE kit,

	mask and safety gears. **Observations w.r.t. MOEF&CC SOP dated 24.11.2015** • There is no arrangement of reactor cooling by purging with nitrogen. • Adequate sensors and alarm systems to detect flammable vapors is not provided in the unit. • The unit do not have adequate firefighting systems, including sprinklers, fire hydrants, pumping systems, and water storage. CO_2 fire extinguishers were available in the unit. • Proper records for the supply of carbon black and oil to actual users/processors are not maintained
16.	**Recommendations:** **Regulatory Compliance:** • Unit shall obtain the NOC from UPGWD for ground water abstraction • Unit shall obtain Hazardous Waste Authorizations from UPPCB. • Unit shall register themself under EPR on CPCB portal as tyre waste recycler to comply with environmental regulations. **Production Details:** • Unit shall upgrade to implement a mechanized feeding system. • Unit shall replace wood with purge water or pyro-gas for initial heating of the reactor by installing balloons for storage of excess pyro gas and ensure proper operation of flaring systems. **Wastewater management:** • Install ETPs & ensure its proper operation & maintenance along with records. • The unit shall ensure recycling of treated effluent in the process to maintain ZLD status as per consent **Air Pollution Control:** • Stack shall be properly maintained and operated as per CPCB guideline. • Ensure removal of carbon through mechanized system without any spillage during the collection of the carbon in the bags. **Occupational Health and Odour Issue:** • Leakage from pipeline of oil and gas need to repaired to prevent odour in working zone. • Purge water (Oil Mixed water) shall be properly stored and treated in ETP to avoid odour issue. • Proper hygienic working shall be ensured. • Worker shall be provided PPE Kit, Mask and safety gears. **Recommendations w.r.t. MOEF&CC SOP dated 24.11.2015** • Unit shall install digital instrumentation and automated control systems (PLC) for accurate temperature and pressure measurement and process control with safety interlocks to cut off heating in case of temperature or pressure increases. • Implement nitrogen purging systems to cool reactors as per SOP guidelines. • Install PLC Based Gas Detection Sensors along with Hooters to indicate any flammable vapour leakages. • Enhance firefighting measures by installing sprinklers, fire hydrants, pumping systems, and water storage.

	• Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Unit main entrance gate

Figure 2 Tyres stored inside premises

Figure 3 Unit process area

Figure 4 Pyre chamber operational at the time of monitoring

Figure 5 Pyro chamber filled with raw material

Figure 6 Pyro Oil storage and filter

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of life waste tyre pyrolysis plant)

A. General section **Date of inspection:05.07.2024**

1.	Name of the unit with complete postal address:	M/s Ramai Enterprises, Jansath Road	
2.	Spatial Co-ordinates (Latitude & longitude	29.426805, 77.765591	
3.	Contact details	Mangat Ram-9639504223	
4.	Industry Operational status	Operational	
5.	Consent status	Air Consent	Not available
		Water Consent	Not available
		Extended producer responsibility certificate	Not available

B. Production process and infrastructure

6.	**End of Life waste tyre pyrolysis Process**	Batch process, 2 vessels each with 10 T/day capacity, each batch has residence time of 14-18 hrs (8 hour of heating time and 10 hour of cooling time)	
7.	**Production**		
	a. Consented Capacity (TPD)	Consent not available	
	b. Plot area provided (m^2)	As informed 5000 m^2	
	c. Actual production (as per logbook)	Logbook not maintained	
8.	**Process Requirement as per MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015**		
	a. Programme Logic Controller (PLC) based system for control of temperature and pressure inside the reactor provided		No
	b. Compressor/ air blower has to be installed for mixing of air with pyre water for fuel feed		Yes
	c. Mechanized system for removal of char provided		No
	d. Pressure and temperature sensor provided in pyrolysis chamber		Yes
	e. permanent arrangement made for adequate capacity for Nitrogen purging.		No cooling by fan
9.	**Fresh water consumption**		
	a. NOC from CGWA/other authorized body	No available	
	b. Details of borewell	2 No. borewell without flow meter	
	c. Estimated Freshwater Consumption	6-7 KLD	
10.	**Effluent Management**		

	a. Consented discharge value (KLD)	Consent not available
	b. Actual effluent generation (KLD) (as per logbook)	ETP under commissioning stage
	c. ETP design capacity	2KLD
	d. Treatment scheme	Physico-chemical+ tertiary filtration
	e. Metering at ETP	under commissioning
	f. Estimated Effluent generation	200 – 300 liters per day per reactor (400-600 liters per day for the unit)
11.	**Air Pollution management**	
	a. Stack details	Stack Height -93 feet, diameter 10 inch
	b. APCD installed	Wet scrubber
	c. Fuel used	Wood for fire initiation followed by pyro gas
	d. Actual Fuel consumption	No record maintained
	e. Stack monitoring results	Stack monitoring could not be performed due to lack of appropriate platform with stair as per CPCB guideline
12.	**Hazardous waste management**	
	Authorization status	Applied. However, application copy is not provided
	Copy of agreement with recyclers /TSDF	Not available
	Hazardous waste generated	No record provided
	Disposal details of waste generated	No record provided
13.	**Safety measure adopted**	
	Sensors along with alarm system to detect any leakage of flammable vapors installed	Not provided
	Fire detectors, fire hydrant & CO_2 type fire extinguisher provided	Not provided
14.	**Compliance Status: Non-complying w.r.t. regulatory requirement -** • NOC for groundwater abstraction from UP ground water department (UPGWD) • Hazardous waste authorization from UPPCB • ZLD condition in CTO issued by UPPCB • Not having ETP • General discharge standards • EPR registration on CPCB portal **Non-adherence w.r.t MOEF&CC SOP dated 24.11.2015 -** Mechanical feeding of raw material, mechanical unloading of carbon, fugitive emission, alarm system, automation, fire safety and occupational health	
15.	**Observation:** **Regulatory Compliance:** • The unit do not have valid Consent under Air/Water Acts from UPPCB. • Estimated requirement of freshwater by the unit is from 3 to 7 KLD for purpose of cooling tower/condenser makeup water. The unit have 2 bore well to meet the freshwater requirement, however, the unit has not obtained NOC from UPGWD for ground water abstraction. • The unit do not have Hazardous Waste Authorization from UPPCB. • The unit is not registered under EPR as tyre waste recycler.	

