

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
Principal Bench, New Delhi**

Original Application No.220/2019

Adil Ansari

Applicant

Vs.

M/s. C. L. Gupta Exports Pvt. Ltd. & Ors.

Respondent(s)

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Delhi- 110032

Date: 30.07.2021

Place: Delhi

Compliance Report on behalf of CPCB in compliance to Hon’ble NGT Order dated 04th February, 2021 in the matter of Adil Ansari vs M/s C.L. Gupta Exports Pvt. Ltd. & Ors, Amroha. U.P.in O.A. No. 220/2019

Hon’ble NGT in the matter of Adil Ansari Vs M/s C.L. Gupta Exports Pvt. Ltd. & Ors, Amroha. U.P. (herein after referred as “the unit”) O.A. No. 220/2019, vide its order dated 04th February, 2021 (**Annexure-I**) further directed the following:

“Let the joint Committee, alongwith a representative from IIT Roorkee, further verify the compliance status including the fact that no waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, in view of the fact that cyanide and other heavy metal have been found in the samples. Water audit may be got conducted by the CPCB. Assessment of compensation may be looked into jointly by CPCB and the State PCB. The joint Committee may furnish further status report as on 20.4.2021, on or before 15.05.2021 by e-mail at judicialngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. A copy of such report may also be provided to the industrial unit in question for its response, if any, before the next date.”

In compliance to the above mentioned order, a joint Committee inspection was scheduled to be carried out on 22-24.04.2021. The same was communicated to the members of Joint Committee vide CPCB letter dt. 09.04.2021 (**Annexure-II**). However, due to the COVID Wave-II spread, the inspection had to be postponed. The joint inspection was rescheduled to 30.06.2021-02.07.2021. This was communicated to the members of Joint Committee vide email dt. 22.06.2021 (**Annexure-III**).

Accordingly, the Joint Committee inspection was carried out by officials from CPCB, UPPCB, CGWB, IIT Roorkee and Sub-Divisional Magistrate, Amroha from 30.6.2021 to 02.07.2021. During the current joint inspection, all the manufacturing sections i.e., glass art ware, metal art ware, wooden art ware, marble art ware, thermocol block, corrugated sheet & carton mfg. sections, Pre-ETP-1, Common-ETP and Common-STP were found operational. Water Audit of the unit was also done by the Joint Committee in compliance to the Hon’ble NGT order.

Detailed joint inspection report of the unit is attached as **Annexure-IV**. The findings of the joint committee inspection report may be summarized as follows:

Status summary in compliance to Hon’ble NGT order dated 04.02.2021 in the matter of Adil Ansari Vs. M/s C. L. Gupta Exports Pvt. Ltd. & ors. (O.A. NO. 220/2019)

- Direction by the Tribunal: *“Let the joint Committee, alongwith a representative from IIT Roorkee, further verify the compliance status including the fact that no waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, in view of the fact that cyanide and other heavy metal have been found in the samples.”*

Status: As per the analysis results of the samples collected from the borewell of the unit and surroundings areas including nearby villages, presence of Cyanide has not been found. However, Manganese (0.39 mg/l against 0.3mg/l) & Iron (1.3mg/l against 0.3mg/l) and Iron (0.86mg/l against 0.3 mg/l) were found in the samples collected from the hand pump located near labour gate and borewell located behind the unit respectively. Table 6 may be referred for characteristics of collected ground water samples.

However, significant concentration of Cyanide was found in samples collected from common-STP inlet (3.19 mg/l) and detectable concentration was found in Pre-ETP-1 inlet (0.23 mg/l) & Pre-ETP-1 outlet (0.16 mg/l). Pre-ETP-1 effluent is further treated in common ETP.

- Direction by the Tribunal: *“Water audit may be got conducted by the CPCB.”*

Status: As directed, Joint Committee also carried out the Water Audit of the unit. The observations on Water Audit (based on information and logbooks provided by the unit) are summarized below:

- i. The unit has installed total 87 nos. of electromagnetic flow meters (with totalizer) at all the points of water/waste water i.e., ground water extraction points, water distribution lines to all the different sections of the unit, inlet, outlet and other different locations of Pre-ETPs/Common-ETP/Common-STP, treated waste water utilization points from Pre-ETPs/Common-ETP/Common-STP to all the different sections of the unit and waste water generation points of different sections of the unit.
- ii. The unit is maintaining logbook for all 87 nos. flow meters installed.

iii. As per the values observed during the first day of joint inspection i.e., 30.06.21, on the installed flow meters, the following is concluded:

- 1) Total intake of fresh water was 127KL (58KL to VIP & residential colonies as well as canteen and 69KL to various manufacturing divisions) for drinking purpose. Out of which 80% i.e. 101.6KL is expected to return to STP as sewage, which will be make up water for the STP treated waste water losses incurring in horticulture, utility, used as make up water in various industrial operations and sludge.
- 2) Total intake of fresh water (FW) and treated wastewater from common-STP to VIP & residential colonies as well as canteen was 69KL (58FW+11KLtreated), out of which 57KL was received as sewage at common-STP receiving sump; which is 82% of total water intake.
- 3) Total Fresh water (FW) input for drinking purpose & treated wastewater (from common-STP) recycled for toilet flushing to various manufacturing divisions was 69KL (1.5KL of general building included with wood division) and 66KL respectively making it total of 135KL, out which 118KL was received as sewage at common-STP receiving sump; which is 87% of total FW & recycled water intake for domestic purposes to various manufacturing divisions.
- 4) Total treated recycled effluent (from common-ETP) received at various manufacturing divisions for use in industrial activities was 138.9KL, out of which 110.2KL of effluent was being sent back to ETP section for treatment, which is 80% of total treated effluent recycled to divisions. The difference of 28.7KL between input & output is attributed to, 14.4KL being used as make up water for different industrial activities and 14.3KL as losses in processes (about 10%). The losses of about 27KL in ETP are being make-up by STP treated waste water.
- 5) Total intake of fresh water, common-STP treated waste water and common-ETP treated effluent to various manufacturing divisions and residential colonies was 284.9 KL, out of which 228.2KL was recycled to common-STP and common-ETP inlet. Also, 39KL of treated waste water from STP was being used in horticulture.
- 6) The losses in intake & output of total water consumption and water recycled is about 56.7KL in addition to losses of 39KL in horticulture. Thus making total losses to 95.7KL, which is 75% of total fresh water intake.
- 7) The losses of 95.7KL (i.e 33.5%) may be attributed to horticulture(39KL), utility(13KL), used as make up water (14.4KL) & boiler(18KL) and about 11.3KL (i.e 3.9%) are process & evaporation losses.
- 8) The unit is recycling the treated sewage & treated trade effluent (from common-STP & common-ETP) for industrial purpose and nowhere it was found using fresh water in industrial activities. Fresh water is only being used for drinking purpose in various manufacturing divisions.

- Direction by the Tribunal: “Assessment of compensation may be looked into jointly by CPCB and the State PCB.”

Status: As per the Hon’ble NGT order dated 06.08.2020 and the compliance status report of the unit prepared and submitted by the joint committee CPCB, UPPCB, SDM, Amroha & CGWA, in compliance to NGT order dated 29.08.2019, following amount of EC was imposed on the unit:

- Rs. 74,45,160** /- For illegal extraction of Ground water
- Rs. 1,08,60,000/-** For violation of effluent discharge/ inadequate ETPs/ZLD norms as per CTO
- Rs. 7,12,567/-** For not managing Haz. Waste as per management as per the HOWM Rules, 2016

i.e. an EC of total Rs. 1,90,17,727/- was imposed on the unit.

As per the information provided by UPPCB, the unit has deposited

- Rs. 67,160/- against the imposed EC amount of Rs. 74,45,160/- for illegal extraction of ground water,
- Rs. 1,08,60,000/- against the imposed EC amount of Rs. 1,08,60,000 for effluent discharge/ inadequate ETPs/ZLD norms in violation of CTO,
- Rs 7,12,567/- against the imposed EC amount of Rs. 7,12,567/- for not managing Haz. Waste as per the HWM Rules, 2016.

Hence, the unit has deposited total Rs. 1,16,39,727/- against the total imposed EC amount of Rs. 1,90,17,727/-.

The remaining EC amount of Rs. 73,78,000/-, which was imposed for the period of 21.12.2018 to 30.05.2020 (Year: 2018-19) beyond the expiry of CGWA NOC considered to be waived off, as the unit has now been granted NOC from U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) to abstract 250 m3/day (KLD) for 300 operational days totaling 75,000 m3/annum from 03 Borewells for industrial purpose, having validity from 21.12.2018 to 07.04.2026.

Details of EC calculations and EC deposition are provided at table 46 table 47 respectively, in the **Annexure-IV** of this report.

Compliance status of the unit may be summarized as follows:

1. As per analysis results, the STP inlet is not a representative sample of sewage as it shows significant concentration of BOD (1720 mg/l), COD (5158 mg/l) and heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l, Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l), which are not representing the characteristics of sewage and indicates the mixing of industrial effluent with the domestic sewage. The average characteristics are similar to the untreated effluent of the industry at Pre-ETP-1 which indicates that it mostly constitutes of industrial effluent.
2. STP inlet has significant concentration of heavy metals. Whereas, 100% reduction in Cyanide (from 3.19mg/l to BDL), 100% reduction in Chromium (from 1.45mg/l to BDL), 100% reduction in Lead (from 3.44mg/l to BDL), 99% reduction in Nickel (from 10.42mg/l to 0.06mg/l), 99.8% reduction in Zinc (from 17.35mg/l to 0.02mg/l), 99.8% reduction in Iron (from 75.6mg/l to 0.06mg/l), 99.6% reduction in Copper (from 7.18mg/l to 0.03mg/l) in absence of any specific heavy metal removal unit indicates that the compliance of STP outlet is doubtful.
3. As per the analysis results of treated sewage from common-STP outlet, concentration of pH- 7.2, Oil & Grease- BDL, BOD- 02mg/l, COD- 21mg/l, Fe-0.08 mg/l, Mn-0.05 mg/l, Ni-0.06 mg/l, V- 0.12mg/l, Pb-BDL, Cyanide- BDL, As- 0.04mg/l, Cd-BDL, Co-BDL, Cr-BDL, Cu-0.03mg/l, Sb-BDL, Se-BDL and Zn-0.02 mg/l has been found, this is being recycled for utilization in domestic and utility purpose within different manufacturing sections of unit as well as in colonies.
4. The unit has been granted NOC from U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) to abstract 250 m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 03 Borewells for industrial purpose, which is valid from 21.12.2018 to 07.04.2026. Now, the previous NOC issued by CGWA for abstraction of 155KLD ground water for domestic purpose, which was valid till 21.12.2021, stands invalid.
5. The Unit has not maintained separate data for STP sludge generation as well as disposal. Unit shall ensure to maintain separate logbook for STP sludge generation and considering presence of heavy metals at STP inlet, the unit shall ensure disposal of the STP sludge to TSDF.
6. The unit has submitted a copy of report prepared by NEERI, Nagpur on “Water Quality Audit Report for M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P.” based on the study

conducted by NEERI during the month of March-2021, which contains the assessment of water quantity used in various sections followed by water quality analysis, ensuring sustained operation of treatment systems and making water suitable.

7. The unit has deposited total Rs. 1,16,39,727/- against the total imposed EC amount of Rs. 1,90,17,727/-. The remaining EC amount of Rs. 73,78,000/-, which was imposed for the period of 21.12.2018 to 30.05.2020 (Year: 2018-19) beyond the expiry of CGWA NOC considered to be waived off as the unit has now been granted NOC from U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) to abstract 250 m3/day (KLD) for 300 operational days totaling 75,000 m3/annum from 03 Borewells for industrial purpose, having validity from 21.12.2018 to 07.04.2026.
8. Considering the observations on Water Audit of the unit, it can be concluded that, average value of fresh water withdrawal & supply to different sections, treated waste water recycled from Common STP in toilet flushing, treated waste water recycled from Common ETP, total sewage generation/ sent to Common STP and Total trade effluent (industrial effluent) generation/sent to Common ETP for the month of March-2021 (as per NEERI report), average values of 05 months (from Feb-21 to June-21) and values observed on the first day of joint inspection i.e., 30.06.21 by joint committee are indicating the same trend. Some marginal difference is may be due to variation of worker's strength or season.

Status of Recommendations of the joint committee as per Previous Joint inspection dated 10.12.2020

Table 1: Compliance status of recommendations of previous joint inspection dated 10.12.2020

S. No.	Recommendations as per previous Joint inspection dated 10.12.2020	Status as per Joint inspection dated 30.06.2021 to 02.07.2021
1.	The unit shall obtain common consent to operate for all 06 manufacturing sections i.e., Metal Art ware, Glass Art ware, Wood Art ware, Thermocol blocks, Marble Art ware & Corrugated Paper & Carton under the Air	- The unit obtained common Consent to Operate (CTO) under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 issued by UPPCB dated 18.06.2021, valid for trial operation of the unit for production of Metal Artware-200 MT/month, Glass Artware-250 MT/Month, Wood

	<p>(Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from UP Pollution Control Board.</p>	<p>Artware-150 MT/Month, Marble Artware-345 MT/Month, Corrugated Boxes-500 MT/Month and Thermocol Slab-345 MT/Month.</p> <ul style="list-style-type: none"> - CTO under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 were granted for trial operation of the unit and were valid from 09.06.2021 to 30.06.2021. - The unit has again obtained amended common CTO under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 dated 30.06.2021. As per the amended common CTO, “2. <i>The unit shall cease to operate with effect from 03.07.2021. The validity of consent to operate only be considered for extension based upon the compliance status found by the joint committee and also the observations, conclusions & recommendations of the committee.</i>” - CTO dated 18.06.2021 is attached at Annexure-2 & Annexure-3 and amended common CTO dated 30.06.2021 under the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 is attached at Annexure-4.
2.	<p>Unit shall ensure, no fresh water is used for industrial process and comply with the conditions laid down in NOC of CGWA.</p>	<ul style="list-style-type: none"> - From the data of water consumption, effluent generation, quantity of treated effluent of common ETP and sewage treatment plant , it is indicated that fresh water is not used in industrial process. Fresh water is used for domestic purpose in residential colony & industry area for drinking purpose.

		<ul style="list-style-type: none"> - As per the latest NOC issued by U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) via Certificate No: NOC019504 under {UIS10(1) of Uttar Pradesh Ground Water Management and Regulation Act, 2019}, which is valid from 21.12.2018 to 07.04.2026. As per the NOC, the project proponent is allowed to abstract 250m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 3 Borewells for industrial purpose. - Unit is abstracting 113.54 KLD of fresh water to meet the daily requirement for domestic purposes against the allowed capacity of 250 KLD. - Previous NOC issued by CGWA for abstraction of 155KLD ground water for domestic purpose, which was valid till 21.12.2021, now stands invalid. - Analysis result of samples of water being used in different manufacturing sections i.e., glass, metal, wood & marble sections indicating that unit is recycling the treated waste water from common-ETP & common-STP and not using fresh water for industrial purpose, however, the unit has obtained NOC for abstraction of ground water for industrial purpose, which is valid from 21.12.2018 to 07.04.2026 (as mentioned above).
3.	The unit shall engage expert institute to carry out detailed & water audit for detailed study of total actual water consumption & recycling of treated waste water.	<ul style="list-style-type: none"> - The unit has submitted a copy of report prepared by NEERI, Nagpur on “Water Quality Audit Report for M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P.” based on the study conducted by NEERI during the month of March-2021.

		<ul style="list-style-type: none"> - This report contains the assessment of water quantity used in various sections followed by water quality analysis, ensuring sustained operation of treatment systems and making water suitable. - Copy of this water quality audit report is placed at Annexure-11. - Water quality audit report has been examined and comparison of average value for the month of March-2021, as mentioned in the submitted report (prepared by NEERI) and average values of 05 months (as per submitted logbook data from Feb-21 to June-21) & values observed on the first day of joint inspection i.e., 30.06.21 has been prepared and placed at sr. no. 13 of conclusions section.
4.	For carrying out factual water audit, unit shall ensure metering at all and individual treated waste water consumption points at each manufacturing section to ascertain actual water consumption in each process as well as for domestic purpose and maintain logbook for the same.	<ul style="list-style-type: none"> - The unit has installed electromagnetic flow meters (with totalizer) at all and individual treated waste water consumption points at each manufacturing section as well as for domestic purpose. - The unit has installed electromagnetic flow meter (with totalizer) at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic, lacquering and paint booth processes and for treatment of floor washing effluent.
5.	The unit shall install flow meters at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic, lacquering and paint booth processes and for treatment of floor washing effluent.	<ul style="list-style-type: none"> - The unit has installed electromagnetic flow meter (with totalizer) at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate. - The unit has installed total 87 nos. of electromagnetic flow meter (with totalizer) at all the points of waste/waste water i.e., ground water extraction points, water distribution lines to all the
6.	For common-ETP, the unit shall install flow meters at outlet of	

	<p>secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate.</p>	<p>different sections of the unit, inlet, outlet and other different locations of Pre-ETPs/Common-ETP/Common-STP, treated waste water utilization points from Pre-ETPs/Common-ETP/Common-STP to all the different sections of the unit and waste water generation points of different sections of the unit.</p> <ul style="list-style-type: none"> - The unit is also maintaining logbook for all the installed flow meters. - List of all the installed 87 nos. of flow meter along with locations and totalizer reading (with instantaneous flow rate) observed during current joint inspection is placed at Annexure-1. - As per the logbook data of fresh water and treated waste water utilization in different sections from common-STP & common-ETP, submitted from Feb-21 to June-21, <ol style="list-style-type: none"> 1. Total 2786 KL of fresh water & total 4737 KL of treated sewage from common-STP (for domestic purpose) & total 9288.40 KL of treated effluent from common-ETP (for industrial purpose) has been used in glass division. 2. Total 3576 KL of fresh water & total 3904 KL of treated sewage from common-STP (for domestic purpose) and total 6929.8 KL of treated effluent from common-ETP (for industrial purpose) has been used in metal division. 3. Total 2306.5KL of fresh water, which is common for wood and marble sections & total 2324 KL of treated sewage from common-STP (for domestic purpose) and total 952 KL of
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		<p>treated effluent from common-ETP (for industrial purpose) has been used in wood division.</p> <p>4. Total 182.6 KL of treated effluent from common-ETP (for industrial purpose) has been used in marble division.</p> <p>- Total 209.5 KL of treated effluent from common-ETP (for industrial purpose) has been used in corrugation section for preparation of adhesives.</p>
7.	The unit shall dispose off the sludge from sludge drying bed of the previous ETP at wooden art ware manufacturing division, to TSDF site.	<p>- The unit has disposed off the sludge from sludge drying bed of the previous ETP at wooden art ware manufacturing division, to TSDF site (M/s Bharat Oil & Waste Management Ltd., Kanpur).</p> <p>- No sludge was found in the tank during current joint inspection.</p> <p>- As per Hazardous waste disposal data (form-10) from Feb-21 to June-21, the unit has sent total 5115 Kg of ETP sludge to TSDF site (M/s Bharat Oil & Waste Management Ltd., Kanpur).</p>
8.	Presence of cyanide upto 5.0 mg/l in treated effluent from common-ETP is observed; hence human contact shall be strictly avoided during the recycle/re-use of common ETP treated effluent.	<p>- As per the analysis result of sample collected from the final treated water storage tank of common-ETP, cyanide value has been found Below Detectable Limit (BDL).</p> <p>- However, significant concentration of Cyanide was found in sample collected from common-STP inlet (3.19 mg/l) and detectable concentration was found in Pre ETP-1 inlet (0.23 mg/l) & Pre-ETP-1 outlet (0.16 mg/l).</p>
9.	The unit shall check pH of treated sewage and maintain in the range of 6.5-8.5 before pumping for horticulture use and FC	<p>- As per analysis results, the STP inlet is not a representative sample of sewage as it shows significant concentration of BOD (1720 mg/l), COD (5158 mg/l) and heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l,</p>

	<p>concentration should be brought down below 1000 MPN/100 ml.</p>	<p>Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l), which are not representing the characteristics of sewage and indicates the mixing of industrial effluent with the domestic sewage.</p> <ul style="list-style-type: none"> - As per the analysis result of common-STP outlet, pH value has been found 7.2, which is complying w.r.t the prescribed domestic effluent discharge standard of pH-6.5-9.0 (for on land application) as per the Consent to Operate granted by UPPCB. - FC concentration of sample of treated sewage has been found 9.1 MPN/100 ml. - As per the analysis results of treated sewage from common-STP to treated sewage used in horticulture, concentration of Fe-0.08 mg/l to 0.62 mg/l, Mn-0.05 mg/l to 0.17 mg/l, Ni-0.06 mg/l to 0.07 mg/l, Pb-BDL to 0.02 mg/l and Zn-0.02 mg/l to 0.08 mg/l has been found.
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Now this compliance report is submitted to Hon'ble NGT for consideration.

Item No. 05

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 220/2019

(With report dated 29.01.2021)

Adil Ansari

Applicant

Versus

M/s. C. L. Gupta Exports Pvt. Ltd. & Ors.

Respondent(s)

Date of hearing: 04.02.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Respondent: Mr. Pradeep Misra and Mr. Daleep Dhyani, Advocates for UPPCB
Ms. Soni Singh, Advocate for CPCB
Mr. Adarsh Ramanujan, Advocate for M/s C.L. Gupta Exports Pvt. Ltd.

ORDER

1. Remedial action against the illegal discharge of hazardous waste into the River Ramganga and illegal drawal of ground water by M/s C.L. Gupta Export Ltd., Amroha, U.P., is the issue for consideration.
2. Vide order dated 08.03.2019, a joint action taken report was sought from the CPCB and the State PCB. Later, CGWA and District Magistrate were added to the Committee. The matter was then considered on 04.12.2019 in the light of earlier proceedings and report dated 03.12.2019 filed by the joint Committee. The Tribunal noted that the industry was non-compliant in terms of treatment of the trade effluents, managing the hazardous waste and extracting ground water illegally in 'over-exploited' area. The Tribunal sought a further compliance report. It was observed:

“7. Thus, joint report concludes that the industry is **non-complying and the treated effluents from ETP and STPs are not complying with the prescribed norms. It has been observed that even highly acidic effluents are disposed, constantly posing threat of ground water contamination and also to the vegetation. The Effluent Treatment Plants for wood, glass and metal division requires upgradation and will have to work on complete ZLD System and no effluent be allowed to dispose on land. It is also clear that the Hazardous Waste is not properly managed and the unit is not having valid agreement with transport storage and disposal facility. The unit is not having permission from Ground Water Board and thus illegally withdrawing the ground water.** Compensation of rupees 2,49,71,157 has been assessed which is on account of non-compliance of ETP and STP norms, improper Hazardous Waste Management and Illegal drawal of ground water.

8. Learned Counsel for the unit states that Central Ground Water Authority (CGWA) had given a letter that the unit was compliant. **We fail to understand how such a letter can be given and be of any help when the area is in ‘over-exploited’ category where ground water cannot be allowed to be extracted for commercial purposes as is being done and no such permission can be given in view of order of this Tribunal dated 10.10.2019 in Original Application No. 176/2015, Shailesh Singh v. Hotel Holiday Regency, Moradabad & Ors., as follows:**

“6. Since the OCS areas have been found to be seriously affected by overdrawal of ground water, regulation of such drawal for commercial purposes cannot be dispensed with for any industry even in industrial area. Availability of water for drinking is a first priority. The ‘Precautionary’ principle, ‘Sustainable Development’ principle and the Intergenerational equity are part of life and in absence of replenishment of ground water, unregulated drawl thereof cannot be held to be right of any commercial entity. Shortage of availability of water for commercial purposes cannot be remedied by drawal of groundwater in over exploited, critically exploited and semi-critical exploited (OCS) areas. Water is certainly a scarce resource and the industry has to put up with such scarcity. It is for the industry and the concerned authorities to find out alternative ways and means for sustenance of the industries instead of permitting indiscriminate drawal of groundwater in such areas till situation improves. Alternative means may be shifting to areas where water is not scarce or to processes where water is not required. As already noted, groundwater is depleting in such areas and measures are required to check such depletion. If industries continue to draw ground water without NOC from CGWA as per current guidelines and orders of this Tribunal in OCS areas, the

industries will have to face legal consequence of such illegal action.”

9. *In view of the above, let further follow up action be taken by the statutory regulators-**CPCB, State PCB, CGWA and District Magistrate** in accordance with the due process of law. Compliance report may be filed on or before 31.01.2020 by e-mail at judicial-ngt@gov.in.*
10. *A copy of this order be sent to CPCB, SPCB, CGWA and District Magistrate, Amroha for compliance.”*

3. The matter was thereafter considered on 06.08.2020 in the light of the reports of CPCB dated 10.07.2020 and 05.08.2020 on behalf of the joint Committee as follows:-

*“4. In the meeting, point wise compliance status of the unit with respect to the recommendations made in the joint inspection report accepted by Hon'ble NGT vide its order dated 4th December, 2019 (**Annexure III**) were discussed and following observations are made:*

- a) *Central Ground Water Authority (CGW A) has issued No Objection Certificate (NOC) **vide letter dated nil (23.04.2020: as informed by CGW A) to the unit for ground water extraction of 155 KLD for domestic and drinking purpose only, effective from 21.12.2018 (Annexure-IV). Representative of CGW A informed that NOC was granted on the basis of the affidavit submitted by the unit to use ground water for domestic purpose only and not for industrial purpose.** UPPCB confirmed that four bore wells are sealed with concrete structure. However, two of the operational bore wells are located one in industrial premises and other one in residential colony and it could not be ensured that use of ground water is exclusively for domestic purpose.*
- b) *It was informed by UPPCB that **the unit is arranging water through tanker for industrial purpose however, source of the same could not be investigated.** UPPCB/CGW A was requested to confirm the source of water used for industrial purpose and operational status of the industry during lockdown period, so that EC can be revised accordingly. The committee was also of the view that the lockdown period from 21.03.2020 to 28.05.2020 may not be considered while calculating EC in case the unit provides documentary evidence of non-operational status during lockdown period to the satisfaction of UPPCB*

- c) Considering the NOC received by the unit, Environmental Compensation for illegal withdrawal of ground water has been revised and recalculated by the Joint Committee. Details are given at Para.6.
- d) The unit has only submitted the effluent analysis result (Annexure-V) of Effluent Treatment Plant (ETP) outlet carried out by NABL accredited laboratory which indicate that effluent quality parameters are within the limit of the stipulated standards, but as per the observations in the joint inspection report, **the unit was not having adequate two stage biological treatment system viz, primary clarifier/secondary biological treatment units at ETps & Sewage Treatment Plants (STPs) located at Wooden art ware section, Metal art ware and Glass art ware mfg. section and STP located at residential colony, which are required to provide requisite treatment to the effluent. In absence of the same, it is not possible to achieve prescribed effluent discharge norms, hence possibility of dilution of ETps with the fresh water could not be ruled out. Also, the report received from the unit is of July, 2019, which mentions that the sample is taken from ETP and has not specified the division of the unit.**
- e) On this matter, UPPCB Official confirmed that the unit has installed requisite primary clarifier/ secondary biological treatment units and UPPCJ3 has verified the same through inspection, which was carried out after joint inspection. UPPCB was requested to submit the point wise compliance status of the unit as per inspection carried out by UPPCB based on which the Show cause notice of the unit was withdrawn vide letters dated 8.06.2020 (Annexure-VI) and 9.06.2020 (Annexure-VII) along with levying EC.
- f) Representative of UPPCB confirmed that as recommended by the Joint Committee, the unit has dismantled the open drain, which was observed during inspection near the SIP located in the residential colony. The unit also annexed a photograph for the same in its letter-dated 21.07.2020.
- g) Minor typographical and calculation errors made in the EC calculations were observed by the Joint Committee while making the fresh calculations based on the decisions taken in the meeting. Hence, with agreement of all the joint committee members it was decided to revise the calculated EC amount and the same may be submitted to Hon'ble NGT as Status report before the next date of hearing i.e., 06th August, 2020.
- h) The unit vide its letters dated 21.07.2020 has submitted Form-10 for hazardous waste disposal which

were not provided at the time of inspection and the same to be in order. Hence, the committee decided to reconsider the EC levied for disposal/handing over hazardous waste to unauthorized place/party subject to verification of Form-10 by UPPCB and accordingly EC amount shall be revised.

Based on the detailed deliberations held, the committee recommended the following;

The UPPCB shall submit detailed point wise compliance report to CPCB against the recommendations made by the joint committee by 01.08.2020, so that the final status report may be prepared along with the revised EC and submitted to Hon'ble NGT before the next date of hearing i.e. 06.08.2020.

4. In compliance to the decision made by the Joint Committee in the meeting dated 30.07.2020, UPPCB submitted the point wise Compliance status (Annexure VIII) of the unit vide email dated 1st August, 2020. On perusal of the report it is observed that the unit has complied with the recommendations of the Joint Inspection report dated 16. 10.2019 of the Joint Committee except the following:

I. Water Consumption of the unit & Analysis result of ground water samples

- **The unit shall obtain NOC from CGW A for withdrawal of groundwater, as the CGWA NOC for industrial requirements have already been expired on 20.12.2018.**
- **All treated effluent recycling points should be metered and logbook shall be maintained against each flow meter.**

II. For Wooden Art ware mfg. Section:

- **The unit shall install flow meter at recycled water pipeline.**
- **The unit shall keep and maintain ETP log book record for daily dosing of chemicals in physico chemical treatment, flow meter reading at inlet and recycling point, daily sludge generation from the ETP and ETP sludge disposal.**

III. For Glass Art ware mfg. Section and for STP at Glass Section: **The unit shall keep and maintain ETP and STP log book record for daily dosing of chemicals in physico-chemical treatment, flow meter reading at inlet and recycling point, daily sludge generation from the ETP/STP and ETP/STP sludge disposal.**

- IV. For Metal Art ware mfg. Section and for STP at Metal Section **The unit shall keep and maintain ETP and STP log book record for daily dosing of chemicals in physico-chemical treatment, flow meter reading at inlet and recycling point, daily sludge generation from the ETP/STP and ETP/STP sludge disposal. The unit shall install flowmeter at recycled water pipeline.**
- V. For STP at Residential Colony. **The unit shall keep and maintain STP log book record for daily dosing of chemicals in physicochemical treatment, flow meter reading at inlet and recycling point, daily sludge generation from the STP and STP sludge disposal.**
- VI. For Hazardous Waste management **Install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke /heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes.**

7. The Joint committee agreed that the unit needs to comply with remaining recommendations mentioned at Para. 5.

8. Committee examined the request made by the unit along with the documents provided by the unit and the compliance status provided by UPPCB **concluding that the unit needs to deposit environmental compensation of an amount of Rs. 74,45,160/- for illegal extraction of ground water, EC of an amount of Rs. 1,08,60,000/- for violation of effluent discharge/ inadequate ETPs/ZLD norms as per CTO and EC of an amount of Rs. 7,12,567/- for not managing Haz. Waste as per management as per the HOWM Rules, 2016 making a total EC of Rs. 1,90,17,727/-.”**

5. The Tribunal directed as follows:-

“1to6..xxx.....xxx.....xxx

7. In view of the above, not only there are serious continuing violations of environmental norms without corresponding stringent action, the unit appears to have played fraud in obtaining NOC for ground water extraction for industrial purpose by falsely representing that purpose of extraction was residential. Action needs to be taken in this regard as per law of the land. Apart from this aspect, compliance with environmental norms needs to be ensured by the industrial unit which needs to be monitored and cross checked and a further report furnished by the joint Committee through the CPCB. **Status of compliance as on 30.11.2020 be filed by 15.12.2020 by e-mail at judicial-ngt@gov.in preferably in**

the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF.”

6. The respondent-unit preferred Civil Appeal before the Hon’ble Supreme Court being *Civil Appeal Diary No(s). 23355/2020, M/s. C.L. Gupta Exports Pvt. Ltd. v. Uttar Pradesh Pollution Control Board & Ors.* wherein following order was passed on 16.11.2020:

“Mr. Shyam Divan, learned senior counsel appearing on behalf of the appellant submits that I.A. No. 273/2020 was filed by the appellant before the National Green Tribunal for clarification of the order dated 06.08.2020 on the ground that the counsel appearing for the appellant herein was not given an opportunity of hearing before the Tribunal.

Learned senior counsel seeks permission to withdraw this appeal with liberty to pursue the application pending before the Tribunal and seek expeditious disposal of the application as there is a likelihood of coercive action being taken against the appellant herein.

We permit the appellant to withdraw this appeal with liberty to approach the National Green Tribunal to pursue the interlocutory application filed for clarification. The appeal is dismissed as withdrawn with the said liberty.

The National Green Tribunal is directed to dispose of the said application at the earliest. In case, the application is decided against the appellant, the appellant is at liberty to approach this Court by challenging the said decision and the orders date 04.09.2019 and 06.08.2020.”

7. The respondent unit thereafter filed I.A. No. 273/2020 for clarification of order dated 06.08.2020 which was considered by this Tribunal vide order dated 03.12.2020 as follows:-

“1to4..xxx.....xxx.....xxx

5. *We have heard Learned Counsel for the parties.*

6. *The application states that upto 2018, there was permission for drawal of ground water for industrial as well as drinking purpose and that thereafter it has not been drawing ground water for industrial purpose. The water requirement was being met from the water recycling plant. This position would have been explained during the hearing on 6.08.2020 but the virtual link for the hearing did not reach the Counsel in time. The link was received by 1 p.m. It*

is now submitted that no groundwater was extracted for industrial purpose and therefore the observations in the joint Committee report and the order of this Tribunal that after taking groundwater extraction permission for domestic purposes, extraction for industrial purpose was done is erroneous.

7. We have duly considered the above submission. As already noted, the Tribunal had earlier considered the matter on 04.12.2019, after hearing the Counsel for Respondent No. 1, in light of the joint Committee report dated 03.12.2019. In the said report, it was clearly mentioned that apart from other violations, there was illegal extraction of ground water for industrial purpose for which compensation was liable to be paid. Explanation by the unit was that such extraction was justified because a letter had been given to the CGWA for the purpose. Further report dated 20.02.2020 is follow up of earlier action. The Tribunal accordingly accepted the same. Thus, **the stand now sought to be taken that the ground water had not been extracted for industrial purpose is in conflict with the earlier stand of the unit itself that extraction was valid because a letter had been filed for permission and is an afterthought and cannot be accepted. There is thus no scope for clarification sought nor any error in the observations of the Committee or in the order of this Tribunal. The application is accordingly dismissed.**

8. Vide order dated 06.08.2020, this Tribunal directed compliance of environmental norms to be monitored and cross-checked by the joint Committee and filing of further status of compliance as on 30.11.2020 by 15.12.2020. Let the joint Committee furnish its report accordingly **with a further report of water audit of the entire complex (all the units and the residential areas). The joint Committee may also ascertain the status of the quantum of water recycling/refining and the use of energy for the purpose. The water audit component in the report may specially deal with the availability and extent of rational use for residential purpose and separately for industrial purpose.**

8. Accordingly, the joint Committee has furnished its report through the CPCB on 29.01.2021 concluding as follows:-

“Conclusions

For CTO, ground water and all manufacturing sections

1. As per the previous CTO under the Water (Prevention & Control of Pollution) Act, 1974 (Consent no. 939591) and the Air (Prevention & Control of Pollution) Act, 1981 (Consent No. 927007) issued by UPPCB. which has been expired on 31.12.2019, the unit has permission for production of ISO Ton/Month of wooden art wares, 250 Ton/Month of glass art wares and 200 Ton/Month of metal Art wares. **The unit is yet to obtain valid common CTO for all 06 manufacturing sections i.e., Metal Art ware, Glass Art ware, Wood Art ware, Thermocol blocks, Marble Art ware**

& Corrugated Paper & Carton under the Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from UP Pollution Control Board.

2. As per the logbook record of borewells from Dec-2019 to Nov-2020, the unit has extracted 49,164 KL of ground water from 02 borewells (refer Table-3) against the permitted abstraction of 46.500 KL, which is violation of condition of NOC issued by CGWA.

3. Analysis result of sample collected from hand pump (near natural pond) showed Fe-1.79 mg/l against 0.3 mg/l and Mn-0.4 mg/l against 0.3 mg/l of the permissible limit of BIS IS 10500:2012 (permissible limit in absence of alternative source).

4. The unit has not provided flow meters at the consumption points of treated waste water from common STP & treated effluent common-ETP as well as effluent being pumped to Pre-ETP/common-ETP at any individual manufacturing sections.

- Hence, the quantity of treated waste water from common-ETP and common-STP being utilized in individual sections and quantity of effluent generated from the individual sections could not be assessed due to unavailability of flow meters.

5. Separate recycling plant located at glass division was found non-operational and waste water stored in the tanks was found stagnant.

6. The quality of water samples collected from overhead storage tank at glass division and glass cutting section tap water does not match with the characteristics of effluent from common-ETP (refer table 10, 11 & 18 for analysis result of collected samples from glass division and common-ETP) indicating possibility of use of fresh water from borewell for industrial purposes.

7. Characteristics of sample collected from the tank for storage of common-ETP treated effluent located at marble section match with the characteristics of sample collected from borewell no.3, indicates that the unit is using fresh water in the manufacturing process also, violating the conditions stipulated in the valid NOC, issued by CGWA.

8. The sludge drying bed of the previous ETP at wooden art ware manufacturing division was found filled with sludge.

For Pre-ETPs, Common-ETP and Common-STP

1. As per NEERI report (10th December 2020) on Feasibility study for use of ETP/STP Treated water as process water at M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P.

Over all analysis of samples indicates that the treated water from RO outlet of common-ETP and outlet of Ultra-filtration (UF)

of common-STP can be used for different processes in the industry. Further, **strict monitoring of treated waste water is required on regular basis to ensure continued desired quality of treated waste water.**

2. **The unit has not installed flow meter at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic. lacquering & paint booth processes and for treatment of floor washing effluent.**

3. **At common-ETP, the unit has not provided flow meter at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate hence, quantity of final treated effluent could not be assessed due to unavailability of flow meters.**

4. **As per the characteristics of sample collected from treated water tank (which receives treated effluent from RO-permeates, MEE condensate and ATFD condensate), it is contaminated with cyanide which ranges from 0.3 mg/l (RO-1-Permeate) to 5.0 mg/l (MEE condensate).**

5. Concentration of cyanide in RO-1-Permeate and MEE condensate of common-ETP, **indicates usage of cyanide salt in process** whereas the unit representative denied for usage of same during joint inspection.

6. As RO-3 reject is being fed to MEE, significant reduction in concentration of cyanide and nickel is observed in RO-3-reject **from 8.8 mg/l to 4.4 mg/l and 66.13 mg/l to 43.07 mg/l in MEE feed respectively which could not be explained.**

7. Almost negligible COD and BOD reduction is observed in common-ETP up to advanced tertiary system i.e., of ultrafiltration/before RO.

8. **Increase in CN concentration from 6.3 mg/l (in raw effluent) to 7.5 mg/l (in outlet of ultrafiltration system/before RO), indicates very less efficiency of primary and secondary treatment system.**

9. As per the logbook data provided for effluent being treated in common ETP and treated effluent being recycled in wood, glass and metal divisions shows that **the quantity of treated effluent recycled is more than the quantity of effluent fed/treated in ETP, which is contradictory and seems that about 11.09 KLD of fresh water being added in treated effluent storage tanks and the unit is in violation of conditions imposed in NOC issued by CGWA.**

10. **The quality of treated sewage is non-complying w.r.t. on land discharge norms w.r.t. pH-5.9 against 6.5 to 8.5. The pH needs to be brought within permissible limit of 6.5 to 8.5; for use in horticulture.**

14.3 For Water Audit

1. The unit is withdrawing about 8.08 KL to 30.06 KL per day of fresh water more than the fresh water requirement and the point of

utilization of this **excess quantity could not be identified due to unavailability of flow meters at individual utilization points.**

However, the excess quantity of effluent/sewage being recycled in process section than the quantity of effluent/sewage being treated indicates that **dilution of fresh water is being made in treated water tank, which is recycled for industrial purposes.**

2. Exact quantity of treated effluent from common-ETP and waste water from common-STP being utilized in process as well as toilet flushing **could not be identified due to unavailability of flow meters at individual utilization points.**

Recommendations:

1. **The unit shall obtain common consent to operate for all 06 manufacturing sections i.e., Metal Art ware, Glass Art ware, Wood Art ware, Thermocol blocks, Marble Art ware & Corrugated Paper & Carton under the Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from UP Pollution Control Board.**

2. **Unit shall ensure, no fresh water is used for industrial process and comply with the conditions laid down in NOC of CGWA.**

3. The unit shall engage an expert institute to carry out detailed water audit of the unit for detailed study of total actual water consumption & recycling of treated wastewater.

4. For carrying out factual water audit, **unit shall ensure metering at all and individual treated waste water consumption points at each manufacturing section to ascertain actual water consumption in each process as well as for domestic purpose and maintain logbook for the same.**

5. **The unit shall install flow meters at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic, lacquering and paint booth processes and for treatment of floor washing effluent.**

6. **For common-ETP, the unit shall install flow meters at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate.**

7. **The unit shall dispose off the sludge from sludge drying bed of the previous ETP at wooden art ware manufacturing division, to TSDF site.**

8. **Presence of cyanide upto 5.0 mg/l in treated effluent from common-ETP is observed; hence, human contact shall be strictly avoided during the recycle/re-use of common ETP treated effluent.**

9. The unit shall check pH of treated sewage and maintain it in the range of 6.5-8.5 before pumping for horticulture use and FC concentration should be brought down below 1000 MPN/100 mL.”

9. As against the above, the respondent unit has filed its response on 03.02.2021 giving comments in tabular form as follows:-

S. No.	Recommendations	Comments
1)	The unit shall obtain common consent to operate for all 06 manufacturing sections i.e. Metal art ware, Glass art ware, wood art ware, thermocol blocks, marble art ware and corrugate paper & carton under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974 from UP Pollution Control Board.	Renewal applications have already been filed and is currently pending with the UPPCB. The UPPCB has indicated in its letter dated 09.12.2020 that the same will be processed in accordance with law, after the inspection. Said letter is annexed herewith as Annexure A-1.
2)	Unit shall ensure no fresh water is used for industrial process and comply with the conditions laid down in NOC of CGWA.	The unit is complying with the same and will continue to comply with the same.
3)	The unit shall engage an expert institute to carry out detailed water audit of the unit for detailed study of total actual water consumption & recycling of treated wastewater	Unit has already engaged National Environmental Engineering Research Institute (NEERI) to conduct a complete water audit.
4)	For carrying out factual water audit unit shall ensure metering at all and individual treated waste water consumption points at each manufacturing section to ascertain actual water consumption in each process as well as for domestic purpose and maintain logbook for the same	Unit has already undertaken this exercise and installation is ongoing.
5)	The unit shall install flow meters at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic, lacquering and paint booth processes and for treatment of floor washing effluent.	Unit has already installed the flow meters at inlet and outlet of both Pre-ETPs for treatment of effluent generating from electrophoretic lacquering and paint booth processes and for treatment of floor washing effluent.
6)	For common-ETP, the unit shall install flow meters at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate.	Unit has already installed the flow meter at outlet of secondary biological treatment system, Permeate of RO, MEE condensate and ATFD

		condensate. Copy of the photograph confirming the same is annexed herewith as Annexure-A2(COLLY) .
7)	The unit shall dispose off the sludge from sludge drying bed of the previous ETP at wooden art ware manufacturing division, to TSDF site.	This has been undertaken. Copy of the photograph confirming the same is annexed herewith as Annexure-A3 . The sludge being mentioned here was kept for drying naturally on the date of the joint team inspection. The sludge drying bed has been cleaned and sludge has been sent to sludge storage room, thereafter.
8)	Presence of cyanide upto 5.0 mg/l in treated effluent from common – ETP is observed; hence, human contact shall recycle/ re-use of common ETP treated effluent.	It is completely closed loop system and no human contact is allowed directly on the treated water. even the person working in the plating division are provided with PPE such as gloves & goggles.
9)	The unit shall check pH of treated sewage and maintain it in the range of 6.5-8.5 before pumping for horticulture use and FC concentration should be brought down below 1000 MPN/100.	This is already being undertaken and the unit will continue monitoring the same. The unit has installed auto pH correction system to maintain pH in range 6.5 to 7.5 at outlet of STP. The unit has also installed chlorination system for controlling FC concentration below 1000 MPN/100ml. Copy of the photograph confirming the same is annexed herewith as Annexure A-4

“1 to 5xxx.....xxx.....xxx”

6. That there are a few factual discrepancies in the Joint Inspection Report dated 10.12.2020, which are also addressed in Annexure-A5. In particular, it is stated that:

- a. The Joint Inspection Report at internal pages 120, 43 has considered 10 l/person/day as the norm for employees/workers, whereas as per the published CGWA norms it is 30 l/person/day. Since 10 l/person/day for bathrooms/flushing purposes has been separately accounted for (from STP), one must consider 20 l/person/day in this case (i.e., 30-10). If this discrepancy is corrected, the total requirement as per CGWA norms would be 158.75 KLD. Whereas the unit is admittedly withdrawing only 114.08 KLD of groundwater (Report at internal page 49) and thus, there is no excess water being withdrawn. The unit is withdrawing significantly lesser water than the norm for domestic/drinking use; and
- b. The joint inspection report at internal pages 15, 18, 20 and 37 confirms that treated water from common – STP and common-STP is being used for industrial processes. However, the report notes at internal pages 120,32-33 that there is a mismatch in the quantum of treated water being pumped back for industrial use versus the quantum of input effluent. It is submitted that unfortunately, the Report has missed out another element of recycling unit, distinct from the common-ETP and common-STP, which separately provides an average of 28.5 KLD recycled water for use in industrial process. This additional element of recycled water is depicted and highlighted in **Annexure-A6** and **Annexure-A7**, respectively. This line is labelled as "metal process" and corresponds to the water continuously circulated to adjust for evaporation losses. This is in addition to the output of the common-ETP and common-STP. Once this additional element of recycled water is accounted for, there is no mismatch in the quantum of treated water being pumped back for use versus the quantum of input effluent.

7. That as far the penalty is concerned, the Joint Inspection Report acknowledges in internal page 61 that part payment of Rs. 44,76,167/- has already been made. The Compliance Report at internal page 1 has further acknowledged that the unit has requested a reduction in/waiver of the remaining penalty amount via various letters/representations, including a letter dated 05.11.2020, and that the same is currently pending with the UPPCB for finalisation. Appropriate action would be taken by the unit after hearing from the UPPCB.”

10. We have heard the learned counsel for the State PCB, CPCB and respondent no. 1 Unit and considered the rival submissions.

11. From the joint Committee report comprising CPCB, State PCB, CGWA and the District Magistrate, it is clear that the respondent unit continues to be non-compliant in terms of environmental norms. It has yet to obtain a valid consent to operate for six manufacturing sections under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974. It has extracted ground water illegally beyond the permitted limit. The water samples were found to be non-compliant. Flow meters have not been installed at the consumption points of the treated waste water, making it difficult to assess the compliance in that regard. The treated water was found to be contaminated with cyanide beyond permissible limit. Primary and secondary treatment systems were not adequate. Water audit could not be conducted on account of non availability of separate meters.

12. The response of the unit in denying that samples had cyanide beyond permissible limit or that deficiencies found by the joint Committee did not exist is self serving denial and no ground to reject the joint Committee report. Water audit is to be independently conducted by the statutory regulator and not by the unit. To that extent observation of the Committee is modified. The remedial action has to be taken by the unit in the light of the deficiencies found, including steps to ensure that the water does not contain cyanide. Claim for certain compliances after the report, like installation of flow meters or treatment of sewage needs to be checked up by the joint Committee. Till the satisfactory compliance takes place, including recovery of the assessed compensation, the unit cannot be allowed to function.

13. Let the joint Committee, alongwith a representative from IIT Roorkee, further verify the compliance status including the fact that no

waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, in view of the fact that cyanide and other heavy metal have been found in the samples. Water audit may be got conducted by the CPCB. Assessment of compensation may be looked into jointly by CPCB and the State PCB. The joint Committee may furnish further status report as on 20.4.2021, on or before 15.05.2021 by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. A copy of such report may also be provided to the industrial unit in question for its response, if any, before the next date.

A copy of this order be forwarded to the State PCB, CPCB, IIT Roorkee, the District Magistrate, Amroha, UP and CGWA by e-mail for compliance.

List for further consideration on 21.05.2021.

Adarsh Kumar Goel, CP

S.K. Singh, JM

Dr. Nagin Nanda, EM

February 04, 2021
Original Application No. 220/2019
A

स्पीड पोस्ट / ई-मेल

फा.स. बी-19123/डब्ल्यूक्यूएम-॥/विधि/एनजीटी-9/सीपीसीबी/2020-21

दिनांक : 09.04.2021

To

60.63

As per list

विषयः: Joint Inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, UP in compliance to Hon'ble NGT order in the matter of Adil Ansari Vs. M/s C.L. Gupta Exports Pvt. Ltd. & Ors. in O.A no. 220/2019 reg.

महोदय,

This has reference to Hon'ble NGT order dated 04.02.2021 in the matter of Adil Ansari Vs. M/s C.L.

Gupta Exports Pvt. Ltd. & Ors. in O.A. No. 220/2019 wherein the following has been directed:

"Let the joint Committee, along with a representative from IIT-Roorkee, further verify the compliance status including the fact that no waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, in view of the fact that cyanide and other heavy metal have been found in the samples. Water audit may be got conducted by the CPCB. Assessment of compensation may be looked into jointly by CPCB and the State PCB. The joint Committee may furnish further status report as on 20.4.2021, on or before 15.05.2021 by e-mail at judicialngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. A copy of such report may also be provided to the industrial unit in question for its response, if any, before the next date"

Matter is listed for further consideration on 21.05.2021.

माननीय राष्ट्रीय हरित अधिकरण के उपरोक्त निर्देशानुसार, M/s C.L. Gupta Exports Pvt. Ltd. & Ors का संयुक्त निरीक्षण 22-24.04.2021 को निर्धारित किया गया है।

अतः इस संबंध में आपसे अनुरोध है कि संयुक्त निरीक्षण के लिए निर्धारित तिथि पर अपनी उपस्थिति दर्ज करायें। श्रीमती रीना सतावन, वैधानिक - घ (email id- reenasatawan.cpcb@nic.in & ngrba.cpcb@gmail.com) को ईमेल के माध्यम से पुष्टिकरण के लिए आग्रह किया जाता है।

भवदीय,

(Handwritten signature)
09/04/21

(अजित कुमार विद्यार्थी)
अपर निदेशक / प्रभाग प्रमुख
जल गुणवत्ता प्रबंधन-॥

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
निर्गत... *(Handwritten signature)*
दिनांक... 21.04.21

(Handwritten mark)



megha chauhan <chauhan.megha350@gmail.com>

Fwd: Joint Inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, UP in compliance to Hon'ble NGT order in the matter of Adil Ansari Vs. M/s C.L. Gupta Exports Pvt. Ltd. & Ors. in O.A no. 220/2019 reg.

reena satavan <reenasatawan.cpcb@nic.in>
To: chauhan megha350 <chauhan.megha350@gmail.com>

Wed, Jul 14, 2021 at 4:16 PM

----- Forwarded Message -----

From: "Tejas.Y.Mankikar" <mankikar.tejas-cgwb@gov.in>
To: "reena satavan" <reenasatawan.cpcb@nic.in>
Sent: Tuesday, June 22, 2021 7:04:31 PM
Subject: Re: Joint Inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, UP in compliance to Hon'ble NGT order in the matter of Adil Ansari Vs. M/s C.L. Gupta Exports Pvt. Ltd. & Ors. in O.A no. 220/2019 reg.

Respected Madam,

Thank you for intimating the finalized dates for the joint inspection i.e. 30/06/2021 to 02/07/2021.

I will be joining the respective teams as per the schedule.

Regards,
Tejas.Y.Mankikar,
Scientist-B (Hydrogeology),
CGWB-NR, Lucknow.

----- Original Message -----

From: brijesh yadav <brijesh.yadav@hy.iitr.ac.in>
To: reena satavan <reenasatawan.cpcb@nic.in>
Cc: robijnaur@uppcb.com, Tejas.Y.Mankikar <mankikar.tejas-cgwb@gov.in>, akvidyarthi@gmail.com
Sent: Tue, 22 Jun 2021 17:55:47 +0530 (IST)
Subject: Re: Joint Inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, UP in compliance to Hon'ble NGT order in the matter of Adil Ansari Vs. M/s C.L. Gupta Exports Pvt. Ltd. & Ors. in O.A no. 220/2019 reg.

Dear Ms. Reena,

I will join the inspection team as per the finalized schedule.

Best regards,
Brijesh

From: "reenasatawan cpcb" <reenasatawan.cpcb@nic.in>
To: "robijnaur" <robijnaur@uppcb.com>, "Tejas.Y.Mankikar" <mankikar.tejas-cgwb@gov.in>, "Brijesh Kumar" <brijesh.yadav@hy.iitr.ac.in>
Cc: "Ajit Vidyarthi" <akvidyarthi@gmail.com>
Sent: Tuesday, June 22, 2021 5:00:57 PM
Subject: Re: Joint Inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, UP in compliance to Hon'ble NGT order in the matter of Adil Ansari Vs. M/s C.L. Gupta Exports Pvt. Ltd. & Ors. in O.A no. 220/2019 reg.

Resp. Sir,

Kindly refer trail mail.

In compliance to the Hon'ble NGT order dt 04.02.2021, in the matter of Adil Ansari Vs M/s C.L.Gupta Exports Pvt. Ltd. & Ors in O.A. no 220/2019, a Joint committee inspection was scheduled on 22-24.04.2021. Due to the current pandemic situation, the inspection has been rescheduled from 30.06.2021- 02.07.2021. You are therefore, requested to make it convenient to join the inspection team on the scheduled date.
Kindly, revert back the confirmation mail.

Regards

Reena Satavan
Sc- 'D', WQM-II Division
CPCB- Delhi

From: "reena satavan" <reenasatawan.cpcb@nic.in>
To: "robijnaur" <robijnaur@uppcb.com>, "Tejas.Y.Mankikar" <mankikar.tejas-cgwb@gov.in>, "brijesh yadav" <brijesh.yadav@hy.iitr.ac.in>
Cc: "akvidyarthi" <akvidyarthi@gmail.com>
Sent: Friday, June 11, 2021 5:08:53 PM
Subject: Joint Inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, UP in compliance to Hon'ble NGT order in the matter of Adil Ansari Vs. M/s C.L. Gupta Exports Pvt. Ltd. & Ors. in O.A no. 220/2019 reg.

Resp. Sir,

This has reference to the Hon'ble NGT order in the matter of Adil Ansari Vs M/s C.L.Gupta Exports Pvt. Ltd. & Ors in O.A. no 220/2019.

As per the telephonic discussion held with Prof. Brijesh K. Yadav (nominated member from IIT-Roorkee), the final date of joint inspection can only be scheduled after June 14th, 2021 due to on-going lockdown in the campus. Hence, the inspection of M/s C L Gupta Exports Pvt. Ltd is tentatively scheduled from June 28 to June 30 , 2021. Kindly, revert back the confirmation mail.

Regards

Reena Satavan
Sc- 'D', WQM-II Division
CPCB- Delhi

--

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**Joint Inspection Report
(30.06.2021 to 02.07.2021)
of
M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P**

**In The Matter Of
Adil Ansari Vs. M/s C. L. Gupta Exports Pvt.
Ltd. & ors.**

[O.A. NO. 220/2019]

**-Prepared by-
The Joint Committee of CPCB, UPPCB, CGWA
&SDM-Amroha**

**Constituted by
Hon'ble National Green Tribunal
(Order dated 04.02.2021)**



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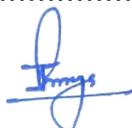



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Annexure-2	Common Consent to Operate (CTO) under the Water (Prevention & Control of Pollution) Act, 1974 for trial production issued by UPPCB dated 18.06.2021
Annexure-3	Common Consent to Operate (CTO) under Air (Prevention & Control of Pollution) Act, 1981 for trial production issued by UPPCB dated 18.06.2021
Annexure-4	Amended common CTO under the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 issued by UPPCB dated 30.06.2021
Annexure-5	Copy of Form-1 issued to the unit at the time of joint inspection
Annexure-6	Unit's information letter dated 30.01.2021 to Central Ground Water Board (CGWB), Lucknow w.r.t dismantled remaining 04 nos. of non-used borewells by filling with concrete, capped with cement.
Annexure-7	CGWA NOC for drinking, domestic purpose and greenbelt development, valid from 21.12.2018 to 19.12.2021, which stands invalid
Annexure-8	NOC, awarded by U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) for industrial purpose w.e.f from 21.12.2018 to 07.04.2026.
Annexure-9	Copy of communication regarding construction of new Piezometers vide unit's dated 03.04.2021 to Regional Director, CGWA/CGWB-Northern Region, Lucknow.
Annexure-10	Monthly data record of ground water level for both piezometers from Jan-2021 to June-2021.
Annexure-11	Copy of report prepared by NEERI, Nagpur on "Water Quality Audit Report for M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P."
Annexure-12	Unit's Hazardous waste authorization (Authorization no. 8531) issued under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for 13 different category hazardous wastes, which is valid up to 16.07.2024.
Annexure-13	Unit's letter dated 26.05.2021 to UPPCB for amendment in the quantity of three category of hazardous waste in the valid Hazardous waste authorization (Authorization no. 8531) issued under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
Annexure-14	Unit's membership agreement with M/s Bharat Oil & Waste Management Ltd., Kanpur for lifting, transportation, treatment, storage and disposal of hazardous waste generated at M/s C. L. Gupta Exports Pvt. Ltd., Amroha, Uttar Pradesh, which has been extended upto 31.03.2024.
Annexure-15	Unit's haz. waste disposal data (Form-10) from Feb-2021 to June-2021
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Annexure-17	Documentary proof w.r.t deposited EC amount of Rs. 1,90,17,727/- to UPPCB
Annexure-18	Central Public Health & Environmental Engineering Organization (CPHEEO) manual on sewage and sewage treatment systems-2013 Part A Engineering, Table No 5.57, Page no 5-198
Annexure-19	Wastewater Engineering by Metcalf & Eddy, Table 2-13, Page no 78

JOINT INSPECTION REPORT OF M/S C. L. GUPTA EXPORTS PVT. LTD., 18 KM BEFORE MORADABAD, VILL. JIVAI, AMROHA-244001AS PER HON'BLE NGT ORDER DATED 04.02.2021 CARRIED OUT BY JOINT INSPECTION COMMITTEE OF SDM-AMROHA, UPPCB, CGWA & CPCB FROM 30.06.2021 TO 02.07.2021

1.0 Subject Matter

Matter: Adil Ansaris. M/s. C.L. Gupta Exports Pvt. Ltd., O.A. No. 220/2019

Subject: To verify the compliance status including the fact that no waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, to carry out the water audit, to assess the compensation, to furnish further status report as on 20.04.2021.

2.0 Order of Hon'ble NGT dated 04.02.2021

The Hon'ble NGT in the said matter passed the following directions vide its order dated 04.02.2021:

"13. Let the joint Committee, along with a representative from IIT Roorkee, further verify the compliance status including the fact that no waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, in view of the fact that cyanide and other heavy metal have been found in the samples. Water audit may be got conducted by the CPCB. Assessment of compensation may be looked into jointly by CPCB and the State PCB. The joint Committee may furnish further status report as on 20.4.2021, on or before 15.05.2021 by e-mail at judicialngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. A copy of such report may also be provided to the industrial unit in question for its response, if any, before the next date. A copy of this order be forwarded to the State PCB, CPCB, IIT Roorkee, the District Magistrate, Amroha, UP and CGWA by e-mail for compliance. List for further consideration on 21.05.2021."

3.0 Joint Inspection carried out from dated 30.06.2021 to 02.07.2021

- In compliance to the Hon'ble NGT order dated 04.02.2021, inspection of M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P (hereinafter referred as 'the unit') was carried out from 30.06.2021 to 02.07.2021 by a joint committee comprising of SDM-Amroha, officials from RO-Bijnor, Uttar Pradesh Pollution Control Board (UPPCB), Central Ground Water Board (CGWB), Lucknow, a representative from IIT-Roorkee and Central Pollution Control Board (CPCB), Delhi.
- The unit has following manufacturing sections:
 - a) Glass art ware manufacturing section
 - b) Metal art ware manufacturing section
 - c) Wooden art ware manufacturing section
 - d) Marble art ware manufacturing section
 - e) Thermocol block manufacturing section
 - f) Corrugated sheet & carton manufacturing section

- The unit has two Pre-Effluent Treatment Plants(ETP)-Pre-ETP-1 & Pre-ETP-2, one common-ETP, one Common-Sewage Treatment Plant (STP), one effluent recycling plant in glass art ware section (for internal recycle) and one effluent recycling plant in marble art ware section (for internal recycle) in the unit premises. Capacity of Pre-ETP-1, Common-ETP and Common-STP is 25 KLD, 150 KLD and 250 KLD respectively.
- The joint inspection team visited all 06 manufacturing sections and all effluent/waste water treatment facilities located in units premises at Village: Jivai, Amroha. The joint committee focused on ground water abstraction, fresh water abstraction/consumption, water audit, performance of ETPs and STP, compliance verification w.r.t effluent discharge norms/Zero Liquid Discharge (ZLD), hazardous waste management and compliance status of the unit.
- Since the unit has completed installation of flow meters in all sections, and made them operational by end of Jan-2021, therefore, all data/log-books regarding water abstraction, utilization, effluent generation and reuse/recycle have been collected and analyzed w.e.f. Feb-2021 to June-2021.
- The unit has installed total 87 nos. of electromagnetic flow meter (with totalizer) at all the points of water/waste water utilization and generation i.e., ground water extraction points, water distribution lines to all the different sections of the unit, inlet, outlet and other different locations of Pre-ETPs/Common-ETP/Common-STP, treated waste water utilization points from Pre-ETPs/Common-ETP/Common-STP to all the different sections of the unit and waste water generation points of different sections of the unit.
- List of all the installed 87 nos. of flow meters along with locations and totalizer reading (with flow) observed during joint inspection is placed at **Annexure-1**.
- During first day of joint inspection, instantaneous flow rates in many flow meters has been observed 0.0 m³/hr, which is due to the batch mode of operation.
- The flow meter readings were again re-checked on second and third day of joint inspection and values of the flow meters were found increasing and working.

4.0 Status of Consent to Operate (CTO)

- The unit obtained common Consent to Operate (CTO) under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 issued by UPPCB dated 18.06.2021, having validity from 09.06.2021 to 30.06.2021; valid for trial operation of the unit for production of Metal Artware-200 MT/month, Glass Artware-250 MT/Month, Wood Artware-150 MT/Month, Marble Artware-345 MT/Month, Corrugated Boxes-500 MT/Month and Thermocol Slab-345 MT/Month.
- Both CTOs were granted for trial operation of the unit and were valid from 09.06.2021 to 30.06.2021.






- As per the CTO, "2. The unit shall cease to operate with effect from 01.07.2021. The validity of consent to operate shall only be considered for extension based upon the compliance status found by the joint committee and also the observations, conclusions & recommendations of the committee."
- CTO under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 dated 18.06.2021 are placed at **Annexure-2** and **Annexure-3**.
- The unit again obtained amended common CTO under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 dated 30.06.2021. As per the condition mentioned in CTO, "2. The unit shall cease to operate with effect from 03.07.2021. The validity of consent to operate only be considered for extension based upon the compliance status found by the joint committee and also the observations, conclusions & recommendations of the committee."
- Amended common CTO under the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 dated 30.06.2021 is placed at **Annexure-4**.

5.0 Water and Effluent Samples Collection

The Joint Committee collected effluent samples from various locations from each manufacturing section, different points of Pre-ETP, common-ETP & common-STP to assess the performance of ETPs & STP as well as to verify unit's claim about using treated effluent of common-ETP & common-STP in process and other areas. Groundwater samples within the industrial premises as well as from the outside of the unit premises were collected. All samples collected from the unit were sealed in the presence of unit representative, duplicate samples were provided to the unit's representative and also a notice of intention to have sample analyzed (Form-1) was issued to the unit. A copy of the same is placed at **Annexure-5**. The samples have been analyzed in CPCB laboratory, Delhi.

The details of collected ground water & effluent samples and analysis results are mentioned in the following sections.

6.0 Freshwater Consumption

6.1 Observations on sources of fresh water

1. As per the earlier joint inspection dated 16.10.2019, the unit had total 06 nos. of bore wells located at different places within the premises. However, during joint inspection dated 10.12.2020 it was found that, 04 nos. of borewells were not in use, the same were not dismantled, but sealed with metal cap & submersible pump and wiring were found removed.

2. The unit dismantled remaining 04 nos. of non-used borewells by filling with concrete and capped them with cement. The unit informed the same to Central Ground Water Board (CGWB), Lucknow vide letter no. CLG/HR-194/2020-21/140 dated 30.01.2021. Copy of the letter is placed at **Annexure-6**.
3. Current status of all the borewells as per joint inspection dated 30.06.2021 to 02.07.2021 is as below:

Table 1: Status of all borewells found during current joint inspection

S. No.	Borewell No.	Location	Operational/Non-Operational	Status as per current joint inspection dated 30.06.2021 to 02.07.2021
1	Borewell No. 1	Residential Area	Dismantled and not in use	The borewell found dismantled.
2	Borewell No. 2	Residential Area	Dismantled and not in use	The borewell found dismantled.
3	Borewell No. 3	Residential Area	Operational	Active/In operation (Fig. 1)
4	Borewell No. 4	Glass Div.	Operational	Active/In operation (Fig. 2)
5	Borewell No. 5	Glass Div.	Dismantled and not in use	The borewell found dismantled.
6	Borewell No. 6	Pump House	Dismantled and not in use	The borewell found dismantled.

4. Now, the unit has 02 nos. of active borewells i.e., borewell no. 3 (located at residential colony; Co-ordinates: Latitude-28.8200, Longitude-78.5967) and borewell no. 4 (located near Glass division; Co-ordinates: Latitude-28.8179, Longitude-78.5956), being used to meet its freshwater requirements.
5. The unit is currently operating only 02 Borewells to abstract groundwater for drinking, domestic purpose and greenbelt development in spite of having permission to operate 03 Borewells.
6. **NOC for abstraction of ground water for Domestic purpose:** NOC was renewed by CGWA vide NOC No. CGWA/NOC/IND/REN/1/2020/5657 dated 23.04.2020, which is valid from 21.12.2018 to 19.12.2021. The permission was granted for abstracting 155 m³/day (46,500 m³/year) of which 2 Borewells are for abstracting groundwater for drinking, domestic purpose and greenbelt development and 3rd Borewell is earmarked for fire-fighting. Valid NOC for domestic purpose issued by CGWA is placed at **Annexure-7**.
7. Now, the NOC issued by CGWA for abstraction of 155KLD ground water for domestic purpose, which was valid till 21.12.2021, stands invalid.
8. **NOC for abstraction of ground water for Industrial purpose:** NOC has been awarded by U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) via Certificate No: NOC019504 under {UIS10(1) of Uttar Pradesh Ground Water Management and Regulation Act, 2019}, which is valid from 21.12.2018 to 07.04.2026. As per the NOC,

the project proponent is allowed to abstract 250m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 3 Borewells for industrial purpose. Copy of the NOC for ground water abstraction for industrial purpose issued by U.P.G.W.D is placed at **Annexure-8**.

- NOC was awarded by U.P.G.W.D as awarding N.O.C and renewal of NOC is now under the mandate of State Govt. of Uttar Pradesh under Section-14 of Uttar Pradesh Ground Water Management and Regulation Act, 2019. CGWA has no role in awarding and renewing NOC in Uttar Pradesh after 31.10.2020.

6.2 Observations on fresh water consumption

- The unit is abstracting ground water from two active borewells i.e., borewell no. 3 (located at residential colony) & borewell no.4 (located near Glass division) to meet daily fresh water requirement.
- The unit has provided electro-magnetic flow meters (with totalizer), FM-1 & FM-2 on two active borewells, borewell no.4 (located near Glass division) & borewell no.3 (located at residential colony) respectively in compliance with NOC conditions. At the time of joint inspection reading of flow meter installed on borewell no. 3 and borewell no. 4 were found 43094 m³ (29.04 m³/hr) and 17164 m³ (0.0 m³/hr) respectively.
- As per the record of borewells meters reading provided by the unit, the total freshwater consumption from Feb-2021 to June-2021 through two active borewells are as below:

Table 2: Quantity of fresh water consumption from Feb-2021 to June-2021, as per log book submitted by the unit

Sr. No.	Month	Fresh water abstraction (KL)		
		Borewell No. 3	Borewell No.4	Total
1.	Feb-2021	2217	856	3073
2.	March-2021	2605	899	3504
3.	April-2021	2540	867	3407
4.	May-2021	2596	890	3486
5.	June-2021	2667	895	3562
Total fresh water consumption (KL) (from Feb-2021 to June-2021)		12625	4407	17032
Average freshwater consumption (KL/month)		2525	881.4	3406.4
Average Fresh water consumption per day (considering 150 days from 01.02.2021 to 30.06.2021)		113.54 KLD against permitted 250 KLD (as per NOC awarded by U.P.G.W.D)		

- As per the logbook record (five months data) of active borewells i.e., borewell no. 3 & borewell no.4 from 01.02.2021 to 30.06.2021 (i.e., in five months), the unit has extracted total 17,032KL of ground water from these 02 borewells (refer Table-4)

which is average 113.54 KL per day and within the permitted ground water abstraction limit as per valid NOC (issued by UPGWD).

5. The abstracted water from borewell no. 4 is stored in a overhead storage tank for utilization in Glass division & VIP colony for drinking and utility purposes. The unit has provided electromagnetic flow meter (with totalizer), FM-3 at Glass division utilization point and FM-4 at VIP colony utilization point from the storage tank.
6. The abstracted water from borewell no. 3 is stored in a overhead storage tank for utilization in Metal division, Wood division, General (in office buildings), Residential colony and Canteen for drinking and utility purposes. The unit has provided electromagnetic flow meter (with totalizer) at utilization points, FM-5 at metal division, FM-6 at wood division, FM-7 at general (in office buildings) utility point, FM-8 at residential colony and FM-9 at canteen for drinking and utility purposes
7. List of installed electromagnetic flow meters (with totalizer) at two active borewells and different utilization points from the storage tank (from borewell no. 3 & 4), totalizer reading & flow observed during joint inspection are as under:

Table 3: List of flow meters installed at active borewells and utilization points from borewell-3 & borewell-4 along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)*	Values observed on 30.06.2021 (KL)
FM-1	Borewell no. 4 (located near Glass division)	17164	0.0	32
FM-2	Borewell no. 3 (located at residential colony)	43094	29.04	95
FM-3	Raw water supply to Glass Division	2788.90	0.0	21
FM-4	Raw water supply to VIP Colony	1628.56	5.4	11
FM-5	Raw water supply to Metal Division	3586.55	1.5	28
FM-6	Raw water supply to Wood Division	2295.79	0.3	18.5
FM-7	Raw water supply to General (Office building)	195.28	1.4	1.5
FM-8	Raw water supply to Residential Colony	5700.35	1.1	40
FM-9	Raw water supply to Canteen	794.75	0.0	7

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

8. Total value of FM-1 & FM-2 shall be total of values of FM-3, FM-4, FM-5, FM-6, FM-7, FM-8 and FM-9. On the first day of joint inspection dated 30.06.2021, quantity of fresh water withdrawal from borewell no. 4 (FM-1) & borewell no.3 (FM-2) was found total

127 KL (32 KL+95 KL). Total of fresh water distributed to glass division, VIP colony, metal division, wood division, general (Office building), residential colony and canteen was found 21 KL (FM-3), 11 KL (FM-4), 28 KL (FM-5), 18.5 KL (FM-6), 1.5 KL (FM-7), 40 KL (FM-8) and 7 KL (FM-9) respectively, which is total 127 KL. Hence, value of FM-1+FM-2 is matching with the total of values of FM-3, FM-4, FM-5, FM-6, FM-7, FM-8 and FM-9.

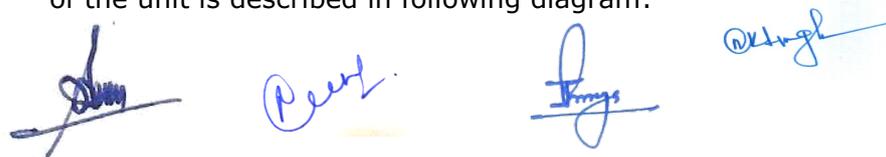
The unit is maintaining logbooks of the installed flowmeters. As per the logbook record of FM-3 to FM-9 submitted from Feb-21 to June-21, the values are given below:

Table 4: Quantity of fresh water consumption in different sections of the unit, from Feb-2021 to June-2021

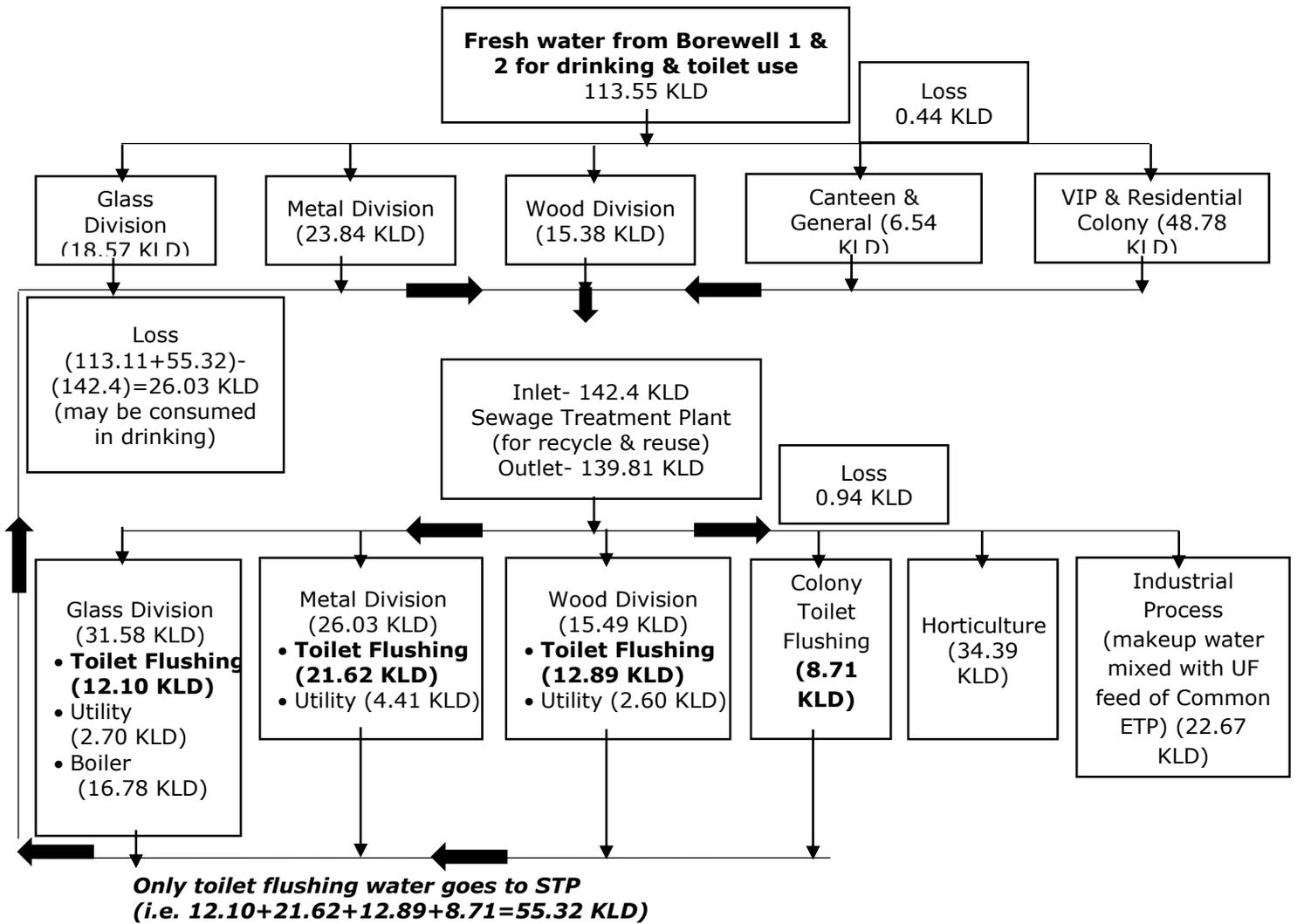
Month	FM-3 (Glass div.)	FM-4 (VIP colony)	FM-5 (Metal div.)	FM-6 (Wood div.)	FM-7 (General)	FM-8 (Residential colony)	FM-9 (Canteen)	Total fresh water consumption
Feb-2021	549	307	667	448	29	984	83	3067
Mar-2021	579	320	750	438	35	1205	121	3448
Apr-2021	541	326	703	473	39	1143	187	3412
May-2021	561	329	729	423	46	1200	192	3480
June-2021	556	340	727	524	43	1163	206	3559
Total	2786	1622	3576	2306	192	5695	789	16966

9. From the above data for 5 months, it is observed that total quantities of fresh water withdrawal from active borewell no. 3 & 4 and water consumed in different sections of the unit, are in line, having negligible difference of 66 KL (17032KL - 16966 KL); i.e., 0.39%.

10. Use and distribution of fresh water and common-STP treated water in different sections of the unit is described in following diagram:



Uses and distribution of Fresh water & common-STP treated water



6.3 Piezometer detail

- 02 Nos. of Piezometers located near operational Borewells (one at residential colony and other one at entrance of glass division) were dismantled as per U.P.G.W.D norms that stipulate Piezometers must be situated a minimum of 50 meters away from operational Borewells.
- The unit has installed 02 nos. of new Piezometers up to the depth of 75 mbgl (metres below ground level) alongwith Digital Automatic Water Level Recorder (DWLR) with telemetry system.
- Both Piezometers were found to be situated 52 meters away from operational Borewells, in compliance with N.O.C norms as mandated by U.P.G.W.D
- The unit has sent communication regarding construction of new Piezometers was sent vide letter no. CLG/HR-194/2021-22/169 dated 03.04.2021 to Regional Director, CGWA/CGWB-Northern Region, Lucknow. Copy of the same is placed at **Annexure-9**.
- The details of newly installed piezometers are mentioned below.

Table 5: Details of newly installed Piezometers

Newly installed Piezometer Locations			Coordinates	
Sr. no.	Piezometer No.	Location	Northing (Latitude)	Easting (Longitude)
1.	Piezometer No. 1 (Fig. 3)	Residential Area near Borewell No. 3	28.818041	78.596864
2.	Piezometer No. 2 (Fig. 4)	At entrance of glass div. near Borewell No.4	28.820489	78.596454

- At the time of joint inspection reading on the Digital Automatic Water Level Recorder (DWLR) at piezometer no.1 & 2 were observed 15.35 meter and 19.98 meter respectively.
- The unit has submitted monthly data record of ground water level for both piezometers from Jan-2021 to June-2021 (Placed at **Annexure-10**).

6.4 Rain Water harvesting system

- Number of Rooftop Rain Water Harvesting structures has been reduced from 12 Nos. to 10 Nos. (Fig. 5 to Fig. 11) as quantum of groundwater abstraction has been reduced from 330 m³/day to 155 m³/day.
- Quantum of rainwater harvested by 10 Nos. of pits = 82,125 m³/annum as per letter dated 20.09.2020.
- Each recharge pit is with dimensions of 3m × 3m × 2.5m.

6.5 Characteristics of the Ground Water

- Total five ground water samples were collected from the surroundings of the unit including unit's premises during joint inspection, to assess the quality of ground water and to check contamination (if any) due to industrial effluent.
- The analysis results of samples collected from the borewells of the unit and surroundings of the unit including nearby village areas are mentioned in the following table. Co-ordinates of all the borewells in google image (from which samples have been collected) is shown in **Fig. 11**.

Table 6: Characteristics of collected ground water samples of the unit

Sampling Locations Parameters	Borewell no.4 within industry (Glass sec.)	Borewell no. 3 within industry (Res. colony)	Borewell Behind the industry	Hand pump at village	Hand pump near labor gate	IS BIS 10500:2012 (Permissible limit in absence of alternative source)
pH	7.9	7.7	7.6	7.9	7.7	6.5-8.5
COD	BDL	BDL	BDL	BDL	BDL	-
TDS	540	338	470	178	517	2000
TSS	BDL	12	BDL	20	BDL	-
SO ₄ ²⁻	09	BDL	41	BDL	09	400

PO₄-P	BDL	0.14	BDL	0.05	BDL	-
NO₃-N	7.9	BDL	BDL	BDL	3.1	45
Total Alkalinity	314	253	314	141	205	600
Total Hardness	392	295	331	149	287	600
Cl⁻	120	22	61	10	30	1000
F⁻	0.2	0.3	0.8	0.5	0.2	1.5
Cyanide	BDL	BDL	BDL	BDL	BDL	No relaxation
As	BDL	0.04	0.02	BDL	BDL	0.05
Cd	BDL	BDL	BDL	BDL	BDL	0.003
Co	BDL	BDL	BDL	BDL	BDL	-
Cr	BDL	BDL	BDL	BDL	BDL	0.05
Cu	BDL	BDL	BDL	BDL	BDL	1.5
Fe	0.08	0.06	0.86	0.06	1.38	0.3
Mn	0.22	0.11	0.28	0.06	0.39	0.3
Ni	BDL	BDL	BDL	BDL	BDL	0.02
Pb	BDL	BDL	BDL	BDL	BDL	0.01
Sb	BDL	BDL	BDL	BDL	BDL	-
Se	BDL	BDL	BDL	BDL	BDL	0.01
V	BDL	BDL	BDL	BDL	BDL	-
Zn	BDL	0.01	BDL	0.11	0.10	15

(all values are in mg/l except pH)

6.6 Observation on Analysis result of groundwater samples

1. Analysis result of samples collected from Borewell No. 3 & Borewell No. 4 found complying with the permissible limit of drinking water quality standard w.r.t all the parameters as per BIS IS 10500:2012 (permissible limit in absence of alternative source) standards.
2. The results of various parameters of sample collected from a borewell located behind the unit are well within the limit, except Fe-0.86 mg/l against 0.3 mg/l of the permissible limit of BIS IS 10500:2012 (permissible limit in absence of alternative source).
3. The results of various parameters of sample collected from hand pump near labor gate of the unit are well within the limit, except Fe-1.38 mg/l against 0.3 mg/l and Mn-

0.39mg/l against 0.3 mg/l of the permissible limit of BIS IS 10500:2012 (permissible limit in absence of alternative source).

4. As per CGWB report "National Compilation on Dynamic Ground Water Recourses Assessment of India, 2017" (Page No. 146) Joya, District Amroha is in Over Exploited category.

7.0 Observations on manufacturing sections of Glass Art ware, Metal Art ware, Wooden Art ware, Marble Art ware, Thermocol block and Corrugated Sheet & Box

7.1 Observations on Glass Art ware Manufacturing Section

1. During the joint inspection, the glass art ware manufacturing section was found operational. The unit is manufacturing Glass art wares using silica sand, soda ash, limestone and feldspar as a raw material.
2. As per the CTO (issued by UPPCB, with validity upto 30.06.2021) under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981, the unit has permission for production of Glass Art ware-250 Ton/Month, for trial production.
3. Monthly production data from Jan-2021 to June-2021 of glass art wares as submitted by the unit is as below:

Table 7: Production of Glass art wares from Jan-21 to June-21 as submitted by the unit

Sr. No.	Month	Production of Glass art wares (Ton)	Production capacity permitted as per expired CTO
1.	Jan-2021	243	250 Ton/Month
2.	Feb-2021	237	
3.	March-2021	232	
4.	April-2021	226	
5.	May-2021	230	
6.	June-2021	236	

4. To fulfill the fresh water requirement for drinking purpose in this section, the unit has provided three tanks of 5000 lit each, making total 15,000 lit storage capacity.
5. The unit has 02 nos. of PNG/Propane gas fired Glass Melting Furnace (operating at 1500°C-melting point of glass), 02 nos. of float bath (glass from the furnace gently flows over the refractory spout on to the mirror-like surface of molten tin, starting at 1100 °C and leaving the float bath as solid ribbon at 600 °C), 03 nos. of annealing furnace, 07 nos. of chakkas (grinding-for removing sharp edges) and 02 nos. of drilling sections.
6. Glass art wares manufacturing process comprises of raw material storage, batch mixing, lifting to furnace hopper, charging through DOG house, melting furnace (1470-1500 °C), refining (@1260°C), working bay(@ 1180-1220°C), blowing, annealing, inspection, wire cutting, grinding, etching and packing.

7. In this section, the unit has also provision for Zinc, Nickel, Copper plating/phosphating, which is a part of glass art wares section.
8. As informed, the domestic waste water i.e., from toilet flushing of this section is sent to common-STP for treatment & utilization and flow meter FM-13 is installed on the outlet line from glass section to receiving sump of the common-STP. Sewage input from glass division to common STP was 34KL on the first day of joint inspection dated 30th June, 2021. As per the logbook record of FM-13 submitted from Feb-21 to June-21 the average 26KLD sewage is being sent to common STP from this section.
9. Treated waste water from common-STP is then again utilized in this section to fulfill the water requirement in toilet flushing, utility and boiler (common for all sections). Flow meter FM-17 (41 KL, value observed on the first day of joint inspection i.e., 30.06.21) is installed at outlet of common-STP, i.e., outlet of treated water storage tank of common-STP to Glass division.
10. Treated waste water from common-STP is stored in overhead 03 nos. of storage tanks of 5000 liteach (total storage capacity-15,000 lit), provided at glass division and then utilized in toilet flushing, utility & boiler. The unit has installed flow meters FM-24, FM-28 and FM-25 at utilization points of toilet flushing, utility & boiler feed, respectively, from the overhead storage tank.
11. List of installed electromagnetic flow meters (with totalizer) at different utilization points of the glass division from the common-STP, totalizer reading & flow observed during joint inspection are as under:

Table 8: List of flow meters installed at utilization points from Common-STP to Glass division along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)*	Values observed on 30.06.2021 (KL)
FM-17	STP Treated Wastewater recycle to Glass Division	9446.5	0.0	41
FM-24	STP Treated Wastewater recycle to Glass Division for Toilet Flushing	407.1	0.0	19
FM-25	STP Treated Wastewater recycle to Glass Division for Boiler	2524.58	1.1	18
FM-28	STP Treated Wastewater recycle to Glass Division for Utility	182.191	0.0	4

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

12. Value of FM-17 shall be total of values of FM-24, FM-28 and FM-25. On the first day of joint inspection i.e., dated 30.06.2021, quantity of total common-STP treated waste

water recycled in glass division (FM-17) was found 41 KL. Total of common-STP treated waste water distributed to toilet flushing, for boiler (common for the entire unit) and for utility at glass division was found 19 KL (FM-24), 18 KL (FM-25) and 4 KL (FM-28) respectively, which is total 41 KL. Hence, value of FM-17 is matching with the total of values of FM-24, FM-25 and FM-28.

13. Treated waste water from common-ETP is utilized in this section to fulfill the water requirement in different processes for manufacturing of glass art wares. Electromagnetic flow meter (with totalizer), FM-75 is installed at outlet of common-ETP, i.e., outlet of treated water storage tank of common-ETP to Glass division.
14. Then this treated effluent from common-ETP is stored in 04 nos. of overhead tanks provided at glass division, 01 tank is of 14,000 lit capacity & 03 nos. tanks are of 5000 lit capacity each i.e., total storage capacity is 29,000 lit. From these storage tanks, treated effluent from common-ETP is utilized for different purposes in glass division i.e., chakka, blowing, DM plant, paint booth, phosphating plant and electroplating plant. The unit has installed flow meters FM-67, FM-66, FM-65, FM-64, FM-63 and FM-62 at utilization points of chakka, blowing, DM plant, paint booth, phosphating plant and electroplating plant respectively from the overhead storage tanks at glass division.
15. List of installed electromagnetic flow meters (with totalizer) at different utilization points of the glass division from the common-ETP, totalizer reading & flow observed during joint inspection are as under:

Table 9: List of flow meters installed at utilization points from Common-ETP to Glass division along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)*	Values observed on 30.06.2021 (KL)
FM-75	RO treated effluent recycle to Glass Division	14736.3	0.0	72
FM-62	Supply to Electro Plating unit at Glass Division	5880.31	0.0	42
FM-63	Supply to Phosphating unit at Glass Division	869.85	0.0	6
FM-64	Supply to Paint Booth at Glass Division	517.20	0.0	4
FM-65	Supply to DM plant at Glass Division	595.10	0.0	4.7
FM-66	Supply to Blowing unit at Glass Division	1497.53	0.0	12
FM-67	Supply to Chakka unit for makeup at Glass Division	186.11	0.0	1.4

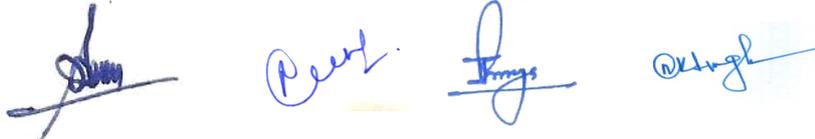
*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

16. Value of FM-75 shall be total of values of FM-62, FM-63, FM-64, FM-65, FM-66 and FM-67. On the first day of joint inspection i.e., dated 30.06.2021, total common-ETP treated effluent recycled in glass division (FM-75) was found 72 KL. Total of common-ETP treated effluent distributed to Electro Plating unit, Phosphating unit, Paint Booth, DM plant, blowing unit and chakka unit at Glass Division were found 42 KL (FM-62), 6 KL (FM-63), 4 KL (FM-64), 4.7 KL (FM-65), 12 KL (FM-66) and 1.4 KL (FM-67) respectively, which is total 70.1 KL. The difference of 1.9 KL may be due to losses in the different utilization points.

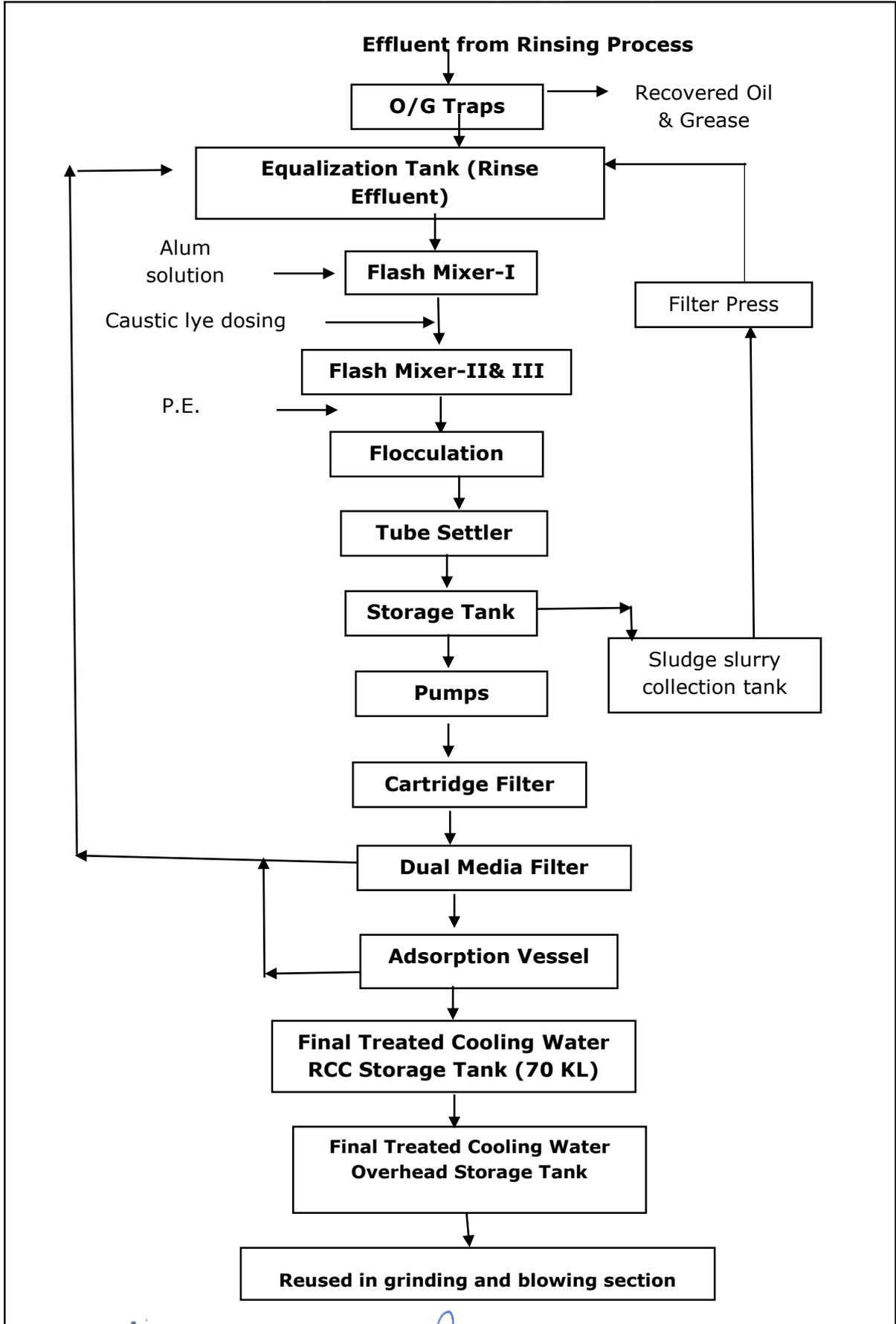
17. The source of effluent generation from glass art ware manufacturing section is as below:

a) Blowing, grinding & drilling process:

- Previously, for treatment of effluent generated from blowing, grinding (chakka) and drilling process, the unit had a separate waste water recycling plant comprises of one collection tank, oil & grease skimming tank, settling tank, sand filter, carbon filter and Activated Carbon Filter (ACF), which is located at glass division.
- Now, in addition to it, a combine treatment system for treatment and recycling of effluent generated from blowing, grinding & drilling process and the cooling water from die & blowing section has been installed comprising of equalization tank, Flash mixer-1, flash mixer-2, flash mixer-3, flocculation tank, tube settler, storage tank and filter press (for sludge dewatering).