Production Details:

- Unit has 2-pyro reactor chamber, each having capacity of 10 tonne. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonne of Pyro-Oil (Fuel Oil), 2.4 tonne of carbon, 1.2 tonne of steel and around 1.6 tonne of pyro-gas which is recycled back for heating of reactor.
- Each reactor chamber generates 1.6 tonnes of pyro-gas daily which is released as flue gas after being used as fuel. The flue gas passes through attached stack, with a wet scrubber serving as the Air Pollution Control Device (APCD). The stack is connected to the reactor chamber's jacket.
- Manual feeding of whole tyres is observed instead of a mechanized process.
- Initial heating is done using wood rather than pyro-gas or purge water as requisite in SOP.
- Flaring systems with a minimum height of 30 meters were installed, but no storage balloons for excess pyro gas were observed as requisite in SOP.
- Manual unloading practices is observed in the unit in place of mechanized spillage-free arrangements for carbon removal leading.

Waste Water Management:

- Estimated process wastewater generation as effluent from the process (purge water) and scrubbing system is @ 200-300 l/day/batch. Unit has 2 reactors so estimated 400-600 liter of effluent is generated on daily basis.
- The unit has not installed the ETP.
- In absence of operational ETP and small quantity of effluent generation suspected disposal of effluent through tankers cannot be ruled out.

Air Pollution Control:

- Stack of 30-meter height is installed.
- Wet scrubber is provided as APCD. However, the wet scrubber is found in poor condition, with rust.
- Stack monitoring could not be performed due to lacks of spiral staircase and observation platform for monitoring, as required by guidelines.
- Fugitive emission is observed from spillage of carbon in the working area.
- There is no specific emission standard notified for end of life waste tyre pyrolysis plant.
- Work zone air quality has been assessed in the process area of the unit. The results indicate high level of PM10 with value varying from 166.38 to 196.22 $\mu g/m^3$ against the permissible limit of 120 $\mu g/m^3$ for industrial area.
- Ambient air quality was assessed in the vicinity of the unit located at Kamal Dharamkata, Jansath road.
- High level of PM_{10} is observed with value varying from 188.16 to 198.28 µg/m3 against the permissible limit of 120 µg/m3 for industrial area and 60 µg/m3 for residential & rural area.

Occupational Health and Odour Issue:

- Monitoring team felt odour in the working zone. The odour is rated as 7 when rated against the scale of 1-10 with 1 being the minimum and 10 being the maximum odour level.
- Odour is not felt outside the working zone.
- Workers at the unit were in poor working condition, without proper PPE kit, mask and safety gears.

Observations w.r.t. MOEF&CC SOP dated 24.11.2015

- There is no arrangement of reactor cooling by purging with nitrogen.
- Adequate sensors and alarm systems to detect flammable vapors is not provided in the unit.

	• The unit do not have adequate firefighting systems, including sprinklers, fire hydrants, pumping systems, and water storage. CO_2 fire extinguishers were available in the unit. • Proper records for the supply of carbon black and oil to actual users/processors are not maintained.
16.	**Recommendations:** **Regulatory Compliance:** • Unit shall obtain consent under Air/Water Acts from UPPCB. • Unit shall obtain the NOC from UPGWD for ground water abstraction • Unit shall obtain Hazardous Waste Authorizations from UPPCB. • Unit shall register themself under EPR on CPCB portal as tyre waste recycler to comply with environmental regulations. **Production Details:** • Unit shall upgrade to implement a mechanized feeding system. • Unit shall replace wood with purge water or pyro-gas for initial heating of the reactor by installing balloons for storage of excess pyro gas and ensure proper operation of flaring systems. **Wastewater management:** • Install ETPs & ensure its proper operation & maintenance along with records. • The unit shall ensure recycling of treated effluent in the process to maintain ZLD status as per consent **Air Pollution Control:** • Stack shall be properly maintained and operated as per CPCB guideline. • Ensure removal of carbon through mechanized system without any spillage during the collection of the carbon in the bags. **Occupational Health and Odour Issue:** • Leakage from pipeline of oil and gas need to repaired to prevent odour in working zone. • Purge water (Oil Mixed water) shall be properly stored and treated in ETP to avoid odour issue. • Proper hygienic working shall be ensured. • Worker shall be provided PPE Kit, Mask and safety gears. **Recommendations w.r.t. MOEF&CC SOP dated 24.11.2015** • Unit shall install digital instrumentation and automated control systems (PLC) for accurate temperature and pressure measurement and process control with safety interlocks to cut off heating in case of temperature or pressure increases. • Implement nitrogen purging systems to cool reactors as per SOP guidelines. • Install PLC Based Gas Detection Sensors along with Hooters to indicate any flammable vapour leakages. • Enhance firefighting measures by installing sprinklers, fire hydrants, pumping systems, and water storage. • Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance.