The treatment scheme sequence of this recycling plant, is presented below:



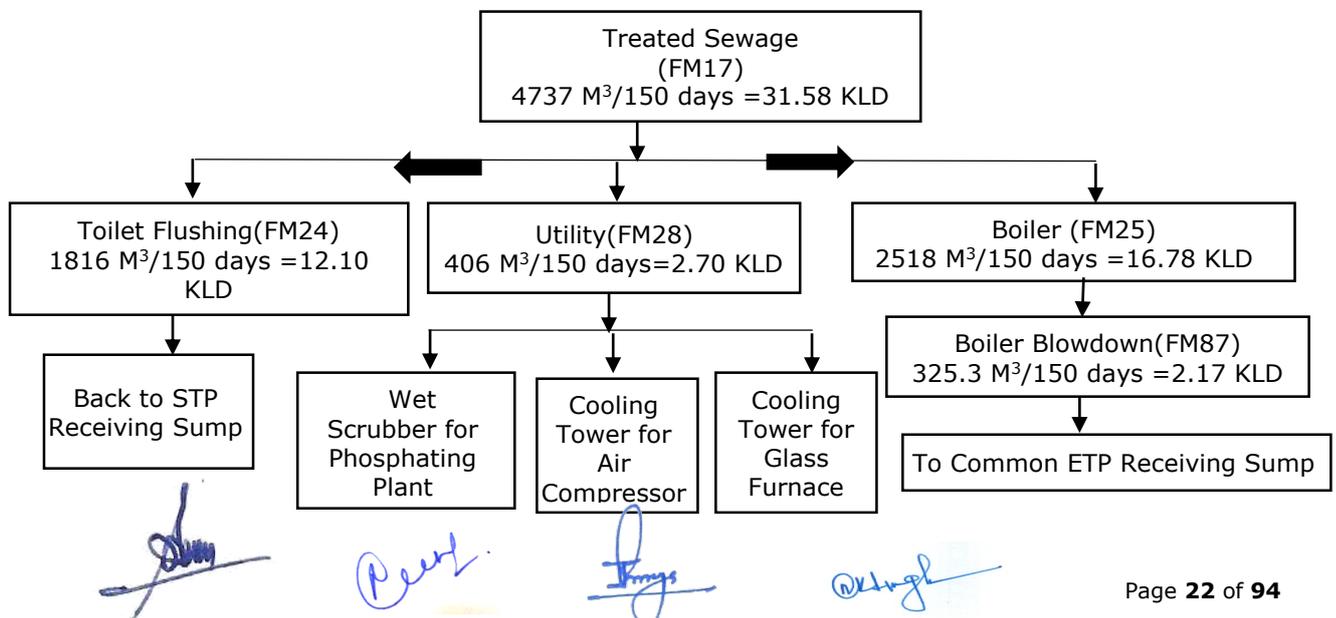
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- Treated effluent from this recycling plant is stored in a RCC tank of 70 KL capacity (located under the PNG gas fired glass melting furnace of the glass division) and then it is pumped to overhead storage tank. From this overhead storage tank, the treated waste water is re-used/ utilized again in grinding (chakka) and blowing section of Glass division and top up is being made with treated effluent from common-ETP.
- The unit has provided Electromagnetic flow meter (with totalizer) at inlets of this recycling plant i.e., FM-71 (102.7KL, value observed on the first day of joint inspection i.e., dated 30.06.21) and FM-73 (5.2KL, value observed on the first day of joint inspection i.e., dated 30.06.21) from blowing & grinding section and Chakka section respectively. Unit has also provided Electromagnetic flow meter (with totalizer) at outlets of the treated water storage tank of recycling plant i.e., FM-72 (99.1KL, value observed on the first day of joint inspection i.e., dated 30.06.21) and FM-74 (4KL, value observed on the first day of joint inspection i.e., dated 30.06.21) to blowing & grinding section and Chakka section respectively was being recycled through recycling plant of Glass division on the first day of inspection dated 30.06.21.
- At the time of joint inspection, the recycling plant was found operational.

b) Plating/phosphating process:

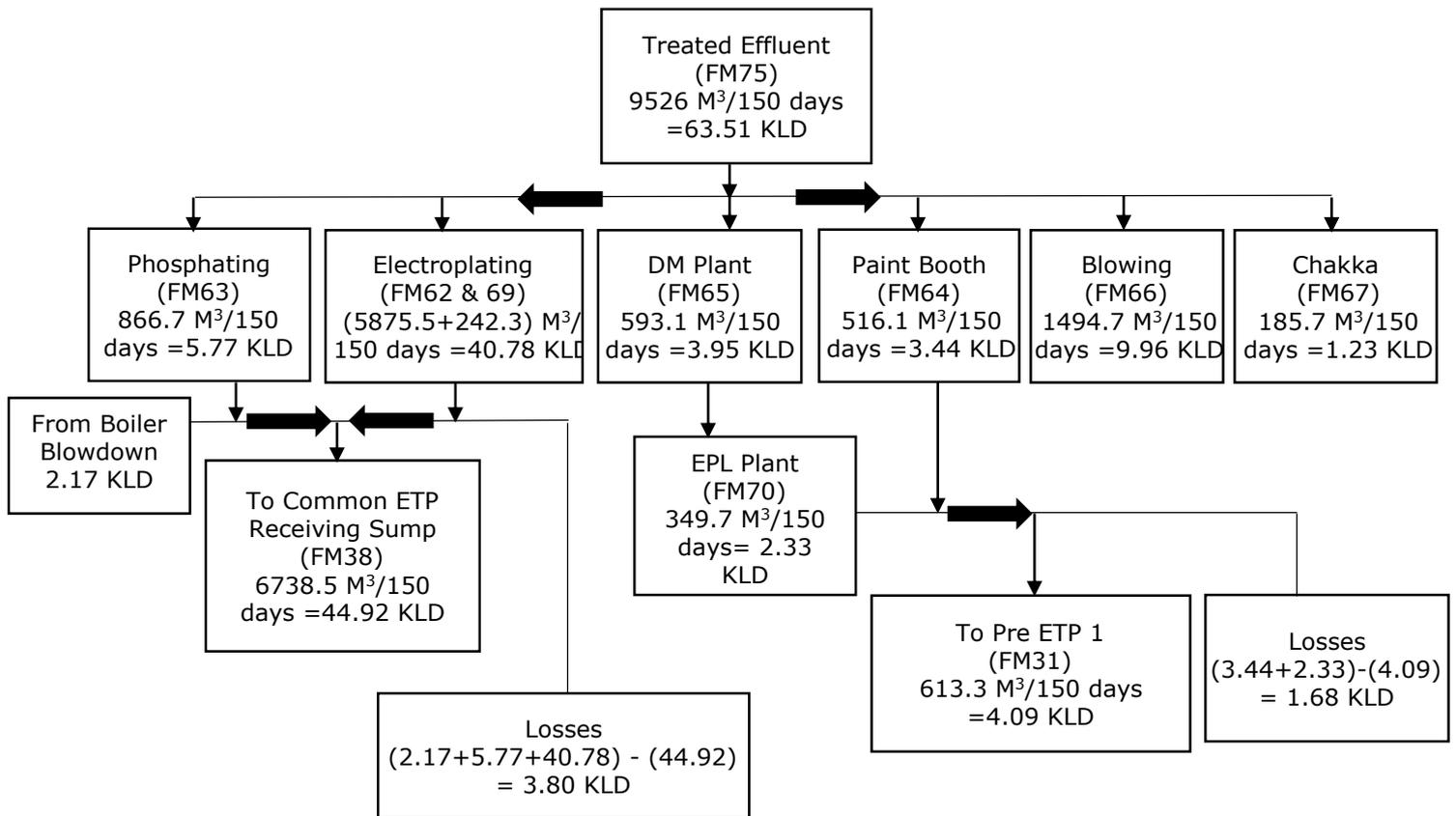
- Effluent generated from the plating/phosphating section is being sent to Pre-ETP-1 (25 KLD capacity) for treatment. Details of Pre-ETP is mentioned in Section- 8.0.
18. The unit has installed Electromagnetic flow meter (with totalizer) at the utilization points of treated waste water consumption as well as effluent being pumped to Pre-ETPs/common-ETP and also maintaining the logbooks of the same. The unit has submitted logbook data record for all the installed flow meters.
19. As per the logbook data from Feb-21 to June-21 provided by the unit, quantity of treated waste water from common-STP/common-ETP utilized and quantity of effluent generation from the glass section is explained in the following diagram:

Uses & distribution of common-STP recycled water in Glass division



- As per the submitted logbook data from Feb-21 to June-21, total 31.58 KLD of treated sewage is being sent to glass division for toilet flushing, utilities and boiler section and 12.10KLD wastewater is sent back to STP, 17.23 KLD water is used in the process and 2.17 KLD waste water is sent to common-ETP.

Uses & distribution of Common-ETP (RO treated) recycled water in Glass division



- As per the submitted logbook data from Feb-21 to June-21, total 63.51 KLD of treated effluent from common ETP is being sent to glass division for utilization in phosphating, electroplating, DM plant, paint booth, blowing, chakka section and total 44.92 KLD wastewater is generated and sent to common ETP & 4.09 KLD to pre ETP 1 for treatment. The difference of 14.5 KLD may be due to consumption of 11.19 KLD in blowing and chakka section and losses in different process.
- **Total Water/treated waste water utilized in glass division:** On the first day of inspection dated 30.06.21, as per the value of FM-3 the fresh water intake to Glass section was 21KL, as per FM-17 the total treated waste water recycled to glass division from common-STP was 41KL and as per FM-75 the total treated effluent recycled to glass division from common-ETP was 72KL, hence the total water input to this section was 134KL.

➤ **Total trade/domestic waste water generation from the glass division:** As per the value of FM-31(5KL) & FM-38(47KL) the total effluent generation from the glass division was 52KL and as per FM-13 the total sewage generation from this division was 34KL, hence the total waste water generation from the glass division was 86KL. Total difference of 48KL in total water input & waste water generation in this section is due to, 18KL (FM-25) supplied to boiler (common for entire unit), 4KL (FM-28) supplied for utility purpose, 13.4KL (FM-66 + FM-67) used as make up water in blowing & chakka unit of this division (making total of 35.4 KL) and remaining difference of 12.6KL may be due to losses in process and consumption of fresh water for drinking purposes in glass division.

20. Total two samples were collected (1) to check the quality of water being used in the glass division, one sample of water being used in mould cooling and (2) to assess the quality of treated waste water, one sample from the outlet of internal recycling plant of glass division. Analysis result of collected samples from the glass division is presented below.

Table 10: Characteristics of sample collected from glass section-General parameters

Parameters Sampling locations	pH	Color	BOD	COD	TSS	TDS	SO ₄ ²⁻	NO ₃	PO ₄ -P	Cl ⁻	CN
Water used for mould cooling in Glass unit	7.1	06	06	16	BDL	596	191	1.2	BDL	48	BDL
Outlet of glass division recycling plant	7.1	11	09	27	BDL	1120	229	2.3	0.08	84	BDL

(all values are in mg/l except pH and colour (Hazen unit))

Table 11: Characteristics of sample collected from glass section-Heavy metals

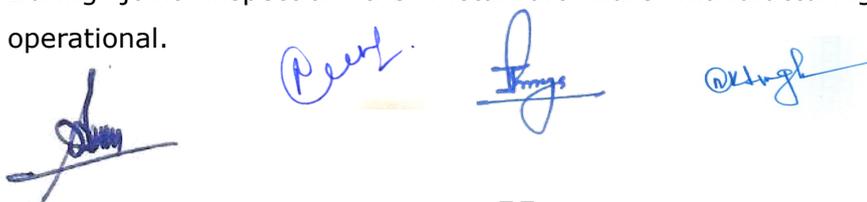
Parameters Sampling locations	As	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Se	V	Zn
Water used for mould cooling in Glass unit	BDL	BDL	BDL	BDL	BDL	0.24	0.14	BDL	0.11	BDL	BDL	BDL	0.03
Outlet of glass division recycling plant	BDL	BDL	BDL	BDL	BDL	0.43	0.14	BDL	0.02	BDL	BDL	0.13	0.01

(all values are in mg/l)

20. Characteristics of recycled water used in glass division are in line with the characteristics of the treated effluent (refer table 29) which indicates that recycled waste water is used for industrial activity in this section and fresh water is not being used.

7.2 Observations on Metal Art ware Manufacturing Section

1. During joint inspection the metal art ware manufacturing section was found operational.



2. As per the CTO (issued by UPPCB, with validity upto 30.06.2021) under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981, the unit has permission for production of Metal Artware-200 MT/month, for trial production.
3. Monthly production in data from Jan-2021 to June-2021 of metal art wares as submitted by the unit is as below:

Table 12: Production of Metal art wares from Jan-2021 to June-2021 as submitted by the unit

Sr. No.	Month	Production of Metal art wares (Ton)	Production capacity permitted as per expired CTO
1.	Jan-21	193	200 Ton/Month
2.	Feb-21	190	
3.	Mar-21	196	
4.	Apr-21	188	
5.	May-21	190	
6.	Jun-21	189	

4. To fulfill the fresh water requirement for drinking purpose in this section, the unit has provided three tanks of 5000 lit capacity each, making total of 15,000 lit storage capacity.
5. Manufacturing process comprises of raw material storage, pre-treatment i.e., polishing, phosphating & shot blasting, finishing of goods i.e., powder coating, painting & plating/electrophoresis coating, packing and dispatch.
6. The domestic waste water i.e., from toilet flushing of this section is sent to common-STP for treatment & utilization. Electromagnetic flow meter (with totalizer), FM-10(51KL on the first day of inspection i.e., 30.06.21) is installed on the outlet line from metal section to receiving sump of the common-STP.
7. Treated waste water from common-STP is then again utilized in this section to fulfill the water requirement in toilet flushing and utility. Flowmeter FM-16(35KL on the first day of inspection i.e., 30.06.21) is installed at outlet of common-STP, i.e., outlet of treated water storage tank of common-STP to Metal division.
8. Treated waste water from common-STP is stored in overhead storage tanks. the unit has provided 03 tanks of 7000 lit capacity each, 02 tanks of 5000 lit capacity each and 02 tanks of 2000 lit capacity each, making total of 35,000 lit storage capacity are provided for storage of treated waste water from common-STP at Metal division.
9. From these storage tanks, water is utilized in toilet flushing and utility. The unit has installed flowmeters FM-22 (29KL on the first day of inspection i.e., 30.06.21) and FM-23 (6KL on the first day of inspection i.e., 30.06.21) at utilization points of toilet flushing and utility respectively from the overhead storage tank.
10. List of installed electromagnetic flow meters (with totalizer) at different utilization points of metal division from the common-STP, totalizer reading & flow observed during joint inspection are as under:

Table 13: List of flow meters installed at utilization points from Common-STP to Metal division along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m ³)	Instantaneous Flow observed (m ³ /hr)*	Values observed on 30.06.2021 (KL)
FM-16	STP Treated Wastewater recycle to Metal Division	9978.0	2.47	35
FM-22	STP Treated Wastewater recycle to Metal Division for Toilet Flushing	3219.1	0.0	29
FM-23	STP Treated Wastewater recycle to Metal Division for Utility	658.295	1.9	6

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

11. Value of FM-16 shall be total of values of FM-22 and FM-23. On the first day of joint inspection dated 30.06.2021, quantity of total common-STP treated waste water recycled in metal division (FM-16) was found 35 KL. Total of common-STP treated waste water distributed to toilet flushing and for utility at metal division was found 29 KL (FM-22) and 6 KL (FM-23) respectively, which is total 35 KL. Hence, value of FM-16 is matching with the total of values of FM-22 and FM-23, which indicated treated wastewater is being used in this section for toilet flushing and utility.
12. Treated waste water from common-ETP is utilized in this section to fulfill the water requirement in different processes for manufacturing of Metal art wares. Electromagnetic flow meter (with totalizer), FM-76 (57KL on the first day of inspection i.e., 30.06.21) is installed at outlet of common-ETP, i.e., outlet of treated water storage tank of common-ETP to Metal division.
13. Treated effluent from common-ETP is stored in provided 08 nos. of overhead tanks of 5000 lit capacity each, making total of 40,000 lit storage capacity. From these storage tanks, treated effluent from common-ETP is utilized for different purposes in metal division i.e., DM plant, paint booth, phosphating plant and electroplating plant. The unit has installed flowmeters FM-80, FM-79, FM-78 and FM-77 at utilization points of DM plant, paint booth, phosphating plant and electroplating plant respectively from the overhead storage tanks at metal division.
14. List of installed electromagnetic flow meters (with totalizer) at different utilization points of metal division from the common-ETP, totalizer reading & flow observed during joint inspection are as under:

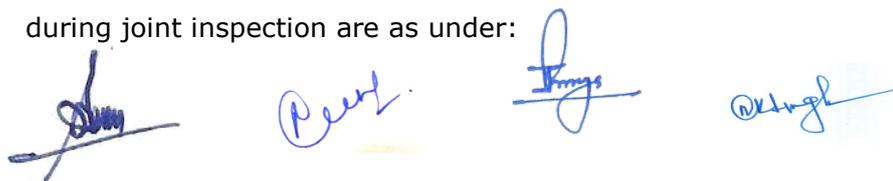


Table 14: List of flow meters installed at utilization points from Common-ETP to Metal division along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m ³)	Instantaneous Flow observed (m ³ /hr)*	Values observed on 30.06.2021 (KL)
FM-76	RO treated effluent recycle to Metal Division	10482.5	9.3	57
FM-77	Supply to Electro Plating unit at Metal Division	4768.87	0.0	42
FM-78	Supply to Phosphating unit at Metal Division	872.0	0.0	4.5
FM-79	Supply to Paint Booth at Metal Division	588.23	0.0	4.2
FM-80	Supply to DM plant at Metal Division	659.58	0.0	6.3

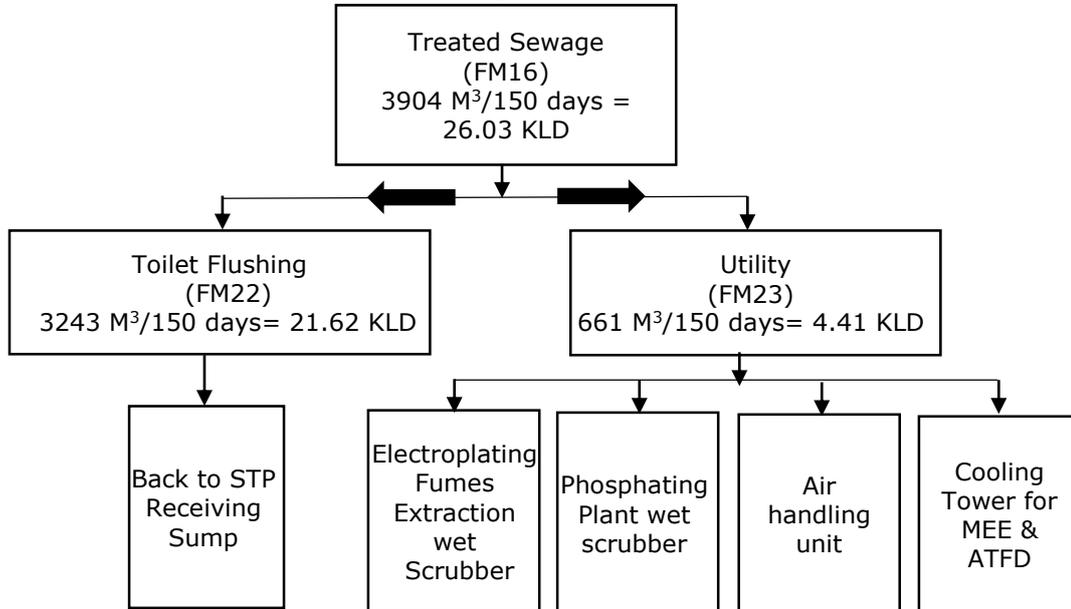
*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

15. Value of FM-76 shall be total of values of FM-77, FM-78, FM-79 and FM-80. On the first day of joint inspection dated 30.06.2021, total common-ETP treated effluent recycled in metal division (FM-76) was found 57 KL. Total of common-ETP treated effluent distributed to Electro Plating unit, Phosphating unit, Paint Booth and DM plant at metal Division were found 42 KL (FM-77), 4.5 KL (FM-78), 4.2 KL (FM-79) and 6.3 KL (FM-80) respectively, which is total 57 KL. Hence, value of FM-76 is matching with the total of values of FM-77, FM-78, FM-79 and FM-80 which indicated treated wastewater is being used in this section for different industrial utilization.
16. As informed by the unit representative Ni, Cu, Zn and brass plating are carried out in this section and cyanide is not used in any process within the section.
17. The main source of wastewater generation from this division are from phosphating, electroplating, electrophoresis, paint booth and from floor washing.
18. The waste water generated from:
 1. 4.06 KLD effluent generated from electrophoresis and paint booth (lacquering) sections is being sent to Pre-ETP-1 (25 KLD capacity) followed by common-ETP for treatment and
 2. 37.64 KLD effluent generated from phosphating & electroplating is directly sent to common-ETP for treatment
 3. Wastewater from floor washing (0.44 KLD) is sent to Pre-ETP-2 provided for treatment of effluent generating from floor washing
19. The unit has installed Electromagnetic flow meters (with totalizers) at the utilization points of treated waste water consumption as well as effluent being pumped to Pre-

ETPs and common-ETP and also maintaining the logbooks of the same. The unit has submitted logbook data record for all the installed flow meters.

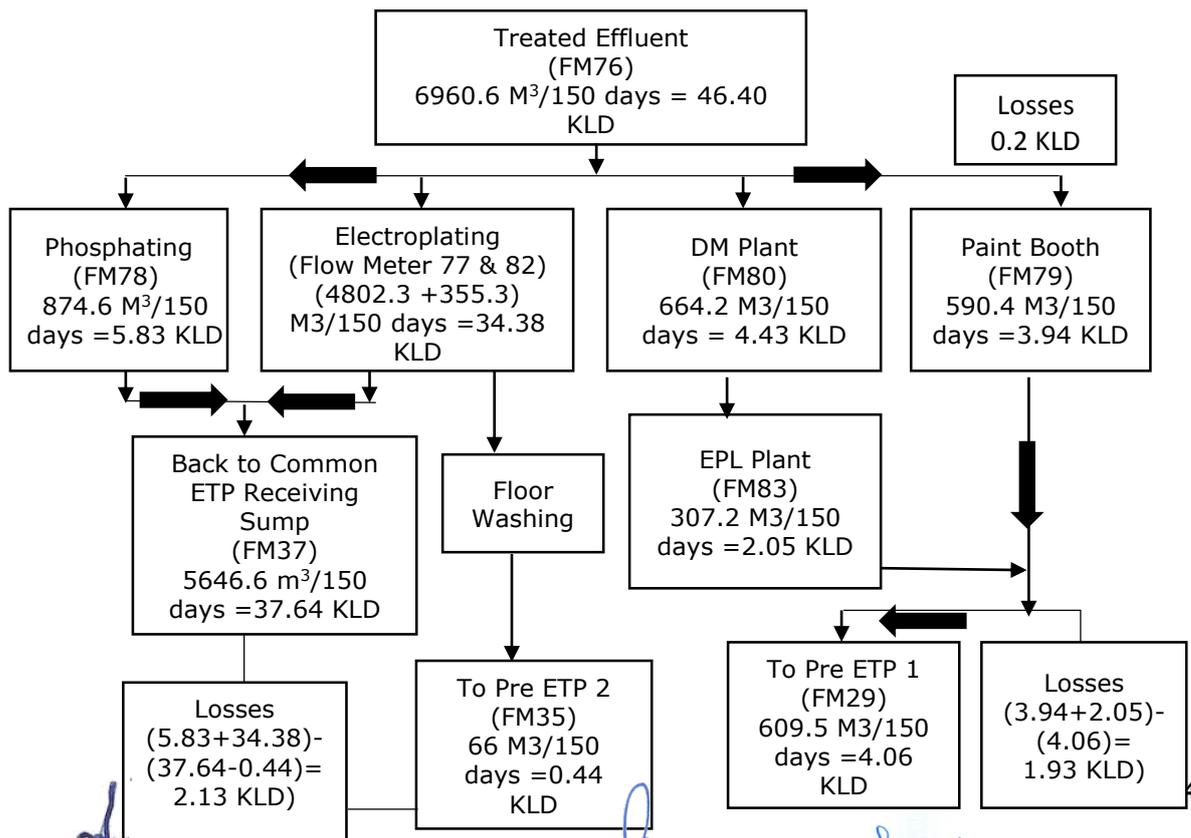
20. As per the logbook data from Feb-21 to June-21 provided by the unit, quantity of treated waste water from common-STP/common-ETP utilized and quantity of effluent generation from the metal section is explained in the following diagram:

Uses & distribution of common-STP recycled water in metal division



➤ Total 26.03 KLD of treated sewage is being sent to metal division for toilet flushing and utilities and 21.62 KLD wastewater is sent back to STP and difference of 4.41 KLD water may be used in the process or due to losses.

Uses & distribution of Common ETP (RO treated) recycled water in metal division



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- Total 46.4 KLD of treated effluent from common ETP is being sent to metal division for utilization in phosphating, electroplating, DM plant and paint booth section and total 37.64 KLD wastewater is generated and sent to common ETP, 4.06 KLD sent to pre ETP 1 and 0.44 KLD sent to pre ETP 2 for treatment. The difference of 4.26 KLD may be due to losses in different process.
- **Total Water/treated waste water utilized in metal division:** On the first day of inspection dated 30.06.21, as per the value of FM-5 the fresh water intake to metal division was 28KL, as per FM-16 the treated waste water recycled to metal division from common-STP was 35KL and as per FM-76 the treated effluent recycled to metal division from common-ETP was 57KL, hence the total water input to this section was 120KL.
- **Total trade/domestic waste water generation from the metal division:** On the first day of inspection dated 30.06.21, as per the value of FM-29(5KL), FM-35(0KL) & FM-37(48KL) the total effluent generation was 53KL and as per FM-10 the total sewage generation was 51KL, hence the total waste water generation from the metal division was 104KL. The difference of 16KL in total water input & waste water generation in this section is attributed to utilization of treated sewage for utility purpose i.e., 6KL (FM-23) and remaining difference of 10KL may be due to losses in process and consumption of fresh water for drinking purposes in metal division.

21. Sample of treated wastewater being used in metal electroplating process was collected for analysis purpose and to check the quality of treated water being recycled in metal section. Analysis result is presented below.

Table 15: Characteristics of sample collected from metal section-General parameters

Parameters Sampling location	pH	Color	BOD	COD	TSS	TDS	SO ₄ ²⁻	NO ₃	PO ₄ -P	Cl ⁻	CN
Water used in Metal Electroplating section	7.3	11	04	09	BDL	152	11	7.9	0.23	25	BDL

(all values are in mg/l except pH and colour (Hazen unit))

Table 16: Characteristics of sample collected from metal section-Heavy metals

Parameters Sampling location	As	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Se	V	Zn
Water used in Metal Electroplating section	BDL	BDL	BDL	BDL	BDL	0.03	BDL	0.02	BDL	BDL	BDL	BDL	BDL

(all values are in mg/l)

21. Characteristics of treated wastewater being used in metal electroplating process are in line with the characteristics of the treated effluent (refer table 29) which indicates that recycled waste water is used for industrial activity in this section and fresh water is not being used.

7.3 Observations on Wooden Art ware Manufacturing Section

1. At the time of inspection, the wooden art ware manufacturing section was found operational.
2. As per the CTO (issued by UPPCB, with validity upto 30.06.2021) under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981, the unit has permission for production of Wood Artware-150 MT/month, for trial production.
3. Monthly production in data from Jan-2021 to June-2021 of wooden art wares as submitted by the unit is as below:

Table 17: Production of Wooden art wares from Jan-2021 to June-2021 as submitted by the unit

Sr. No.	Month	Production of Wooden art wares (Ton)	Production capacity permitted as per expired CTO
1.	Jan-21	147	150 Ton/Month
2.	Feb-21	144	
3.	Mar-21	146	
4.	Apr-21	139	
5.	May-21	141	
6.	Jun-21	145	

4. The unit has common drinking water point and common toilets, located between wooden and marble art ware sections for employees working at wooden and marble sections.
5. To fulfill the fresh water requirement for drinking purpose in wooden and marble art ware sections, the unit has provided two tanks of 5000 lit capacity each, making total of 10,000 lit storage capacity.
6. Manufacturing process of the wooden art ware comprises of log yard, sawing, treatment Process, seasoning, machining, fabrication, finishing, lacquer spray booths/paint booths (total 40 nos.), packing and dispatch.
7. For steam requirement in seasoning process, the unit has one wood chips fired Thermic Fluid Heater (TFH) of 10 lac Kcal/hr capacity, followed by cyclone separator & wet scrubber as Air Pollution Control Device (APCD). Height of the stack attached to this TFH is 40 meters.
8. Treated waste water from common-STP is utilized in this section to fulfill the water requirement in toilet flushing and utility. Flowmeter FM-18 is installed at outlet of common-STP, i.e., outlet of treated water storage tank of common-STP to Wood division.
9. Treated waste water from common-STP is stored in one overhead storage tank of 5000 lit capacity provided for storage of treated waste water from common-STP at Wood division.

10. From these storage tanks, water is utilized in toilet flushing and utility. The unit has installed flowmeters FM-26 and FM-27 at utilization points of toilet flushing and utility respectively from the overhead storage tank.
11. List of installed electromagnetic flow meters (with totalizer) at different utilization points of wood division from the common-STP, totalizer reading & flow observed during joint inspection are as under:

Table 18: List of flow meters installed at utilization points from Common-STP to Wood division along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)*	Values observed on 30.06.2021 (KL)
FM-18	STP Treated Wastewater recycle to Wood Division	4979.1	0.0	21
FM-26	STP Treated Wastewater recycle to Wood Division for Toilet Flushing	1920.5	0.0	18
FM-27	STP Treated Wastewater recycle to Wood Division for Utility	391.2	2.19	3

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

12. Value of FM-18 shall be total of values of FM-26 and FM-27. On the first day of joint inspection dated 30.06.2021, quantity of total common-STP treated waste water recycled in wood division (FM-18) was found 21 KL. Total of common-STP treated waste water distributed to toilet flushing and for utility at wood division was found 18 KL (FM-26) and 3 KL (FM-27) respectively, which is total 21 KL. Hence, value of FM-18 is matching with the total of values of FM-26 and FM-27.
13. The domestic waste water i.e., from toilet flushing of this section is sent to common-STP for treatment & utilization. Common flowmeter FM-12(33 KL, value observed on the first day of joint inspection i.e., 30.06.21) is installed on the outlet line from wood section & outlet line from general section (Office buildings) to receiving sump of the common-STP.
14. Treated waste water from common-ETP is utilized in this section to fulfill the water requirement in different processes for manufacturing of Wooden art wares. Electromagnetic flow meter (with totalizer), FM-55(9.9 KL, value observed on the first day of joint inspection i.e., 30.06.21) is installed at outlet of common-ETP, i.e., outlet of treated water storage tank of common-ETP to Wood division.
15. Treated effluent from common-ETP is stored in provided 02 nos. of overhead tanks of 5000 lit capacity each, making total of 10,000 lit storage capacity. From these storage

tanks, treated effluent from common-ETP is utilized for different purposes in wood division i.e., paint booth as well as in marble division. The unit has installed flowmeters FM-56 & FM-58 at utilization points of paint booth of wood division and FM-59 for utilization in marble division plant from the overhead storage tanks.

16. List of installed electromagnetic flow meters (with totalizer) at different utilization points of wood division from the common-ETP, totalizer reading & flow observed during joint inspection are as under:

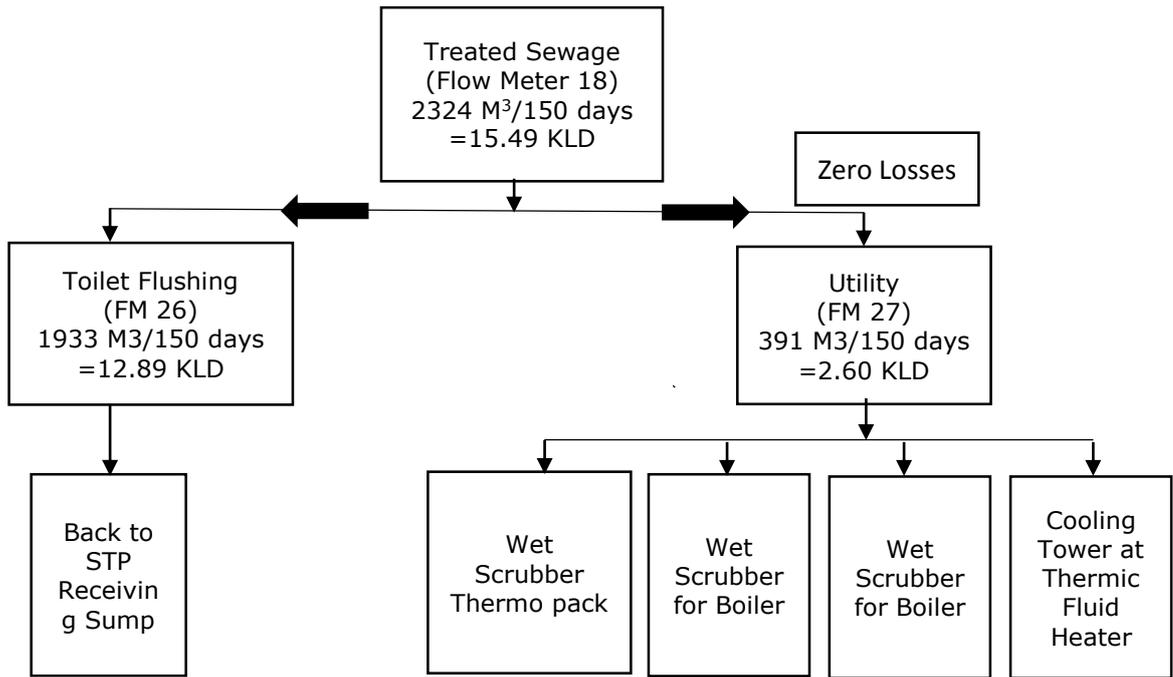
Table 19: List of flow meters installed at utilization points from Common-ETP to Wood division along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)*	Values observed on 30.06.2021 (KL)
FM-55	RO Treated effluent recycle to Wood Division	1887.3	1.88	9.9
FM-56	Supply to Paint Booth of Wood Division	435.9	0.0	3.1
FM-58	Supply to Paint Booth of Wood division	513.87	0.0	4.9
FM-59	Supply to marble Unit	182.20	0.0	1

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

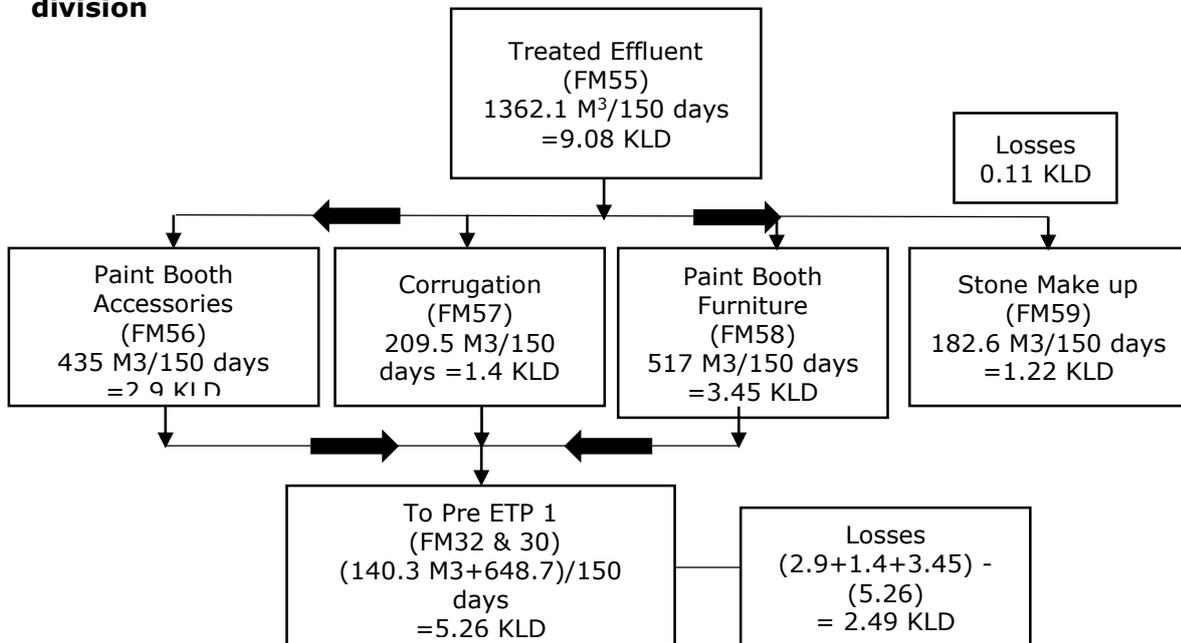
17. Value of FM-55 shall be total of values of FM-56, FM-58 and FM-59. On the first day of joint inspection dated 30.06.2021, total common-ETP treated effluent recycled in wood division (FM-55) was found 9.9 KL. Total of common-ETP treated effluent distributed to Paint booths (02 nos.) at wood division and to marble division were found 3.1 KL (FM-56), 4.9 KL (FM-58) and 1 KL (FM-59) respectively, which is total 9 KL. The difference of 0.9KL is due to losses. Value of FM-56, FM-58 and FM-59 indicates treated wastewater is utilized for different industrial activities.
18. Source of effluent generation from wood division is lacquer spray booths/paint booths. 5.26 KLD of wastewater generated is being sent to Pre-ETP-1 (25 KLD capacity) for treatment and then further sent to common-ETP.
19. The unit has installed Electromagnetic flow meter (with totalizers) at the utilization points of treated waste water consumption as well as effluent being pumped to Pre-ETPs/common-ETP and also maintaining the logbooks of the same. The unit has submitted logbook data record for all the installed flow meters.
20. As per the logbook data from Feb-21 to June-21 provided by the unit, quantity of treated waste water from common-STP/common-ETP utilized and quantity of effluent generation from the wood section is explained in the following diagram:

Uses & distribution of common-STP recycled water in wood division



- Total 15.49 KLD of treated sewage is being sent to wood division for toilet flushing and utilities and 12.89 KLD wastewater is sent back to STP and 2.60 KLD water may be used in utility or due to losses.

Uses & distribution of Common-ETP (RO treated) recycled water in wood & marble division



- Total 9.08 KLD of treated effluent from common ETP is being sent to wood division for utilization in paint booths (accessories and furniture), corrugation and as make up water in marble section. Total 5.26 KLD wastewater is generated and sent to pre ETP 1 for treatment. The difference of 3.82 KLD may be due to losses in different process.

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- **Total Water/treated waste water utilized in wood marble division:** On the first day of inspection dated 30.06.21, as per the value of FM-6 the fresh water intake to Wood & Marble division was 18.5KL, as per FM-18 the treated waste water recycled to wood division from common-STP was 21KL and as per FM-55 the treated effluent recycled to wood division from common-ETP was 9.9KL, hence the total water input to this section was 49.4KL.
 - **Total trade/domestic waste water generation from the wood division:** As per the value of FM-30 the total effluent generation was 5.2KL and as per FM-12 the total sewage generation was 33KL, hence the total waste water generation from wood division was 38.2KL. The difference of 11.2KL in total water input & waste water generation in this section is attributed to utilization of treated sewage for utility purpose i.e., 3KL (FM-27), utilization of treated effluent from common-ETP in marble section as make up water i.e., 1KL (FM-59) and remaining difference of 7.2KL may be due to losses in process and consumption of fresh water for drinking purposes in wood & marble division.
21. During previous joint inspection dated 10.12.2020, the sludge drying bed of the previous ETP of wood division was found filled with sludge, however during current joint inspection during 30.06.21 to 02.07.21, the same was found empty. As informed by the unit representative, they have sent that sludge to Treatment, Storage & Disposal Facility (TSDF) of M/s Bharat Oil & Waste Management Ltd., Kanpur.
22. One tank of old ETP of wood division was found in use for purpose of water cooling & recirculation for wet scrubber.
23. Sample of treated waste water being used in wood division was collected for analysis purpose. The analysis result of collected sample is mentioned below:

Table 20: Characteristics of sample collected from wood section-General parameters

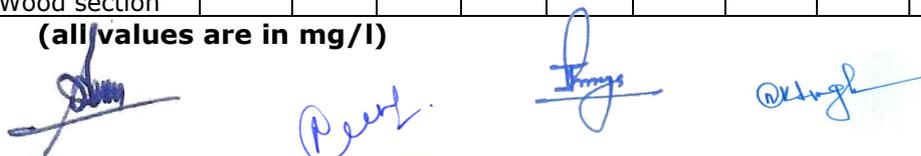
Parameters Sampling location	pH	Color	BOD	COD	TSS	TDS	SO ₄ ⁻	NO ₃	PO ₄ -P	Cl ⁻	CN
Treated waste water used in Wood section	5.6	14	05	26	BDL	24	BDL	6.4	BDL	10	BDL

(all values are in mg/l except pH and colour (Hazen unit))

Table 21: Characteristics of sample collected from wood section-Heavy metals

Parameters Sampling location	As	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Se	V	Zn
Treated waste water used in Wood section	BDL	BDL	BDL	BDL	BDL	0.10	BDL	BDL	BDL	BDL	BDL	0.06	0.02

(all values are in mg/l)



24. Characteristics of treated waste water being used in wood division are in line with the characteristics of the treated effluent (refer table 29) which indicates that recycled waste water is used for industrial activity in this section and fresh water is not being used.

7.4 Observations on Marble Art ware Manufacturing Section

1. During joint inspection Marble art ware section was found operational.
2. As per the CTO (issued by UPPCB, with validity upto 30.06.2021) under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981, the unit has permission for production of Marble Artware-345 MT/month, for trial production.
3. Monthly production in data from Jan-2021 to June-2021 of marble art wares as submitted by the unit is as below:

Table 22: Production of Marble art wares from Jan-2021 to June-2021 as submitted by the unit

Sr. No.	Month	Production of Marble art wares (Ton)	Production capacity permitted as per expired CTO
1.	Jan-21	336	345 Ton/Month
2.	Feb-21	321	
3.	Mar-21	330	
4.	Apr-21	311	
5.	May-21	309	
6.	Jun-21	329	

4. Manufacturing process of marble art wares comprises of raw material storage, sorting, sizing/cutting, shaping, polishing and dispatch to metal/glass/wood packing department.
5. Two tanks of 5000lit capacity each are provided at wood division for the storage of treated effluent from common-ETP is used as make-up water in the process of marble division. The unit has installed flowmeter FM-59 (1 KL on the first day of inspection i.e., 30.06.21) for utilization in marble division plant from the overhead storage tanks.
6. The major source of wastewater generation from marble division are sizing/cutting, shaping and polishing process. For the treatment of the same, the unit has provided separate wastewater recycling plant for internal recycling comprises of collection tank, settling tank in series followed by MGF and ACF, located at marble section.
7. The effluent is collected in a collection cum settling tank and being recycled after passing through MGF and ACF. The water loss during the process is make-up by use of treated effluent from common-ETP.
8. The unit has installed Electromagnetic flow meter (with totalizer) FM-60 (4.9 KL, observed on the first day of joint inspection i.e., 30.06.21) at inlet, and FM-61 (3.7 KL, observed on the first day of joint inspection i.e., 30.06.21) at outlet of internal waste water recycling plant.

9. As informed by the unit representative, cleaning of the settling tank (of separate recycling plant) is carried out in time interval of 45 days by adding the treated waste water from common-ETP and collected sludge is used as filler material in floor making within the unit premises and excess/balance, if any is sold to building materials contractor.
10. Treated waste water from common-STP is utilized for flushing in toilets located between wooden and marble art ware sections for employees working in wooden and marble art ware sections.
11. Details w.r.t the quantity of treated effluent consumed in marble division and quantity of effluent generated from marble division is assessed and mentioned in Water Audit section of this report.
12. Sample of treated waste water being used in marble division was collected for analysis purpose. The analysis result of collected sample is mentioned below:

Table 23: Characteristics of sample collected from marble section-General parameters

Parameters Sampling location	pH	Color	BOD	COD	TSS	TDS	SO ₄ ²⁻	NO ₃	PO ₄ -P	Cl ⁻	CN
Treated waste water being used in Marble section	8.5	BDL	04	15	55	560	41	8.2	BDL	42	BDL

(all values are in mg/l except pH and colour (Hazen unit))

Table 24: Characteristics of sample collected from marble section-Heavy metals

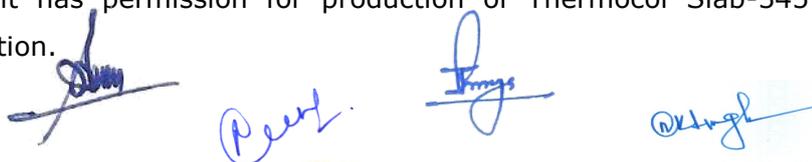
Parameters Sampling location	As	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Se	V	Zn
Treated waste water being used in Marble section	BDL	BDL	BDL	BDL	BDL	0.23	0.03	BDL	BDL	BDL	BDL	0.09	BDL

(all values are in mg/l)

13. Characteristics of treated waste water from marble division indicates that recycled water is being used in this section.

7.5 Observations on Thermocol Block Manufacturing Section

1. At the time of inspection, manufacturing process of thermocol block section was found operational.
2. As per the CTO (issued by UPPCB, with validity upto 30.06.2021) under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981, the unit has permission for production of Thermocol Slab-345 MT/month, for trial production.



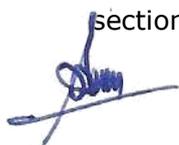
3. Manufacturing process comprises of raw material storage, pre-foaming, making of blocks (using steam) and storage of blocks.
4. The unit has one wood fired Boiler of 4 TPH capacity and the same was found operational at the time of inspection.
5. As observed by the joint inspection team, there is no water requirement in this division and no waste water generation from this division, hence no samples were collected.

7.6 Observations on Corrugated Sheet and Box Manufacturing Section

- 1 Corrugated sheet and box manufacturing section comprises of raw material storage, making of corrugated box and storage of corrugated box.
- 2 The unit obtained common Consent to Operate (CTO) under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 dated 18.06.2021, valid for trial operation of the unit for production of Metal Artware-200 MT/month, Glass Artware-250 MT/Month, Wood Artware-150 MT/Month, Marble Artware-345 MT/Month, Corrugated Boxes-500 MT/Month and Thermocol Slab-345 MT/Month. Both CTOs were granted for trial operation of the unit and were valid from 09.06.2021 to 30.06.2021.
- 3 As per the CTO (issued by UPPCB, with validity upto 30.06.2021) under Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981, the unit has permission for production of Corrugated Boxes-500 MT/month, for trial production.
- 4 As observed, waste water is being generated from this division during washing of gum drums. About 0.94 KLD wastewater generated is being sent to Pre-ETP-1 (25 KLD capacity) for further treatment and utilization. The unit has installed Electromagnetic flow meter (with totalizer), FM-32 (1 KL, observed on the first day of joint inspection i.e., 30.06.21) at inlet of pre-ETP-1 from corrugation section.
- 5 On the first day of inspection i.e., 30.06.21, totalizer reading of FM-32 was observed 139.31 m³. The waste water generation from washing of gum drums is not continuous and regular as washing of gum drums at corrugated sheet and box manufacturing section is carried out 3-4 times in a week.

8.0 Wastewater Treatment Systems

- The unit has provided two (2nos.) pre-Effluent Treatment Plants (ETP) as mentioned below:
 - a) Pre-ETP for treatment of effluent from Electrophoretic, lacquering, plating (EPL) and paint booth sections (stream-1)
 - b) Pre-ETP for treatment of floor washing effluent from metal artware section(stream-2)





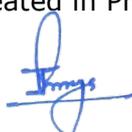

- For treatment of effluent generated from electro-plating and phosphating plants of metal & glass sections; treated effluent from Pre-ETP-1 and Pre-ETP-2; effluent from wet scrubber of thermic fluid heater and Boiler blow down, the unit has provided one common-ETP near metal division.
- For treatment of domestic waste water from the entire campus i.e., from toilets, bathrooms, kitchens of residential colony; toilets of factory area & offices and metal buffing section, the unit has provided one common-STP near residential colony.
- At the time of joint inspection, Pre-ETP-1, common-ETP and common-STP were found operational, however Pre-ETP-2 was found non-operational due to unavailability of the floor washing effluent.
- The unit has established environmental laboratory for analysis of effluent and sewage parameters i.e., pH, TSS, TDS, BOD, COD, Oil & grease, Total Nitrogen, Microbial analysis and heavy metals.
- The unit has submitted a copy of report prepared by NEERI, Nagpur on "Water Quality Audit Report for M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P." based on the study conducted by NEERI during the month of March-2021. Copy of this water quality audit report is placed at **Annexure-11**.
- This report of NEERI contains the assessment of water quantity used in various sections followed by water quality analysis, ensuring sustained operation of treatment systems and making water suitable.
- Main conclusions and recommendations of the NEERI report are as below,
 - a) The treated water from common-ETP and common-STP of the unit is suitable for use in various processes of the industry.
 - b) Detailed audit study including analysis of final treated water should be carried out 2-3 times in a year, ensuring the sustained performance of the treatment facility.
- Water quality audit report has been examined and comparison of average value for the month of March-2021, as mentioned in the submitted report (prepared by NEERI) and average values of 05 months (as per submitted logbook data from Feb-21 to June-21) & values observed on the first day of joint inspection i.e., 30.06.21 has been prepared and placed at sr. no. 13 of conclusions section.

8.1 Pre-ETPs

8.1.1 Pre-ETP-1 for treatment of effluent from Electrophoretic, lacquering and paint booth sections

1. Pre-ETP-1 (design capacity 25.0KLD) was found operational during joint inspection.
2. The unit has installed flow meters (with totalizers) at inlet and outlet of Pre-ETP-1.
3. Effluent generated from electrophoretic & lacquering (EPL) and paint booth of metal as well as glass division, paint booth of wood division and from the gum drum washing of corrugated box division are treated in Pre-ETP-1.





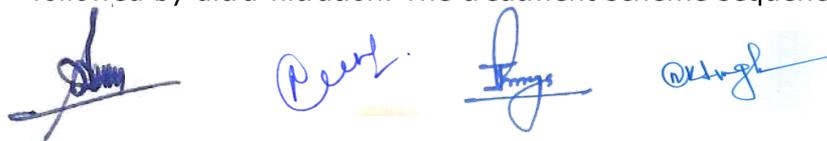

4. List of Electromagnetic flow meters (with totalizers) installed at different locations of Pre-ETP-1 and totalizer reading & flow observed during joint inspection is as below:

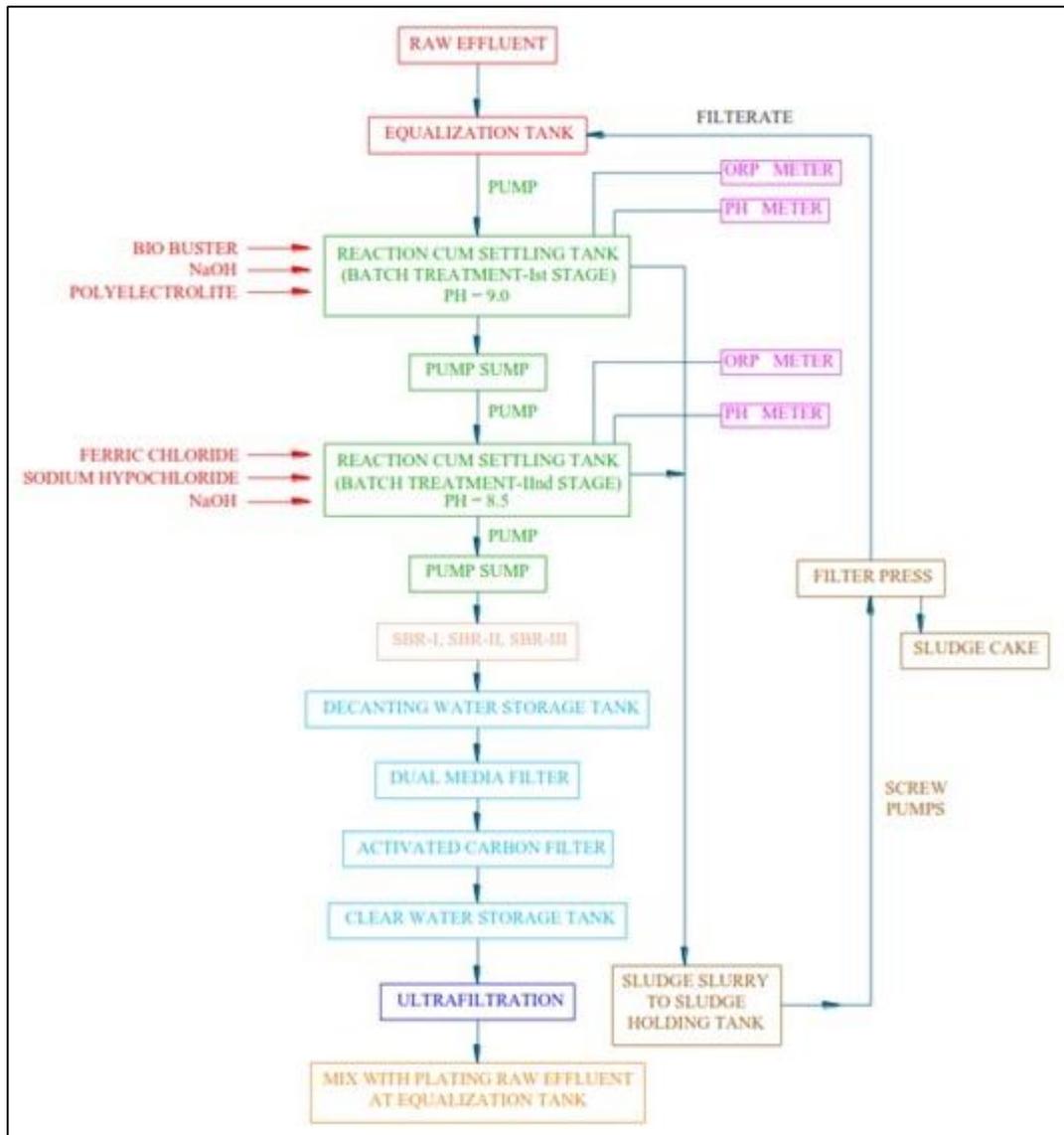
Table 25: List of flow meters installed at Pre-ETP-1 along with reading

Flow meter No.	Flow meter installation point	Totalizer reading (m ³)	Instantaneous Flow observed (m ³ /hr)*	Values observed on 30.06.2021 (KL)
FM-29	Metal Division: Paint & EPL Effluent to Pre-ETP-1 inlet	604.589	0.0	5
FM-30	Wood Division: Paint Booth effluent to Pre-ETP-1 inlet	643.511	0.0	5.2
FM-31	Glass Division Paint Booth & EPL effluent to Pre-ETP-1 inlet	609.242	0.0	5
FM-32	Effluent from Corrugation section to Pre-ETP-1 inlet	139.314	0.0	1
FM-33	Inlet of biological process of Pre-ETP-1	2792.09	0.0	16.5
FM-34	Pre-ETP-1 Outlet	2671.484	0.0	16

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

5. Value of FM-33 shall be total of values of FM-29, FM-30, FM-31 and FM-32. On the first day of joint inspection dated 30.06.2021, total effluent received at Inlet of biological process of Pre-ETP-1 was found 16.5 KL (FM-33). Total of Paint & EPL Effluent from metal & glass division, paint booth effluent from wood division and Effluent from Corrugation section received at Pre-ETP-1 were found 5 KL (FM-29), 5 KL (FM-31), 5.2 KL (FM-30) and 1 KL (FM-32) respectively, which is total 16.2 KL. The difference of 0.3 KL w.r.t. value of FM-33 is (16.5 KL) is due to evaporation loss in biological aeration process.
6. Pre-ETP comprises of screens, equalization tank, physico-chemical treatment with three stage flash mixer/reaction tanks, settling tanks (2 stage, batch), biological treatment (Activated sludge process-SBR-I, SBR-II & SBR-III with decanters), and tertiary treatment, i.e., Filtration (Dual media filter, Activated Carbon Filter (ACF)) followed by ultra-filtration. The treatment scheme sequence is presented below:





7. Chemical dosing for physico-chemical treatment is carried out through auto dozer and the unit has installed pH sensor in the flash mixing tank.
8. Treated effluent from this Pre-ETP-1 is pumped to equalization tank of Common-ETP for further treatment.
9. For sludge generated from settling tank, the unit has a sludge holding tank followed by filter press and finally sludge cake is stored in covered sludge storage room. Filtrate from the filter press flows under gravity into the equalization tank.
10. Effluent samples were collected from inlet (equalization tank) and outlet (treated effluent after ultra-filtration) for analysis purpose and to assess the performance of this Pre-ETP-1. Analysis results and observations on the results of collected samples is presented in the following section.






8.1.2 Characteristics and Observations on analysis results of samples collected from Pre-ETP-1

1. The analysis result of samples collected from Pre-ETP-1 are as below:

Table 26: Characteristics of sample collected from Pre-ETP-1-General parameters

Parameters	pH	TSS	TDS	COD	BOD	Chloride	PO ₄ -P	NO ₃ -N	Color	Sulphate
Inlet	5.9	904	1808	4090	2110	467	6.0	22.7	60	50
Outlet	7.2	36	2528	144	34	409	2.35	3.6	14	461

(Except pH, colour (hazen unit) all parameters are in mg/L)

Table 27: Characteristics of sample collected from Pre-ETP-1-Heavy Metals

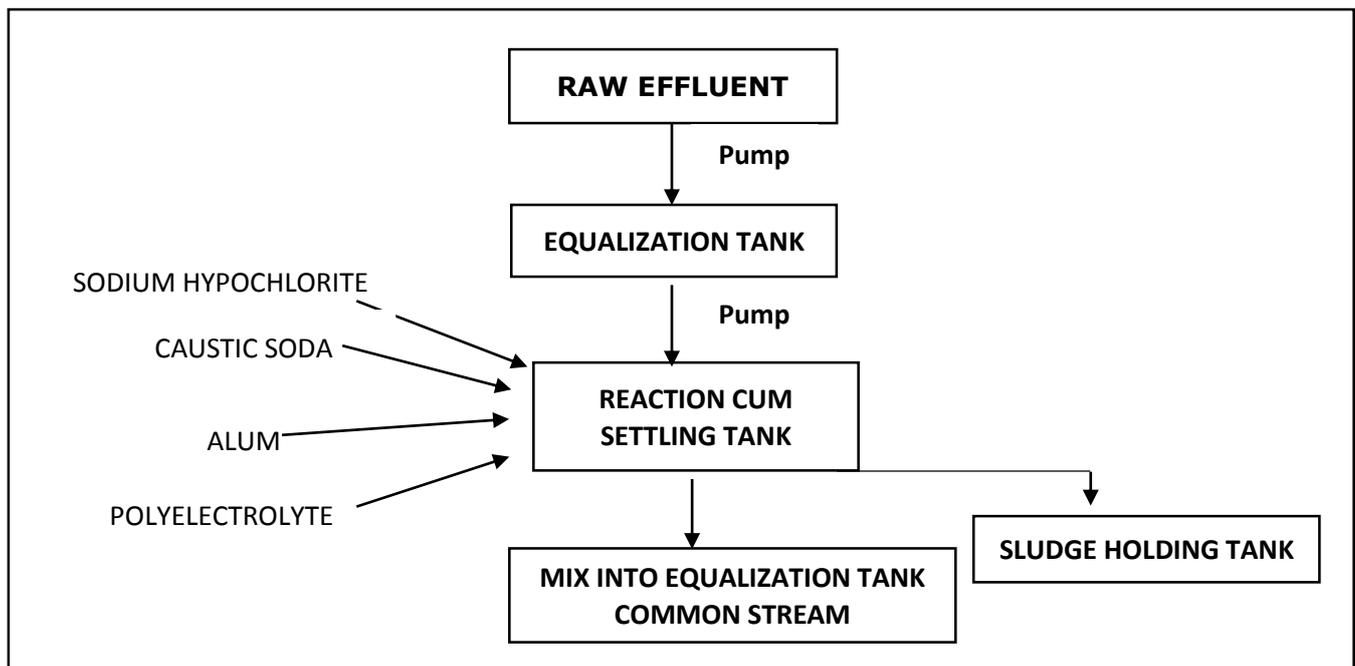
Parameter	CN	As	Cd	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Se	V	Zn
Inlet	0.23	BDL	BDL	0.03	0.63	3.02	97.97	1.5	24.0	0.24	BDL	BDL	BDL	73.2
Outlet	0.16	0.01	BDL	BDL	BDL	0.10	1.69	0.08	0.36	0.03	BDL	0.02	BDL	0.36

(All parameters are in mg/L)

2. Analysis results of effluent samples collected from Pre-ETP-1 shows 96.49% reduction in COD and 98.39% reduction in BOD.
3. The value of cyanide in inlet (untreated wastewater) and outlet (treated wastewater) of Pre-ETP-1 are 0.23 mg/l and 0.16 mg/l, respectively. However, it is further treated in common-ETP.

8.2 Pre-ETP-2 for treatment of effluent from Floor washing

1. The unit has also provided a Pre-ETP-2 for treatment of floor washing effluent generating from the metal division, which is comprises of equalization tank & reaction cum settling tank. This pre-ETP-2 is being operated on batch mode, as and when the floor washing is being carried out in metal division.
2. The unit has installed Electromagnetic flow meter (with totalizer) FM-35 at inlet and FM-36 at outlet of Pre-ETP-2. Totalizer readings on FM-35 & FM-36 were observed and found 66.024 m³ (flow-0.0 m³/hr) & 55.5 m³ (flow-0.0 m³/hr) respectively. 0.0 m³/hr flow has been observed due to the batch mode of operation.
3. Pre-ETP-2 was found non-operational due to unavailability of the floor washing effluent, hence sample could not be collected and water utilization on 30.6.2021 is reported 0.0. The average waste water generation from floor washing is observed as 0.44 KLD (FM-35) based on the submitted five months data (from Feb-21 to June-21).
4. Pre-ETP-2 treatment scheme flow chart is as follows:



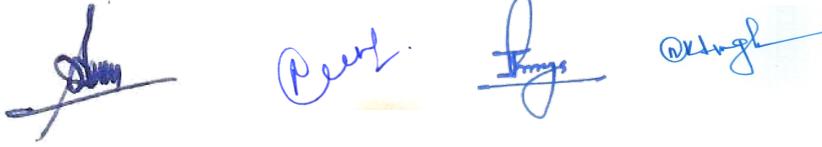
5. Treated effluent from this Pre-ETP-2 is pumped to equalization tank of Common-ETP for further treatment.
6. The unit is maintaining logbook record of all the flow meters. As per the logbook data from Feb-21 to June-21 of above mentioned flow meters as submitted by the unit, the quantity of effluent being treated through this Pre-ETP-2 and being sent to common-ETP is assessed. All the details are mentioned in Water audit section of this report.

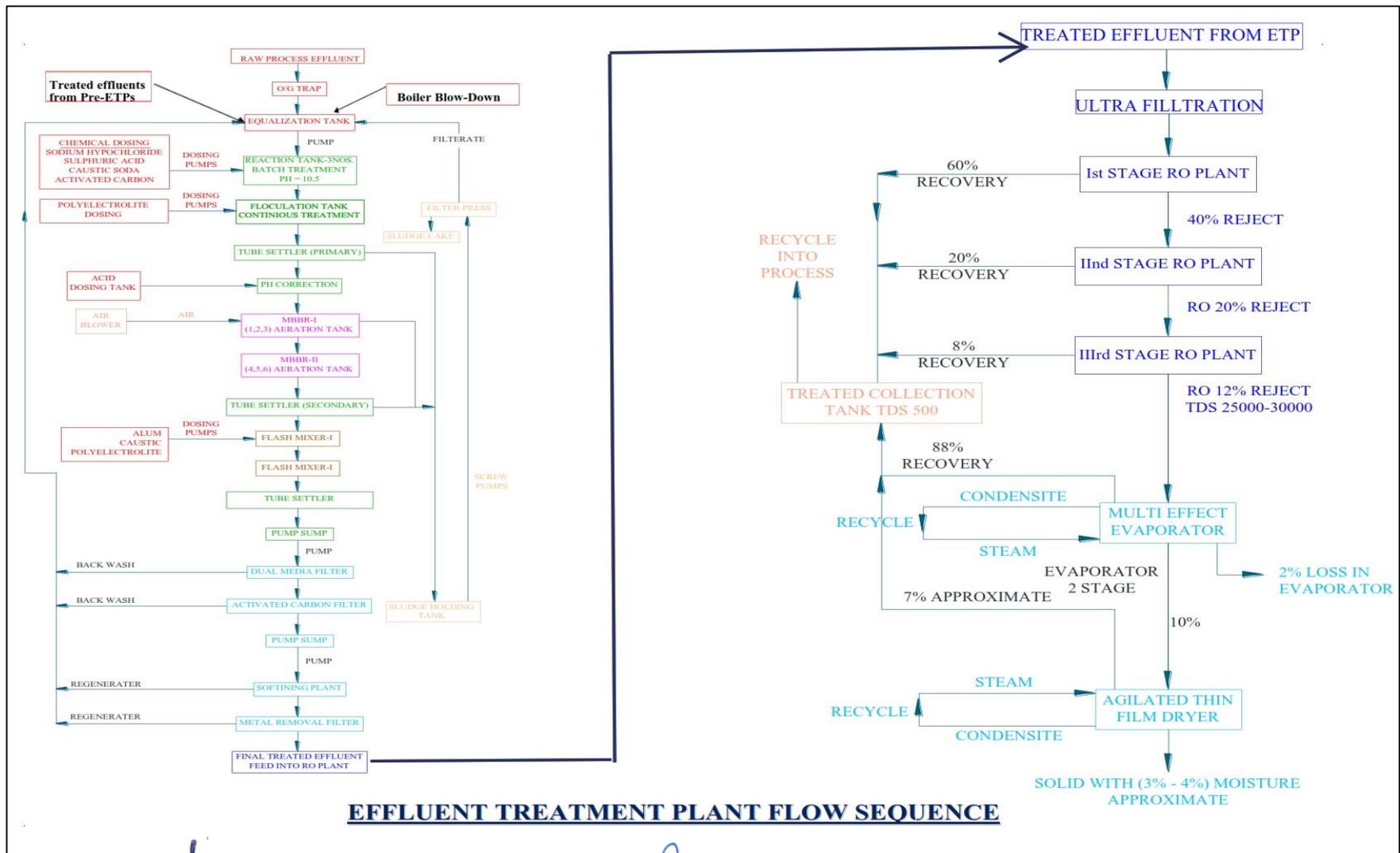
8.3 Common ETP

1. The unit has provided a common-ETP having capacity of 150 KLD for treatment of effluent from
 - a. Electro-plating and phosphating plant of metal division
 - b. Electro-plating and phosphating plant of glass division
 - c. Treated effluent from two pre-ETPs (pre-ETP-1 & pre-ETP-2)
 - d. Effluent from wet scrubber of thermic fluid heater and
 - e. Boiler blow-down.
 - The treated sewage of about 22.6 KL is also sent to UF feed tank of common-ETP for make up purpose.
2. At the time of joint inspection, Common-ETP was found operational.
3. Common-ETP comprises of oil & grease trap, equalization tank, physico-chemical treatment with three stage flash mixer & reaction tanks, flocculation tank, Primary tube-settlers, pH correction, aerobic biological treatment (MBBR based), Secondary tube-settlers, tertiary treatment-Filtration (Dual Media Filter (DMF) and ACF), Softening plant, Ion-exchange, two stage ultrafiltration i.e., UF-1 & UF-2, three stage RO plant

i.e., RO-1, RO-2 & RO-3 followed by three stage Multiple Effect Evaporator (MEE) and Agitated Thin Film Dryer (ATFD).

4. The treatment scheme sequence of common-ETP is as follows:





Signature 1 *Signature 2* *Signature 3* *Signature 4*

5. The effluent from collection cum equalization tank is treated through Physico-chemical methods followed by MBBR system. The biological treated effluent is fed to DMF, ACF, softening plant, ion-exchange and then is fed to two stage ultrafiltration and collected in clear water tank.
6. From clear water tank the effluent is fed into three stage RO system in series. Permeate of all three ROs collected in treated water collection tank and RO-3 reject is fed to three stage MEE. MEE condensate is collected in treated water collection tank and MEE concentrate is fed to ATFD for conversion of MEE concentrate in to salt.
7. ATFD condensate is collected in treated water collection tank and solids/salt having 3-4 % moisture content is being sent to Treatment, Storage and Disposal Facility (TSDF) for final disposal.
8. Permeate of RO-1, RO-2 & RO-3 is mixed with MEE condensate & ATFD condensate and then mixed treated effluent is recycled to glass, metal, wood, marble and corrugation section for utilization in different production process.
9. During joint inspection MEE and ATFD were found operational.
10. List of Electromagnetic flow meter (with totalizer) installed at different locations of common-ETP and totalizer reading & flow observed during joint inspection is as below:

Table 28: List of flow meters installed at common-ETP along with reading

Flow meter No.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)*	Values observed on 30.06.2021 (KL)
FM-37	Effluent from Metal Division (Phosphating & Electro Plating) to Common-ETP receiving sump	5658.824	3.5	48
FM-38	Effluent from Glass Division (Phosphating, Electro Plating & Boiler Blowdown) to Common-ETP receiving sump	6697.22	0.0	47
FM-39	From receiving sump to Common ETP Inlet	22157.85	6.4	111
FM-40	Outlet of biological treatment	23135.64	0.0	118
FM-41	UF-1 Feed	5929.59	0.0	36.5
FM-42	UF-2 Feed	17805.26	6.9	108.5

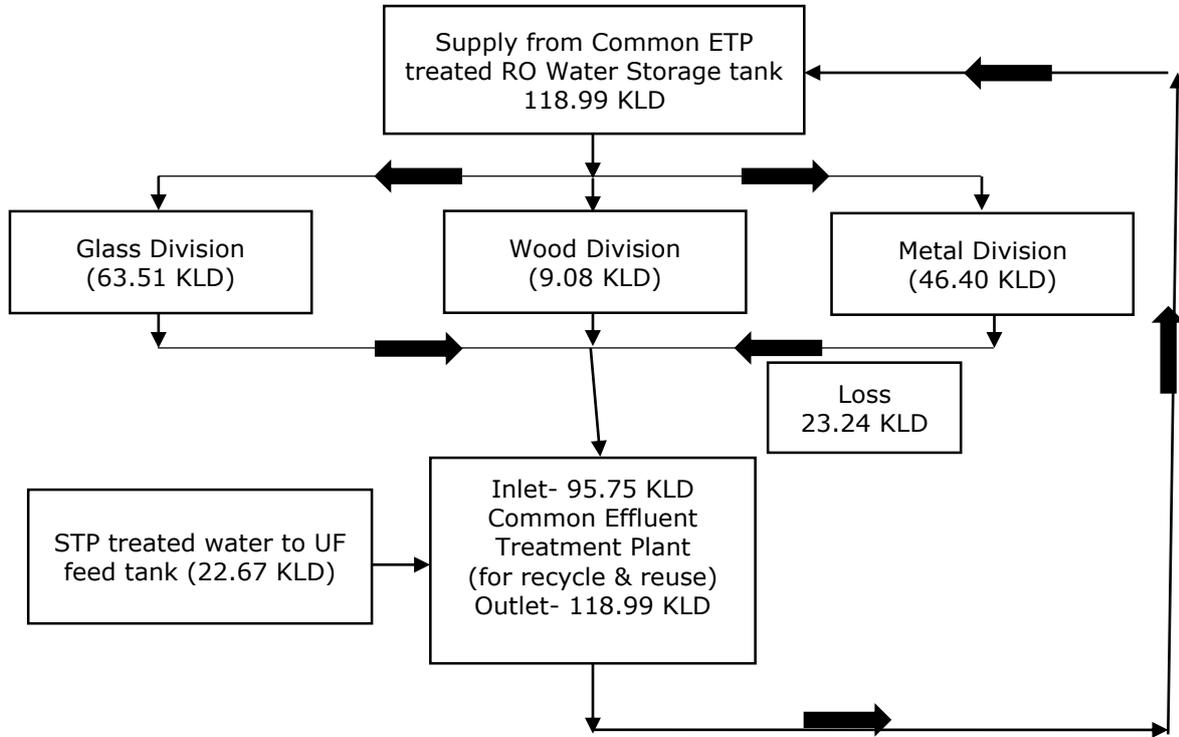
FM-43	UF-1 Outlet	5329.73	3.0	32.9
FM-44	UF-2 Outlet	16811.29	6.8	104
FM-45	RO-1 Feed	22305.34	7.0	137
FM-46	RO-2 Feed	5727.31	5.4	45
FM-47	RO-3 Feed	3012.36	2.5	21
FM-48	RO-3 Reject	2356.06	1.7	15.6
FM-49	RO-3 Permeate	1541.98	0.79	9
FM-50	RO-2 Permeate	0.799	1.86	21
FM-51	RO-1 Permeate	14831.56	5.1	92
FM-52	MEE Feed	2370.86	1.6	15
FM-53	ATFD Feed	192.00	0.0	1.2
FM-54	Outlet of MEE & ATFD Condensate storage tank	2880.99	1.6	19

*Flow 0.0 m³/hr has been observed due to the batch mode of operation.

11. The flow meter instantaneous readings observed 0.0 where rechecked after certain time and found working, with increase in totalized readings.
12. On the first day of joint inspection dated 30.06.2021, 48 KL (FM-37) of effluent from metal division(Phosphating & Electro Plating) to Common-ETP receiving sump and 47 KL (FM-38) of effluent from Glass Division (Phosphating, Electro Plating & Boiler Blowdown), 16 KL (FM-34) treated effluent from Pre-ETP-1 and 0 KL(FM-36) treated effluent from Pre-ETP-2 has been received at receiving sump of common-ETP, 118 KL (FM-40) of treated effluent was found at outlet of biological treatment of common-ETP.
13. On the first day of joint inspection dated 30.06.2021, at storage tank before Ultrafiltration unit of common-ETP, 27 KL (FM-20) of treated sewage has been received from common-STP for makeup purpose.
14. The treated effluent from common-ETP (RO-1 Permeate, RO-2 Permeate, RO-3 Permeate, MEE & ATFD condensate) on 30.06.2021 was found 141 KL, which is total of values of 92 KL (FM-51:RO-1 Permeate), 21 KL (FM-50:RO-2 Permeate), 9 KL (FM-49:RO-3 Permeate), and 19 KL (FM-54: MEE & ATFD condensate).
15. Treated effluent from common-ETP is pumped to glass (FM-75), metal(FM-76) and wood (FM-55: common for wood, marble and corrugation sections) for utilization in different industrial process.
16. On the first day of joint inspection dated 30.06.2021, 9.9 KL (FM-55), 72 KL (FM-75) and 57 KL (FM-76); total 139 KL of treated effluent from common-ETP was sent to wood division, glass division and metal division respectively for utilization in industrial processes.
17. As per the logbook data from Feb-21 to June-21 provided by the unit, quantity of treated effluent at Common-ETP outlet, being sent to metal, wood, glass, marble

and corrugation division for utilization in industrial processes, is explained in the following diagram:

Uses & distribution of Common ETP (RO treated) recycled water in different divisions for Industrial process



18. The pH control and chemicals solutions dosing are automatically carried out through auto dozer-pump and pH is displayed in digital lucent panels.
19. For sludge generated from primary and secondary tube settlers, the unit has a sludge holding tank followed by filter press and finally sludge cake is stored in covered sludge storage room. Filtrate from the filter press is pumped to equalization tank of the common-ETP.
20. Filter press for sludge dewatering was observed operational. Sludge cake and ATFD salt were found stored in covered sludge store room.
21. Samples were collected from inlet of common-ETP (equalization tank), outlet (after tertiary treatment i.e., ion-exchange), feed to ultrafiltration and final treated water collection tank (in which permeate of RO-1, 2, 3 & condensate of MEE & ATFD is being stored) for performance assessment of common-ETP. Analysis results and observations on the results of collected samples is presented in the following section.

8.3.1 Characteristics and observations on analysis results of samples collected from common-ETP

1. Analysis result of samples collected from common-ETP are mentioned below:

Table 29: Analysis results of samples collected from Common-ETP

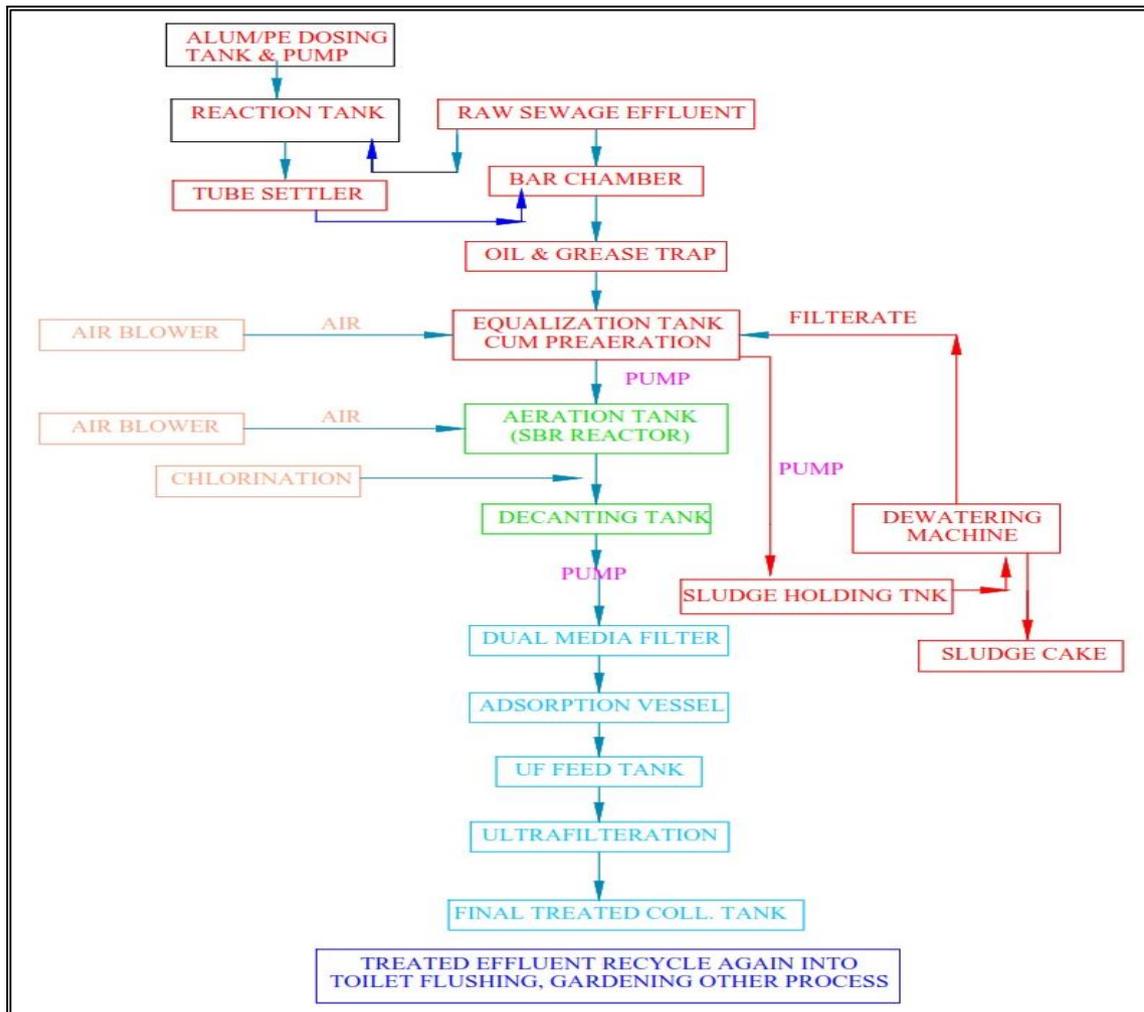
S. No.	Parameters	Effluent samples collection locations			
		Common -ETP Inlet-Equalization tank (Untreated)	Common ETP outlet (after ion-exchange)	Common- ETP Feed to UF	Common- ETP Final treated water storage tank (treated)
1.	pH	8.9	6.9	7.0	7.0
2.	TSS	125	13	18	10
3.	TDS	2380	1760	2120	48
4.	COD	136	42	45	27
5.	BOD	53	09	14	04
6.	Chloride	362	295	314	15
7.	PO₄-P	0.63	1.07	1.56	0.06
8.	NO₃-N	10.8	10.5	7.6	5.8
9.	Color	14	21	16	21
10.	Sulphate	336	425	555	BDL
11.	Total Hardness	-	-	163	-
12.	Cyanide	BDL	BDL	BDL	BDL
13.	As	BDL	0.01	BDL	BDL
14.	Cd	BDL	BDL	BDL	BDL
15.	Co	0.01	BDL	BDL	BDL
16.	Cr	0.22	BDL	BDL	BDL
17.	Cu	0.63	0.08	0.09	BDL
18.	Fe	5.29	0.13	0.12	0.02
19.	Mn	0.32	0.07	0.07	BDL
20.	Ni	7.98	1.33	1.25	BDL
21.	Pb	0.02	0.01	0.01	BDL
22.	Sb	BDL	BDL	BDL	BDL
23.	Se	BDL	0.02	0.02	BDL
24.	V	BDL	BDL	BDL	0.09
25.	Zn	7.26	0.10	0.10	0.01

(except pH and colour (Hazen unit), all values are in mg/l)

1. Analysis results of effluent samples collected from common-ETP show 80.10% reduction in COD, 92.40% reduction in BOD and 97.90% reduction in TDS.
2. Heavy metal concentrations in final treated effluent are found BDL, except Fe-0.02 mg/l, V-0.09 mg/l and Zn-0.01mg/l.

8.4 Common STP

1. The unit has provided a common-STP for treatment of domestic waste water generated from the entire campus i.e., from toilets, bathrooms, kitchens of residential colony; toilets of all the divisions & offices and metal buffing section having capacity of 250 KLD.
2. Common-STP was found operational at the time of joint inspection.
3. Common-STP comprises of collection tank, screens, oil grease removal trap, equalization/holding tank, Sequential Batch Reactor unit, Tertiary treatment, i.e., Filtration (PSF, ACF and Ultra-filtration) followed by chlorination.
4. Sewage treatment scheme sequence of common-STP is as follows:



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5. Sewage from metal section is first treated using physico-chemical treatment installed in STP and outlet of tube settler is discharged in to 1stinlet chamber of STP.
6. Screw type (volute) press is installed for continuous dewatering of sludge.
7. Treated effluent from STP is being utilized for
 - a) Metal division,
 - b) Glass division
 - c) Wood division
 - d) Colony for toilet flushing
 - e) To balance common-ETP losses
 - f) Green belt for horticulture
8. List of Electromagnetic flow meter (with totalizer) installed at different locations of common-STP and totalizer reading & flow observed during joint inspection is as below:

Table 30: List of flow meters installed at common-STP along with reading

Flow meter no.	Flow meter installation point	Totalizer reading (m³)	Instantaneous Flow observed (m³/hr)	Values observed on 30.06.2021 (KL)
FM-10	Sewage from Metal Division to common-STP inlet	5957.81	0.0	51
FM-11	Sewage from Both Colony & Canteen to common-STP inlet	7566.28	0.0	57
FM-12	Sewage from Wood & General (Admin) to common-STP inlet	3805.44	4.0	33
FM-13	Sewage from Glass Division to common-STP inlet	3898.04	0.0	34
FM-14	STP Inlet (Holding Tank)	46427.90	0.0	176
FM-15	STP Outlet (Treated Sewage Holding Tank)	45501.97	8.3	171
FM-16	STP Treated Wastewater recycle to Metal Division	9978.0	2.47	35
FM-17	STP Treated Wastewater recycle to Glass Division	9446.5	0.0	41

FM-18	STP Treated Wastewater recycle to Wood Division	4979.1	0.0	21
FM-19	STP Treated Wastewater recycle to Colony Flushing (both colony, VIP & residential as well as canteen)	1298.0	0.70	11
FM-20	STP Treated Wastewater sent to common-ETP for makeup of losses	8087.3	0.0	27
FM-21	STP Treated Wastewater recycle to Horticulture	11450.3	7.41	39

9. On the first day of joint inspection dated 30.06.2021, 51 KL (FM-10) of sewage from metal division, 57 KL (FM-11) of sewage from both colony (VIP & residential colony) as well as canteen, 33 KL (FM-12) sewage from wood division & general (office building) and 34 KL (FM-13) sewage from glass division, making total of 175 KL of sewage has been received at receiving sump of common-STP.
10. Total 176 KL (FM-15) of treated sewage was found at outlet of common-STP (inlet to treated waste water storage tank of common-STP).
11. Treated sewage from common-STP is pumped to metal division (FM-16), glass division (FM-17), wood division (FM-18), residential & VIP colony as well as canteen (FM-19), common-ETP (for make-up purpose) (FM-20) and horticulture (FM-21) for utilization in domestic and utility purposes.
12. On the first day of joint inspection dated 30.06.2021, 35 KL (FM-16), 41 KL (FM-17), 21 KL (FM-18), 11 KL (FM-19), 27 KL (FM-20) and 39 KL (FM-21); total 174 KL of treated sewage from common-STP was sent to metal division, glass division, wood division, residential & VIP colony as well as canteen, common-ETP (for make-up purpose) and horticulture for utilization in domestic and utility purposes.
13. The unit is maintaining logbook record of all the flow meters. As per the logbook data from Feb-21 to June-21 of above mentioned flow meters as submitted by the unit, the quantity of sewage being treated through this common-STP and being sent to glass, metal, wood section, residential colony and to horticulture for utilization in toilet flushing and utility purposes is assessed.
14. As informed by the unit representative, the STP sludge is being disposed to Transport Storage and Disposal Facility (TSDF) namely, M/s Bharat Oil & Waste Management Ltd., Kanpur, along with ETP sludge. However, the unit is not maintaining separate log book for STP sludge generation as well as disposal and

the quantity of STP sludge sent to TSDf site is not mentioned in the submitted form-10.

15. Samples were collected from STP inlet, STP outlet and aeration tank for analysis purpose. Analysis results and observations on the results of collected samples is presented in the following section.

8.4.1 Characteristics and observations on analysis results of samples collected from common-STP

1. Analysis result of samples collected from common-STP are mentioned below

Table 31: Analysis result of samples collected from common-STP

Sr. No.	Sampling locations Parameters	STP Inlet	STP Outlet	Aeration tank	Water used in Horticulture	Natural Pond outside the industry 400 meter away	Domestic Effluent discharge standards as per Consent
1.	pH	6.9	7.2	-	7.0	8.8	6.5-9.0
2.	TSS	5464	BDL	-	15	27	100
3.	TDS	676	504	-	800	424	-
4.	COD	5158	21	-	34	55	250
5.	BOD	1720	02	-	10	-	30
6.	Chloride	150	110	-	149	61	-
7.	PO ₄ -P	6.13	3.05	-	3.24	0.99	-
8.	NO ₃ -N	20.6	10.7	-	10.8	1.3	-
9.	Color	94	09	-	15	-	-
10.	Sulphate	31	17	-	47	10	-
11.	NH ₃ -N	91	06	-	-	-	-
12.	Oil & Grease	-	BDL	-	-	-	-
13.	Cyanide	3.19	BDL	-	BDL	BDL	-
14.	As	0.09	0.04	-	0.04	BDL	-
15.	Cd	BDL	BDL	-	BDL	BDL	-
16.	Co	0.05	BDL	-	BDL	BDL	-
17.	Cr	1.45	BDL	-	BDL	BDL	-
18.	Cu	7.18	0.03	-	0.03	BDL	-
19.	Fe	75.60	0.08	-	0.62	0.35	-
20.	Mn	3.0	0.05	-	0.17	0.17	-
21.	Ni	10.42	0.06	-	0.07	0.07	-
22.	Pb	3.44	BDL	-	0.02	BDL	-
23.	Sb	0.03	BDL	-	BDL	BDL	-
24.	Se	BDL	BDL	-	BDL	BDL	-
25.	V	BDL	0.12	-	0.06	BDL	-
26.	Zn	17.35	0.02	-	0.08	0.03	-
27.	MLSS	-	-	16141	-	-	-
28.	MLVSS	-	-	9986	-	-	-
29.	Total coliform (MPN/100 mL)	28×10 ¹¹	9.1	-	-	-	--
30.	Faecal coliform (MPN/100mL)	44×10 ¹⁰	9.1	-	-	-	--

(except pH and colour (Hazen unit) all parameters are in mg/l)

1. As per analysis results, the STP inlet is not a representative sample of sewage as it shows significant concentration of BOD (1720 mg/l), COD (5158 mg/l) and heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l, Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l), which are not representing the characteristics of sewage and indicates the mixing of industrial effluent with the domestic sewage.
2. As per Central Public Health & Environmental Engineering Organization (CPHEEO) manual on sewage and sewage treatment systems-2013 Part A Engineering, typical process parameters for SBR configurations mentioned in Table No 5.57 at page no 5-198, MLSS concentration flow and intermittent decant is 3,500-5,000mg/l for optimum operation of SBR however, as per the analysis results of aeration tank MLSS concentration was 16141mg/l; indicating that periodic removal of sludge is not taking place thus STP is not operating properly.

STP inlet has significant concentration of heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l, Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l) however no separate treatment unit for heavy metal removal exists in the existing common-STP, even though the STP-outlet shows 100% reduction in Cyanide, 100% reduction in Chromium, 100% reduction in Lead, 99% reduction in Nickel, 99.8% reduction in Zinc, 99.8% reduction in Iron, 99.6% reduction in Copper indicating possibility of dilution at STP outlet can't be ruled out.

Heavy metals have inhibitory effect on heterotrophic organisms if exists beyond the threshold concentration i.e Cu-1.0mg/l, Pb-0.1mg/l, Ni-1.0mg/l, Zn-1.0mg/l (as per Wastewater Engineering by Metcalf & Eddy, Table 2-13, page no 78).

9.0 Hazardous Waste Management

1. The unit has Hazardous waste authorization (Authorization no. 8531) issued under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for 13 different category hazardous wastes as mentioned in table below, which is valid up to 16.07.2024. Authorization no. 8531 is placed at **Annexure-12.**

Table 32: Authorized Haz. waste categories with quantity and mode of disposal as per valid haz. waste authorization

S. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal/recycling/ utilization/co-processing, etc.	Quantity (ton/annum)
1.	Schedule 1 (category 33.1) Empty Containers	TSD/Authorized Recyclers	50 no. per day
2.	Schedule 1 (category 33.2) Cotton Waste, Used Cloth Mask	TSD/Authorized Recyclers	10 kg/day

3.	Part B Schedule 3 (Category B3040) Rubber Gloves	TSD/Authorized Recyclers	5 kg/Month
4.	Part B Schedule 4 (category B4030) Old Batteries	TSD/Authorized Recyclers	20 no./Month
5.	Schedule 4 (category 19) Paint Booth sludge	TSD/Authorized Recyclers	50 kg/Month
6.	Schedule 1 (category 1.3) Oily Rags	TSD/Authorized Recyclers	0.15 kg/day
7.	Schedule 1 (category 5.1) Used Oil	TSD/Authorized Recyclers	0.1 KL/Month
8.	Part D Schedule 3 (category B3020) Empty Corrugated Cartons	TSD/Authorized Recyclers	8 kg/day
9.	Schedule 1 (category 6.3) Melting Furnace Ash	TSD	20 kg/ Month
10.	Schedule 1 (category 15.2) Asbestos Gloves/Cloth	TSD/Authorized Recyclers	5 kg/Month
11.	Schedule 1 (category 3.3) Fuel Filter and Air Filter	TSD/Authorized Recyclers	5 no./Month
12.	Schedule 1 (category 12.6) Polishing Dust	TSD	1000 kg/Month
13.	Schedule 1 (category 35.3) ETP Sludge	TSD	40 kg/day

2. The unit has submitted a letter to UPPCB dated 26.05.2021 for amendment in the quantity of three category of hazardous waste in the valid Hazardous waste authorization (Authorization no. 8531) issued under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as mentioned below: Unit's letter dated 26.05.2021 is placed at **Annexure-13**.