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4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Unit premises entrance without proper gate and hoarding

Figure 2 Unit Premises and Oil tanks

Figure 3 Scrap stored in unit premises

Figure 4 Pyro chamber

Figure 5 Pyro chamber running of fuel wood

Figure 6 ETP under commissioning

Figure 7 Unit process area

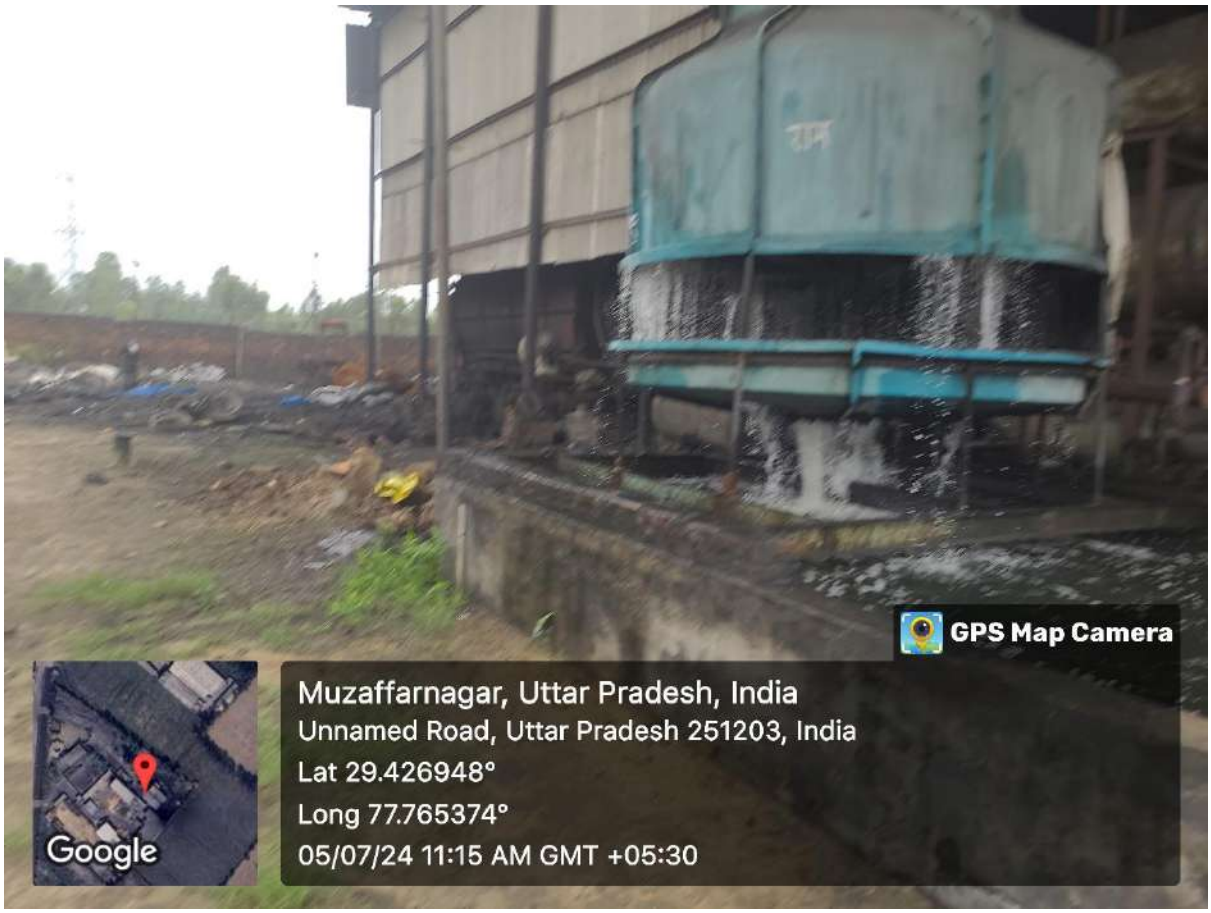

Figure 8 Cooling Tower

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of Life waste tyre pyrolysis plant)

A. General section **Date of inspection:04.07.2024**

1.	Name of the unit with complete postal address:	M/s Shri Bankey Bihari Enterprises, Khasra No. 510, Vill- Salarpur, Tehsil Jansath, Muzaffarnagar-251314	
2.	Spatial Co-ordinates (Latitude & longitude	29.320233, 77.876183	
3.	Contact details	Amit Bansal-9716854991, a.bansal1291@gmail.com	
4.	Industry Operational status	Non-Functional (under maintenance)	
5.	Consent status	Air Consent	CCA available with validity till 31.07.2025
		Water Consent	
		Extended producer responsibility certificate	Not available

B. Production process and infrastructure

6.	**End of Life waste tyre pyrolysis Process**	Batch process, 2 Pyro-reactor each with 10 Tonne capacity, each batch has residence time of 14-18 hrs (8 hour of heating time and 10 hour of cooling time)	
7.	**Production**		
	a. Consented Capacity (TPD)	13 TPD	
		Pyrolysis oils	6 TPD
		Char	5 TPD
		Steel	2 TPD
	b. Plot area provided (m^2)	7 Bigha, 5250 m^2	
	c. Actual production (as per logbook)	Logbook maintained Total production 7 TPD	
8.	**Process Requirement as per MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015**		
	a. Programme Logic Controller (PLC) based system for control of temperature and pressure inside the reactor provided		No, Manual
	b. Compressor/ air blower has to be installed for mixing of air with pyre water for fuel feed		Compressor provided
	c. Mechanized system for removal of char provided		Direct from vessel through valve
	d. Pressure and temperature sensor provided in pyrolysis chamber		Yes
	e. Arrangement made for adequate capacity for Nitrogen purging.		Available (Nitrogen Tank cylinder 6 m3)
9.	**Fresh water consumption**		
	a. NOC from UP ground water department	Not available	