Table 33: Amended quantity of Haz. waste categories as per unit's submitted letter dated 26.05.2021 to UPPCB

S. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Existing Quantity (ton/annum) as per haz. waste authorization no. 8531	Amended quantity as per unit's letter dated 26.05.21
1.	Schedule 1 (category 33.1) Empty Containers	50 no. per day	No change
2.	Schedule 1 (category 33.2) Cotton Waste, Used Cloth Mask	10 kg/day	No change
3.	Part B Schedule 3 (Category B3040) Rubber Gloves	5 kg/Month	10 kg/Month
4.	Part B Schedule 4 (category B4030) Old Batteries	20 no./Month	No change
5.	Schedule 4 (category 19) Paint Booth sludge	50 kg/Month	
6.	Schedule 1 (category 1.3) Oily Rags	0.15 kg/day	
7.	Schedule 1 (category 5.1) Used Oil	0.1 KL/Month	

8.	Part D Schedule 3 (category B3020) Empty Corrugated Cartons	8 kg/day	
9.	Schedule 1 (category 6.3) Melting Furnace Ash	20 kg/ Month	
10.	Schedule 1 (category 15.2) Asbestos Gloves/Cloth	5 kg/Month	
11.	Schedule 1 (category 3.3) Fuel Filter and Air Filter	5 nos./Month	160 nos./Month
12.	Schedule 1 (category 12.6) Polishing Dust	1000 kg/Month	No change
13.	Schedule 1 (category 35.3) ETP Sludge	40 kg/day	125 MT/Year-for ETP sludge including MEE sludge

- The unit had membership certificate of Transport Storage and Disposal Facility (TSDF) namely, M/s Bharat Oil & Waste Management Ltd., Kanpur for lifting, transportation, treatment, storage and disposal of hazardous waste generated at M/s C. L. Gupta Exports Pvt. Ltd., Amroha, Uttar Pradesh, which was valid up to 31.03.2021. Now the membership has been extended upto 31.03.2024, the same is placed at **Annexure-14**.
- Unit has two separate covered closed hazardous waste storage areas. One is used for storing sludge from the common ETP and the other one is used for storage of hazardous waste from different manufacturing sections.
- At the time of inspection, ETP sludge, ATFD salt, discarded containers, rubber gloves, used masks and old batteries were found stored in the dedicated haz. waste storage area.
- The unit is maintaining daily records of the hazardous waste generation and disposal for tube light (fused), bulb & CFL (fused), used rubber gloves, old battery, used face masks, used cotton gloves, empty container, used oil, empty corrugated cartons and ETP sludge. The unit has submitted daily record of the haz. waste generation as well as disposal to TSDF facility from Dec-2020 to June-2021, which has been verified.
- The unit has sent generated hazardous waste to the TSDF for which the unit has maintained Manifest document (Form-10, as required under Rule 19 of the HOWM Rules, 2016). The unit has provided the following data of haz. waste disposal (Form-10) from Feb-2021 to June-2021, the same is placed at **Annexure-15**.

Table 34: Hazardous waste disposal to M/s Bharat Oil & Waste Management Ltd., Kanpur from Feb-21 to June-21

Sr. No.	Hazardous waste	Disposal quantity from Feb-21 to June-21 (Form-10)	Disposal to
1.	ETP sludge	5115 kg	

2.	Old battery	106.2 kg (59 nos.)	M/s Bharat Oil & Waste Management Ltd., Kanpur
3.	Cotton gloves	17.75 kg	
4.	Used mask	54.7 kg	
5.	Empty container	1730 nos./865 kg	
6.	Used Oil	316 lit	
7.	Empty corrugated cartons	548 kg	
8.	Polish dust	2878 kg	
9.	Oily Rags	16.26 kg	
	Total	9916.91 kg	

8. Automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke/heat detectors, fire extinguishers and other necessary provisions provided in the storage area as stipulated under the Guidelines for storage of incinerable hazardous wastes.
9. The unit has submitted Annual return (Form-4) for year: 2020-21 w.r.t. generation and management of hazardous waste to Uttar Pradesh Pollution Control Board. The copy of the Annual return (Form-4) for the year 2020-21 is placed at **Annexure-16**.

10.0 Water Audit

All the calculations mentioned below w.r.t. water audit are done based on the logbook record provided by the unit. The readings were verified in the logbook by the joint team.

Joint team has collected all the primary and secondary data required to conduct the water audit during joint inspection from 30.06.2021 to 02.07.2021. Total 87 flow meters are installed in different sections, which were physically inspected by the joint team and data of last 5 months (from Feb-21 to June-21) was collected for assessment. List of all the installed 87 nos. of flow meters with location, totalizer reading and flow observed during joint inspection is placed at **Annexure-1**. During inspection, Joint team has assessed the qualitative & quantitative requirement of water in different sections of the unit.

10.1 Fresh water for general use

1. The unit is abstracting fresh water from two borewell to meet the daily freshwater requirement.
2. Flowmeters are provided at the abstraction point of borewells.
3. Abstracted freshwater from borewells is stored in two overhead tanks of capacity 0.5 lakhs liters and 2 lakhs liter and then it is distributed in different areas for domestic purposes.



4. Unit has provided flowmeters at area/section wise distribution points. The logbooks for the same were collected for estimation of actual water consumption in different sections for different purposes.
5. For water balance, logbooks readings are considered for estimation of freshwater abstraction through two borewells and its utilization in different areas/sections for domestic purposes.
6. Total freshwater abstraction from two borewells to meet the fresh water requirement from February,2021 to June 30, 2021 are as below:

Table 35: Quantity of fresh water abstraction from Feb-2021 to June-2021, as submitted by the unit

Sr. No.	Month	Fresh water abstraction (KL)		
		Borewell No. 3	Borewell No. 4	Total
1.	Feb-21	2217.0	856.0	3073.0
2.	March-21	2605.0	899.0	3504.0
3.	April-21	2540.0	867.0	3407.0
4.	May-21	2596.0	890.0	3486.0
5.	June-21	2667.0	895.0	3562.0
Total fresh water consumption during 5 months		12625.0	4407.0	17032.0
Average freshwater consumption per month (m ³ /month)		2525.0	881.4	3406.4
Average Fresh water consumption per day (considering 150 days from Feb-21 to June-21)			113.55 KLD against permitted 250 KLD	

7. Total freshwater consumption of the unit comprises of residential use, employees working in office & workers in all 06 manufacturing sections and office canteen from February,2021 to June 30, 2021 are as below:

Table 36: Details of fresh water consumption pattern from Feb-2021 to June-2021 (as per logbook provided)

Month	Metal Division (KL)	Glass Div. (KL)	Wood Div. (KL)	VIP Colony (KL)	Res. Colony (KL)	General use (KL)	Staff canteen (KL)
Feb-21	667.0	549.0	448.0	307.0	984.0	29.0	83.0
Mar-21	750.0	579.0	438.0	320.0	1205.0	35.0	121.0
Apr-21	703.0	541.0	473.0	326.0	1143.0	39.0	187.0
May-21	729.0	561.0	423.5	329.0	1200.0	46.0	192.0
June-21	727.0	556.0	524.0	340.0	1163.0	43.0	206.0
Total	3576.0	2786.0	2306.5	1622.0	5695.0	192.0	789.0
Grand Total = 16966.5 KL							

- During February to June 2021, total 16966.5 KL of fresh water is utilized for domestic purposed in different sections of the units against total abstracted quantity of 17032 KL.






10.2 Waste water treatment through ETP and STP

- Details of common-STP, Pre-ETP-1, Pre-ETP-2 and Common-ETP along with detailed flow diagram and treatment units are already explained in Section-8.0.
- The unit has submitted the data w.r.t quantity of waste water treated through common-ETP and common-STP from February-2021 to June-2021, the same is as below:

10.2.1 Sewage generation and treatment:

- Unit has a common sewage treatment plant of 250 KLD capacity for treatment and recycling of sewage generating from different sections of the unit.
- STP receives sewage from the entire campus i.e., from toilets, bathrooms, kitchens of residential colony; toilets of factory area & offices and metal buffing section.
- Details of sewage generation, quantity of treated sewage and its utilization in different section are as below;

Table 37: Quantity of sewage generation and treated sewage from Feb-2021 to June-2021 (as per logbook data)

Sr. No.	Month	Sewage in (KL)	Sewage out (KL)	Losses (KL)
1.	Feb-21	3717	3633	84
2.	March-21	4012	3945	67
3.	April-21	4407	4319	88
4.	May-21	4514	4452	62
5.	June-21	4710	4622	88
Total		21360	20971	389
Avg. daily available treated sewage for recycling (from Feb-21 to June-21)		139.80 KLD		

- Around 1.8 % losses of sewage observed during the treatment process which may be due to sludge withdrawal and evaporation losses.

10.2.2 Utilization of treated sewage:

- Treated sewage is utilized in different sections of the unit, for toilet flushing in the unit and colony, in utility like cooling tower, boiler feed, horticulture and also utilized as a make up to compensate the loses in process water occurred due to manufacturing process, leakage, evaporation losses etc. Details of utilization of treated sewage is as follows;

Table 38: Utilization of treated sewage from Feb-2021 to June-2021 (as per logbook data)

Month	Metal Division (KL)	Glass Div. (KL)	Wood Div. (KL)	Colony Toilet Flushing (KL)	Process water makeup* (KL)	Horticulture (KL)
Feb-21	696	758	377	198	648	947
March-21	743	800	416	207	689	951

April-21	803	1012	517	277	666	1059
May-21	814	1058	474	312	687	1106
June-21	848	1109	540	312	711	1095
Total	3904	4737	2324	1306	3401	5158
Grand Total = 20830 KL						

*Sent to UF feed tank of common-ETP for make up purpose

- As per log book data total 20830 KL of treated sewage is utilized in different section for different purposes against 20971 KL of total treated sewage during Feb-21 to June-21.

10.2.3 Effluent generation and treatment in ETPs:

- The unit has a common-ETP having capacity of 150 KLD for treatment of effluent generated from electro-plating and phosphating plant of metal & glass section + treated effluent from two Pre-ETPs + effluent from wet scrubber of thermic fluid heater + boiler blow-down.
- As per the logbook data submitted by the unit from Feb-21 to June-21, total 22.67 KLD of treated sewage is sent to common ETP ultra filtration feed tank as make up of water loss during different process units of the common-ETP.

Table 39: Quantity of effluent generation and treated effluent from Feb-2021 to June-2021 (as per logbook data)

Month	Effluent generation in process (KLD)	Treated sewage from common-STP (KLD) (UF feed tank)	Total effluent to common-ETP(KL)	Treated effluent recycled (KLD)
Feb-21	2874	648	3522	3529
March-21	3106.2	689	3795.2	3783.59
April-21	2901.7	666	3567.7	3575.5
May-21	2723.2	687	3410.2	3409.9
June-21	2857.824	711	3568.824	3551.6
Total	14462.924	3401	17863.924	17849.59
Avg. daily available treated effluent for recycling (from Feb-21 to June-21)			119 KL	

- From the logbook data provided by the unit, it is observed that total 14462.92 KL of trade effluent is reached to common-ETP from pre-ETP-1, Pre-ETP-2, electro-plating and phosphating plant of metal & glass section for further treatment. 3401 KL of treated sewage from common-STP is also received at common-ETP (storage tank-feed to ultrafiltration) as make up water. Hence, total 17863.92 KL (14462.92 KL-trade

effluent +3401 KL of treated sewage from common-STP) of wastewater is sent to common-ETP for treatment and total 17849.59 KL of treated effluent has been generated during Feb-21 to June-21.

- The losses in the effluent may be attributed to sludge removal & evaporation losses.

10.2.4 Re-use of treated waste water from ETP and STP in different sections

1. Treated waste water from STP is used for following purpose:
 - a) Green belt for horticulture,
 - b) Metal division for domestic purpose,
 - c) Metal division for processing,
 - d) Glass division
 - e) Wood division and
 - f) To common-ETP as make-up water (at storage tank-feed to ultrafiltration)
2. Treated waste water from ETP is used in process:
 - a) Metal division
 - b) Glass division
 - c) Wood division
 - d) Marble division and
 - e) Corrugation division

- Units has six manufacturing section but mostly water usages are observed in glass, metal, wood and marble section. Water usages pattern of manufacturing units are as follow;

a. Glass Section: During the joint inspection, the glass art ware manufacturing section was found operational. In this section, the unit is manufacturing glass art wares using silica sand, soda ash, limestone and feldspar as a raw material. Data of last five-months from Feb-21 to June-21 was collected for study of water usages pattern. Findings of same is tabled below;

Table 40: Water consumption & wastewater generation pattern of glass division from Feb-2021 to June-2021, as submitted by the unit

Sr. no.	Process	Quantity of water consumed(KL)	Quantity of wastewater, (KL)	Treatment system type	Water Loses
Treated Sewage from STP					
1.	Utility like Cooling tower, Pusher cooling	403.0	None	NA	403.0 KL
2.	Boiler	2518.0	406.0 as blowdown	Common ETP	2112.0 KL as steam condensate

3.	Toilet flushing	1816.0	-	Common STP	-
Total		4737 KL			
Treated effluent from common ETP					
1.	Chakka (Makeup)	185.7	Recycled internally	Filtration plant	185.7 KL
2.	Blowing (Makeup)	1494.7	Recycled internally	Filtration plant	1494.7 KL
3.	EPL plant	349.7	613.3	Pre-ETP	252.5KL (29.16%)
4.	Paint Booth	516.1			
5.	Phosphating Plant	866.7	6738.5	Common ETP	3.7 KL (0.05 %)
6.	Electro-plating	5875.5			
Total		9288.40 KL			

- Water loss 29.16% observed in EPL & paint booth section.
- Water loss 0.05% observed in phosphating and electro plating plant, which is negligible.

b. Metal Division: Metal division was found operational during joint inspection. Manufacturing process comprises of raw material storage, pre-treatment i.e. polishing, phosphating & shot blasting, finishing of goods i.e., powder coating, painting & plating/electrophoresis coating, packing and dispatch. Data of last five-month from Feb-21 to June-21 was collected to evaluate the water usages pattern. Findings of same is tabled below;

Table 41: Water consumption & wastewater generation pattern of metal division from Feb-2021 to June-2021, as submitted by the unit

Sr. no.	Process	Water consumed (KL)	Quantity of wastewater, (KL)	Ultimate Treatment system	Water Loses
Treated Sewage from STP					
1.	Utility	661.0	None	NA	661.0 KL
2.	Toilet flushing	3243.0	-	Common STP	-
Total		3904 KL			
Treated effluent from common ETP					
1.	EPL plant	307.2	609.5	Pre-ETP	288.1KL (32 %)
2.	Paint Booth	590.4			
3.	Phosphating Plant	874.6	5646.6	Common ETP	385.6KL (6.3 %)
4.	Electro-plating	5157.6 (FM77+FM82)			
Total		6929 KL			

- Water loss 32 % observed in EPL & paint booth section of metal division.
- Around Water loss 6.3 % observed in phosphating and electro plating plant of metal division.

c. Wood Division: Wood division was found operational during joint inspection. Manufacturing process of wooden art ware comprises of log yard, sawing, treatment Process, seasoning, machining, fabrication, finishing, lacquer spray booths/paint booths, packing and dispatch. For steam requirement in seasoning process, the unit has one wood chips fired Thermic Fluid Heater (TFH) of 10 lac Kcal/hr capacity, followed by cyclone separator & wet scrubber as Air Pollution Control Device (APCD). Data of last five-month from Feb-21 to June-21 was collected to study the water usages pattern. Findings of same is tabled below;

Table 42: Water consumption & wastewater generation pattern of wood division from Feb-2021 to June-2021, as submitted by the unit

Sr. no.	Process	Quantity of water consumed(KL)	Quantity of wastewater (KL)	Treatment system type	Water Loses (KL)
Treated Sewage from STP					
1.	Utility	391.0	None	NA	391.0
2.	Toilet flushing	1933.0	-	Common STP	-
	Total	2324 KL			
Treated effluent from common ETP					
1.	Paint Booth	952 (FM56+ FM58)	648.7	Pre-ETP	303.3 (31.86 %)
	Total	952 KL			

- Common flow meter is installed for measurement of sewage generated from wood division & general utility.
- Water loss 31.86 % observed in paint booth section of wood division.

d. Marble Division: Marble division was found operational during joint inspection. Manufacturing process of marble art wares comprises of raw material storage, sorting, sizing/cutting, shaping, polishing and dispatch to metal/glass/wood packing department.

- Marble section share the common utility with wood division.
- This section has a separate wastewater recycling plant for treatment and internal recycling of effluent generating from sizing/cutting, shaping and polishing process of marble section. This recycling plant is comprising of collection tank, settling tank followed by MGF and ACF, located at marble section.
- Treated effluent from common ETP is utilized only for make up the process water requirement.
- Data of last five-month from Feb-21 to June-21 was collected to study the water usages pattern. Findings of same is as below;

Table 43: Water consumption & wastewater generation pattern of Marble division from Feb-2021 to June-2021, as submitted by the unit

Sr. no.	Process	Quantity of water internally recycled	Quantity of treated effluent utilized from common-ETP	Total water usage	Water Loses
1.	Stone process	108.9 KL (FM60-FM61)=0.728 KLD	182.6 KL = 1.217 KLD	291.5 KL=1.945 KLD	1.217/1.945 *100 = 62.56 %

➤ Around 62.56 % of water loses observed in marble division.

e. Corrugation Division: Corrugation division was found operational during joint inspection. Manufacturing process of section comprises of raw material storage, making of corrugated box and storage of corrugated box Data of last five-month from Feb to June 2021 was collected to study the water usages pattern. Only treated effluent from common ETP is utilized as a source of process water.

Table 44: Water consumption & wastewater generation pattern of Corrugation division from Feb-2021 to June-2021, as submitted by the unit

Sr. no.	Process	Quantity of water consumed(KL)	Quantity of wastewater (KL)	Treatment system type	Water Loses
1.	Preparation of adhesive	209.5	140.3	Pre ETP	69.2KL (33.03 %)

- Treated effluent from common-ETP is utilized only to meet the process water requirement.
- Generated effluent is sent to pre-ETP for treatment and recycling.
- Water loss 33.03 % observed in corrugation division.

Source of Freshwater
(Borewell – 3 & 4) (Feb.- June 2021)

Amount of Extraction of Freshwater
(Average Freshwater Extraction – 17032 KL)

Domestic Use (Residential + Industrial)

1. **Residential Use:** 7317 KL
2. **Employee in Office and Unit** = 8860 KL (Total Employee+ visitors)
3. **Office Canteen** = 789 KL
Total Freshwater Consumption = 7317 KL + 8860 KL + 789 KL =16966 KL

Common-STP

Quantity of sewage reached to STPA: 21358 KL
Quantity of sewage treated through STP: 21360 KL
Quantity of treated sewage: 20971
= 80% of fresh water used + Water used in toilet flushing = (16966×0.8) + 8298 = 13572.8 + 8298 = 21870 KL

Toilet Flushing from residential colony + metal div + glass div. + wood div.= 8298 KL

Horticulture

Process sections for Industrial + Domestic use

Metal – 609.5 KL Glass – 613.3 KL Wood –648.7 KL Corrugation–140.3KL
Floor washing–66.02 KL
**based on data provided by industry and logbook records from Feb-2021 to June-2021*

Amount of water used for Processes + Domestic purpose after Recycling (14672 KL)

Electrophoretic lacquering and paint booth

Metal Plating, Boiler Blow-down, Phosphating (Glass & Metal), Glass Div. Plating (12385.1 KL)

Pre-ETPs 1984.7 KL

Common ETP: 17770.8 KL
RO reject of all 03 ROs

Ultrafiltration + 3 No of RO Plants

Concentrate

MEE

RO permeate of all 03 ROs 15568.8 KL

Agitated thin film dryer (ATFD)

Condensate 2280.8 KL

Quantity of treated effluent from ETP – 17849.6 KL
**based on data provided by industry and logbook records from Feb. 2021 to June 2021*

Salt
TSDF

Handwritten signatures and initials in blue ink.

10.3 Observation on Water Audit (based on information and logbooks provided by the unit):

10.3.1 Fresh water requirement for domestic purpose

- As per logbook data provided by the unit total 17032 KL of fresh water abstracted during Feb 2021 to June 2021 and 16966.5 KL of fresh water is utilized in different section of the unit for domestic purposed. Difference of 65.5 KL may be due to losses during supply to different sections, which is 0.38%.
- During Feb to June 2021 total 21360 KL of sewage is generated and treated through STP and 20971 KL treated sewage is generated. During treatment process 1.8% of water loss is observed.
- Out of total 20971 KL of treated sewage, 20830 KL is utilized in different sections for different purposes. Difference of 141 KL may be due to losses during supply to different sections, which is 0.67%.

10.3.2 Treated wastewater quantities and utilization

1. As per logbook data of common-STP from February to June 2021 provided by the unit, 21360 KL of sewage has been treated through common-STP and 20830 KL treated sewage is utilized in different sections for different process,
 - a) 5158 KL treated sewage is used in horticulture;
 - b) 3401 KL treated sewage is sent to industrial section for utilization in different process sections and 12271 KL of treated sewage is utilized in toilet flushing by employees within the unit premises in different sections
2. As per logbook data from February to June 2021 provided by the unit w.r.t utilization of treated effluent from common-ETP and treated waste water from common-STP in industrial process is 17848.7 KL (9526 KL in glass section + 1362.1 KLD in wood section + 6960.6 KL in metal section) against the total treated effluent 17849.59 KL.
3. Out of total 18633.39 KL of feed to UF of common-ETP, 17849.59 KL of treated effluent is being recovered and utilized in industrial process.



11.0 Status of Recommendations w.r.t Previous Joint inspection dated 10.12.2020

Table 45: Compliance status of recommendation of previous joint inspection dated 10.12.2020

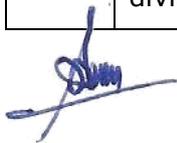
S. No.	Recommendations as per previous Joint inspection dated 10.12.2020	Status as per Joint inspection dated 30.06.2021 to 02.07.2021
1.	The unit shall obtain common consent to operate for all 06 manufacturing sections i.e., Metal Art ware, Glass Art ware, Wood Art ware, Thermocol blocks, Marble Art ware & Corrugated Paper & Carton under the Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from UP Pollution Control Board.	<ul style="list-style-type: none"> - The unit obtained common Consent to Operate (CTO) under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 issued by UPPCB dated 18.06.2021, valid for trial operation of the unit for production of Metal Artware-200 MT/month, Glass Artware-250 MT/Month, Wood Artware-150 MT/Month, Marble Artware-345 MT/Month, Corrugated Boxes-500 MT/Month and Thermocol Slab-345 MT/Month. - CTO under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 were granted for trial operation of the unit and were valid from 09.06.2021 to 30.06.2021. - The unit has again obtained amended common CTO under the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 dated 30.06.2021. As per the amended common CTO, "2. The unit shall cease to operate with effect from 03.07.2021. The validity of consent to operate only be considered for extension based upon the compliance status found by the joint committee and also the observations, conclusions & recommendations of the committee."

		<ul style="list-style-type: none"> - Refer Annexure-2 & Annexure-3 for CTO dated 18.06.2021 and Annexure-4 for amended common CTO dated 30.06.2021 under the Water (Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981.
2.	<p>Unit shall ensure, no fresh water is used for industrial process and comply with the conditions laid down in NOC of CGWA.</p>	<ul style="list-style-type: none"> - From the data of water consumption, effluent generation, quantity of treated effluent of common ETP and sewage treatment plant of indicated that fresh water is not used in industrial process. The fresh water is used for domestic purpose in residential colony & industry area for drinking purpose. - As per the latest NOC issued by U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) via Certificate No: NOC019504 under {UIS10(1) of Uttar Pradesh Ground Water Management and Regulation Act, 2019}, which is valid from 21.12.2018 to 07.04.2026. As per the NOC, the project proponent is allowed to abstract 250m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 3 Borewells for industrial purpose. - Unit is abstracting 113.54 KLD of fresh water to meet the daily requirement for domestic purposes against the allowed capacity of 250 KLD. - Previous NOC issued by CGWA for abstraction of 155KLD ground water for domestic purpose, which was valid till 21.12.2021, now stands invalid.

		<ul style="list-style-type: none"> - Analysis result of samples of water being used in different manufacturing sections i.e., glass, metal, wood & marble sections indicating that unit is recycling the treated waste water from common-ETP & common-STP and not using fresh water for industrial purpose, however, the unit has obtained NOC for abstraction of ground water for industrial purpose, which is valid from 21.12.2018 to 07.04.2026 (as mentioned above).
3.	The unit shall engage expert institute to carry out detailed & water audit for detailed study of total actual water consumption & recycling of treated waste water.	<ul style="list-style-type: none"> - The unit has submitted a copy of report prepared by NEERI, Nagpur on "Water Quality Audit Report for M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P." based on the study conducted by NEERI during the month of March-2021. - This report contains the assessment of water quantity used in various sections followed by water quality analysis, ensuring sustained operation of treatment systems and making water suitable. - Copy of this water quality audit report is placed at Annexure-11. - Water quality audit report has been examined and comparison of average value for the month of March-2021, as mentioned in the submitted report (prepared by NEERI) and average values of 05 months (as per submitted logbook data from Feb-21 to June-21) & values observed on the first day of joint inspection i.e., 30.06.21 has been prepared and placed at sr. no. 13 of conclusions section.
4.	For carrying out factual water audit, unit shall ensure	<ul style="list-style-type: none"> - The unit has installed electromagnetic flow meters (with totalizer) at all and individual

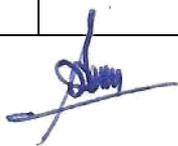
	metering at all and individual treated waste water consumption points at each manufacturing section to ascertain actual water consumption in each process as well as for domestic purpose and maintain logbook for the same.	<p>treated waste water consumption points at each manufacturing section as well as for domestic purpose.</p> <ul style="list-style-type: none"> - The unit has installed electromagnetic flow meter (with totalizer) at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic, lacquering and paint booth processes and for treatment of floor washing effluent.
5.	The unit shall install flow meters at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electrophoretic, lacquering and paint booth processes and for treatment of floor washing effluent.	<ul style="list-style-type: none"> - The unit has installed electromagnetic flow meter (with totalizer) at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate. - The unit has installed total 87 nos. of electromagnetic flow meter (with totalizer) at all the points of waste/waste water i.e., ground water extraction points, water distribution lines to all the different sections of the unit, inlet, outlet and other different locations of Pre-ETPs/Common-ETP/Common-STP, treated waste water utilization points from Pre-ETPs/Common-ETP/Common-STP to all the different sections of the unit and waste water generation points of different sections of the unit.
6.	For common-ETP, the unit shall install flow meters at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate.	<ul style="list-style-type: none"> - The unit is also maintaining logbook for all the installed flow meters. - List of all the installed 87 nos. of flow meter along with locations and totalizer reading (with instantaneous flow rate) observed during current joint inspection is placed at Annexure-1. - As per the logbook data of fresh water and treated waste water utilization in different

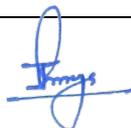
		<p>sections from common-STP & common-ETP, submitted from Feb-21 to June-21,</p> <ol style="list-style-type: none"> 1. Total 2786 KL of fresh water & total 4737 KL of treated sewage from common-STP (for domestic purpose) & total 9288.40 KL of treated effluent from common-ETP (for industrial purpose) has been used in glass division. 2. Total 3576 KL of fresh water & total 3904 KL of treated sewage from common-STP (for domestic purpose) and total 6929.8 KL of treated effluent from common-ETP (for industrial purpose) has been used in metal division. 3. Total 2306.5KL of fresh water, which is common for wood and marble sections & total 2324 KL of treated sewage from common-STP (for domestic purpose) and total 952 KL of treated effluent from common-ETP (for industrial purpose) has been used in wood division. 4. Total 182.6 KL of treated effluent from common-ETP (for industrial purpose) has been used in marble division. 5. Total 209.5 KL of treated effluent from common-ETP (for industrial purpose) has been used in corrugation section for preparation of adhesives.
7.	The unit shall dispose off the sludge from sludge drying bed of the previous ETP at wooden art ware manufacturing division, to TSDF site.	- The unit has disposed off the sludge from sludge drying bed of the previous ETP at wooden art ware manufacturing division, to TSDF site (M/s Bharat Oil & Waste Management Ltd., Kanpur).






		<ul style="list-style-type: none"> - No sludge was found in the tank during current joint inspection. - As per Hazardous waste disposal data (form-10) from Feb-21 to June-21, the unit has sent total 5115 Kg of ETP sludge to TSDF site (M/s Bharat Oil & Waste Management Ltd., Kanpur).
8.	Presence of cyanide upto 5.0 mg/l in treated effluent from common-ETP is observed; hence human contact shall be strictly avoided during the recycle/re-use of common ETP treated effluent.	<ul style="list-style-type: none"> - As per the analysis result of sample collected from the final treated water storage tank of common-ETP, cyanide value has been found Below Detectable Limit (BDL). - However, significant concentration of Cyanide was found in sample collected from common-STP inlet (3.19 mg/l) and detectable concentration was found in Pre ETP-1 inlet (0.23 mg/l) & Pre-ETP-1 outlet (0.16 mg/l).
9.	The unit shall check pH of treated sewage and maintain in the range of 6.5-8.5 before pumping for horticulture use and FC concentration should be brought down below 1000 MPN/100 ml.	<ul style="list-style-type: none"> - As per analysis results, the STP inlet is not a representative sample of sewage as it shows significant concentration of BOD (1720 mg/l), COD (5158 mg/l) and heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l, Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l), which are not representing the characteristics of sewage and indicates the mixing of industrial effluent with the domestic sewage. - As per the analysis result of common-STP outlet, pH value has been found 7.2, which is complying w.r.t the prescribed domestic effluent discharge standard of pH-6.5-9.0 (for on land application) as per the Consent to Operate granted by UPPCB. - FC concentration of sample of treated sewage has been found 9.1 MPN/100 ml.






		- As per the analysis results of treated sewage from common-STP to treated sewage used in horticulture, concentration of Fe-0.08 mg/l to 0.62 mg/l, Mn-0.05 mg/l to 0.17 mg/l, Ni-0.06 mg/l to 0.07 mg/l, Pb-BDL to 0.02 mg/l and Zn-0.02 mg/l to 0.08 mg/l has been found.
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12.0 Status of imposed Environmental Compensation (EC)

1. As per the Hon'ble NGT order dated 06.08.2020 and the compliance status report of the unit prepared and submitted by the joint committee CPCB, UPPCB, SDM, Amroha & CGWA, in compliance to NGT order dated 29.08.2019, following amount of EC was imposed on the unit:

Table 46: Environmental Compensation imposed on the unit

Sr. No	Environmental Compensation	Period	Formula	Calculation
1.	For illegal extraction of Ground water	Year: 2018-19 Period beyond the expiry of CGWA NOC: 21.12.2018 to 30.05.2020	EC_{GW}=Water consumption per day × EC rate for illegal extraction of ground water (EC_{GW}) × No. of days × Deterrent Factor	EC _{GW} = 175 (m ³ /day) (330-155) × 80 (Rs/m ³) × 527 * (days) × 1 =Rs. 73,78,000/-(a)
		Year: 2017-18 for illegal annual extraction of 99,691 m ³ from 01.10.2017 to 30.09.2018, (higher than the permitted ground water extraction of 99,000 m ³ /annum) Illegal extraction = (99691-99000) /300 =691/300 =2.3 m ³ /day		EC _{GW} =2.30(m ³ /day) × 80 (Rs/m ³) × 365(days) × 1 =Rs. 67,160/-(b)

	Total EC			= (a) + (b) = 73,78,000 + 67,160 =74,45,160
2.	For violation of effluent discharge/ inadequate ETPs/ZLD norms as per CTO	from date of inspection carried out by the joint team and found violation of ZLD norms dated 28.03.2019 to date of inspection of 2 nd inspection of the joint team dated 16.10.2019	$EC = PI \times N \times R \times S \times LF$ (considering deterrent factor for repeated violations) Where, PI= Pollution index of industrial sector (here-80, for red category industrial sector), N = Number of days of violation took place (here-203 days, from 28.03.2019 to 16.10.2019) R= A factor in Rupees for Penalty (R to be taken as 250) S = Factor for scale of Operation of the facility (here-1.5, for large scale industry) LF = Location factor (Here-1, for less than 1 million population)	A) 28.03.2019-25.06.2019 $(EC= PI * N * R * S * LF)*1$ $=80* 90*250*1.5*1$ =27,00,000/- B) 26.06.2019-23.09.2019 $(EC= PI * N * R * S * LF)*2$ $=80* 90*250*1.5*1*2$ =54,00,000/- C) 23.09.2019-16.10.2019 $(EC= PI * N * R * S * LF)*4$ $=80* 23*250*1.5*1*4$ =27,60,000/-
	Total EC			= (A) + (B) + (C) = 27,00,000 + 54,00,000 + 27,60,000 = Rs. 1,08,60,000/-
3.	For not managing Haz. Waste as per management as per the	1.Financial Penalty The unit was found violating 07 provisions (at Sl. No. 2, 3, 5b,	1.Financial Penalty 01 lakh per violation of 01 provision of HOWM Rules, 2016., Here	1. Penalty Rs. 7,00,000/- 2. EC

	<p>HOWM Rules, 2016</p>	<p>6(B)d, 8, 7 and 31) of HOWM Rules, 2016.</p> <p>2.Environmental Compensation</p> <p>The following violations have been considered for calculation of EC</p> <p>a) When hazardous and others wastes is disposed at unauthorized place or handed over or sold to unauthorized party and</p> <p>b) Waste found stored beyond the stipulated period (refer Rule 8 of the HOWM Rules, 2008)</p>	<p>unit is violating 07 provisions</p> <p>2.Environmental Compensation</p> <p>a) When hazardous and others wastes is disposed at unauthorized place or handed over or sold to unauthorized party</p> <p>For Haz. Waste: $EC = Q \times ERF \times R$ Here, Q=Quantity in tonnes/year =3.15 tonne/year ERF=Environmental Risk Factor = 1.5 R=Environmental Compensation factor =Rs. 30,000</p> <p>For other waste: (a) Estimated other waste stored is 551kg in 6.5 months $EC = Q \times ERF \times R$ Here, Q=0.847 tonne/year, ERF=0.3, R= Rs. 30,000</p> <p>b)Waste found stored beyond the stipulated period (refer Rule 8 of the HOWM Rules, 2008)</p> <p>For Haz. waste</p>	<p>a) For disposal/handling over to unauthorized place/party</p> <p>For Haz. waste <i>No Compensation as unit has submitted documentary proof in the form of Form 10 **</i></p> <p>For Other waste = $0.847 \times 0.3 \times 30,000$ = Rs. 7623 /-</p> <p>b) ForWaste found stored beyond the stipulated period</p> <p>For Haz. waste = $1.406 \times 0.1 \times 30000$ = Rs. 4218 /-</p> <p>For Other waste = $0.551 \times 0.05 \times 30000$ = Rs. 826/-</p>
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			$= Q \times ERF \times R$ $= 1.406 \times 0.1 \times 30000$ For Other waste $= Q \times ERF \times R$ $= 0.551 \times 0.05 \times 30000$	
	Total EC			Penalty + EC $= 7,00,000 + (7,523 + 4,218 + 826)$ = Rs. 7,12,567/-
Total Environmental Compensation		$(1) + (2) + (3)$ $= \text{Rs. } 74,45,160 + \text{Rs. } 1,08,60,000 + \text{Rs. } 7,12,567$ = Rs. 1,90,17,727/-		

2. As per the information provided by UPPCB, the unit has deposited following amount to UPPCB against imposed EC:

Table 47: Environmental Compensation deposited by the unit to UPPCB

EC imposed for	EC amount imposed	Amount deposited by the unit to UPPCB	Total amount deposited
(1) For illegal extraction of ground water			
Year: 2018-19 Period beyond the expiry of CGWA NOC: 21.12.2018 to 30.05.2020	Rs. 73,78,000/-	-	Considered waived off, as the unit has been granted NOC for extraction of ground water w.e.f 20.12.2018 by U.P.G.W.D
Year: 2017-18 for illegal annual extraction of 99,691 m ³ from 01.10.2017 to 30.09.2018	Rs. 67,160/-	Deposited Rs. 67,160/- on 10.07.2021	Rs. 67,160/-
(2) For violation of effluent discharge/ inadequate ETPs/ZLD norms as per CTO			
From 28.03.2019 to 16.10.2019	Rs. 1,08,60,000/-	Deposited (Rs. 37,53,600 /- + Rs. 10,000/-) dated 19.06.2020 + Rs. 70,96,400/- dated 08.06.2021	Rs. 1,08,60,000/-
(3) For not managing Haz. Waste as per management as per the HOWM Rules, 2016			
1. Financial Penalty +	Rs. 7,12,567/-	Deposited Rs. 1,00,000/- on 19.06.2021 and	Rs. 7,12,567/-

2.Environmental Compensation		Rs. 6,12,567/- on 05.11.2020	
Total EC amount deposited by the unit to UPPCB against total imposed EC amount of Rs. 1,90,17,727/-			Rs. 1,16,39,727/-

- The unit has deposited total EC amount of Rs. 1,16,39,727/-to UPPCB till date. documentary proof for the deposited EC is placed at **Annexure-17**.
- The remaining EC amount of Rs. 73,78,000/-, which was imposed for the period of 21.12.2018 to 30.05.2020 (Year: 2018-19) beyond the expiry of CGWA NOC is **considered to be waived off**, as the unit has now been granted NOC from U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) to abstract 250 m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 03 Borewells for industrial purpose, having validity from 21.12.2018 to 07.04.2026.

13.0 Status summary in compliance to Hon'ble NGT order dated 4.2.2021 in the matter of Adil Ansari Vs. M/s C. L. Gupta Exports Pvt. Ltd. & ors. (O.A. NO. 220/2019)

13.1 NGT direction: Verification of the fact that no waste water injection in the ground water is taking place so that the ground water is not contaminated by injection of any waste water, in view of the fact that cyanide and other heavy metal have been found in the samples.

Status: As per the analysis results of the samples collected from the borewell of the unit and surroundings areas including nearby villages, presence of Cyanide has not been found. However, Manganese (0.39 mg/l against 0.3mg/l) & Iron (1.3mg/l against 0.3mg/l) and Iron (0.86mg/l against 0.3 mg/l) were found in the samples collected from the hand pump located near labour gate and borewell located behind the unit respectively. Table 6 may be referred for characteristics of collected ground water samples.

However, significant concentration of Cyanide was found in samples collected from common-STP inlet (3.19 mg/l) and detectable concentration was found in Pre-ETP-1 inlet (0.23 mg/l) & Pre-ETP-1 outlet (0.16 mg/l).

Comments of the expert from IIT-Roorkee on the ground water pollution by Cyanide and presence of Cyanide in samples collected from Pre-ETP inlet & outlet and STP inlet are as below:

1. Groundwater Pollution by Cyanide

Groundwater samples were collected from five locations using the available hand-pumps/tube-well during the joint survey from the nearby areas of the plant premises to characterize the groundwater quality, particularly in respect of Cyanide pollution. These samples were taken from random depths of confined/unconfined aquifers as monitoring network was not readily available at the plant site. The observed significant draft (19.98-15.35= 4.46m) of groundwater readings by the DWLR installed at piezometers 1-2 at the same time shows that there is a strong heterogeneity of groundwater flow regime in this small area. The lithologs of these piezometers were not provided to the joint team by the Industry. Thus it is difficult to conclude that quantity and quality of groundwater resources of the area are not affected by the Industrial activities. A further soil and groundwater sampling campaign during the pre and post monsoon seasons is needed to be conducted by the industry from appropriate depths and locations in and around the plant premise. It is also suggested having the hydrogeological survey of the plant site using a series of geophysical investigations and suitable pumping/recovery testes to map the groundwater flow regime and its seasonal dynamics. Isotopic analysis of surface and groundwater samples of the area is recommended strongly to establish the sound linkages between the possible subsurface pollutants and the Industrial activities of the area.

2. Observation on Cyanide in Pre ETP inlet & outlet and STP Inlet

The cyanide values in the inlet and outlet of Pre-ETP-1 are observed as 0.23 mg/l and 0.16 mg/l. However, the outlet of Pre-ETP is further treated in common-ETP and analyzed samples collected from the final treated water storage tank of common-ETP showed no detectable cyanide. It is to be noted here that presence of cyanide in the inlet of pre-ETP-1 clearly indicates the use of raw/process materials within the production unit having Cyanide. Though, the unit representative of the plating process section informed that cyanide is currently not used in any process. It is to be noted here that water samples were collected from inlets/outlets of ETP/STP only during the two days of the survey, significant variability in water quality entering/leaving the treatment system of the Industry cannot be ignored. Considering the presence and toxicity of Cyanide in the collected sample from the inlet of the STP unit shall carry out the rigorous monitoring of the treatment process and final treated water/effluent.



13.2 NGT direction: Water audit may be got conducted by the CPCB

Status: The unit has installed total 87 nos. of electromagnetic flow meters (with totalizer) at all the points of water/waste water i.e., ground water extraction points, water distribution lines to all the different sections of the unit, inlet, outlet and other different locations of Pre-ETPs/Common-ETP/Common-STP, treated waste water utilization points from Pre-ETPs/Common-ETP/Common-STP to all the different sections of the unit and waste water generation points of different sections of the unit.

- The unit is maintaining logbook for all 87 nos. flow meters installed.
- As per the values observed during the first day of joint inspection i.e., 30.06.21, on the installed flow meters, the following is concluded:

Fresh water consumption:

1. Total fresh water abstraction from two active borewells was found 127KL. Total raw/fresh water supplied to glass division, VIP colony, metal division, wood division, general (office buildings), residential colony and canteen was found 21KL, 11KL, 28KL, 18.5KL, 1.5KL, 40KL and 7KL respectively, making total 127KL.

Table 48: Total fresh water consumption in different sections, colony & general purpose on the first day of joint inspection i.e., 30.06.21

Sections (for drinking purpose)	Total fresh water consumption (KL)	Colony/General(for domestic purpose)	Total fresh water consumption (KL)
Glass	21	VIP colony	11
Metal	28	Residential colony	40
Wood (common for wood & marble div.)	18.5	General (Office buildings)	1.5
		Canteen	7
Total	67.5	Total	59.5
Grand Total= 127 KL			

Glass division:

1. **Fresh water/treated waste water utilized in glass division:** On the first day of inspection dated 30.06.21, as per the value of FM-3 the fresh water intake to Glass section was 21KL, as per FM-17 the total treated waste water recycled to glass division from common-STP was 41KL and as per FM-75 the total treated effluent recycled to glass division from common-ETP was 72KL, hence the total water input to this section was 134KL.
2. **Trade/domestic waste water generation from the glass division:** As per the value of FM-31(5KL) & FM-38(47KL) the total effluent generation from the

glass division was 52KL and as per FM-13 the total sewage generation from this division was 34KL, hence the total waste water generation from the glass division was 86KL.

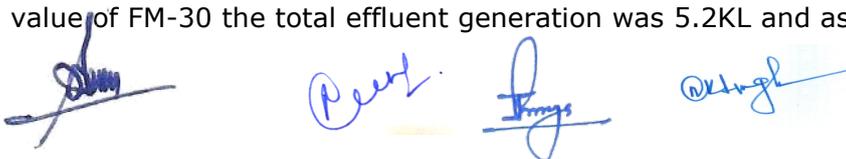
- Total difference of 48KL in total water input & waste water generation in this section is due to, 18KL (FM-25) supplied to boiler (common for entire unit), 4KL (FM-28) supplied for utility purpose, 13.4KL (FM-66 + FM-67) used as make up water in blowing & chakka unit of this division (making total of 35.4 KL) and remaining difference of 12.6KL may be due to losses in process and consumption of fresh water for drinking purposes in glass division.

Metal division:

1. **Fresh water/treated waste water utilized in metal division:** On the first day of inspection dated 30.06.21, as per the value of FM-5 the fresh water intake to metal division was 28KL, as per FM-16 the treated waste water recycled to metal division from common-STP was 35KL and as per FM-76 the treated effluent recycled to metal division from common-ETP was 57KL, hence the total water input to this section was 120KL.
 2. **Trade/domestic waste water generation from the metal division:** On the first day of inspection dated 30.06.21, as per the value of FM-29(5KL), FM-35(0KL) & FM-37(48KL) the total effluent generation was 53KL and as per FM-10 the total sewage generation was 51KL, hence the total waste water generation from the metal division was 104KL.
- The difference of 16KL in total water input & waste water generation in this section is attributed to utilization of treated sewage for utility purpose i.e., 6KL (FM-23) and remaining difference of 10KL may be due to losses in process and consumption of fresh water for drinking purposes in metal division.

Wood division:

1. **Fresh water/treated waste water utilized in wood marble division:** On the first day of inspection dated 30.06.21, as per the value of FM-6 the fresh water intake to Wood & Marble division was 18.5KL, as per FM-18 the treated waste water recycled to wood division from common-STP was 21KL and as per FM-55 the treated effluent recycled to wood division from common-ETP was 9.9KL, hence the total water input to this section was 49.4KL.
2. **Trade/domestic waste water generation from the wood division:** As per the value of FM-30 the total effluent generation was 5.2KL and as per FM-12 the total



sewage generation was 33KL, hence the total waste water generation from wood division was 38.2KL.

- The difference of 11.2KL in total water input & waste water generation in this section is attributed to utilization of treated sewage for utility purpose i.e., 3KL (FM-27), utilization of treated effluent from common-ETP in marble section as make up water i.e., 1KL (FM-59) and remaining difference of 7.2KL may be due to losses in process and consumption of fresh water for drinking purposes in wood & marble division.

Common-ETP

1. **Total quantity of effluent received to common-ETP receiving sump** from metal division (Phosphating & Electro Plating), Glass Division (Phosphating, Electro Plating & Boiler Blowdown), treated effluent from Pre-ETP-1, treated effluent from Pre-ETP-2 and treated sewage from common-STP (for make-up purpose) was found 48 KL, 47 KL, 16 KL, 0 KL and 27 KL respectively, **making total 138 KL.**
2. The treated effluent from common-ETP (RO-1 Permeate, RO-2 Permeate, RO-3 Permeate, MEE & ATFD condensate) was found 141 KL, which is total of values of 92 KL (RO-1 Permeate), 21 KL (RO-2 Permeate), 9 KL (RO-3 Permeate), and 19 KL (MEE& ATFD condensate).
3. Treated effluent from common-ETP is pumped to glass division, metal division and wood division (common for wood, marble and corrugation sections) for utilization in different industrial process.
4. **Total 139 KL of treated effluent** (9.9 KL to wood division, 72 KL to glass division and 57 KL to metal division) from common-ETP was **recycled for utilization in industrial processes.**

Common-STP

1. Total quantity of sewage received at common-STP receiving sump from metal division, both colony (VIP & residential colony) as well as canteen, wood division & general (office building) and glass division was found 51 KL, 57 KL, 33 KL and 34 KL respectively, making total of 175 KL.
2. Total 176 KL of treated sewage was found at outlet of common-STP (inlet to treated waste water storage tank of common-STP).
3. Treated sewage from common-STP is pumped to metal division, glass division, wood division, both colony (VIP & residential colony) as well as canteen, common-



ETP (as make up purpose) and horticulture for utilization in domestic and utility purpose.