	b. Details of borewell	1 No. without flow meter
	c. Actual withdrawal quantity	Not available, logbook not maintained
	d. Estimated Freshwater Consumption	6-7 KLD
10.	**Effluent Management**	
	a. Consented discharge value (KLD)	To be operated on ZLD
	b. Actual effluent generation (KLD) (as per logbook)	600 L/day pyro water
	c. ETP design capacity	Not installed, yet to commissioned
11.	**Air Pollution management**	
	a. Stack details	Stack Height -30 meter, diameter- 10 inch
	b. APCD installed	Wet scrubber
	c. Fuel used	Wood for fire initiation followed by pyro gas
	d. Actual Fuel consumption	No record maintained
	e. Stack monitoring results	Stack monitoring could not be performed due to lack of appropriate platform with stair as per CPCB guideline
12.	**Hazardous waste management**	
	Authorization status	Not available
	Copy of agreement with recyclers /TSDF	The provisional agreement with Uttar Pradesh Waste Management Project was expired on 06.06.2024. Unit does not have valid agreement.
	Hazardous waste generated	Details not available
	Disposal details of waste generated	Details not available
13.	**Safety measure adopted**	
	Sensors along with alarm system to detect any leakage of flammable vapors installed	No
	Fire detectors, fire hydrant & CO_2 type fire extinguisher provided	Yes
14.	**Compliance Status: Non-complying w.r.t. regulatory requirement -** • NOC for groundwater abstraction from UP ground water department (UPGWD) • Hazardous waste authorization from UPPCB • ZLD condition in CTO issued by UPPCB • Not having operational ETP • EPR registration on CPCB portal **Non-adherence w.r.t MOEF&CC SOP dated 24.11.2015 -** Mechanical feeding of raw material, mechanical unloading of carbon, fugitive emission, alarm system, automation, fire safety and occupational health	
15.	**Observations:** **Regulatory Compliance:** • The unit has obtained valid Consent under Air/Water Acts from UPPCB for production of 13 TPD (Fuel oil-6, Carbon-5, Steel wire-2 MTD) through recycling of end of life waste tyres. • Estimated requirement of freshwater by the unit is from 6 to 7 KLD for purpose of cooling tower/condenser makeup water. The unit have 1 bore	

well to meet the freshwater requirement, however, the unit has not obtained NOC from UPGWD for ground water abstraction.
- The unit do not have Hazardous Waste Authorization from UPPCB.
- The unit is not registered under EPR as tyre waste recycler.

Production Details:
- Unit has 2-pyro reactor chamber, each having capacity of 10 tonne. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonne of Pyro-Oil (Fuel Oil), 2.4 tonne of carbon, 1.2 tonne of steel and around 1.6 tonne of pyro-gas which is recycled back for heating of reactor.
- Each reactor chamber generates 1.6 tonnes of pyro-gas daily which is released as flue gas after being used as fuel. The flue gas passes through an attached stack, with a wet scrubber serving as the Air Pollution Control Device (APCD). The stack is connected to the reactor chamber's jacket.
- Manual feeding of whole tyres is observed instead of a mechanized process.
- Initial heating is done using wood rather than pyro-gas or purge water as requisite in SOP.
- Flaring systems with a minimum height of 30 meters were installed, but no storage balloons for excess pyro gas were observed as requisite in SOP.
- Char removal is handled through valve of pyro chamber manually, no mechanised system was available for same.

Waste Water Management:
- Estimated process wastewater generation as effluent from the process (purge water) and scrubbing system is @ 200-300 l/day/batch. Unit has 2 reactors so estimated 400-600 liter of effluent is generated on daily basis which matches with the logbook data of the unit having actual effluent generation of 600 L/day.
- As per consent unit has to operate on ZLD though recycling of treated effluent via. ETP or using within the process. The unit has not installed the ETP.
- In absence of operational ETP and small quantity of effluent generation suspected disposal of effluent through tankers cannot be ruled out.

Air Pollution Control:
- Stack of 30-meter height is installed.
- Wet scrubber is provided as APCD. However, the wet scrubber is found in poor condition, with rust.
- Stack monitoring could not be performed due to lacks of spiral staircase and observation platform for monitoring, as required by guidelines.
- Fugitive emission is observed from spillage of carbon in the working area.
- There is no specific emission standard notified for end of life waste tyre pyrolysis plant.
- Ambient air quality was assessed in the vicinity of the unit at two locations namely; Ecosoul Home Pvt. Ltd and Swaroop Rolling Mills, Jansath road.
- High level of PM_{10} is observed at both locations with value varying from 138.74 to 159.28 µg/m3 against the permissible limit of 120 µg/m3 for industrial area and 60 µg/m3 for residential & rural area.

Occupational Health and Odour Issue:
- Monitoring team felt odour in the working zone. The odour is rated as 4 when rated against the scale of 1-10 with 1 being the minimum and 10 being the maximum odour level.
- Odour is not felt outside the working zone.
- Workers at the unit were in poor working condition, without proper PPE kit,

	mask and safety gears. **Observations w.r.t. MOEF&CC SOP dated 24.11.2015** • There is no arrangement of reactor cooling by purging with nitrogen. • Adequate sensors and alarm systems to detect flammable vapors is not provided in the unit. • The unit do not have adequate firefighting systems, including sprinklers, fire hydrants, pumping systems, and water storage. CO_2 fire extinguishers were available in the unit. • Proper records for the supply of carbon black and oil to actual users/processors are not maintained.
16.	**Recommendations:** **Regulatory Compliance:** • Unit shall obtain the NOC from UPGWD for ground water abstraction • Unit shall obtain Hazardous Waste Authorizations from UPPCB. • Unit shall register themself under EPR on CPCB portal as tyre waste recycler to comply with environmental regulations. **Production Details:** • Unit shall upgrade to implement a mechanized feeding system. • Unit shall replace wood with purge water or pyro-gas for initial heating of the reactor by installing balloons for storage of excess pyro gas and ensure proper operation of flaring systems. **Wastewater management:** • Install ETPs & ensure its proper operation & maintenance along with records. • The unit shall ensure recycling of treated effluent in the process to maintain ZLD status as per consent **Air Pollution Control:** • Stack shall be properly maintained and operated as per CPCB guideline. • Ensure removal of carbon through mechanized system without any spillage during the collection of the carbon in the bags. **Occupational Health and Odour Issue:** • Leakage from pipeline of oil and gas need to repaired to prevent odour in working zone. • Purge water (Oil Mixed water) shall be properly stored and treated in ETP to avoid odour issue. • Proper hygienic working shall be ensured. • Worker shall be provided PPE Kit, Mask and safety gears. **Recommendations w.r.t. MOEF&CC SOP dated 24.11.2015** • Unit shall install digital instrumentation and automated control systems (PLC) for accurate temperature and pressure measurement and process control with safety interlocks to cut off heating in case of temperature or pressure increases. • Implement nitrogen purging systems to cool reactors as per SOP guidelines. • Install PLC Based Gas Detection Sensors along with Hooters to indicate any flammable vapour leakages. • Enhance firefighting measures by installing sprinklers, fire hydrants, pumping systems, and water storage. • Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance.