4. Total 174 KL of treated sewage (35 KL to metal division, 41 KL to glass division, 21 KL to wood division, 11 KL to residential & VIP colony as well as canteen, 27 KL to common-ETP (for make-up purpose) and 39 KL to horticulture) was recycled for utilization in domestic and utility process.

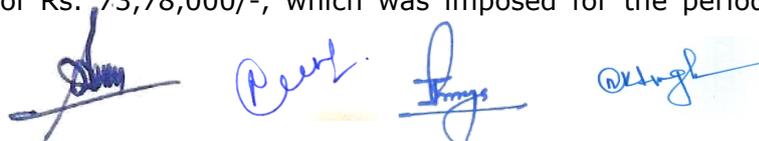
Concluding remarks on water audit based on findings of 30.06.2021 (first day of joint inspection):

- i. Total intake of fresh water and treated wastewater from common-STP to VIP & residential colonies as well as canteen was 69KL (58FW+11KLtreated), out of which 57KL was received as sewage at common-STP receiving sump; which is 82% of total water intake.
- ii. Total Fresh water input for drinking purpose & treated wastewater (from common-STP) recycled for toilet flushing to various manufacturing divisions was 69KL (1.5KL of general building included with wood division) and 66KL respectively making it total of 135KL, out which 118KL was received as sewage at common-STP receiving sump; which is 87% of total FW & recycled water intake for domestic purposes to various manufacturing divisions.
- iii. Total treated recycled effluent (from common-ETP) received at various manufacturing divisions for use in industrial activities was 138.9KL, out of which 110.2KL of effluent was being sent back to ETP section for treatment, which is 80% of total treated effluent recycled to divisions. The difference of 28.7KL between input & output is attributed to, 14.4KL being used as make up water for different industrial activities and 14.3KL as losses in processes (about 10%).
- iv. The unit is recycling the treated sewage & treated trade effluent (from common-STP & common-ETP) for industrial purpose and nowhere it was found using fresh water in industrial activities. Fresh water is only being used for drinking purpose in various manufacturing divisions.

13.3 NGT Direction: Assessment of compensation may be looked into jointly by CPCB and the State PCB.

Status: The unit has deposited total EC amount of Rs. 1,16,39,727/- to UPPCB against total imposed EC amount of Rs. 1,90,17,727/- till date. documentary proof for the deposited EC is placed at **Annexure-17**. The remaining EC amount of Rs. 73,78,000/-, which was imposed for the period of 21.12.2018 to

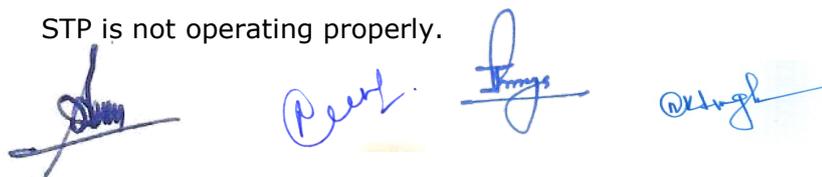
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30.05.2020 (Year: 2018-19) beyond the expiry of CGWA NOC is **considered to be waived off**, as the unit has now been granted NOC from U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) to abstract 250 m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 03 Borewells for industrial purpose, having validity from 21.12.2018 to 07.04.2026.

13.4 Environmental compliance status

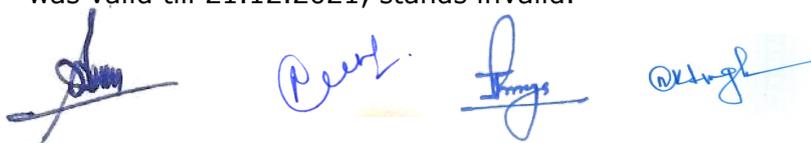
1. During the current joint inspection, all the manufacturing section i.e., glass art ware, metal art ware, wooden art ware, marble art ware, thermocol block, corrugated sheet & carton mfg. sections, Pre-ETP-1, Common-ETP and Common-STP were found operational.
2. As per analysis results, the STP inlet is not a representative sample of sewage as it shows significant concentration of BOD (1720 mg/l), COD (5158 mg/l) and heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l, Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l), which are not representing the characteristics of sewage and indicates the mixing of industrial effluent with the domestic sewage.
3. As per the analysis results of treated sewage from common-STP outlet, concentration of pH- 7.2, Oil & Grease- BDL, BOD- 02mg/l, COD- 21mg/l, Fe- 0.08 mg/l, Mn-0.05 mg/l, Ni-0.06 mg/l, V- 0.12mg/l, Pb-BDL, Cyanide- BDL, As- 0.04mg/l, Cd-BDL, Co-BDL, Cr-BDL, Cu-0.03mg/l, Sb-BDL, Se-BDL and Zn-0.02 mg/l has been found, this is being recycled for utilization in domestic and utility purpose within different manufacturing sections of unit as well as in colonies.
4. As per Central Public Health & Environmental Engineering Organization (CPHEEO) manual on sewage and sewage treatment systems-2013 Part A Engineering, typical process parameters for SBR configurations mentioned in Table No 5.57 at page no 5-198 (**Annexure-18**), MLSS concentration flow and intermittent decant is 3,500-5,000mg/l for optimum operation of SBR however, as per the analysis results of aeration tank MLSS concentration was 16141mg/l; indicating that periodic removal of sludge is not taking place thus STP is not operating properly.



STP inlet has significant concentration of heavy metals (CN-3.19 mg/l, Cr-1.45 mg/l, Cu-7.18 mg/l, Fe-75.60 mg/l, Mn-3.0 mg/l, Ni-10.42 mg/l, Pb-3.44 mg/l, Zn-17.35 mg/l) however no separate treatment unit for heavy metal removal exists in the existing common-STP, even though the STP-outlet shows 100% reduction in Cyanide (from 3.19mg/l to BDL), 100% reduction in Chromium (from 1.45mg/l to BDL), 100% reduction in Lead (from 3.44mg/l to BDL), 99% reduction in Nickel (from 10.42mg/l to 0.06mg/l), 99.8% reduction in Zinc (from 17.35mg/l to 0.02mg/l), 99.8% reduction in Iron (from 75.6mg/l to 0.06mg/l), 99.6% reduction in Copper (from 7.18mg/l to 0.03mg/l) indicating possibility of dilution at STP outlet can't be ruled out.

Heavy metals have inhibitory effect on heterotrophic organisms if exists beyond the threshold concentration i.e Cu-1.0mg/l, Pb-0.1mg/l, Ni-1.0mg/l, Zn-1.0mg/l (as per Wastewater Engineering by Metcalf & Eddy, Table 2-13 page no 78; **Annexure 19**).

5. As per the analysis results of treated effluent sample collected from common-ETP final treated water storage tank concentration of pH- 7.0, TSS- 10mg/l, TDS-48mg/l, BOD- 04mg/l, COD- 27mg/l, Chloride-15mg/l, Phosphate- 0.06mg/l, Nitrate- 5.8mg/l, Colour- 21Hazen, Sulphate- BDL, Cyanide- BDL, Fe-0.002 mg/l, Mn-BDL, Ni-BDL, V- 0.09mg/l, Pb-BDL, As- BDL, Cd-BDL, Co-BDL, Cr-BDL, Cu-BDL, Sb-BDL, Se-BDL and Zn-0.01 mg/l has been found, this is being recycled for utilization in industrial processes within different manufacturing sections.
6. Analysis result of samples of recycled water used in different manufacturing sections i.e., glass, metal, wood & marble sections indicating that unit is recycling the treated waste water from common-ETP & common-STP to meet its industrial requirement.
7. The unit has been granted NOC from U.P.G.W.D (Ground water department (Namami Gange & Rural Water Supply Department), Ministry of Jal Shakti, Govt. of Uttar Pradesh) to abstract 250 m³/day (KLD) for 300 operational days totaling 75,000 m³/annum from 03 Borewells for industrial purpose, which is valid from 21.12.2018 to 07.04.2026. Now, the previous NOC issued by CGWA for abstraction of 155KLD ground water for domestic purpose, which was valid till 21.12.2021, stands invalid.



8. The unit is maintaining daily records of the hazardous waste generation and disposal for tube light (fused), bulb & CFL (fused), used rubber gloves, old battery, used face masks, used cotton gloves, empty container, used oil, empty corrugated cartons and ETP sludge. The unit has submitted daily record of the haz. waste generation as well as disposal to TSDF facility from Dec-2020 to June-2021, which has been verified.
9. The unit is sending the generated hazardous waste to the TSDF for which the unit is also maintaining manifest document (Form-10, as required under Rule 19 of the HOWM Rules, 2016). The unit has submitted the haz. waste disposal data (Form-10) from Feb-2021 to June-2021 and Annual return (Form-4) for year: 2020-21.
10. The Unit has not maintained separate data for STP sludge generation as well as disposal. Unit shall ensure to maintain separate logbook for STP sludge generation and considering presence of heavy metals at STP inlet, the unit shall ensure disposal of the STP sludge to TSDF.
11. The unit has submitted a copy of report prepared by NEERI, Nagpur on "Water Quality Audit Report for M/s C.L. Gupta Exports Pvt. Ltd., Amroha, U.P." based on the study conducted by NEERI during the month of March-2021, which contains the assessment of water quantity used in various sections followed by water quality analysis, ensuring sustained operation of treatment systems and making water suitable.
 - Average value for the month of March-2021, as mentioned in the submitted report (prepared by NEERI) and average values of 05 months (as per submitted logbook data from Feb-21 to June-21) and values observed on the first day of joint inspection i.e., 30.06.21 are compared in a table below:

Table 49: Comparison Average value for the month of March-2021, average values of 05 months (as per logbook data from Feb-21 to June-21) and values observed on the first day of joint inspection i.e., 30.06.21

S. No.	Criteria / Description	As per NEERI, based on log book data for one month (March-21)	As per CPCB, based on log book data for five months (Feb-21 to June-21)	As per CPCB, based on 1 st day of Joint inspection (dtd.30.6.21)
Fresh water/Treated waste water from common-ETP/Common-STP used				
1.	Fresh Water withdrawal & supply for drinking purpose to different sections i.e., glass, metal, wood, residential & VIP colony,	3504 / 31 =113.03	17032/150 =113.54	127.0

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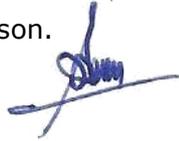
	general (office building), Avg. volume per day (KL per day)			
2.	Treated waste water recycled from Common STP in toilet flushing (excluding green belt /horticulture and fire extinguishing) in different sections i.e., glass, metal, wood, residential & VIP colony. Average volume per day (KL per day)	1440/31 =46.45	8598/150 =55.32	77
3.	Treated waste water Recycled from Common ETP (including MEE & ATFD condensate), to different sections i.e., glass, metal, wood (common for marble and corrugation sections). Average volume per day (KL per day)	3766 / 31 =121.48	17848.7/150 =118.9 ≈119.0	138.9
4.	Treated waste water Recycled (fully consumed) from Common STP for use in green belt /horticulture and utilities excluding fire extinguishing* Total volume (KL) for reported period	1640/31 =52.9	6616/150 =44.11	52.0
*Recycled waste water (136KL) was used in fire extinguishing in March-2021				
Sewage/trade effluent generation				
5.	Total sewage generation/sent to Common STP (from glass, metal, wood, residential & VIP colony, canteen). Average volume per day (KL per day)	(4012 / 31) =129.42	21358/150 =142.39	175
6.	Total trade effluent (industrial effluent) generation/sent to Common ETP (from glass, metal, wood and corrugation sections). Average volume per day (KL per day)	3251 / 31 =104.87	14462.9/150 =96.42	111.2

- From the above table, it can be concluded that, average value of fresh Water withdrawal & supply to different sections, treated waste water recycled from






Common STP in toilet flushing, treated waste water Recycled from Common ETP, Total sewage generation/ sent to Common STP and Total trade effluent (industrial effluent) generation/sent to Common ETP for the month of March-2021 (as per NEERI report), average values of 05 months (from Feb-21 to June-21) and values observed on the first day of joint inspection i.e., 30.06.21 are indicating the same trend. Some marginal difference is may be due to variation of worker's strength or season.



14.0 Photographs



Fig. 1: Borewell no. 3, located at Residential colony



Fig. 2: Borewell No. 4, located outside Glass division



Fig. 3: Piezometer for Borewell No.3, Located at Residential colony, DWLR with telemetry for Piezometer

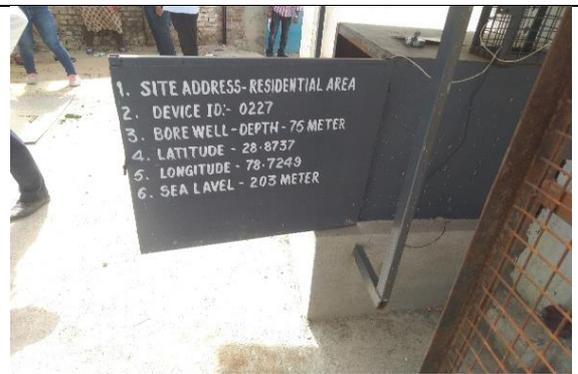


Fig. 4: Piezometer for Borewell No.4, Located near Gate No.2, Glass Division, DWLR with telemetry for Piezometer

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Fig. 5: RWH structure No.1 outside new RO plant and new ETP.



Fig. 6: RWH structure No.2 outside new RO plant and new ETP.



Fig. 7: RWH structure No.3 outside new RO plant and new ETP



Fig. 8: RWH structure No.4 outside new RO plant and new ETP



Fig. 9: RWH structure Nos.5,6,7,8 located behind case goods



Fig. 10: RWH structure No.9 located below Furnace recycling plant.

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Fig. 11: RWH structure No.10 located below Furnace recycling plant



Fig. 12: Location of all the borewells/hand pumps from which samples were collected



Fig. 13: SBR Tanks of Pre-ETP



Fig. 14: Filter press of Pre-ETP

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Fig. 15: Flow meter installed at inlet of Pre-ETP



Fig. 16: Flow meter installed at outlet of Pre-ETP



Fig. 17: Common ETP (Inlet & Outlet Flow meters)



Fig. 18: Common ETP (RO, MEE, ATFD & Sludge Store Room)

Sharma *Prasad* *Sharma* *Debnath*



Fig. 19: Common ETP (Flowmeters at RO permeate & MEE condensate)



Fig. 20: Common STP inlet flow meter

Fig. 21: Common STP Outlet flow meter

Shan *Peerz* *Imys* *@kngl*



Fig. 22: Flow meters at STP outlet line to Green belt for horticulture.



Fig. 23: Flow meters at STP outlet line to metal division.



Fig. 24: Flow meters at STP outlet line to glass division



Fig. 25: Flow meters at STP outlet line to wood division



Fig. 26: Flow meters at STP outlet line to Residential Colony flushing



Fig. 27: Flow meters at STP outlet line to Process as makeup water

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Fig. 28: Recycling Plant at Glass division



Fig. 29: Empty sludge drying bed of old ETP at at wooden art ware manufacturing division

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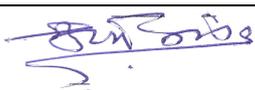
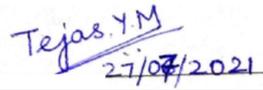
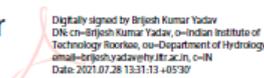
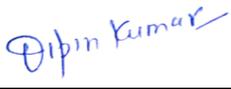
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15.0 Signature of the inspecting officials

Date of Inspection: 30.06.2021 to 02.07.2021

Sr. No.	Name of the Officials	Signature
1.	Sh. Vivek Yadav, SDM, Amroha	
2.	Mrs. Reena Satavan, Sc. 'D' CPCB, Delhi	
3.	Sh. C. B Chourasia, Sc.'E', CPCB, Delhi	
4.	Sh. J.P. Maurya, Regional Officer UPPCB, RO Bijnor	
5.	Dr. R.K Singh, Sc. 'D' CPCB, Delhi	
6.	Sh. Tejas Y. Mankikar, Sc. B, CGWB, Lucknow	
7.	Sh. Anil Kumar Sharma, Assistant Env. Engineer , UPPCB, Bijnor	
8.	Dr. Brijesh Kumar Yadav, Professor, IIT-Roorkee	Brijesh Kumar Yadav  <small>Digitally signed by Brijesh Kumar Yadav DN: cn=Brijesh Kumar Yadav, o=Indian Institute of Technology Roorkee, ou=Department of Hydrology, email=brijeshyadav@iitr.ac.in, c=IN Date: 2021.07.28 13:31:13 +0530'</small>
9.	Sh. Vipin Kumar, RA-III, CPCB, Delhi	
10.	Ms. Shivangi Goswami, RA-II, CHCB, Delhi	
11.	Sh. Muktesh Chaudhary, SRF, CPCB, Delhi	

CL GUPTA Inspection 30-06-21 to 02-07-2021
Flow meter reading observed during joint inspection

Flow Meter No.	Location of Flow Meter	Totalizer Reading (M ³)	Instantaneous Flow (M ³ /hr)	Values observed on 30.06.2021(KL)
1	Borewell 1 for fresh water	17164	0.0	32
2	Borewell 2 for fresh water	43094	29.04	95
3	Raw water supply to Glass Division	2788.90	0.0	21
4	Raw water supply to VIP Colony	1628.56	5.4	11
5	Raw water supply to Metal Division	3586.55	1.5	28
6	Raw water supply to Wood Division	2295.79	0.3	18.5
7	Raw water supply to General (Admin)	195.28	1.4	1.5
8	Raw water supply to Residential Colony	5700.35	1.1	40
9	Raw water supply to Canteen	794.75	0.0	7
10	Sewage from Metal Division	5957.81	0.0	51
11	Sewage from Both Colony & Canteen	7566.28	0.0	57
12	Sewage from Wood & General (Admin)	3805.44	4.0	33
13	Sewage from Glass Division	3898.04	0.0	34
14	STP Inlet (Holding Tank Pump)	46427.90	0.0	176
15	STP Outlet (Treated Sewage Holding Tank)	45501.97	8.3	171
16	STP Treated Wastewater recycle to Metal Division	9978.0	2.47	35
17	STP Treated Wastewater recycle to Glass Division	9446.5	0.0	41
18	STP Treated Wastewater recycle to Wood Division	4979.1	0.0	21
19	STP Treated Wastewater recycle to Colony Flushing	1298.0	0.70	11
20	STP Treated Wastewater recycle to Process (Makeup)	8087.3	0.0	27
21	STP Treated Wastewater recycle to Horticulture	11450.3	7.41	39
22	STP Treated Wastewater recycle to Metal Division for Toilet Flushing	3219.1	0.0	29
23	STP Treated Wastewater recycle to Metal Division for Utility	658.295	1.9	6
24	STP Treated Wastewater recycle to Glass Division for Toilet Flushing	407.1	0.0	19
25	STP Treated Wastewater recycle to Glass Division for Boiler	2524.58	1.1	18
26	STP Treated Wastewater recycle to Wood Division for Toilet Flushing	1920.5	0.0	18

27	STP Treated Wastewater recycle to Wood Division for Utility	391.2	2.19	3
28	STP Treated Wastewater recycle to Glass Division for Utility	182.19	0.0	4
29	Effluent from Metal Division Paint & EPL Effluent to PETP 1	604.58	0.0	5
30	Effluent from Wood Division Paint Booth to PETP 1	643.51	0.0	5.2
31	Effluent from Glass Division Paint Booth & EPL Effluent to PETP 1	609.24	0.0	5
32	Effluent from Corrugation to PETP 1	139.31	0.0	1
33	PETP 1 Inlet	2792.09	0.0	16.5
34	PETP 1 Outlet	2671.48	0.0	16
35	PETP 2 Inlet from Floor washing	66.02	0.0	0
36	PETP 2 Outlet	55.5	0.0	0
37	Effluent from Metal Division (Phosphating & Electro Plating)	5658.824	33.1	48
38	Effluent from Glass Division (Phosphating, Electro Plating & Boiler Blowdown)	6697.22	0.0	47
39	Common ETP Inlet	22157.85	6.4	111
40	Common ETP Outlet (after biological treatment)	23135.64	0.0	118
41	UF 1 Feed	5929.59	0.0	36.5
42	UF 2 Feed	17805.26	6.9	108.5
43	UF 1 Outlet	5329.73	3.0	32.9
44	UF 2 Outlet	16811.29	6.8	104
45	RO 1 Feed	22305.34	67.0	137
46	RO 2 Feed	5727.31	5.4	45
47	RO 3 Feed	3012.36	2.5	21
48	RO 3 Reject	2356.06	1.7	15.6
49	RO 3 Permeate	1541.98	0.79	9
50	RO 2 Permeate	0.799	1.85	21
51	RO 1 Permeate	14831.56	5.1	92
52	MEE Feed	2370.869	1.6	15
53	ATFD Feed	192.002	0.0	1.2
54	MEE & ATFD Condensate Outlet	2880.995	1.6	19
55	RO Treated effluent recycle to Wood Division	1887.3	1.88	9.9
56	Supply to Wood Division	435.9	0.0	3.1
57	Supply to Corrugation Division	208.2	0.0	2
58	Supply to Paint Booth	513.87	0.0	4.9
59	Supply to Stone Unit	182.20	0.0	1
60	Filtration Plant Inlet at Stone Unit	707.03	3.0	4.9
61	Filtration Plant Outlet at Stone Unit	598.03	1.6	3.7
62	Supply to Electro Plating unit at Glass Division	5880.31	0.0	42

63	Supply to Phosphating unit at Glass Division	869.85	0.0	6
64	Supply to Paint Booth at Glass Division	517.20	0.0	4
65	Supply to DM plant at Glass Division	595.10	0.0	4.7
66	Supply to Blowing unit at Glass Division	1497.53	0.0	12
67	Supply to Chakka unit for makeup at Glass Division	186.11	0.0	1.4
68	DM water outlet at Glass Division	593.13	0.0	4.7
69	Supply to Electro Plating unit from DM outlet at Glass Division	242.91	0.0	1.7
70	Supply to EPL Plant from DM outlet at Glass Division	351.27	0.0	3
71	Filtration/Recycling Plant Inlet from Blowing unit at Glass Division	12149.84	5.0	102.7
72	Filtration/Recycling Plant Outlet from Blowing unit at Glass Division	11828.44	0.0	99.1
73	Glass Division Recycling Plant outlet (before storage tank)	582.48	0.0	5.2
74	Glass Division Recycling Plant treated water storage tank outlet	408.49	0.0	4
75	RO treated effluent recycle to Glass Division	14736.3	0.0	72
76	RO treated effluent recycle to Metal Division	10482.5	9.3	57
77	Supply to Electro Plating unit at Metal Division	4768.87	0.0	42
78	Supply to Phosphating unit at Metal Division	872.0	0.0	4.5
79	Supply to Paint Booth at Metal Division	588.23	0.0	4.2
80	Supply to DM plant at Metal Division	659.58	0.0	6.3
81	DM water outlet at Metal Division	665.74	0.0	6.2
82	Supply to Electro Plating unit from DM outlet at Metal Division	356.90	0.0	3.1
83	Supply to EPL Plant from DM outlet at Metal Division	308.70	0.0	3.1
84	UF 1 & 2 Backwash to ETP inlet	1168.32	2.6	9.1
85	Backwash & Other recycle to ETP inlet	15456.38	0.0	120.1
86	Filtration Plant Outlet to Blowing unit at Glass Division	11868.54	6.5	97.9
87	Boiler Blowdown from Glass Division	327.53	0.0	2.7

***Note- Due to batch operation, some flowmeters indicated instant reading 0.0 m³/hr. Such flowmeters were randomly checked again on next date. Flowmeters were found working with display of flow rates and totalized readings.**



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.com, Website: www.uppcb.com

CONSENT ORDER

Ref No. -
128687/UPPCB/Bijnore(UPPCBRO)/CTO/water/
JYOTIBA PHULE NAGAR/2021

Dated : 18/06/2021

To ,

Shri TEEVRA GUPTA
M/s C L GUPTA EXPORTS LTD
Vill- Jivai, 18 Kms Stone before Moradabad Delhi Higway Amroha (U.P),AMROHA,244302
JYOTIBA PHULE NAGAR

Sub : **Consent under Section 25/26 of The Water (Prevention and control of Pollution) Act, 1974 (as amended) for discharge of effluent to M/s. C L GUPTA EXPORTS LTD**

Reference Application No :12436211

Dated :18/06/2021

1. For disposal of effluent into water body or drain or land under The Water (Prevention and control of Pollution) Act,1974 as amended (here in after referred as the act) M/s. C L GUPTA EXPORTS LTD is hereby authorized by the board for discharge of their industrial effluent generated through ETP for irrigation/river through drain and disposal of domestic effluent through septic tant/soak pit subject to general and special conditions mentioned in the annexure ,in refrence to their foresaid application .
2. This consent is valid for the period from 09/06/2021 to 30/06/2021 .
3. In spite of the conditions and provisions mentioned in this consent order UP Pollution Control Board reserves its right and powers to reconsider/amend any or all conditions under section 27(2) of the Water (Previntion and Controt of Pollution) Act, 1974 as amended .

This consent is being issued with the permission of competent authority .

Amit
Chandra
For and on behalf of U.P. Pollution Control Board
Chief Environment Officer

Enclosed : As above
(condition of consent):

Copy to: Regional Officer Bijnore to ensure the compliance of the conditions imposed in the consent order.

Amit
Chandra
Chief Environment Officer

U.P. POLLUTION CONTROL BOARD, LUCKNOW

Annexure to Consent issued to M/s.C L GUPTA EXPORTS LTD vide

Consent Order No. 12436211/ Water

Dated : 18/06/2021

CONDITIONS OF CONSENT

1. This consent is valid only for the approved production capacity of As per Specific Condition number 1.
2. The quantity of maximum daily effluent discharge should not be more than the following :

Effluent Discharge Details			
S.No	Kind of Effluent	Maximum daily discharge, KL/day	Treatment facility and discharge point
1	Domestic	175KLD	STP
2	Industrial	ZLD	ETP

3. Arrangement should be made for collection of water used in process and domestic effluent separately in closed water supply system. The treated domestic and industrial effluent if discharged outside the premises, if meets at the end of final discharge point, arrangement should be made for measurement of effluent and for collecting its sample. Except the effluent informed in the application for consent no other effluent should enter in the said arrangements for collection of effluent. It should also be ensured that domestic effluent should not be discharged in storm water drain .
- 4(a) The domestic effluent should be treated in treatment plant so that the should be in conformity with the following norms dated treated effluent .

Domestic Effluent		
S.No	Parameter	Standard
1	Total Suspended Solids	100mg/l
2	BOD	30mg/l
3	COD	250mg/l
4	Oil & Grease	10mg/l
5	Quantity of Discharge	175 KLD

- 4(b). The industrial effluent should be treated in treatment plant so that the treated effluent should be in conformity with the following norms. .

Industrial Effluent		
S.No	Parameter	Standard
1	Quantity of Discharge	ZLD

5. Effluent generated in all the processes, bleed water, cooling effluent and the effluent generated from washing of floor and equipments etc should be treated before its disposal with treated industrial effluent so that it should be according to the norms prescribed under The Environment (Protection) Act, 1986 or otherwise mandatory .
6. The other pollutant for which norms have not been prescribed, the same should not be more than the norms prescribed for the water used in manufacturing process of the industry .
7. The method for collecting industrial and domestic effluent and its analysis should be as per legal Indian standards and its subsequent amendments/standards prescribed under The Environment (Protection) Act, 1986.
8. The treated domestic and industrial effluent be mixed (as per the provisions of Condition No. 2) and disposed of on one disposal point. This common effluent disposal point should have arrangement for flow meter/V Notch for measuring effluent and its log book be maintained .
9. The Unit will file the renewal application at least 2 months prior to the expiry of this Order.

Specific Conditions:

1. The Consent to Operate is valid for trial operation of the unit for the production of Metal Artware-200 MT / Month, Glass Artware- 250 MT/ Month, Wood Artware 150 MT/ Month, Marble Artware-345 MT/Month, Corrugated Boxes-500 MT/Month and Thermocoal Slab-345 MT/Month. The validity of the Consent to Operate shall be till 30.06.2021.
2. Unit shall cease to operate with effect from 01.07.2021. The validity of Consent to Operate shall only be considered for extension based upon the compliance status found by the Joint Committee and also the observations, conclusions and recommendations of the committee.
3. The unit shall maintain Zero Liquid Discharge outside the premises and shall comply with the Environmental Norms for treated effluent and discharge of emission.
4. The unit shall operate and maintain the common STP of 250 KLD such that the treated sewage is as per norms prescribed norms.
5. The unit shall operate and maintain the common Effluent treatment plant of 150 KLD properly and treat the effluent as per prescribed norms. The treated effluent shall be recycled in the process and no effluent is allowed to be discharged outside the factory premises.
6. Reject of Reverse Osmosis plant shall be disposed through TSDF as per the provisions of Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules 2016.
7. Cyanide plating or use of cyanide in the process is prohibited.
8. Unit shall adopt the Cleaner Technology for Electroplating unit as prescribed by CPCB.
9. Quality of the treated effluent shall always meet the discharge norms for Electroplating units as prescribed in the Environment (Protection) Rules 1986.
10. The unit ensure installation and operation of flow meters at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electroplating, lacquering and paint booth processes and for treatment of floor washing effluent with proper and updated record books.
11. For common-ETP, the unit shall ensure installation and operation of flow meters at outlet of secondary biological treatment system, permeate of RO, MEE condensate and ATFD condensate with proper and updated record books.
12. The unit shall check pH of treated sewage and maintain it in the range of 6.5-8.5 before pumping for horticulture use and FC concentration should be brought down below 1000 MPN/100 mL.
13. Electromagnetic flow meter shall be installed at water source (Tube well) and outlet of ETP, Inlet and Outlet of STP, proper records shall be maintained of the water extracted from ground water and effluent reused in the process and used in the irrigation.
14. Unit shall ensure the compliance of NOC granted for ground water extraction under U.P Ground Water Management and Regulation Act 2019 valid till dated 07-04-2026.
15. Unit shall comply the provisions of Water (Prevention and Control of Pollution) Act 1974 as amended and Environment (Protection) Act 1986, and direction issued by Hon'ble National Green Tribunal, New Delhi dated 13.07.2017 in OA no. 200/2014 M C Mehta v/s Union of India and others.
16. Unit shall comply the provisions of Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules 2016, and regularly sent the Hazardous waste generated from the unit to TSDF for safe disposal.
17. Unit shall maintain the records of the waste sent to TSDF.
18. Unit shall install online effluent monitoring system at the outlet of ETP and ensure the connectivity to server of CPCB and UPPCB.
19. Unit shall submit treated effluent monitoring report and ground water quality monitoring report done by MoEF & CC approved laboratory within 3 months.
20. Unit shall develop Green Belt in minimum 33 percent area of Industrial Premises as per the provisions laid down in office order no. H16405/220/2018/02 dated 16-02-2018 of U.P. Pollution Control Board. The copy of said office order is available on the website of U.P. Pollution Control Board www.uppcb.com.
21. This Consent 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.

Issued with the permission of competent authority .

Amit
Chandra

For and on behalf of U.P. Pollution Control Board .

Chief Environment Officer



UTTAR PRADESH POLLUTION CONTROL BOARD

Building, No TC-12V Vibhuti Khand, Gomti Nagar, Lucknow-226010

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

CONSENT ORDER

**Ref No. - 128686/UPPCB/Bijnore(UPPCBRO)/CTO/air/JYOTIBA
PHULE NAGAR/2021**

Dated : 18/06/2021

To ,

Shri TEEVRA GUPTA
M/s C L GUPTA EXPORTS LTD
Vill- Jivai, 18 Kms Stone before Moradabad Delhi Higway Amroha (U.P),AMROHA,244302
JYOTIBA PHULE NAGAR

**Sub : -Consent under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended)
to M/s. C L GUPTA EXPORTS LTD**

Reference Application No. 12436206

Dated : 18/06/2021

1. With reference to the application for consent for emission of air pollutants from the plant of M's C L GUPTA EXPORTS LTD. under Air Act 1981. It is being authorised for said emissions, as per the standards, in environment, by the Board as per enclosed conditions .
2. This consent is valid for the period from 09/06/2021 to 30/06/2021 .
3. In spite of the conditions and provisions mentioned in this consent order UP Pollution Control Board reserves its right and powers to reconsider/amend any or all conditions under section 21 (6) of the Air (Prevention and Control of Pollution) Act, 1981 as amended.

This consent is being issued with the permission of competent authority .

Amit
Chandra

For and on behalf of U.P. Pollution Control Board

Chief Environment Officer

**Enclosed : As above
(condition of consent):**

Copy to: Regional Officer Bijnore to ensure the compliance of the conditions imposed in the consent order.

Amit
Chandra
Chief Environment Officer

U.P. Pollution Control Board

Dated : 18/06/2021

CONDITIONS OF CONSENT.

1. This consent is valid only for the approved production capacity of As per Specific Condition number I.
2. 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.
- 3(a) The maximum rate of emission of flue gas should not be more than the emission norms for the stacks.
- 3(b) Air Pollution Source Details.

Air Pollution Source Details					
S.No	Air Pollution Source	Type of Fuel	Stack No.	Parameters	Height
1	Boiler 4 TPH	Wood	01	Particulate Matter	Trema Cyclone Dust Collector and Stack Height of 30 meter from ground level.
2	Boiler of 2 TPH	Wood	02	Particulate Matter	Trema Cyclone Dust Collector and Stack Height of 30 meter from ground level.
3	Thermic Fluid Heater of 15 Lac Kcal	PNG	03	Particulate Matter	Cyclone Dust collector and stack height of 30 meter from ground level
4	Glass Furnace	PNG	04	Particulate Matter	54 Meter from Ground Level.
5	9 DG sets	Diesel	05	Particulate Matter	As per E(P)Rules 1986

- 3(c) The emissions by various stacks into the environment should be as per the norms of the Board .

Emission Quality Details Detail			
S.No	Stack No	Parameter	Standard
1	01	Particulate Matter	1200mg/NM3
2	02	Particulate Matter	1200mg/NM3
3	03	Particulate Matter	150mg/Nm3
4	04	Particulate Matter	150mg/Nm3
5	05	Particulate Matter	As per E(P)Rules 1986

4. Quantity of other pollutants should also be as per the norms prescribed by the Board/MOEF & CC for otherwise mandatory .
5. The equipment for air pollution control system and monitoring as proposed by the industry and approved by the Board should be installed in their premises itself .

6. The modification or installation in the existing pollution control equipments should be done only by prior approval of Board .
7. The operation of air pollution control system and maintenance be done in such a way that the quantity of pollutants should be in accordance with the standards prescribed by the Board/MoEF & CC/or otherwise mandatory .
8. Unit should do provisions for fugitive emissions chimney/stack as per the norms of the Board/MoEF & CC/or otherwise mandatory .
9. The unit should submit the stack emissions monitoring report within one month from issuance of consent order along with the point wise compliance report of the consent order . Further quarterly monitoring report should be submitted .

The Unit will file the renewal application at least 2 months prior to the expiry of this Order.

Specific Conditions:

1. The Consent to Operate is valid for trial operation of the unit for the production of Metal Artware-200 MT/ Month, Glass Artware- 250 MT/ Month, Wood Artware 150 MT/ Month, Marble Artware-345 MT/Month, Corrugated Boxes-500 MT/Month and Thermocoal Slab-345 MT/Month. The validity of the Consent to Operate shall be till 30.06.2021.
2. Unit shall cease to operate with effect from 01.07.2021. The validity of Consent to Operate shall only be considered for extension based upon the compliance status found by the Joint Committee and also the observations, conclusions and recommendations of the committee.
3. Operation of Air pollution control system and operation of the unit must ensure that the ambient air quality shall be as per the prescribed norms.
4. Quality of the emission should always meet the norms for Electroplating units as prescribed in the Environment (Protection) Rules 1986.
5. Height of the stack of buffing and polishing section shall be above 10 meter from the ground or 03 meters above from the hood, whichever is more.
6. Unit shall submit the ambient air quality report and stack report of the air pollution sources from laboratory authorized from MOEF & CC.
7. The unit shall maintain Zero Liquid Discharge outside the premises and shall comply with the Environmental Norms for treated effluent and discharge of emission.
8. The unit shall operate and maintain the common STP of 250 KLD such that the treated sewage is as per norms prescribed norms. unfer
9. The unit shall operate and maintain the common Effluent treatment plant of 150 KLD properly and treat the effluent as per prescribed norms. The treated effluent shall be recycled in the process and no effluent is allowed to be discharged outside the factory premises.
10. Reject of Reverse Osmosis plant shall be disposed through TSDF as per the provisions of Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules 2016.
11. Cyanide plating or use of cyanide in the process is prohibited.
12. Unit shall adopt the Cleaner Technology for Electroplating unit as prescribed by CPCB.
13. Quality of the treated effluent shall always meet the discharge norms for Electroplating units as prescribed in the Environment (Protection) Rules 1986.
14. The unit ensure installation and operation of flow meters at inlet and outlet of both Pre-ETPs i.e., for treatment of effluent generating from electroplating, lacquering and paint booth processes and for treatment of floor washing effluent with proper and updated record books.
15. For common-ETP, the unit shall ensure installation and operation of flow meters at outlet of secondary biological treatment system, permeate of RO, MBE condensate and ATFD condensate with proper and updated record books.
16. The unit shall check pH of treated sewage and maintain it in the range of 6.5-8.5 before pumping for horticulture use and FC concentration should be brought down below 1000 MPN/100 mL.
17. Electromagnetic flow meter shall be installed at water source (Tube well) and outlet of ETP. Inlet and Outlet of STP, proper records shall be maintained of the water extracted from ground water and effluent reused in the process and used in the irrigation.
18. Unit shall ensure the compliance of NOC granted for ground water extraction under U.P Ground Water Management and Regulation Act 2019 valid till dated 07-04-2026.
19. Unit shall comply the provisions of Air (Prevention and Control of Pollution) Act 1981 as amended and Environment (Protection) Act 1986, and direction issued by Hon'ble National Green Tribunal, New Delhi dated 13.07.2017 in OA no. 200/2014 M C Mehta v/s Union of India and others.
20. Unit shall comply the provisions of Hazardous and Other Waste (Management and Trans-Boundary Movement) Rules 2016, and regularly sent the Hazardous waste generated from the unit to TSDF for safe disposal.
21. Unit shall maintain the records of the waste sent to TSDF.
22. Unit shall install online effluent monitoring system at the outlet of ETP and ensure the connectivity to server of CPCB and UPPCB.
23. Unit shall submit treated effluent monitoring report and ground water quality monitoring report done by MoEF & CC approved laboratory within 3 months.
24. Unit shall develop Green Belt in minimum 33 percent area of Industrial Premises as per the provisions laid down in office order no. H16405/220/2018/02 dated 16-02-2018 of U.P. Pollution Control Board. The copy of said office order is available on the website of U.P. Pollution Control Board www.uppcb.com.
25. This Consent 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.

Issued with the permission of competent authority .

Amit
Chandra

For and on behalf of U.P. Pollution Control Board .

Chief Environment Officer

2



संक्रम संख्या-

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD

सी-7/एल-58/21

दिनांक 30/6/21
पंजीकृत

Annexure-4

सेवा में,

मैसर्स सी० एल० गुप्ता एक्सपोर्ट लिमिटेड,
ग्राम-जिवाई, 18 किलोमीटर स्टोन,
जोतीबा फूले नगर।

विषय:- बोर्ड के पत्र सं०- सं०-128687/ यू०पी०पी०सी०बी०/ बिजनौर(यू०पी०पी०सी०बी०आर०ओ०)/ सी०टी०ओ०/वॉटर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 एवं पत्र सं०-128686/ यू०पी०पी०सी०बी०/बिजनौर (यू०पी०पी०सी०बी०आर०ओ०)/सी०टी०ओ०/एयर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 द्वारा निर्गत शर्त सहमति जल एवं वायु की वैधता अवधि संशोधित किये जाने के संबंध में।

महोदय,

कृपया उपरोक्त विषयक बोर्ड के पत्र सं०-128687/ यू०पी०पी०सी०बी०/ बिजनौर(यू०पी०पी०सी०बी०आर०ओ०)/सी०टी०ओ०/वॉटर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 एवं पत्र सं०-128686/ यू०पी०पी०सी०बी०/बिजनौर (यू०पी०पी०सी०बी०आर०ओ०)/सी०टी०ओ०/एयर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 द्वारा दिनांक 30.06.2021 तक वैध शर्त सहमति जल एवं वायु की शर्त संख्या 2 निम्नवत् अधिरोपित की गई है-

"2. Unit shall cease to operate with effect from 01.07.2021. The validity of Consent to Operate shall only be considered for extension based upon the compliance status found by the Joint Committee and also the observations, conclusions and recommendations of the committee."

केन्द्रीय प्रदूषण नियंत्रण बोर्ड के ई-मेल दिनांक 23.06.2021 माननीय एन.जी.टी विचाराधीन ओ०ए० संख्या 220/2019 आदिल अंसारी बनाम सी०एल० गुप्ता एवं अन्य में पारित आदेश दिनांक 04.02.2021 के अनुपालन में उद्योग का संयुक्त निरीक्षण केन्द्रीय प्रदूषण नियंत्रण बोर्ड, आई.आई.टी. रुढ़की एवं उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड द्वारा दिनांक 30.06.2021 से 02.07.2021 के मध्य किया जाना प्रस्तावित है।

उक्त को दृष्टिगत रखते हुए सक्षम अधिकारी के अनुमोदनोपरान्त उद्योग के पक्ष में बोर्ड पत्र सं०-128687/ यू०पी०पी०सी०बी०/ बिजनौर(यू०पी०पी०सी०बी०आर०ओ०)/सी०टी०ओ०/वॉटर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 द्वारा जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम 1974 की धारा 25/26 के अन्तर्गत निर्गत शर्त सहमति जल एवं पत्र सं०-128686/ यू०पी०पी०सी०बी०/बिजनौर(यू०पी०पी०सी०बी०आर०ओ०)/ सी०टी०ओ०/एयर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 द्वारा वायु (प्रदूषण निवारण तथा नियंत्रण) अधिनियम 1981 की धारा 21/22 के अन्तर्गत निर्गत शर्त सहमति वायु की वैधता 02.07.2021 तक संशोधित करते हुए सहमति जल एवं सहमति वायु की शर्त संख्या 2 निम्नानुसार संशोधित किया जाता है-

...2/-

(2)

Specific Conditions:

"2. Unit shall cease to operate with effect from 03.07.2021. The validity of Consent to Operate shall only be considered for extension based upon the compliance status found by the Joint Committee and also the observations, conclusions and recommendations of the committee."

बोर्ड के पत्र सं०- सं०-128687/यू०पी०पी०सी०बी०/बिजनौर(यू०पी०पी०सी०बी०आर०ओ०)/सी०टी०ओ०/वॉटर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 एवं पत्र सं०-128686/यू०पी०पी०सी०बी०/बिजनौर (यू०पी०पी०सी०बी०आर०ओ०)/सी०टी०ओ०/एयर/जोतीबा फूले नगर/2021 दिनांक 18.06.2021 द्वारा निर्गत सशर्त सहमति जल एवं वायु की अन्य समस्त शर्तें यथावत् रहेगी। आपको निर्देशित किया जाता है कि बोर्ड द्वारा निर्गत सशर्त सहमति जल एवं वायु में अधिरोपित शर्तों एवं उक्त निर्देशों का अक्षरसः अनुपालन सुनिश्चित करे।

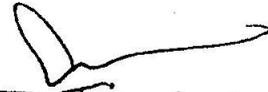
भवदीय



(अमित चन्द्रा)

मुख्य पर्यावरण अधिकारी, वृत्त-7

प्रतिलिपि : क्षेत्रीय अधिकारी उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड बिजनौर को आवश्यक कार्यवाही हेतु प्रेषित ।



मुख्य पर्यावरण अधिकारी, वृत्त-7



FORM 1

(See rule 7 of the E (P) Rules, 1986)

Notice of intention to have sample analyzed

To,

CL Gupta Export Ltd.
Amroha (UP)

Take this notice that it is intended to have analyzed the samples of ...S.P.,...E.P.,...Process

Sections which has been taken today, the 30 June & 1st July
day of June & July 2021 from M/S CL Gupta Export Ltd
Amroha

(Name and designation of the person who takes the sample).

Ms. Reena Satavan s'kam (CPCB)
Mr. A.K. Johri (CL Gupta Export Ltd)

Locations of the place where the sample were taken.

- I STP inlet/outlet/Aeration Tank
- II Raw ETP inlet/outlet
- III Common ETP inlet/outlet/UF feed / treated water Tank
- IV Wood Section process water
- V Metal Section process water
- VI Marble Section process water
- VII Glass Section process
- VIII Borewell water - 2 Nos.
- IX Glass Section ~~Recycling plant~~ Recycling plant
- X Horticulture supply water

(Duplicate samples were given to the unit)

(SEAL)



DATE

Handwritten signature and text: 30-6-2021, A.K. Johri, A.E.E., U.P.P.O., B...

Signature: Reena Satavan 11/7/21

Name: REENA SATAVAN

Designation: S.C.D., CPCB



C.L. Gupta Exports Ltd.

18 km before Moradabad - Delhi Highway,
Vill. Jival, Amroha - 244221, (U.P.) India
CIN : U74999 DL2004 PLC 125090
GSTIN : 09AACCG0992J1ZC

Tel. : +91-591-2477000
Fax : +91-591-2477300
e-mail : mail@clgupta.com
Web : www.clgupta.com

CLG/HR-194/2020-21/140

30.01.21

The Regional Director
Central Ground Water Board
Bhujal Bhavan , North region
Sec-B, Near Ram Ram Bank
Chauraha, Sitapur Road
Lucknow -226021

Sub: Dismantalling of Borewell

Sir,

This is to continuation to our mail dated 04.11.2019. As confirmed to you over phone, we had already dismantled all the four wells long back in compliance to the orders and they are duly sealed with concrete (Photographs attached).

Thanking You
Yours faithfully
For C. L. Gupta Exports Ltd.

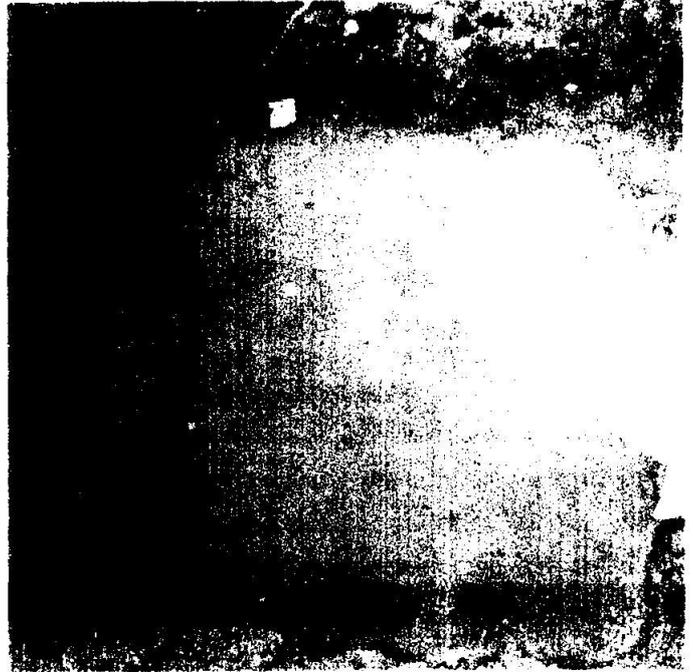
(A. V. Johri)
Gen. HR/Admin)

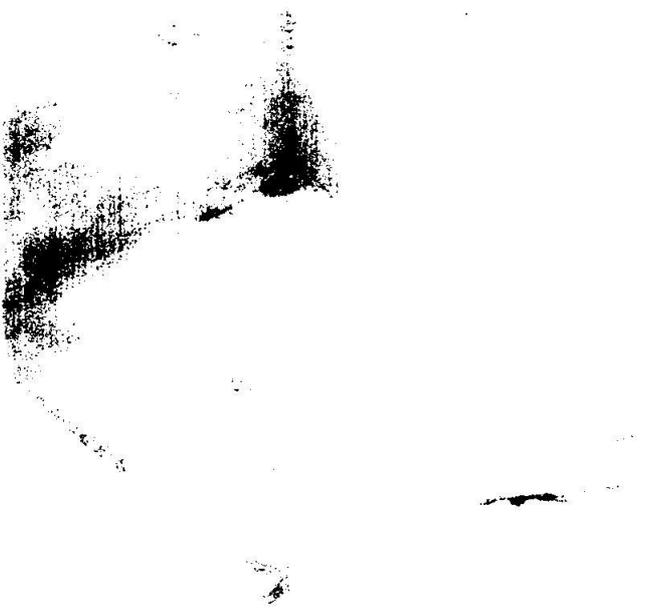
Enc:aa

Manufacturer & Exporters

Brass Art Ware • E.P.N.S. Ware • Wrought Iron Ware • Glass & Crystal Ware • Iron & Steel Ware • Wooden Furniture & Accessories

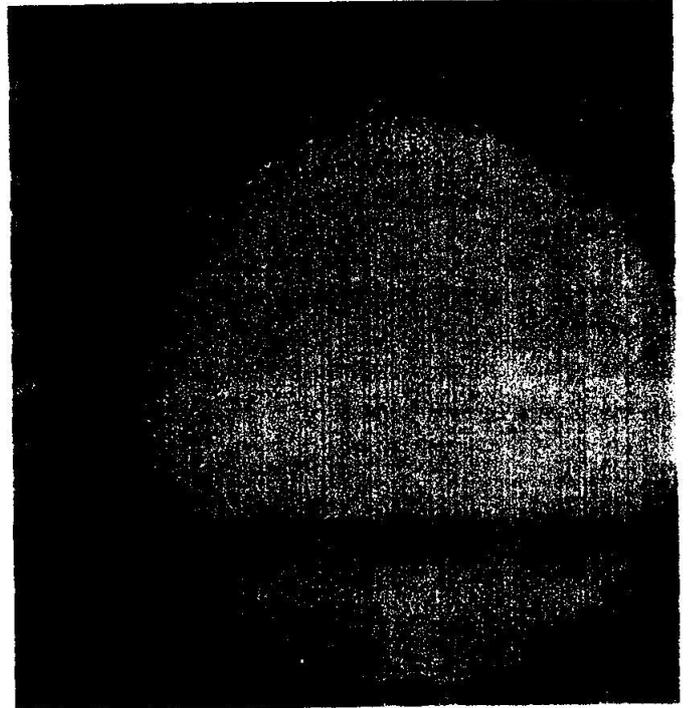
Regd. Office : DPT 337, DLF PRIME TOWER, OKHLA, NEW DELHI-110020





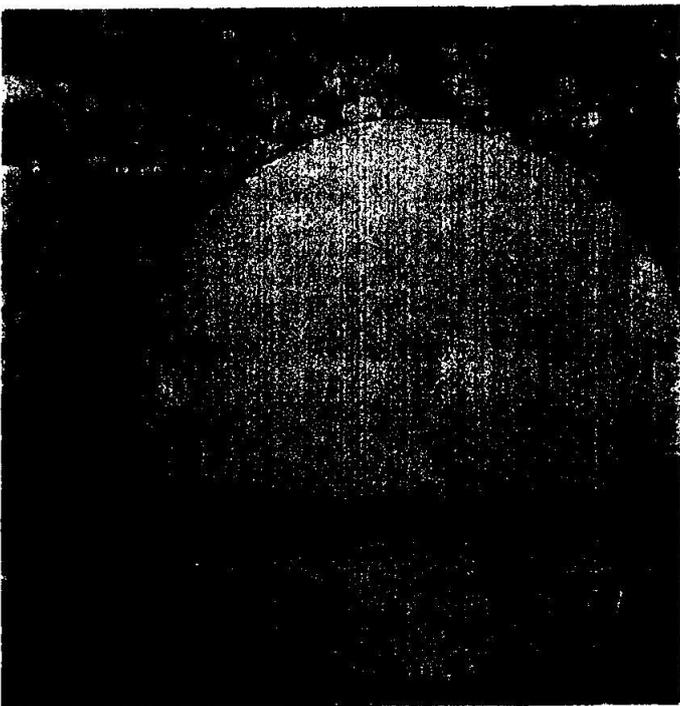
Borewells Dismantled By Concrete

05



Borewells Dismantled By Concrete

06



AK Johri

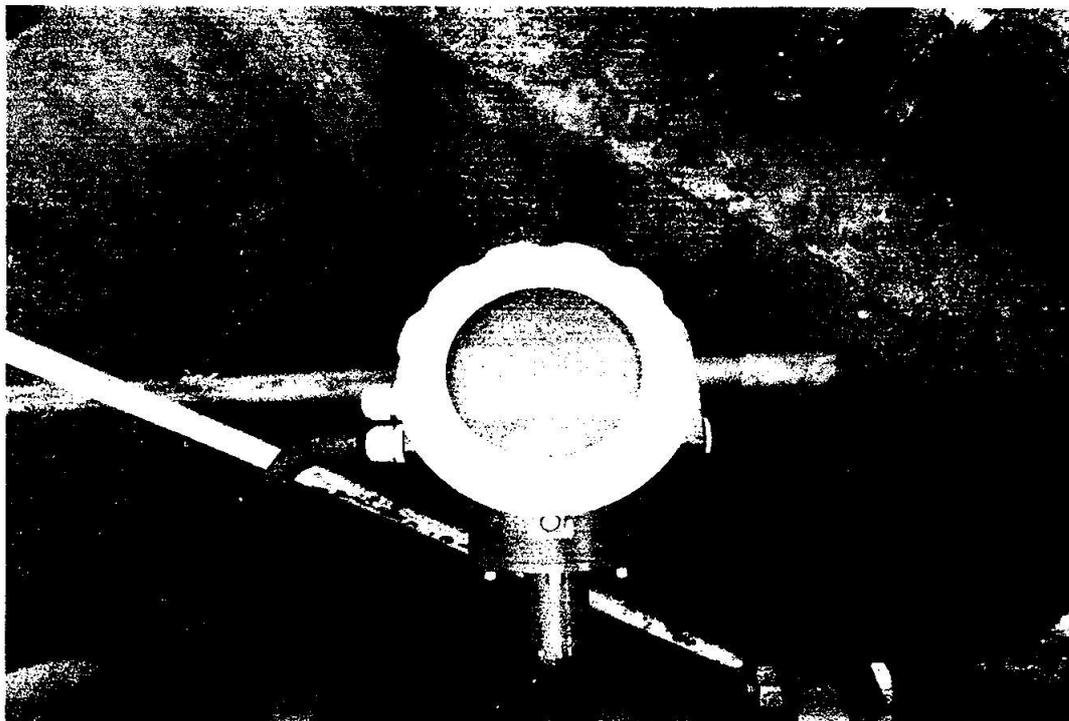
From: AK Johri <ajajohri@clgupta.com>
Sent: Monday, November 04, 2019 4:13 PM
To: 'rdnr-cgwb@nic.in'
Subject: Documents
Attachments: Dismantal Borewell.pdf; Borewell Meters.pdf

Dear Sir,

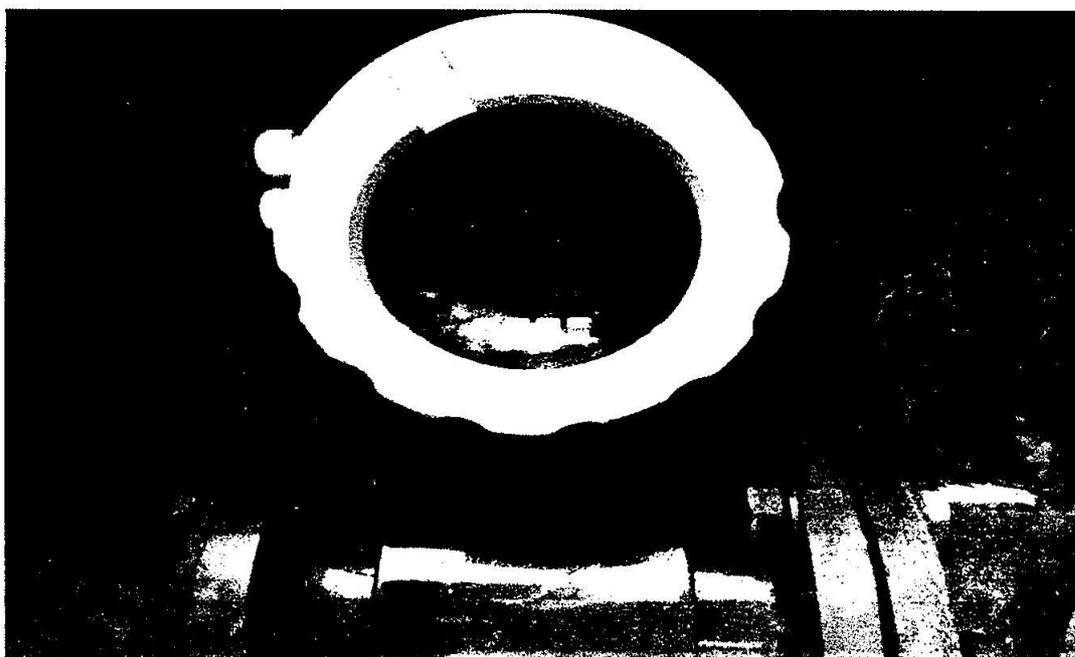
Please find the attached herewith the dismental Borewells photographs and only two operational borewell meters photographs.

Thanks & Regards

A.K. Johri
GM(HR/ADMIN)



Borewell No-3



Borewell No-4

3



सत्यमेव जयते

भारत सरकार

जल शक्ति मंत्रालय

जल ससाधन, नदी विकास

और गंगा संरक्षण विभाग

केन्द्रीय भूमि जल प्राधिकरण

Government of India

Ministry of Jal Shakti

Department of Water Resources,

River Development & Ganga Rejuvenation

Central Ground Water Authority

Annexure - 7

(भूजल निकासी हेतु अनापत्ति प्रमाण पत्र)

NO OBJECTION CERTIFICATE (NOC) FOR GROUND WATER ABSTRACTION

Project Name:	M/s C.L. Gupta Exports Ltd.		
Project Address:	18 Km Stone Before Moradabad Delhi High Way, Jiwai, Joya, Amroha, Uttar Pradesh		
Village:	Jiwai	Block:	Joya
District:	Amroha	State:	Uttar Pradesh
Pin Code:	244221		
Communication Address:	18 Km Stone Before Moradabad Delhi High Way, Jiwai, Joya, Amroha, Uttar Pradesh - 244221		
Address of CGWB Regional Office :	Central Ground Water Board Northern Region, Bhujal Bhavan, Sector-B Sitapur Road Yojna, Ram Bank Chauraha, Lucknow, Uttar Pradesh - 226021		

1. NOC No.:	CGWA/NOC/IND/REN/1/2020/5657									
2. Application No.:	21-4/1237/UP/IND/2016			3. Category:	Industry					
4. Project Status:	Existing Project			5. NOC Type:	1st Renewal					
6. Valid from:	21/12/2018			7. Valid up to:	19/12/2021					
8. Ground Water Abstraction Permitted:										
Fresh Water		Saline Water		Dewatering		Total				
m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year	m ³ /day	m ³ /year			
155.00	46500.00					155.00	46500.00			
9. Details of ground water abstraction /Dewatering structures										
Total Existing No.:3					Total Proposed No.:0					
	DW	DCB	BW	TW	MP	DW	DCB	BW	TW	MP
Abstraction Structure*	0	0	0	3	0	0	0	0	0	0
*DW- Dug Well; DCB-Dug-cum-Bore Well; BW-Bore Well; TW-Tube Well; MP-Mine Pit										
10. Quantum of ground water recharge/harvesting (m ³ /year):	106000.00									
11. Number of Piezometers (Observation wells) to be constructed/ monitored & Monitoring mechanism.	No. of Piezometers		Monitoring Mechanism							
			Manual	DWLR**	DWLR With Telemetry					
**DWLR - Digital Water Level Recorder	1		0	1	0					

(Compliance Conditions given overleaf)

**NOC VALID ONLY FOR
DOMESTIC, DRINKING AND/OR
GREENBELT PURPOSES**

Digitally signed by
NANDAKUMARAN P
Date: 2020.04.23 12:51:34 +05'30'

सदस्य (केन्द्रीय भूमि जल प्राधिकरण)
Member (CGWA)

18/11, जामनगर हाउस, मानसिंह रोड, नई दिल्ली - 110011 / 18/11, Jamnagar House, Mansingh Road, New Delhi-110011

Phone: (011) 23383561 Fax: 23382051, 23386743

Website: cgwa-noc.gov.in

पानी बचाओ - जीवन बचाओ
SAVE WATER - SAVE LIFE

Validity of this NOC shall be subject to compliance of the following mandatory conditions:

1. No additional ground water abstraction and/or de-watering structures shall be constructed for this purpose without prior approval of the Central Ground Water Authority (CGWA).
2. The proponent shall seek prior permission from CGWA for any increase in quantum of groundwater abstraction (more than that permitted in NOC for specific period).
3. All new as well as existing ground water abstraction/ de-watering structures shall be fitted with digital water flow meters by the firm at its own cost immediately on completion of their construction or grant of NOC as the case may be. In case of renewal of NOCs, all existing ground water abstraction structures shall continue to be fitted with digital water flow meters. Intimation of installation of flow meters shall be sent by the proponent to the Regional Director of CGWB within 6 months of grant of NOC. Daily ground water abstraction data shall be monitored / continue to be monitored (in case of renewal) by the firm and recorded in a log book. Details of month-wise ground water abstraction shall be submitted to the Regional Director, CGWB, once every year.
4. In case the ground water abstraction is more than 10 m³/day, monthly water level monitoring data shall be maintained and submitted annually to the Regional Office of CGWB. Wherever groundwater withdrawal is more than 500 m³/day, the firm shall install telemetry system in one of the piezometers and share USER ID and password of the telemetry system with the Regional Director, CGWB.
5. In case ground water abstraction is more than 10 m³/day, ground water quality shall be monitored once in a year (during pre- monsoon period) and the report submitted to the Regional Office, CGWB. Wherever the extraction is less than 10 m³/day, ground water quality report shall be submitted by the proponent at the time of submission of self-compliance report.
6. Ground water augmentation/harvesting measures, as stipulated in the NOC, shall be implemented (in new cases) / continue to be maintained (in case of renewal) in consultation with the concerned Regional Director, CGWB.
7. Proof of recharge/water harvesting structures constructed (photographs of structures) shall be submitted to the concerned Regional Director, CGWB within 6 months from the date of issue of NOC. The firm shall also undertake periodic maintenance of recharge/water harvesting structures at its own cost.
8. The project proponent shall take all necessary measures to prevent contamination of ground water in the premises falling which the firm shall be responsible for any consequences arising thereupon.
9. In case of industries that are likely to contaminate the ground water, no recharge measures shall be taken up by the firm inside the plant premises. The runoff generated from the rooftop shall be stored and put to beneficial use by the firm.
10. ~~The firm shall optimize water use through recycling/ reuse of waste water after proper treatment.~~
11. Wherever the NOC is for abstraction of saline water and the existing wells (s) is /are yielding fresh water, the same shall be sealed and new tubewell(s) tapping saline water zone shall be constructed within 3 months of the issuance of NOC. The firm shall also ensure safe disposal of saline residue, if any.
12. In case of mining projects, additional key wells shall be established in consultation with the Regional Director, CGWB for ground water level monitoring four (4) times a year (January, May, August and November) in core as well as buffer zones of the mine.
13. Unexpected variations in inflow of ground water into the mine pit, if any, shall be reported to the concerned Regional Director, Central Ground Water Board.
14. The firm shall report compliance of the NOC conditions online in the website (www.cgwa-noc.gov.in) within one year from the date of issue of this NOC.
15. This NOC is subject to prevailing Central/State Government rules/laws/norms or Court orders related to construction of tube well/ground water abstraction structure / recharge or conservation structure/discharge of effluents or any such matter as applicable.
16. This NOC does not absolve the proponents of their obligation / requirement to obtain other statutory and administrative clearances from appropriate authorities.
17. The issue of this NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and take decisions independently of the NOC.
18. This NOC is being issued without any prejudice to the directions of the Hon'ble NGT/court orders in cases related to ground water or any other related matters.
19. Application for renewal can be submitted online from 90 days before the expiry of NOC. Ground water withdrawal, if any, after expiry of NOC shall be illegal & liable for legal action as per provisions of Environment(Protection)Act,1986.
20. **In case of any violation of NOC conditions or illegal extraction of Ground water the firm shall be liable to pay "Environmental Compensation"/ "Penalty", if any under Sec 15 of EPA 1986 as and when decided by statutory authorities.**

(Non-compliance of the conditions mentioned above is likely to result in the cancellation of NOC and legal action against the proponent.)



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 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: NOC019504

VALID UP TO : 07/04/2026

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

Registration No.: 202104000033

Name of the Owner	TEEVRA GUPTA	Company Name	C. L. Gupta Exports Ltd.
Designation पद	General Manager	कंपनी का नाम	
Company Address कंपनी का पता	Vill-Jivai, 18 Km Before Moradabad- Delhi Highway	Authorization Letter प्राधिकार पत्र	Download
Address of the Applicant	Vill- Jivai, NH -24 Delhi Road Amroha	Application Form Serial No.	AMRH0421NIN0017
Date of Submission	03/04/2021	Specimen Signature	
Location Particulars			
District	Amroha (J.P.Nagar)	Block	ZOYA
Plot No./Khasra No.	260	Municipality/Corporation	Joya
Ward No./Holding No.			N/A

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/04/2016		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	75.00
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.)	25.00
Date of Energization (In Case of Electric Pump)	01/04/2016		

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 1 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.

Wef 21.12.2018 as per direction of the Director Groundwater
Lucknow (copy attached)

GENERAL CONDITIONS:

- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at SL (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this authorization
- 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 as shown in item 3(k) 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 as indicated at Sl. (2) and (3) 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 / 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	Monitoring 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 (DAWLR) 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 tapped 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 off.
- Any other condition(s) that may be imposed by the concerned Authority.
- In case, any of the particulars / 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.
- Any other condition imposed by the concerned Authority.

In case, any of the particulars / 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 m³/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Fédération Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC) certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three 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 m³ /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 15 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 m³ /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

This certificate is electronically generated and does not require digital signature

जिला भूगर्भ जल प्रबन्धन परिषद, जनपद-अमरोहा से प्राप्त प्रकरणों पर निदेशालय, भूगर्भ जल विभाग, उ०प्र० का मंतव्य।

क्रम सं०	कार्यालय निदेशक, भूगर्भ जल विभाग, उत्तर प्रदेश की आवेदन प्राप्ति की तिथि	आवेदन संख्या	आवेदनकर्ता का विवरण	भूजल उपयोग का प्रकार	भूजल विकास हेतु क्षेत्र का विवरण		विकास एअर/शहरी क्षेत्र की श्रेणी (नोटिफाइड/नाना-नोटिफाइड)	केन्द्रीय भूजल प्राधिकरण द्वारा निगत एनओसी का दिनांक	केन्द्रीय भूजल प्राधिकरण द्वारा पूर्व में निगत एनओसी के केषरा की तिथि		केन्द्रीय भूजल प्राधिकरण को एनओसी के नवीनीकरण हेतु अक्षर 7 करने की तिथि	केन्द्रीय भूजल प्राधिकरण के द्वारा प्राप्त सूची के आधार पर भूगर्भ जल विभाग के मंतव्य
					जनपद	विकास/खण्ड/शहरी क्षेत्र			कब से	कब तक		
1	7/4/2021	AMRH0421NIN0017	C.L. Gupta Exports Ltd, Teevra Gupta, General Manager	Industrial	अमरोहा	विकास/शहरी क्षेत्र	Notified	CGWA/NOC/2016/23 80. Dated-27.12.2016	21-12-2016	20-12-2018	8/12/2018	दिनांक 20.12.2018 से नवीनीकरण हेतु सतुष्टि) नवीनीकरण अनुमति की शेषमा 05 वर्ष होगी।


 (श्री.के.के. जैन)
 निदेशक।



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

Form 8 (C)

**AUTHORIZATION/ NO-OBJECTION CERTIFICATE FOR SINKING OF NEW 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:

VALID UP TO : 07/04/2026

Name of the Applicant	TEEVRA GUPTA	0	
Address of the Applicant:	Vill- Jivai, NH -24 Delhi Road Amroha		
Company Name:	C. L. Gupta Exports Ltd.	Company Address	Vill-Jivai, 18 Km Before Moradabad-Delhi Highway
Serial No. of Application Form	AMRH0421NIN0017	Date of Submission	03/04/2021
Specimen Signature of the User:			

Location particulars:

District	Amroha (J.P.Nagar)	Block	ZOYA
J.L. No		Plot No.	260
Municipality/Corporation	Joya	Ward No.	N/A
Holding No.			N/A
Rate of Withdrawal (m ³ /hr.)	25.00	Date of Energization (In Case of Electric Pump)	01/04/2016

Particulars of the Proposed Well and Pumping Device:

Type of the Well	Tube Well/Boring	Purpose of the Well	Industrial
Assembly Size (For Tube Well)	0.00	Approx. Strainer Length (For Tube Well)	0.00
Diameter (For Dug Well)	0.00	Type of Pump to be Used:	Submersible
H.P. of the Pump:	15.00	Operational Device	Electric Motor
Maximum Allowable Rate of Withdrawal (m ³ /hr.):	25.00	Maximum Allowable Running Hours Per Day:	10.00

Maximum Allowable Annual Extraction of Ground Water:

75000

This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at SI. (2) for extraction of ground water at a rate not exceeding that as shown at SI. (3j), for Running Hours 1 day as shown at SI. (3k), and for maximum allowable annual extraction of ground water as shown at SI. (3k) and is valid subject to the observance of the conditions stated overleaf.

Place:

Date:

Yours Faithfully,
Signature of the Issuing Authority
and Designation

GENERAL CONDITIONS

- In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- No change of location, design, rate of withdrawal and pumping device in respect of the proposed well as indicated at SL (2) and (3) of this certificate shall be made without prior permission of the Competent Authority. Any deviation in this regard shall lead to cancellation of this authorization
- 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 as shown in item 3(k) 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 as indicated at SL (2) and (3) 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	Monitoring Mechanism	
			Manual	DWLR with Telemet.
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 off.
- 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.
- Any other condition 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 m³/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) certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be required to reduce their ground water use by at least 20% over the next three 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 m³

- /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 15 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 m³ /day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc

This NOC is not authorized by any Official. This should only be used for Preview purpose.

यह अनापत्ति प्रमाणपत्र किसी प्राधिकारी द्वारा प्रमाणित नहीं है। इसे मात्र पूर्ववलोकन के उद्देश्य से प्रयोग किया जाना चाहिए।



GROUND WATER DEPARTMENT

(Namami Gange & Rural Water Supply Department)

Ministry of Jal Shakti

Government of Uttar Pradesh

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL

कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)

(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]

[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details

आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	Application Number आवेदन संख्या	AMRH1120RIN0006
Name of the Applicant आवेदक का नाम	Teevra Gupta	Father's Name पिता का नाम	Anil Gupta
Date of Birth जन्मतिथि	28/08/1971	Gender लिंग	Male
Nationality राष्ट्रीयता	Indian	ID as Address Proof निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	8891-0226-6654	Uploaded Aadhaar Card अपलोड किया गया आधार कार्ड	Download

House No./Flat No./Building No. मकान सं०/फ्लैट सं०/भवन सं०		Locality/Village मुहल्ला/गाँव	C. L. Gupta & Sons Near Kathghar Kotwali
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	Rampur Road	State राज्य	Uttar Pradesh
District जनपद	Moradabad	Pin Code पिन कोड	244001
Designation पद	Director	Company Name कंपनी का नाम	C. L. Gupta Exports Ltd.
Company Address कंपनी का पता	Vill-Jivai, NH-24 Distt-Amroha	Authorization Letter प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	Block ब्लॉक	ZOYA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	Vill- Jivai, Amroha	Municipality/Municipal Corporation नगर पालिका/नगर निगम	N/A
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well कूप की निर्माण तिथि	01/04/2016	Type of Well कूप का प्रकार	Tube Well/Boring
Housing Pipe If Any यदि कोई है		No	

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer स्ट्रेनर की सामग्री	PVC	Number of Strainer(s) स्ट्रेनर की संख्या	2
---	-----	---	---

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	63.00	69.00	6.00	203.00
2	69.00	75.00	6.00	203.00

Approx. Depth of Well (In meter) कूप की अनुमानित गहराई (मीटर में)	75.00	Whether There has been Any Adverse Report Regarding Water Quality of the Well? क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?	No
--	-------	--	----

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used प्रयोग किये जाने वाले पंप का प्रकार	Submersible	Pump Capacity (In m3/hr) पंप क्षमता (m3/hr)	30.00
Horse Power (H.P.) हॉर्स पावर (एच.पी.)		15.00	
Operational Device परिचालन उपकरण	Electric Motor	Date of Energization विद्युतीकरण तिथि	01/04/2016

**Details of Utilization of Well
कूप के उपयोग का विवरण**

Purpose of the Existing Well विद्यमान कूप का उद्देश्य?	Industrial	Annual Running Hours वार्षिक उपयोग (घंटे में)	1500.00
--	------------	---	---------

Daily Running Hours 5.00
दैनिक उपयोग (घंटे में)

Whether the Water Supplied in Well Area Through Pipe Water Supply or Not? No
क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?

Please Submit Mode of Treatment of Waste Water/Effluent (For Industries)
अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)

We have ETP and STP for treatment of Waste Water equipped with U.F. and R.O.

Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not? Yes

कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं

Upload NOC

अनापत्ति प्रमाणपत्र अपलोड करें

Download

Whether Rain Water Harvesting Structure has been Constructed within the Premises? Yes
क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?

Any Other Information Which You Would Like to Furnish
कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं

We had ground water withdrawal permission of 330 KLD for Industrial and drinking domestic purposes. We applied for its renewal vide application dated 8.12.2018. Now, as per Govt. policy we applied 30 KLD for Industrial and 290 KLD for Drinking domestic purposes through letter dated 12.10.20.

Capacity of Structure, Constructed for Rain Water Harvesting (M³)
वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता
(मी^०³)

107000.00

NOC Issued By:

अनापत्ति प्रमाण पत्र (द्वारा निर्गत)

Central Ground Water Authority
केन्द्रीय भूगर्भ जल प्राधिकरण

Yes

Certificate Number CGWA/NOC
प्रमाणपत्र संख्या /2016/2380

Issue Date
निर्गमन तिथि

21/12/2016

Expiry Date 20/12/2018
अंतिम तिथि

Upload Certificate
प्रमाणपत्र अपलोड करें

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Ground Water Department Uttar Pradesh
भूगर्भ जल विभाग उत्तर प्रदेश सरकार

No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

I do hereby declare that the particulars furnished herein above are correct and true . I understand that in case any of the information and particulars is found to be incorrect at any stage of scrutiny and investigation or thereafter, my application/registration is liable to be rejected/cancelled ..

मैं एतद्वारा घोषित करता हूँ कि ऊपर दिये गए विवरण सही व सत्य हैं । मैं जानता हूँ कि यदि जांच पड़ताल के दौरान किसी भी स्तर पर उपरोक्त विवरण असत्य पाये गए तो मेरा आवेदन/रजिस्ट्रीकरण अस्वीकृत/निरस्त किए जाने योग्य होगा”

I Agree/मैं सहमत हूँ

27



C.L. Gupta Exports Ltd.

18 km before Moradabad - Delhi Highway,
Vill. Jivai, Amroha - 244221, (U.P.) India
CIN : U74999 DL2004 PLC 125090
GSTIN : 09AACCG0992J1ZC

Tel. : +91-591-2477000
Fax : +91-591-2477300
e-mail : mail@clgupta.com
Web : www.clgupta.com

CLG/HR-194/2021-22/169
The Regional Director
Central Ground Water Board
Bhujal Bhavan , North region
Sec-B, Near Ram Ram Bank
Chauraha, Sitapur Road
Lucknow -226021

3.4.21

Sub: Shifting of Piezometers

Sir,

As per recent stipulations and advice the Piezometers installed have been shifted to adequate places.

This is for your kind information please.

Thanking You
Yours faithfully
For C. L. Gupta Exports Ltd.

(A.K. Jhri)
GM (HR/Admin)

Manufacturer & Exporters

Brass Art Ware • E.P.N.S. Ware • Wrought Iron Ware • Glass & Crystal Ware • Iron & Steel Ware • Wooden Furniture & Accessories

Reqd. Office : DPT 337, DLF PRIME TOWER, OKHLA, NEW DELHI-110020

AK Johri

From: OBM Electronics Technology Co. <obm.electronics@gmail.com>
Sent: Wednesday, March 31, 2021 11:44 AM
To: AK Johri
Subject: Piezometer installation work

Dear sir,
Thanks for your cooperation.

I am reaching tomorrow morning 8AM At Miglani cinema hall rampur Road, Moradabad. Bus will drop me at 8AM.

Please book your guest house for 3 days from 1-3 April 2021, 3 days and arrange pickup from Miglani cinema hall. I have 2 bags of installation kit. Please do the needful.

Regds
GDGUPTA,
OBM ELECTRONICS TECHNOLOGY Co
Jaipur
Mob - 9314494293

29

PIEZOMETER NO.-1

DATE	GROUND WATER LEVEL (In meter)	Remark
Jan-21	17.4	
Feb-21	17.22	
Mar-21	16.38	
Apr-21	14.23	
May-21	14.33	
Jun-21	15.34	
Jul-21		
Aug-21		
Sep-21		
Oct-21		
Nov-21		
Dec-21		



PIEZOMETER NO.-2

DATE	GROUND WATER LEVEL (In meter)	Remaark
Jan-21	18.56	
Feb-21	17.39	
Mar-21	16.34	
Apr-21	14.97	
May-21	17.41	
Jun-21	18.52	
Jul-21		
Aug-21		
Sep-21		
Oct-21		
Nov-21		
Dec-21		



5



सी.एस.आई.आर.- राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसन्धान संस्थान
दिल्ली क्षेत्रीय केंद्र, ए - 93, 94, फेज -1
नारायणा औद्योगिक क्षेत्र, नई दिल्ली - 110 028, भारत
मुख्यालय: नेहरू मार्ग, नागपुर - 440020, महाराष्ट्र

**CSIR-National Environmental Engineering Research
Institute, Delhi Zonal Centre, A-93/94, Phase-I,
Naraina Industrial Area, New Delhi - 110 028, India
Headquarter: Nehru Marg, Nagpur - 440020, Maharashtra**

From:
Dr. S.K. Goyal
Chief Scientist & Head

NEERI-DZC/CLG/2021/ 26

April 16, 2021

To,
Shri A.K. Johri
GM (HR/Admn)
M/s C.L. Gupta Exports Ltd.,
18th km Stone Moradabad-Delhi Road
Amroha, UP 244221

Sub: Submission of "Water Quality Audit Report for M/s C.L. Gupta Exports Ltd., Amroha, UP"

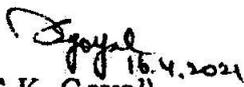
Dear Sir,

Please find attached herewith a copy of the "Water Quality Audit Report" based on the study conducted by NEERI during the month of March 2021.

Kindly acknowledge receipt of the report.

With best wishes and regards,

Yours sincerely,

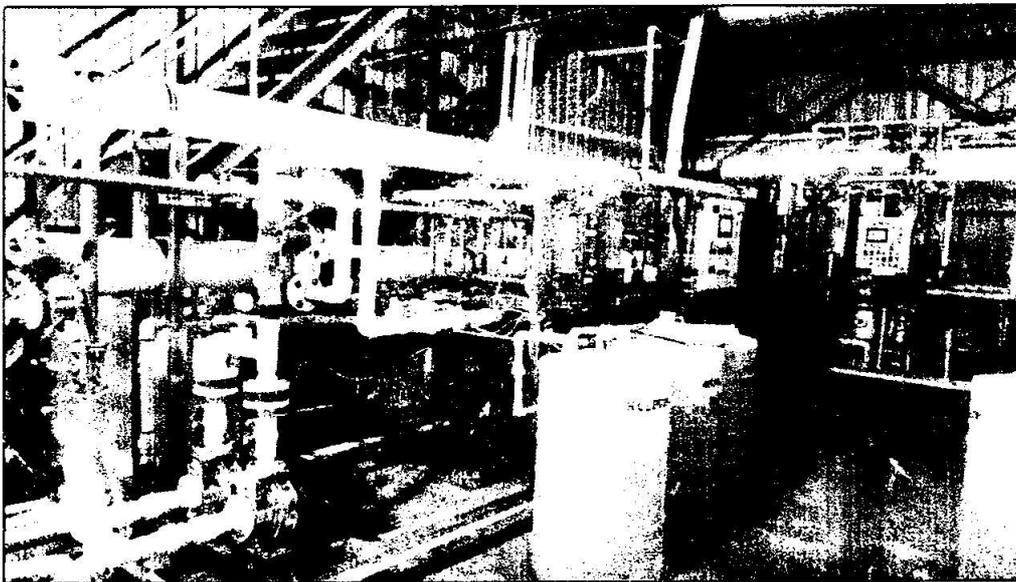

(S.K. Goyal)

Final Report

Water Quality Audit Report

For

***M/s C.L. Gupta Exports Ltd. Amroha,
Uttar Pradesh***



**CSIR-National Environmental Engineering Research
Institute (NEERI), Delhi Zonal Centre,
Naraina, New Delhi 110028**

April 2021





NEERI Study Team

Project Leaders

Dr. S.K. Goyal
*Chief Scientist & Head,
CSIR-NEERI Delhi Zonal Centre, New Delhi*

Dr. Noor A. Khan, Sr. Scientist

Team Members

Ms. Priyanka , Sr. Scientist
Mr. Deepchand Chaurasia, Project Assistant III
Mr. Sarvesh Dixit, Project Assistant II
Mr. Naveen Kumar, Project Assistant II
Ms. Anita, Project Assistant III
Ms. Neha Yadav, Project Assistant II
Dr. Renu Daulta, Research Associate I
Mr. Pardeep Chouhan, Project Assistant II

Acknowledgement

Management of M/s C.L. Gupta Exports Ltd.

Mr. A.K. Johri, GM (HR/Admn)

Mr. Brajpal Singh & Other Staff

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1.0 Introduction

M/s C.L. Gupta Exports Ltd. is mainly engaged in the production of handicrafts of metal, wood, glass and marble. The Industry is situated at the village Jivai, Amroha, 18th km stone on Moradabad-Delhi road (NH-24). There are few other manufacturing units of similar or different end products in the region.

To make-up their water requirement for different industrial processes, M/s. CLG Exports Ltd. proposed UPPCB to utilize Industrial wastewater and Sewage after proper treatment. In response, UPPCB suggested that the Industry is required to submit a feasibility report from a reputed institution regarding use of domestic treated effluent in the process. Accordingly, M/s C.L. Gupta Exports Ltd. approached CSIR-NEERI to undertake the required study. The study was taken-up by Delhi Zonal Centre of CSIR-NEERI with the objective to assess the suitability of use of treated domestic wastewater and also treated industrial effluent as the process water in the industry.

Details of various processes used in the preparation of different items/products of metal, glass, wood and marble as well as wastewater generation and treatment facility available at M/s C.L. Gupta Exports Ltd. are given in **Annexure 1**.

The process of electroplating and other Metal finishing processes are being carried out in the Industry. The Industry has a fully equipped Laboratory with well qualified staff for conducting various tests qualitatively and also quantitatively. M/s C.L. Gupta Exports Ltd. had been getting their plating baths tested quarterly in a NABL approved Laboratory and thereafter since October 19, 2020, the company has started testing in-house on day to day basis.

The industry has installed an ultra-filtration and RO system to make the ETP & STP wastewater suitable for various applications in the industry at a cost of more than Rs. 5.4 Cr. treating about 400 KLD wastewater.

The first assessment report was submitted in December 2020, and this report contains the assessment of water quantity used in various units followed by water quality analysis, ensuring sustained operation of treatment systems and making water suitable.

The report covers the following aspects:

- Status of Fresh Water: Quantity & Quality
- Status of Sewage Generation, Treatment and Treated Water Utilization: Quantity & Quality
- Status of Effluent Generation, Treatment and Treated Water Utilization: Quantity & Quality
- Overall Summary

2.0 Water Requirement, Wastewater Generation, Treatment and Utilization with Quality Characteristics

2.1 Status of Water Requirement and Consumption

The industry has water requirement mainly for the following purposes:

- For Industrial process having different divisions like metal, glass and wood section
- For the workers deployed in the industry (drinking purposes and toilet usage). About 6500 employees work on daily basis in the industry, thus having a substantial water requirement for the purpose.
- For the residential colony of the staff.
- For maintaining greenbelt and other green spaces in the industry premises
- For Fire-fighting unit etc.

The industry has taken permission from CGWB to withdraw ground water for non-industrial purpose, i.e. for the utilization by staff in the colony and the industry, for which two borewells are installed in the industry premises.

The industry uses treated wastewater generated from the industrial process and also from the treatment of sewage generated from the industry and the staff colony. For treatment of industrial effluent, an effluent treatment plant (ETP) having pre-treatment unit, equalization tank, physio-chemical units, ultra-filtration system, reverse osmosis (3 stage RO), followed by disinfection unit has been installed.

For treatment of sewage from industry units and staff colony, sewage treatment plant (STP) having primary treatment units including biological system and ultra-filtration unit followed by chlorine disinfection unit has been installed.

The treated water from the ETP and STP is utilized for the industrial purposes and other non-potable applications like toilet flushing in industry & colony, green belt & lawn maintenance, fire-fighting etc.

The industry has installed meters at all the key locations/units of water/wastewater flow. Flow data for the month of March 2021 has been collected from all the meters (Borewells, ETP units, STP units etc.) and analysed to

understand the overall water requirement, treatment and consumption in the industry.

Further, water/wastewater quality has been assessed at key locations of the industry as:

- Ground water at Borewells (# 3 & # 4)
- ETP Units (Inlet, Outlet, Final RO treated water)
- STP Units (Inlet, Outlet and Final UF treated water)

The sampling was done on March 17, 2021 by the NEERI team and samples were analysed at NEERI, Delhi laboratory for various physico-chemical, demand parameters, heavy metals, and biological parameters to ensure its suitability for the proposed end use in the industry.

Based on the flow mete readings/water consumption values, water balance for the entire plant is depicted in **Figure 2.1**. Schematic/process flow diagram of ETP and STP is shown in **Figure 2.2 and 2.3** respectively.

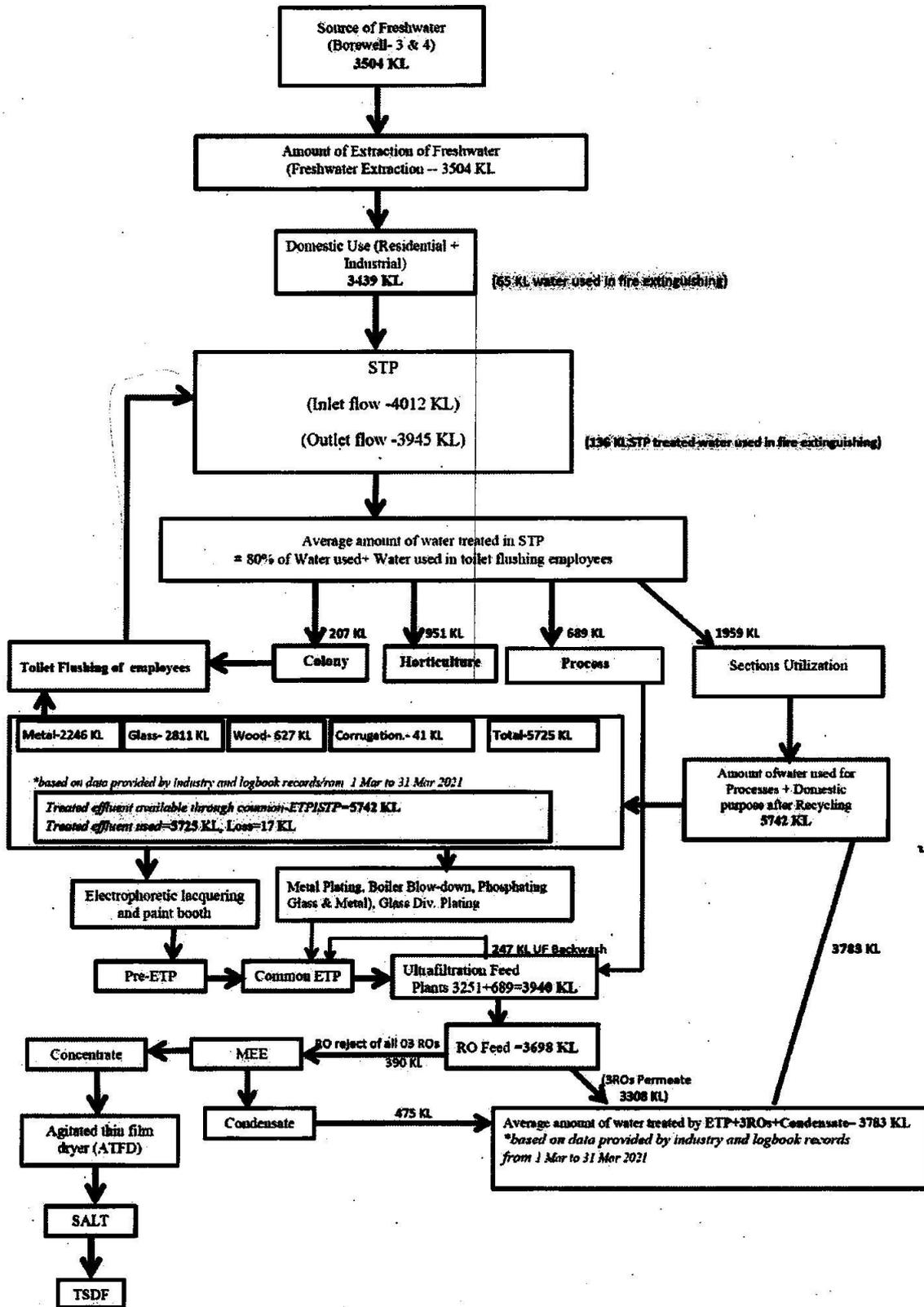


Figure 2.1: Overall Water Distribution/ Water Balance Diagram of M/s C.L. Gupta Pvt. Ltd. (Values are for March 2021)

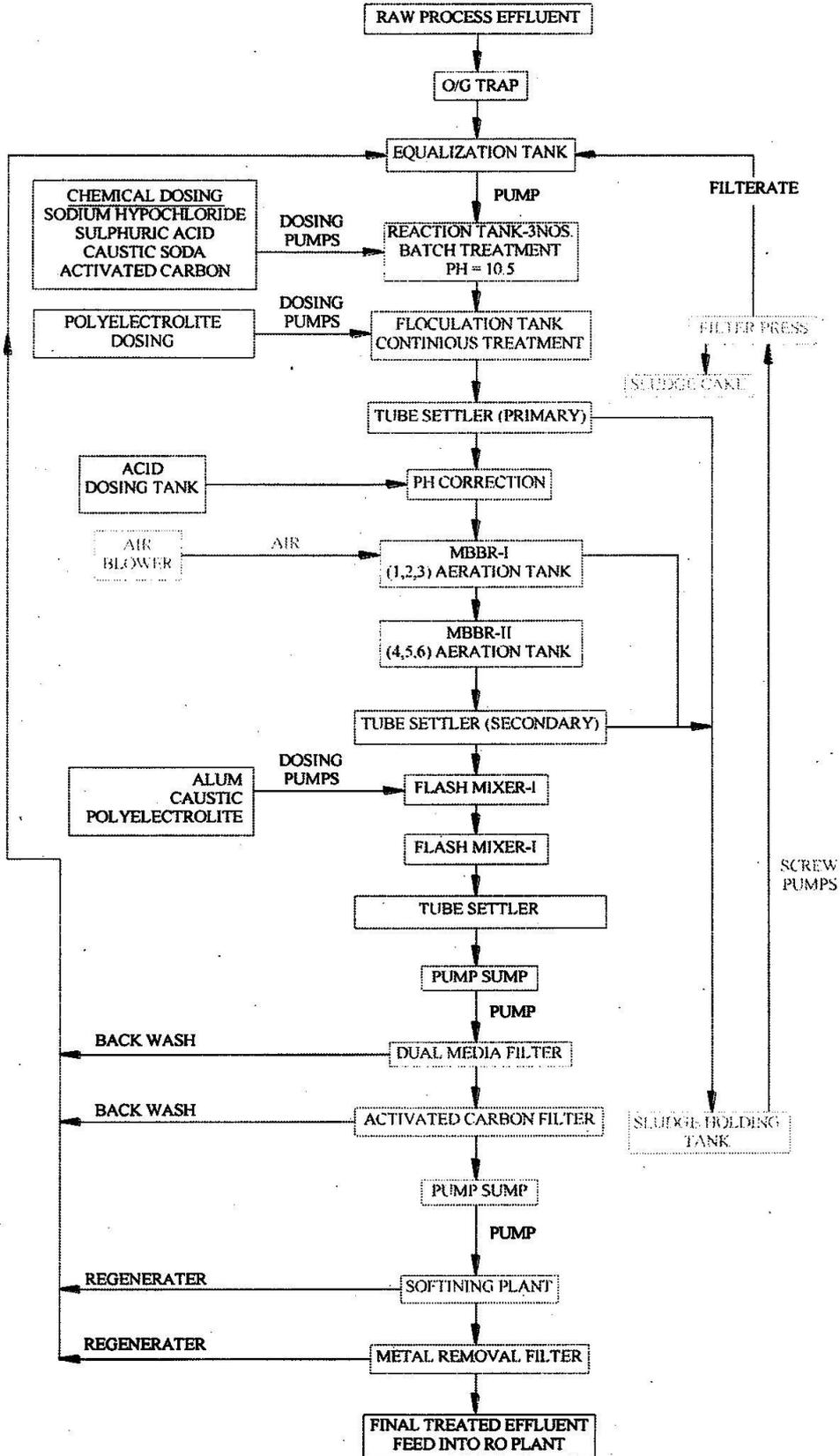


Figure 2.2: Process Flow Diagram of Effluent Treatment Plant

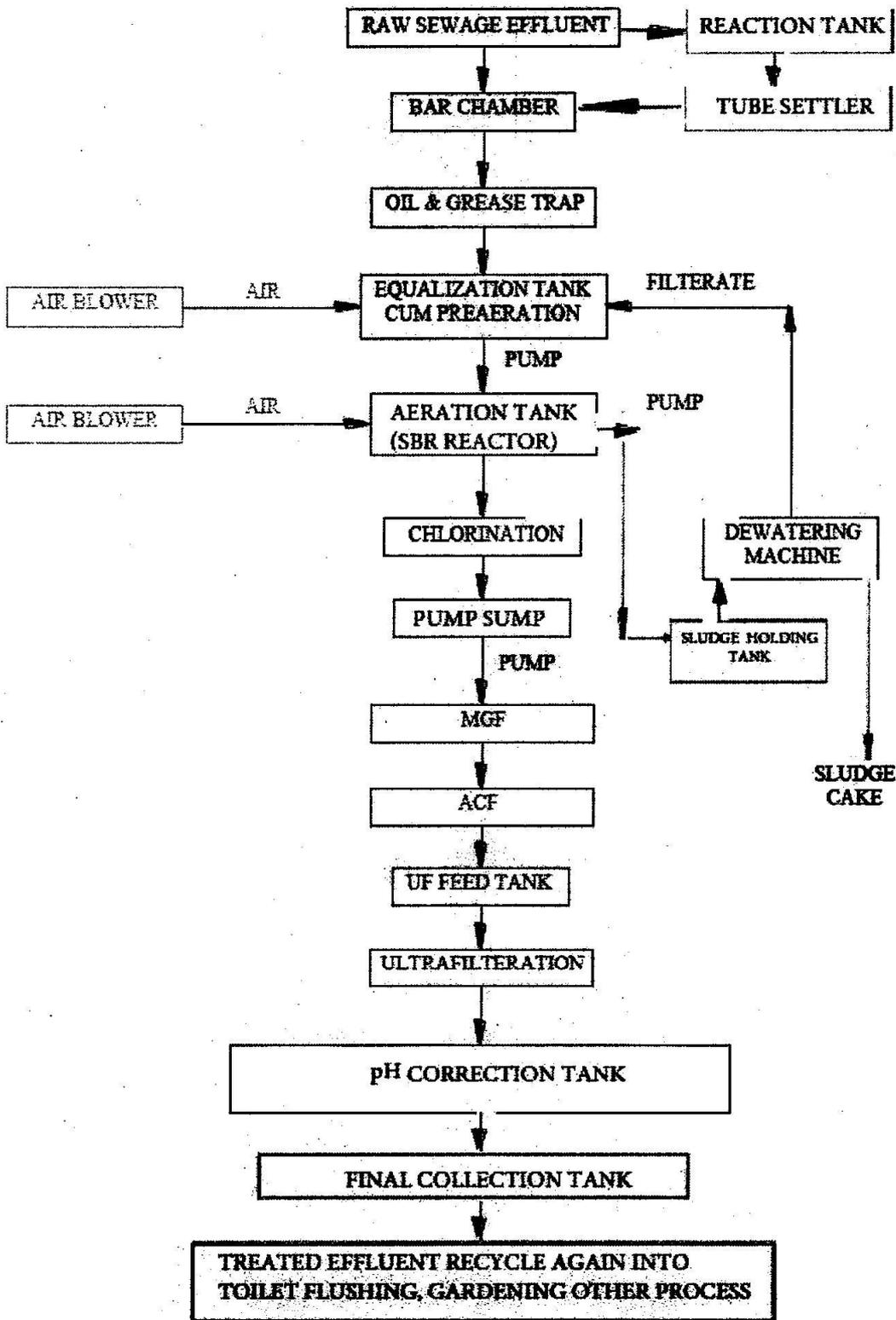


Figure 2.3: Process Flow Diagram of Sewage Treatment Plant



3.0 Observations

3.1 Fresh water withdrawal

There are two Borewells in the industry, and total ground water withdrawn during March 2021 was 3504 KL (2605 KL from Borewell # 3 and 899 KL from Borewell # 4). This freshwater is mainly used in the staff colony and for the workers in the industry. Water withdrawal details are given in **Table 3.1**.