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Main Entrance gate of the Unit

Figure 2 Unit premises and stored tyres inside premises

Figure 3 ETP system yet to be installed

Figure 4 Pyro-oil tankers inside premises

Figure 5 Unit process area

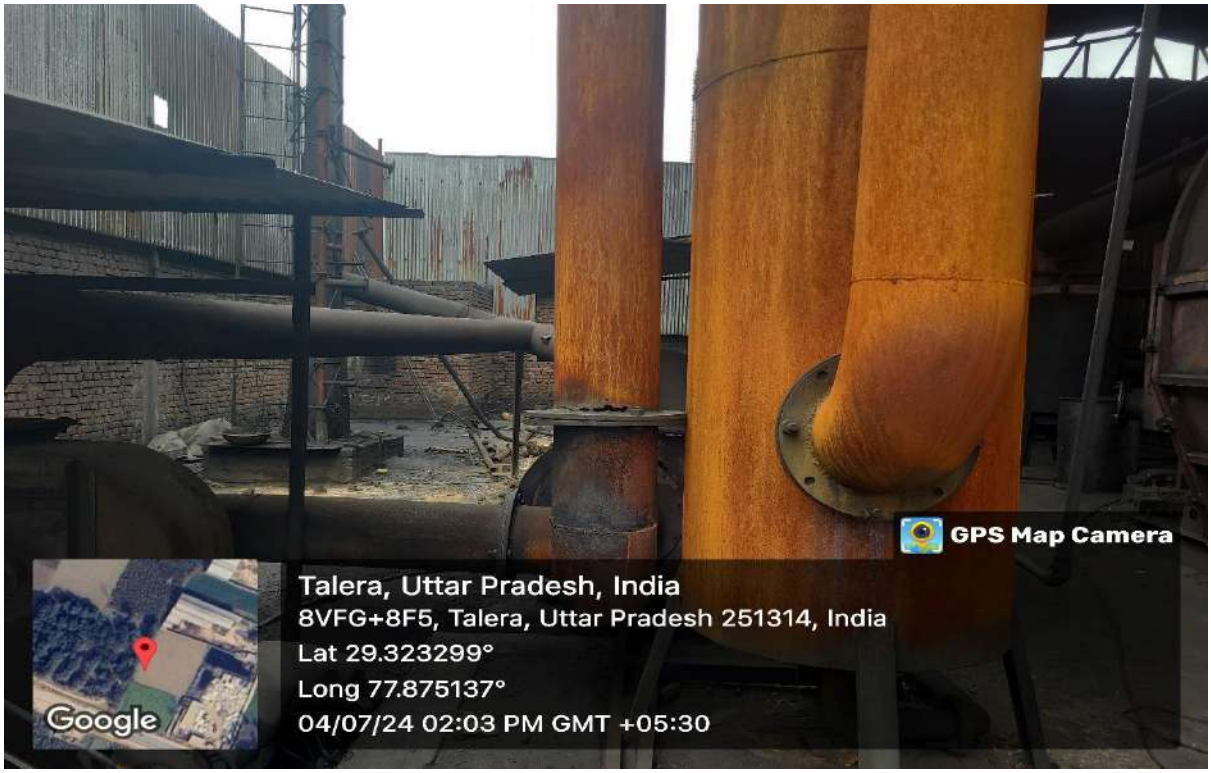

Figure 6 Unit wet scrubber system found rusted with cracks

Figure 7 Process area

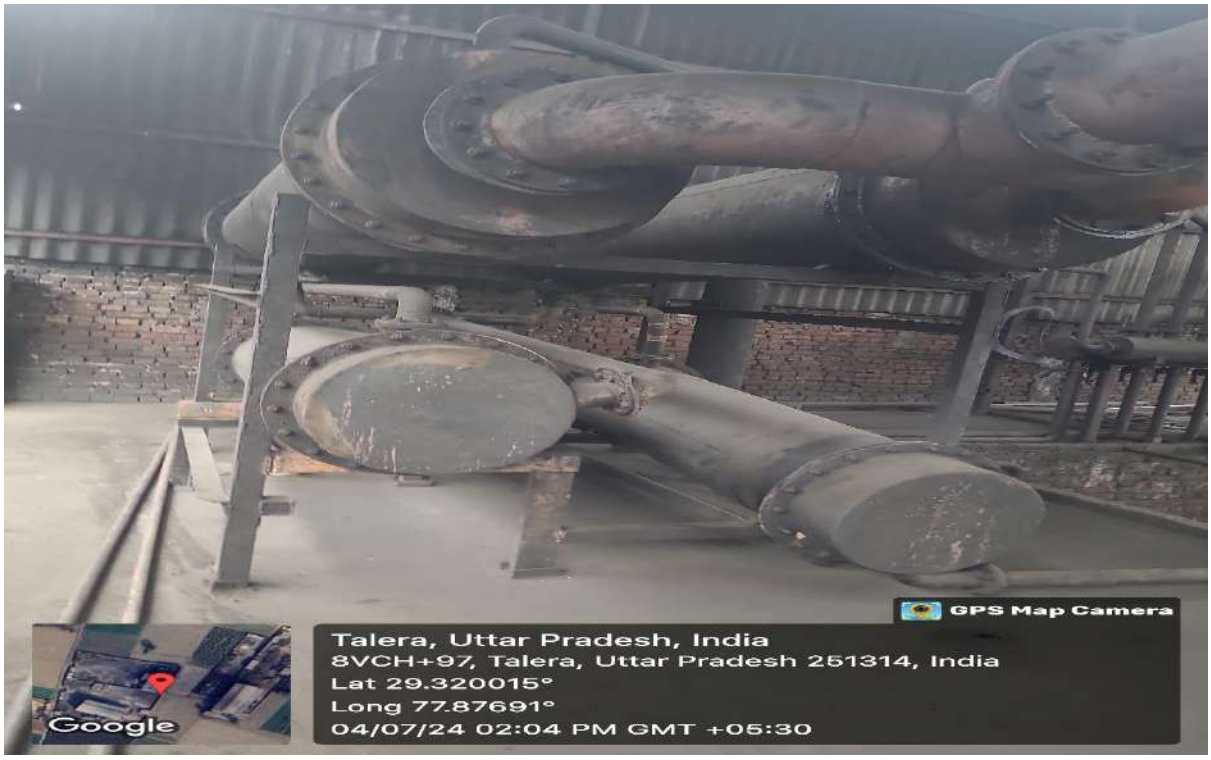

Figure 8 Oil and gas compressor system

Figure 9 Cooling Tower

Figure 10 Borewell inside unit's premises

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of life waste tyre pyrolysis plant)

A. General section **Date of inspection:04.07.2024**

1.	Name of the unit with complete postal address:	M/s Shri Jee Reclaiming Mills Pvt Ltd, 5 km. Jansath to Meerapur Road, Vill- Salarpur, Muzaffarnagar-251314	
2.	Spatial Co-ordinates (Latitude & longitude	29.311501,77.902193	
3.	Contact details	Mr. Vikash Kaushik-9058133215 Mr. Rajendra Kaushik-9837071122	
4.	Industry Operational status	Non-operational since 2022	
5.	Consent status	Air Consent	CCA available with validity till 31.07.2024
		Water Consent	
		Extended producer responsibility certificate	Not available

B. Production process and infrastructure

6.	**End of Life waste tyre pyrolysis Process**	Batch process, 2 Vessels of 12 T/day capacity each, one chamber found dismantled
7.	**Production**	
	a. Consented Capacity (TPD)	Fuel oil- 6, Carbon black-5, Steel wire- 3 MT
	b. Plot area provided (m^2)	5 Bigha, 3750 m^2
	c. Actual production (as per logbook)	Non-operational since 2022
8.	**Fresh water consumption**	
	a. NOC from CGWA/other authorized body	Not available
	b. Details of borewell	2 No without flow meter
9.	**Effluent Management**	
	a. Consented discharge value (KLD)	ZLD, all scrubbing water to be recycled
	b. ETP design capacity	No ETP
10.	**Air Pollution management**	
	a. Stack details	Stack Height 30 m, diameter- 10 inch
11.	**Hazardous waste management**	
	Authorization status	Not available
12.	**Compliance Status: Unit is non-operational since 2022**	
13.	**Observations:** • The unit was found closed at the time of inspection and has been non-operational for the past 1.5 years. • The unit has two pyro chambers, each having a 12-tonne capacity. One chamber found in dismantled state. • The unit has obtained Consent under Air/Water Acts from UPPCB valid till 31.07.2024	

14.	**Recommendations:** • The unit shall remain closed until it meets regulatory standards and obtains necessary approvals for reopening. • The unit pyrolysis process shall be aligned with batch processes as outlined in the MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015.

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Main Entrance of the Unit

Figure 2 Empty oil tank inside unit premises

Figure 3 Pyro chamber cleaning

Figure 4 Pyro oil waste and rain water accumulated in drums (container)

CENTRAL POLLUTION CONTROL BOARD
Water Quality Management-II
INDUSTRY INSPECTION FORMAT (End of life waste tyre pyrolysis plant)

A. General section **Date of inspection: 05.07.2024**

1.	Name of the unit with complete postal address:	M/s Vinayak Industries, Vill- Shernagar, Near Alnoor Exports, Jansath Road, Muzaffarnagar-251001	
2.	Spatial Co-ordinates (Latitude & longitude	29.42659,77.764376	
3.	Contact details	Amit Bansal-9897008240	
4.	Industry Operational status	Operational	
5.	Consent status	Air Consent	CCA available with validity till 31.07.2027
		Water Consent	
		Extended producer responsibility certificate	Not available

B. Production process and infrastructure

6.	**End of Life waste tyre pyrolysis Process**	Batch process, 2 Pyro-reactor each with 10 Tonne capacity, each batch has residence time of 14-18 hrs (8 hour of heating time and 10 hour of cooling time)	
7.	**Production details**		
	a. Consented Capacity (TPD)	19 TPD	
		Pyrolysis oils	8 TPD
		Char	8 TPD
		Steel	3 TPD
	b. Plot area provided (m^2)	Approx. 4500 m^2 (6 Bigha) as informed by unit representative	
	c. Actual production (as per logbook)	Not maintained	
8.	**Process Requirement as per MOEF&CC Standard Operating Procedure (SOP) – "Import and recycling of waste tyre scrap for production of tyre pyrolysis oil" dated 24.11.2015**		
	a. Programme Logic Controller (PLC) based system for control of temperature and pressure inside the reactor provided		Not available
	b. Compressor/ air blower has to be installed for mixing of air with pyre water for fuel feed		Yes
	c. Mechanized system for removal of char provided		No, manual
	d. Pressure and temperature sensor provided in pyrolysis chamber		Yes
	e. Arrangement made for adequate capacity for Nitrogen purging.		Not provided. Made provision for cooling by fan only
9.	**Fresh water consumption**		
	a. NOC from UP ground water department	Not available	

	b. Details of borewell	2 No. found installed without flow meter		
	c. Actual withdrawal quantity	Not available, logbook not maintained		
	d. Estimated Freshwater Consumption	6-7 KLD		
10.	**Effluent Management (pyro water & others)**			
	a. Consented discharge value (KLD)	To be operated at ZLD		
	b. Actual effluent generation (KLD) (as per logbook)	Logbook not maintained,		
	c. ETP design capacity	1 KL, ETP found non-operational during visit		
	d. Treatment scheme	Physico-chemical and tertiary filtration		
	e. Metering at ETP	ETP inlet	Not provided	
		ETP outlet	Not provided	
	f. Estimated Effluent generation	200 – 300 liters per day per reactor (400-600 liters per day for the unit)		
	a. Effluent Characteristics			
	Parameter	**ETP outlet**	**General discharge norms**	**Compliance status**
	pH	5.16	5.5-9.5	complying
	BOD (mg/l)	**3770**	30	**Non- complying**
	COD (mg/l)	**42480**	250	**Non- complying**
	TSS (mg/l)	**920**	100	**Non- complying**
	TDS (mg/l)	**9732**	2100	**Non- complying**
	TS (mg/l)	**10652**		
	b. ETP Sludge generation			
	a. Daily sludge generation	No record maintained		
	b. Sludge Management & disposal	No information available		
11.	**Air Pollution management**			
	a. Stack details	Stack Height - 30 m, diameter- 10 inch		
	b. APCD installed	Wet scrubber provided		
	c. Fuel used	Wood for fire initiation followed by pyro gas		
	d. Actual Fuel consumption	No record maintained		
	e. Stack monitoring results	Stack monitoring could not be performed due to lack of appropriate platform with stair as per CPCB guideline		
12.	**Hazardous waste management**			
	Authorization status	Applied. However, application copy is not provided		
	Copy of agreement with recyclers /TSDF	Not available		
	Hazardous waste generated	No record provided		
	Disposal details of waste generated	No record provided		
13.	**Safety measure adopted**			
	Sensors along with alarm system to detect any leakage of flammable vapors installed	No		
	Fire detectors, fire hydrant & CO_2 type fire extinguisher provided	Only fire extinguisher available		
14.	**Compliance Status: Non-complying w.r.t. regulatory requirement -**			

	• NOC for groundwater abstraction from UP ground water department (UPGWD) • Hazardous waste authorization from UPPCB • ZLD condition in CTO issued by UPPCB • Not having ETP • General discharge standards • EPR registration on CPCB portal **Non-adherence w.r.t MOEF&CC SOP dated 24.11.2015 -** Mechanical feeding of raw material, mechanical unloading of carbon, fugitive emission, alarm system, automation, fire safety and occupational health
15.	**Observations:** **Regulatory Compliance:** • The unit has obtained valid Consent (CCA) under Air/Water Acts from UPPCB for production of 19 TPD (Fuel oil-8 TPD, Carbon-8 TPD, Steel wire-3 TPD) through recycling of end of life waste tyres. • Estimated requirement of freshwater by the unit is from 3 to 7 KLD for purpose of cooling tower/condenser makeup water. The unit have 2 bore well to meet the freshwater requirement, however, the unit has not obtained NOC from UPGWD for ground water abstraction. • The unit do not have Hazardous Waste Authorization from UPPCB. • The unit is not registered under EPR as tyre waste recycler. **Production Details:** • Unit has 2-pyro reactor chamber, each having capacity of 10 tonne. Residence time of each batch is around 18 hours with 8 hours of heating time and 10 hours of cooling time. In each batch around 8 tonne of end of life waste tyres is fed to each reactor producing around 2.8 tonne of Pyro-Oil (Fuel Oil), 2.4 tonne of carbon, 1.2 tonne of steel and around 1.6 tonne of pyro-gas which is recycled back for heating of reactor. • Each reactor chamber generates 1.6 tonnes of pyro-gas daily which is released as flue gas after being used as fuel. The flue gas passes through an attached stack, with a wet scrubber serving as the Air Pollution Control Device (APCD). The stack is connected to the reactor chamber's jacket. • Manual feeding of whole tyres as well as chipped (shredded) tyres is observed instead of a mechanized process. • Initial heating is done using wood rather than pyro-gas or purge water as requisite in SOP. • Flaring systems with a minimum height of 30 meters were installed, but no storage balloons for excess pyro gas were observed as requisite in SOP. • Manual unloading practices is observed in the unit in place of mechanized spillage-free arrangements for carbon removal leading. **Waste Water Management:** • Estimated process wastewater generation as effluent from the process (purge water) and scrubbing system is @ 200-300 l/day/batch. Unit has 2 reactors so estimated 400-600 liter of effluent is generated on daily basis. • As per consent unit has to operate on ZLD though recycling of treated effluent via. ETP or using within the process. • The unit has ETP of 1 KL capacity, which was found not operational at the time of inspection. • The sample was collected from ETP outlet. • Analysis results of sample collected shows pH 5.16 against norms of 5.5-9.5, BOD 3770.0 mg/l against norms of 30 mg/l, COD 42480.0 mg/l against norms of 250 mg/l, TSS 920.0 mg/l against norms of 100 mg/l, TDS 9732.0 mg/l against norms of 2100 mg/l & Total solids as 10652.0 mg/l which indicate non-compliance of unit w.r.t general discharge norms for BOD, COD, TSS &TDS.

	• In view non-operational ETP, non-complying effluent discharge from ETP and small quantity of effluent generation suspected disposal of effluent through tankers cannot be ruled out. **Air Pollution Control:** • Stack of 30-meter height is installed. • Wet scrubber is provided as APCD. However, the wet scrubber is found in poor condition, with rust and leakage. • Stack monitoring could not be performed due to lacks of spiral staircase and observation platform for monitoring, as required by guidelines. • Fugitive emission is observed from spillage of carbon in the working area. • There is no specific emission standard notified for end of life waste tyre pyrolysis plant. • Work zone air quality has been assessed in the process area of the unit. The results indicate high level of PM10 with value varying from 178.8 to 192.46 µg/m^3 against the permissible limit of 120 µg/m^3 for industrial area. • Ambient air quality was assessed in the vicinity of the unit located at Kamal Dharamkata, Jansath road. • High level of PM_{10} is observed with value varying from 188.16 to 198.28 µg/m3 against the permissible limit of 120 µg/m3 for industrial area and 60 µg/m3 for residential & rural area. **Occupational Health and Odour Issue:** • Monitoring team felt odour in the working zone. The odour is rated as 6 when rated against the scale of 1-10 with 1 being the minimum and 10 being the maximum odour level. • Odour is not felt outside the working zone. • Workers at the unit were in poor working condition, without proper PPE kit, mask and safety gears. **Observations w.r.t. MOEF&CC SOP dated 24.11.2015** • There is no arrangement of reactor cooling by purging with nitrogen. • Adequate sensors and alarm systems to detect flammable vapors is not provided in the unit. • The unit do not have adequate firefighting systems, including sprinklers, fire hydrants, pumping systems, and water storage. • Proper records for the supply of carbon black and oil to actual users/processors are not maintained.
16.	**Recommendations:** **Regulatory Compliance:** • Unit shall obtain the NOC from UPGWD for ground water abstraction • Unit shall obtain Hazardous Waste Authorizations from UPPCB. • Unit shall register themself under EPR on CPCB portal as tyre waste recycler to comply with environmental regulations. **Production Details:** • Unit shall upgrade to implement a mechanized feeding system. • Unit shall replace wood with purge water or pyro-gas for initial heating of the reactor by installing balloons for storage of excess pyro gas and ensure proper operation of flaring systems. **Wastewater management:** • Install ETPs & ensure its proper operation & maintenance along with records. • The unit shall ensure recycling of treated effluent in the process to maintain ZLD status as per consent

	Air Pollution Control: • Stack shall be properly maintained and operated as per CPCB guideline. • Ensure removal of carbon through mechanized system without any spillage during the collection of the carbon in the bags. **Occupational Health and Odour Issue:** • Leakage from pipeline of oil and gas need to repaired to prevent odour in working zone. • Purge water (Oil Mixed water) shall be properly stored and treated in ETP to avoid odour issue. • Proper hygienic working shall be ensured. • Worker shall be provided PPE Kit, Mask and safety gears. **Recommendations w.r.t. MOEF&CC SOP dated 24.11.2015** • Unit shall install digital instrumentation and automated control systems (PLC) for accurate temperature and pressure measurement and process control with safety interlocks to cut off heating in case of temperature or pressure increases. • Implement nitrogen purging systems to cool reactors as per SOP guidelines. • Install PLC Based Gas Detection Sensors along with Hooters to indicate any flammable vapour leakages. • Enhance firefighting measures by installing sprinklers, fire hydrants, pumping systems, and water storage. • Maintain detailed records for the supply of carbon black and oil to actual users/processors to ensure traceability and compliance

Joint Committee:

S. no.	Name and designation of committee member	Organization	Signature
1.	Shri Vikas Kashyap, City Magistrate, Muzaffarnagar	District Administration (Nodal agency)	
2.	Shri Ankit Singh, Regional Officer, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
3.	Sh. Imran Ali, AEE, Regional Office, Muzaffarnagar	Uttar Pradesh Pollution Control Board	
4.	Ms. Reena Satavan, Additional Director & Scientist 'E'	Central Pollution Control Board	

Figure 1 Main entrance gate of the Unit

Figure 2 Shredded tyres inside unit premises

Figure 3 Unit premises and stored scrap

Figure 4 Process area

Figure 5 Cooling Tower

Figure 6 Pyro-chamber

Figure 7 Installed ETP under trial

ANNEXURE-6 15-7-24

कार्यालय जिला कृषि अधिकारी, मुजफ्फरनगर।

पत्रांक : 267 दिनांक : 08/7/24

सेवा में,

क्षेत्रीय अधिकारी
उ0प्र0 प्रदूषण नियंत्रण बोर्ड
मुजफ्फरनगर।

विषयः—मा0 एन0जी0टी0 में विचाराधीन ओ0ए0 संख्या 269/2024 सनव्वर बनाम स्टेट ऑफ यू0पी0 में पारित आदेश दिनांक 30.05.2024 के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक अपने पत्रांक 336/ओ0ए0 नं0 269/सनव्वर/24 दिनांक 27.06.2024 का संदर्भ ग्रहण करने का कष्ट करें। तत्क्रम में अवगत कराना है कि इस कार्यालय द्वारा दिनांक 04.07.2024, 05.07.2024 एवं 06.07.2024 में जानसठ रोड मुजफ्फरनगर के दोनों ओर स्थित आसपास के ग्रामों/क्षेत्र का सर्वेक्षण किया गया। सर्वेक्षण के दौरान जानसठ रोड मुजफ्फरनगर एवं इसके आसपास के क्षेत्र में स्थित उद्योगों के संचालन के कारण फसलों के खराब होने के सम्बन्ध में कोई भी तथ्य प्रकाश में नहीं आया है।

उपरोक्तानुसार आख्या आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु प्रेषित है।

भवदीय,

(मेघ सिंह)
सहा0विकास अधिकारी (कृषि)
विकास खण्ड सदर, मुजफ्फरनगर।

प्रतिलिपि — जिलाधिकारी महोदय, मुजफ्फरनगर को सादर सूचनार्थ प्रेषित।

सहा0विकास अधिकारी (कृषि)
विकास खण्ड सदर, मुजफ्फरनगर।

D/Neeraj Mittal/Letter 2024