Table 3.1: Status of Fresh Water Withdrawal during March 2021

Sr. No.	Source	Initial Reading of Flow meter, KL	Final Reading of Flow meter, KL	Total Quantity, KL
1.	Bore well # 3	32679	35284	2605
2.	Bore well # 4	13612	14511	899
	Total			3504

3.2 Industrial Water Sources and Water Consumption

The industry has installed ultra-filtration unit for treatment of STP treated water and ultra-filtration unit followed by 3 stage RO units for treatment of ETP treated water, making it suitable for the industrial purposes. The water requirement in different divisions of industry for the month of March 2021 is summarized in **Table 3.2**.

Total water requirement of 5725 KL has been met from ETP-RO (3766 KL, 65.8%) and 1959 KL from STP-UF (34.2%). Metal and Glass divisions consumed nearly 88% of the total water requirement of the industry. The wastewater from different divisions goes for treatment in the ETP, and this cycle continues.

Table 3.2: Water Requirement and Source of Water for Various Industrial Processes during March 2021

Sr. No.	Division	Fresh Water (Bore Well), KL	Recycled Water from ETP-RO, KL	Recycled Water from STP-UF, KL	Total Quantity, KL
1.	Metal Division	0	1503	743	2246
2.	Glass Division	0	2011	800	2811
3.	Wood Division	0	211	416	627
4.	Corrugation	0	41	0	41
	Total	0	3766	1959	5725

3.3 Details of Industrial Effluent Generation, Treatment and Utilization

Details of effluent generation from different divisions of the industrial processes, its treatment in ETP facility and utilization of treated water during March 2021 is summarized in Table 3.3.

Table 3.3: Details of Effluent Generation, Treatment in ETP Facility and Utilization during March 2021

Sr. No.	Description	Initial Reading of Flow meter, KL	Final Reading of Flow meter, KL	Total Quantity, KL
A.	Effluent Treatment Plant			
1.	ETP Inlet	10736	13813	3077
2.	ETP Outlet including UF Backwash (247 KL)	11040	14291	3251
	Total ETP Outlet			3251
B.	UF System (ETP Outlet+ STP Process)			
	UF Feed (ETP Outlet – 3251 + STP Process Make up Water – 689), Treated in UF – 2 Units in Parallel			3940
1.	UF-1 Inlet	2225	3212	987
2.	UF-2 Inlet	6698	9655	2957
	Total UF Inlet			3944
3.	UF-1 Outlet	1997	2884	887
4.	UF-2 Outlet	6256	9066	2810
	Total UF Outlet			3697
	Backwash (sent to ETP)			247
C.	RO Plant (3 Stage)			
1.	RO Feed (Total UF Outlet)	8256	11954	3698
2.	RO-1 Permeate	5432	7910	2478
3.	RO-2 Permeate	1372	1944	572
4.	RO-3 Permeate	592	850	258
5.	Total Permeate (2+3+4)			3308
	RO Reject			390
6.	MEE Condensate (including some steam water)	1026	1501	475
7.	Total Treated Water Available from RO Plant (5+6)			3783
D.	RO Treated Water Utilization			
1.	Metal Division	4893	6396	1503
2.	Glass Division	7061	9072	2011
3.	Wood Division	747	958	211
4.	Corrugation	41	82	41
5.	Total (1+2+3+4)			3766

Note: There may be some difference in water balance due to some evaporation losses and rounding off the water meter readings.

As per the flow meters installed at various points, the total quantity of wastewater generation, reaching at ETP was 3077 KL, whereas total treated water from ETP was 3251 KL, which included 247 KL of backwash from UF of ETP. Further, make up water (689 KL) from UF of STP process is added, thus total UF feed became 3940 KL. This ETP treated water is passed through Ultra-filtration system (2 units installed in parallel), and total of 3697 KL is obtained from UF units (about 94% recovery). This water is further treated in 3-stage RO units, wherein a 3308 KL RO treated water was obtained (about 89.5% recovery). Total rejects quantity was 390 KL (10.5%). RO rejects are sent to MEE for complete drying. About 475 KL condensate was generated in the MEE, thus total 3783 KL treated water was available for utilization for various purposes. Nearly entire quantity of ETP-RO treated water was utilized in the different divisions of the industry.

3.4 Details of Sewage Generation, Treatment and Utilization

Details of sewage generation from staff colony and used by employees in different divisions of the industrial processes, its treatment in STP facility and utilization of treated water during March 2021 is summarized in **Table 3.4**.

As per the flow meters installed at various points, the total quantity of sewage generation, reaching at STP was 4012 KL, whereas total treated water from STP (after UF) was 3945 KL (98.3% recovery). The treated water is mainly used for toilet flushing in the industry (1233 KL) and colony (207 KL), and also for boiler feed and cooling towers in the industry (726 KL). Thus, a total of 2166 KL of treated water was used in the industry and colony.

Besides, 1776 KL treated water was used for other applications as process water (689 KL), green belt (951 KL) and fire-fighting (136 KL). Thus, a total of 3942 KL treated water was utilized (almost 100% of available STP treated water) by the industry for various purposes. The industry has about 3.1 ha of green belt and about 1.7 ha of lawns area.

Table 3.4: Sewage Generation, Treatment and Utilization in STP during March 2021

Sr. No.	Description	Initial Reading of Flow meter, KL	Final Reading of Flow meter, KL	Total Quantity, KL
A.	Sewage Treatment Plant			
1.	STP Inlet	28913	32925	4012
2.	STP Outlet (after UF)	28308	32253	3945
B.	STP Treated Water Utilization			
B.1	In Industry Divisions			
1.	Metal Division	6796	7539	743*
1a.	Water used in Metal Division Utilities (Cooling Towers)	125	256	131
1b.	Water used in Metal Division Flushing			612
2.	Glass Division	5499	6299	800*
2a.	Includes *Glass Division - Boiler	449	906	457
2b.	Water used in Glass Division Utilities(Cooling Towers)	53	120	67
2c.	Water used in Glass Division Flushing			276
3.	Wood Division	3045	3461	416*
3a.	Water used in Glass Division Utilities(Cooling Towers)	72	143	71
3b.	Water used in Wood Division Flushing			345
4.	Net Water Used for Flushing in Divisions (1b + 2c + 3b)			1233
5.	Used in Colony for Flushing	198	405	207
6.	Total water returned to STP again (4 + 5)			1440
7.	Total water consumed through utilities again (1a +2a+2b+3a)			726
B.2	Other Uses (fully Consumed)			
8.	Process Water	5352	6041	689
9.	Green Belt	7266	8217	951
10.	Fire Extinguishing	3806	3942	136
11.	Total (8+9+10)			1776
	Total water used (1 to 7 + 10)			3942

Note: There may be some difference in water balance due to some evaporation losses and rounding off the water meter readings.

4.0 Water Quality Characteristics of Ground water, at STP and ETP Facility

4.1 Ground Water Quality Characteristics

Sample of ground water were collected from both the borewells and analysed for different parameters and compared with BIS-Drinking Water Quality Standards (IS 10500:2012). The results are given in **Table 4.1**.

Analysis of parameters indicate all the parameters within the permissible limits of BIS except for total coliforms for both the borewells and E.coli for Bore well #3, and shall require disinfection prior to use for drinking purpose. Difference in some of the parameters in both the bore wells water indicate different aquifers in the industry premises.

4.2 Status of ETP Facility

Samples were collected from the inlet & outlet of the ETP, followed by RO outlet and RO rejects. The results are given in **Table 4.2**. Analysis of results of RO outlet indicate all the parameters are within the drinking water quality standards. However, disinfection shall be required due to detection of some coliforms.

4.3 Status of STP Facility

Samples were collected from the inlet and outlet of STP, and also final treated water from Ultra-filtration system. The results are given in **Table 4.3**, perusal of which indicates the Outlet of Ultra-filtration unit meets drinking water quality norms (permissible limit) for all the parameters. However, further disinfection shall be required for presence of total coliforms.

4.4 Overall Summary: Fresh Water Vs Final Treated Water from STP & ETP

Comparison of ground water quality with the final treated water from ETP (post RO) and STP (post UF) is presented in **Table 4.4**, which indicates the suitability of treated water for the various purposes in the industry.

Table 4.1: Water Quality Characteristics of Ground Water (Bore Wells)

S. No.	Parameter	Bore Well # 3	Bore Well # 4	BIS-DWQS (IS 10500:2012)
A.	Physical Parameters			
1.	pH	7.5	7.7	6.5-8.5
2.	EC ($\mu\text{S}/\text{cm}$)	600	1160	-
3.	T.S.S, <i>mg/L</i>	4	4	-
4.	TDS, <i>mg/L</i>	306	558	500/2000
B.	Chemical Parameters (mg/L)			
5.	Chloride	42	127	250/1000
6.	Sulphate	7	17	200/400
7.	Fluoride	0.37	0.20	1.0/1.5
8.	Nitrate	-	-	45/NR
9.	Phosphate	0.6	0.05	-
10.	Ammonia	Nil	Nil	0.5/NR
C.	Demand Parameters (mg/L)			
11.	BOD	Nil	Nil	-
12.	COD	8.8	7.2	-
D.	Heavy Metals (mg/L)			
13.	Al	-	-	0.03/0.2
14.	Cd	BDL	BDL	0.003/NR
15.	Cr	BDL	BDL	0.05/NR
16.	Co	BDL	BDL	-
17.	Cu	0.008	BDL	0.05/1.5
18.	Fe	0.09	BDL	1.0/NR
19.	Pb	BDL	BDL	0.01/NR
20.	Mn	0.033	0.2	0.1/0.3
21.	Ni	BDL	BDL	0.02/NR
22.	Sr	0.107	0.149	-
23.	Zn	0.106	BDL	5/15
24.	CN	BDL	BDL	0.05/NR

BDL – Below Detection Limit; NR – No Relaxation

Table 4.2: Water Quality Characteristics of at ETP (March 2021)

S. No.	Parameter	ETP Inlet	ETP Outlet	RO Outlet	RO Rejects	BIS-DWQS (IS 10500:2012)
A.	Physical Parameters					
1.	pH	6.7	7.4	7.5	7.5	6.5-8.5
2.	EC (μ S/cm)	5300	6380	300	38250	-
3.	T.S.S, mg/L	126	316	6	136	-
4.	TDS, mg/L	3040	3648	288	25414	500/2000
B.	Chemical Parameters (mg/L)					
5.	Chloride	380	515	20	4478	250/1000
6.	Sulphate	975	875	3.8	7150	200/400
7.	Fluoride	14	20	0.41	85	1.0/1.5
8.	Nitrate	-	-	-	-	45/NR
9.	Phosphate	2.5	4.6	0.01	5.0	-
10.	Ammonia	9.1	17.3	0.5	93	0.5/NR
C.	Demand Parameters (mg/L)					
11.	BOD	50	NIL	NIL	NIL	-
12.	COD	320	80	NIL	540	-
D.	Heavy Metals (mg/L)					
13.	Al	-	-	-	-	0.03/0.2
14.	Cd	BDL	BDL	BDL	BDL	0.003/NR
15.	Cr	5.1	BDL	BDL	BDL	0.05/NR
16.	Co	0.006	BDL	BDL	0.02	-
17.	Cu	0.328	0.109	BDL	0.813	0.05/1.5
18.	Fe	2.6	BDL	BDL	BDL	1.0/NR
19.	Pb	0.367	0.114	BDL	0.843	0.01/NR
20.	Mn	0.226	0.019	BDL	0.34	0.1/0.3
21.	Ni	2.7	0.268	BDL	1.9	0.02/NR
22.	Sr	0.082	0.081	BDL	0.799	-
23.	Zn	4	0.006	BDL	0.073	5/15
24.	CN	BDL	BDL	BDL	BDL	0.05/NR
E.	Bacteriological Parameters (CFU/100 mL)					
25.	Total Coliform	46x10 ⁷	12 x10 ⁴	44	28 x10 ³	Nil
26.	E.Coli	320	44	NIL	54	

BDL – Below Detection Limit; NR – No Relaxation

Table 4.3: Water Quality Characteristics of STP Facility (March 2021)

S. No.	Parameter	STP Inlet	STP Outlet	UF Outlet	BIS-DWQS (IS 10500:2012)
A.	Physical Parameters				
1.	pH	7.5	6.9	7.2	6.5-8.5
2.	EC ($\mu\text{S}/\text{cm}$)	2230	1830	2010	-
3.	T.S.S, mg/L	790	4	20	-
4.	TDS, mg/L	1465	1292	980	500/2000
B.	Chemical Parameters (mg/L)				
5.	Chloride	207	211	245	250/1000
6.	Sulphate	55	53	53	200/400
7.	Fluoride	1.3	1.1	1.2	1.0/1.5
8.	Nitrate	-	-	-	45/NR
9.	Phosphate	4.4	4.6	5.2	-
10.	Ammonia	56	1.2	2.5	0.5/NR
C.	Demand Parameters (mg/L)				
11.	BOD	370	<5	NIL	-
12.	COD	736	40	12	-
D.	Heavy Metals (mg/L)				
13.	Al	-	-	-	0.03/0.2
14.	Cd	BDL	BDL	BDL	0.003/NR
15.	Cr	16	BDL	BDL	0.05/NR
16.	Co	0.034	BDL	BDL	-
17.	Cu	4.6	0.038	0.004	0.05/1.5
18.	Fe	31	BDL	BDL	1.0/NR
19.	Pb	3.7	0.016	BDL	0.01/NR
20.	Mn	1.3	0.147	0.121	0.1/0.3
21.	Ni	6.3	0.173	0.013	0.02/NR
22.	Sr	0.363	0.113	0.099	-
23.	Zn	8.9	0.131	0.053	5/15
24.	CN	BDL	BDL	BDL	0.05/NR
E.	Bacteriological Parameters (CFU/100 mL)				
25.	Total Coliform	18×10^8	74×10^3	30	Nil
26.	E.Coli	46×10^6	16×10^2	NIL	

BDL – Below Detection Limit; NR – No Relaxation

Table 4.4: Water Quality Characteristics of Fresh Water, Final Treated Water from ETP and STP (March 2021)

S. No.	Parameter	Ground Water from Bore well		Final Treated Water from		BIS-DWQS (IS 10500:2012)
		BW-1	BW-2	ETP-RO	STP-UF	
A.	Physical Parameters					
1.	pH	7.5	7.7	7.5	7.2	6.5-8.5
2.	EC ($\mu\text{S}/\text{cm}$)	600	1160	300	2010	-
3.	T.S.S, mg/L	4	4	6	20	-
4.	TDS, mg/L	306	558	288	980	500/2000
B.	Chemical Parameters (mg/L)					
5.	Chloride	42	127	20	245	250/1000
6.	Sulphate	7	17	3.8	53	200/400
7.	Fluoride	0.37	0.20	0.41	1.2	1.0/1.5
8.	Nitrate	-	-	-	-	45/NR
9.	Phosphate	0.6	0.05	0.01	5.2	-
10.	Ammonia	Nil	Nil	0.5	2.5	0.5/NR
C.	Demand Parameters (mg/L)					
11.	BOD	Nil	Nil	Nil	Nil	-
12.	COD	8.8	7.2	Nil	12	-
D.	Heavy Metals (mg/L)					
13.	Al	-	-	-	-	0.03/0.2
14.	Cd	BDL	BDL	BDL	BDL	0.003/NR
15.	Cr	BDL	BDL	BDL	BDL	0.05/NR
16.	Co	BDL	BDL	BDL	BDL	-
17.	Cu	0.008	BDL	BDL	0.004	0.05/1.5
18.	Fe	0.09	BDL	BDL	BDL	1.0/NR
19.	Pb	BDL	BDL	BDL	BDL	0.01/NR
20.	Mn	0.033	0.2	BDL	0.121	0.1/0.3
21.	Ni	BDL	BDL	BDL	0.013	0.02/NR
22.	Sr	0.107	0.149	BDL	0.099	-
23.	Zn	0.106	BDL	BDL	0.053	5/15
24.	CN	BDL	BDL	BDL	BDL	0.5/NR
E.	Bacteriological Parameters (CFU/100 mL)					
25.	Total Coliform			44	38	Nil
26.	E.Coli			NIL	NIL	

BIS Drinking Water Quality Standards (10500:2012); NR – No Relaxation

5.0 Conclusion and Recommendations

The study conducted at M/s C.L. Gupta Exports Ltd. can be summarized as:

- Analysis of results indicate that M/s C.L. Gupta Exports Ltd. has adequate facility/ system for the treatment of process effluent and sewage separately. Thus making the treated water suitable for use in various processes of the industry.
- Overall analysis of samples indicates that the treated water from RO outlet of ETP and from the outlet of Ultra-filtration (UF) unit of STP can be used for different processes in the industry. Further, strict monitoring of treated water is required on regular basis to ensure continued desired quality of treated water.
- Installation of reverse osmosis (RO) unit in ETP and ultra-filtration (UF) unit in STP has helped in achieving the desired quality of water. Analysis of treated water also confirms the suitability of use of treated water for the industrial purpose. Thereby meeting the fresh water requirement of M/s C.L. Gupta Exports Ltd., as the region is become water scarce for ground water withdrawal.
- It is suggested to optimise the use of chemicals used in treatment process units in the ETP as well STP. This will help not only result in reduction of chemical use, but also reduce hazardous sludge/waste generation and expected to improve the quality of treated water further.
- It is suggested to strengthen laboratory facilities at the industry with more infrastructure and technically qualified manpower.
- Further, detailed Audit study including analysis of final treated water should be carried out 2-3 times in a year, ensuring the sustained performance of the treatment facility, and suggest modifications required, if any.

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Annexures

A. Processes Details at M/s C.L. Gupta Exports Pvt. Ltd.

The company's manufacturing details wrt Metal, Glass, Wood and Marble items are as under:

Wooden Art wares

Timber is purchased in the shape of logs. The logs are cut into planks of desired sizes in the sawing section. These pieces are properly treated in a process known as chemical Treatment process. The treated timber is adequately seasoned in seasoning plant. The seasoned wood is sent to machine shop for suitable sizes/Machined Pieces. Thereafter such pieces are taken into the fabrication section for conversion into required designs. These fabricated pieces are sent to the finishing department for final finish. There-after these finally finished pieces are checked as per specifications and sent to packing department where these are packed for dispatches.

Metal Art wares

Iron Artwares: - Square and round rods of different sizes are purchased from the market. These are cut into proper sizes and after conversion into the different designs they are sent for phosphating. For phosphating Hydro chloric Acid, Casustic Soda, Phosphating chemicals, and calcide powders are mainly used. After phosphating these pieces are sent to the Electroplating/ Powder coating/ antique finishing / Electrophoretic department for finishing. These finished items are suitably packed for export.

Metal Artwares: - Brass, Copper, Aluminium and zinc purchased from the market are the major raw materials. These casted/ sheet products are cleaned and machined with various tools and machines and are smoothened. Then their cost addition is done by imparting different finishes like electrophoretic, electro plating, lacquering, powder coating and antiquing etc. Brass, Copper and Aluminium are procured mostly in form of sheets and wires. Sheets are further processed by forming and piercing etc. As regards Zinc ingots are made to shape by melting/ moulding/ casting.

MARBLE WARES: - Table tops, boxes, slates, and bates are new additions to add up in our variety of products. Marble flats are procured and then are shaped and designed as per requirements.

Glass & Crystal Art wares

Glass tank furnace is a conventional melting furnace for glass articles like table wares of different shapes & designs, bottles, tumblers etc. This is an End-Fired regenerative furnace with

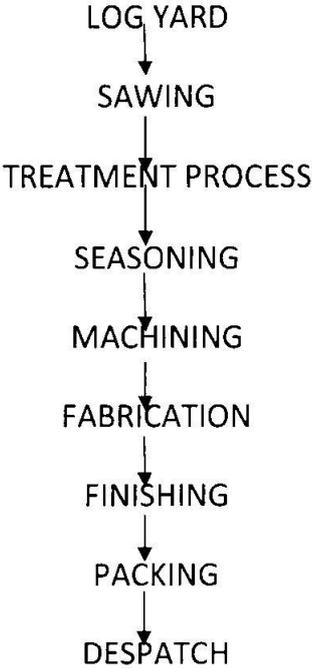
four to six working-bays (with a distributor in between) of which three are currently under operation. The melter is fired for smelting and refining purpose whereas the distributor is for conditioning and refining purpose. The working bays and the distributors are fired by Propane / PNG Gas for a better control of temperature. The major ingredients like Quartz, Soda Ash, Calcite etc., and the minor ingredients like potassium Nitrate, Sodium Sulphate etc. are mixed in appropriate proportion in a Pan-Type mixture.

The mix and the broken glass (Technically termed as cullet) received from various inspection points and process rejections are put into the trolleys. These trolleys are lifted to the Furnace Topper by a hoist and thus charged periodically with the help of a vibrator and a mechanical pusher into the furnace through the dog house (i.e. entry point) to maintain a constant molten glass level inside the furnace. The melting at about 1450-1500 C is a very complex set of reactions. As the temperature increases variety of Physico-chemical reactions occur like Evaporation of free water, Formation of loss of gaseous constituents, formation of liquid phases where all major constituents are transferred into complex silicates. This molten form of glass is refined in the distributors as stated above at 1250-1260° C and distributed to different working bays. Mouth blowers collect the glass from the working bay by a pipe and then blow in the mould to attain full size & shape of the article. While blowing with pipe, precautions are taken that the surfaces are uniform and polished. Moulds have a coating of red lead & carbon to avoid metal contact. Sometimes they are pressed by a mechanical device having a die and plunger fitted with the pressing machine.

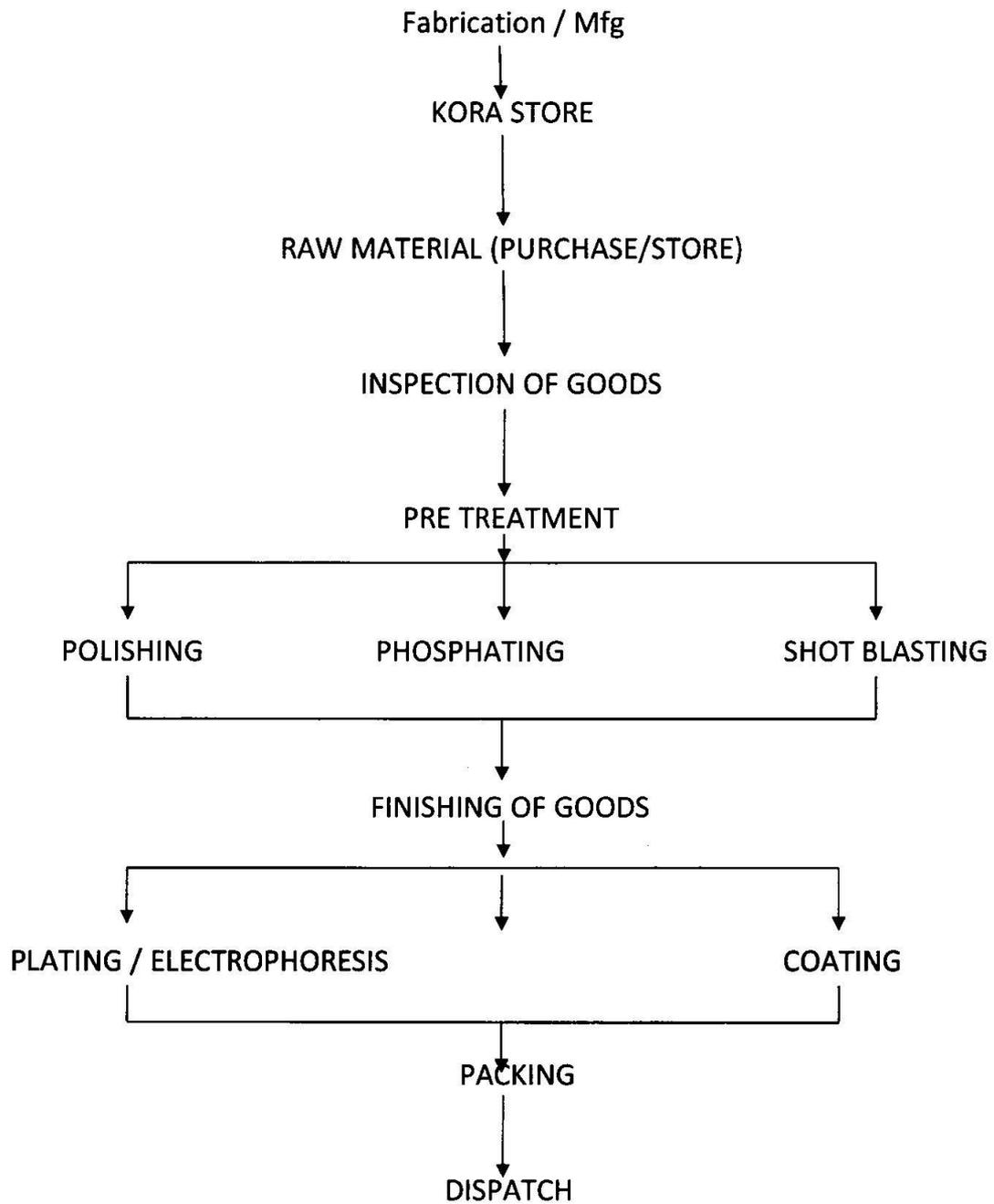
The blown and pressed items are quickly transferred to a chamber called Annealing Lehr for removing the stresses and strains developed in these articles during the process. This is called Annealing and the temperature is maintained at about 530 ° C (fired by H.S.D.) in the annealing zone and structure checked under polars scope. The exit point of the Lehr is kept at ambient temperature. The articles are inspected for physical defects and then transferred to wire cutting where the extra glass is cut off with the help of electrically heated filaments. The edges are grounded by the grinding wheel and itched if required before sending to the packing department. For colored glass we make the clear glass and then painted by mixture of Dye and special quality of lacquer. The items are then baked at around 150 ° C and the paint so generated passes all necessary tests including water repellence test. The lacquer used is a special Glass-clear.

Production Flow Charts

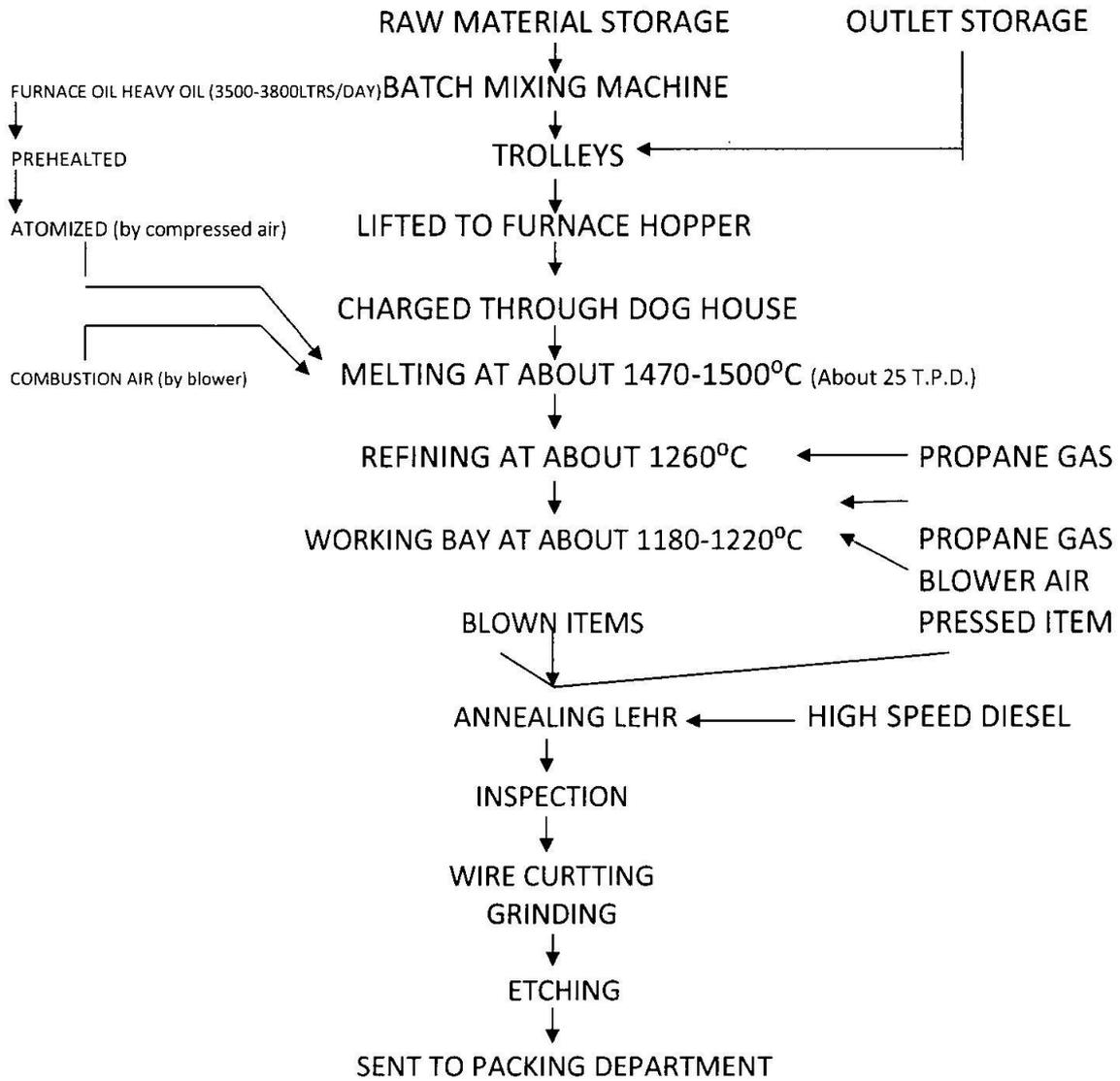
1. For Wooden Art wares



2. For Metal Art Wares



3. For Glass Art Wares



4. Marble Wares

Sorting of slabs as per Texture / Streaks

↓
Sizing

↓
Shaping

↓
Grinding/Polishing

B. Wastewater Generation and Treatment Facility

Total effluents are broadly defined as: STP and ETP.

B.1 Details of Common Sewage Treatment Plant (STP)-

1. Names of Area from Which this STP receives raw effluent-Kitchen, Toilets & Bathrooms
2. Design Capacity of STP – 10.5 KL/hour or 250 KLD
3. Name of Chemical Use in STP- Urea, D.A.P., Effective microorganism, Sodium Hypochlorite.
4. Treatment Scheme/Technology and Operational status of each unit- SBR (Sequence Batch Reactor)

Sewage Treatment Facility-

Primary Treatment-

- Primary treatment of metal division sewage effluent by dosing alum & polyelectrolyte to remove the suspended load added due to buffing hand washing. The suspended load in the form of sludge slurry is separated from tube settler (Clarifier). The sludge slurry from tube settler is transferred to Sludge holding tank and then through sludge dewatering machine as explained in flow diagram.
- Removal of grit, suspended solids from coarse & fine screen is done to prevent the submersible pump use for feed effluent into sequence batch reactor.
- Removal of oil & grease manually from oil & grease chamber, so that oil as grease will not enter into equalization tank.

Biological Treatment-

Sequence Batch Reactor-

The Sequence Batch Reactor provides highest treatment efficiency possible in a single step biological process.

The Sequence Batch Reactor System is operated in a batch mode in sequence which eliminates all inefficiencies of the continuous processes. A batch reactor is a perfect reactor, which ensures 100% treatment.

Operation Sequence Explains as Under:

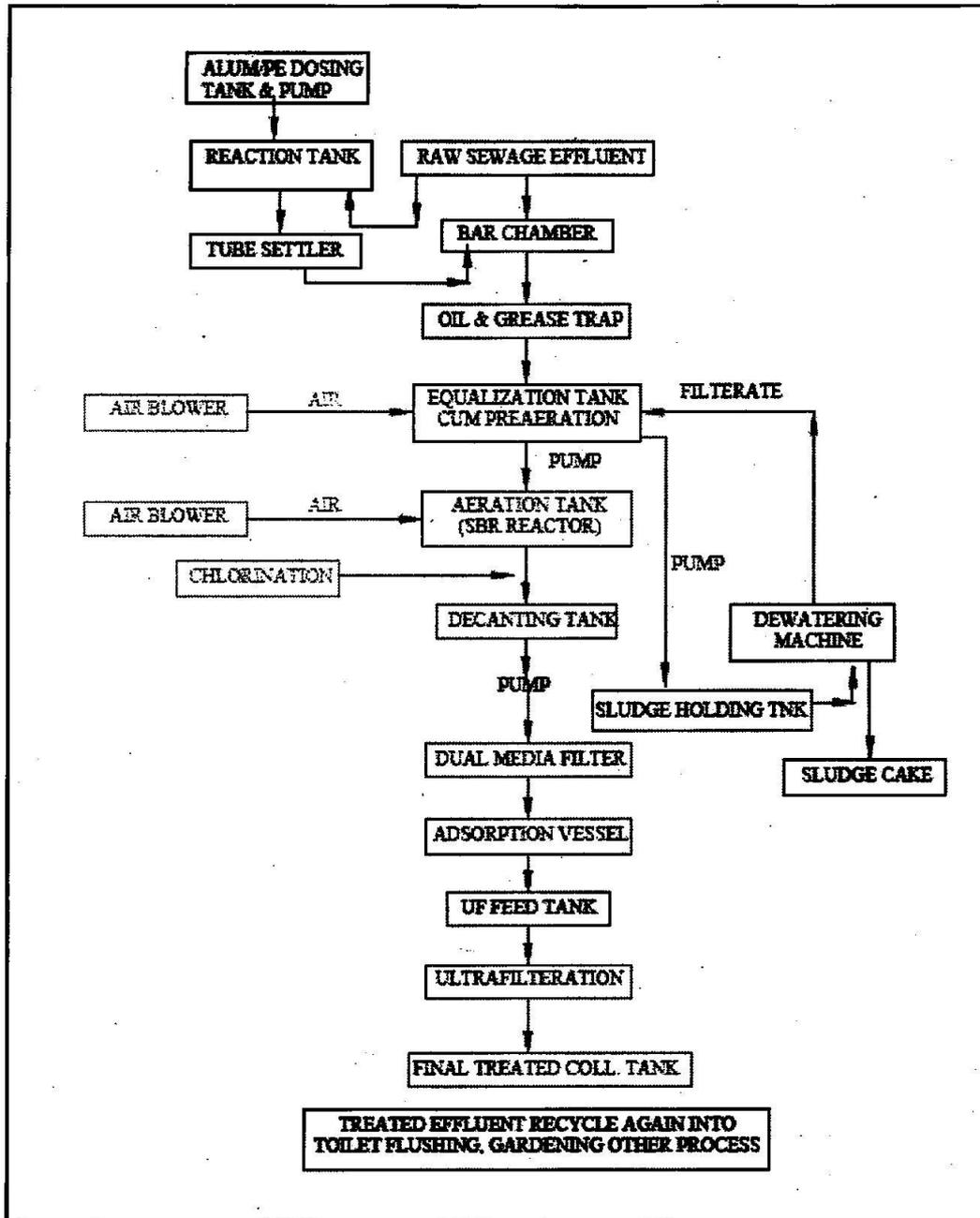
A basic cycle sequence

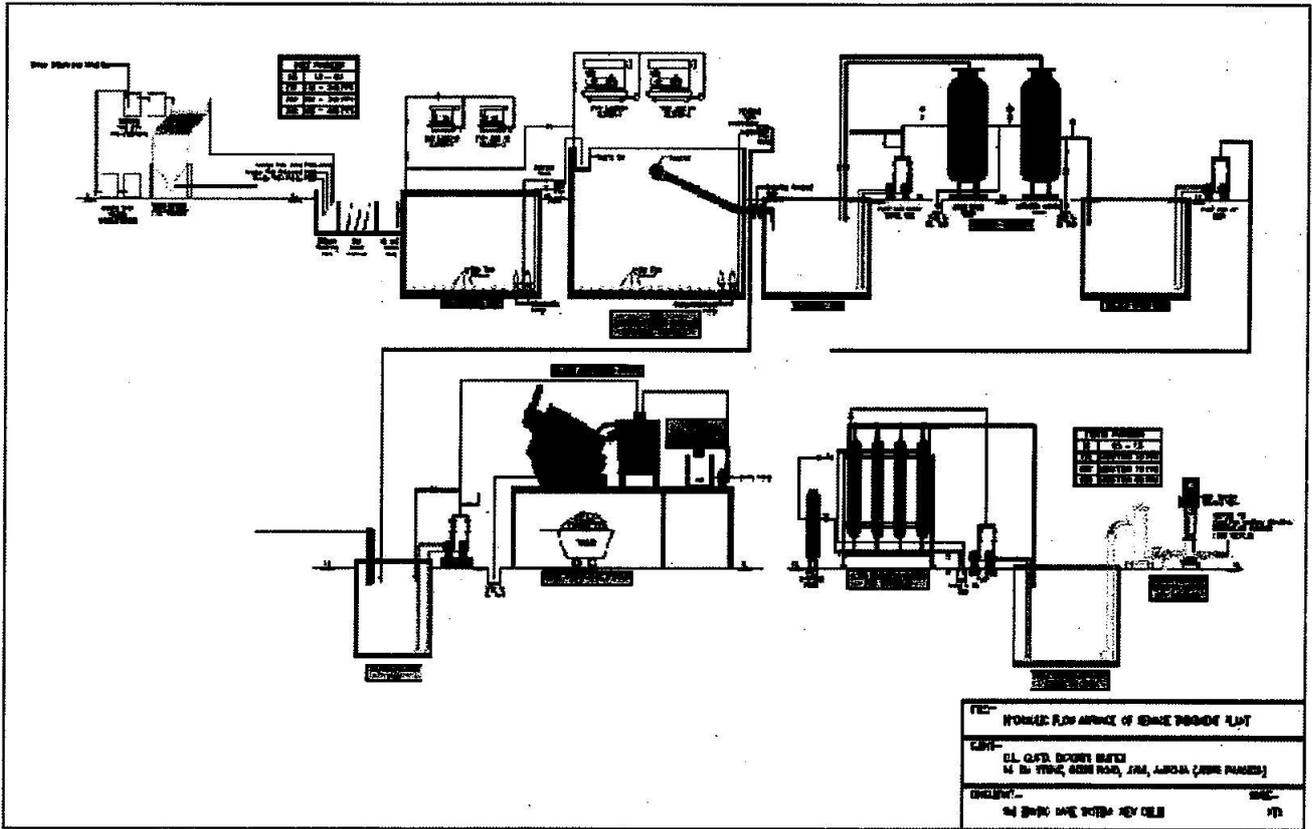
- .Filling-45 Minutes

CHARACTERISTICS OF TREATED SEWAGE:-

S.No	Parameter	Value
1.	pH Value	6.5-9.0
2.	Temperature	Ambient
3.	Appearance	Crystal Clear
4.	BOD ₅ in mg/l	less than 10
5.	COD ,, mg/l	Less than 50
6.	TSS in mg/l	less than 10
7.	TN in mg/l	less than 10
8.	HN ₄ -N in mg/l	Less than 5
9.	TP Phosphorus as p in mg/l	less than 10
10.	Fecal Coliforms, MPN/100ml	less than 230
11.	Total Phosphorus, mg/l	less than 1

STP FLOW Diagram



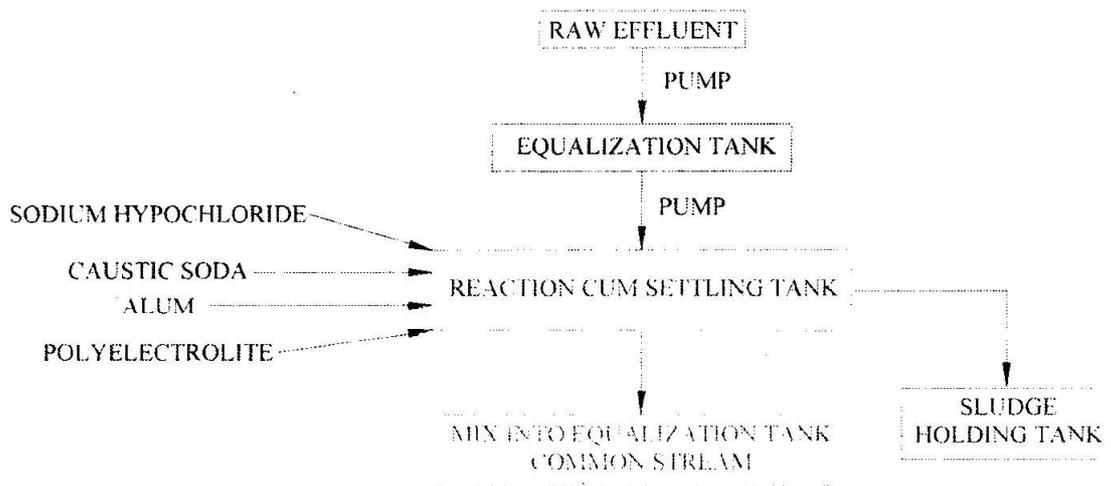


Effluent Treatment Plant (ETP):

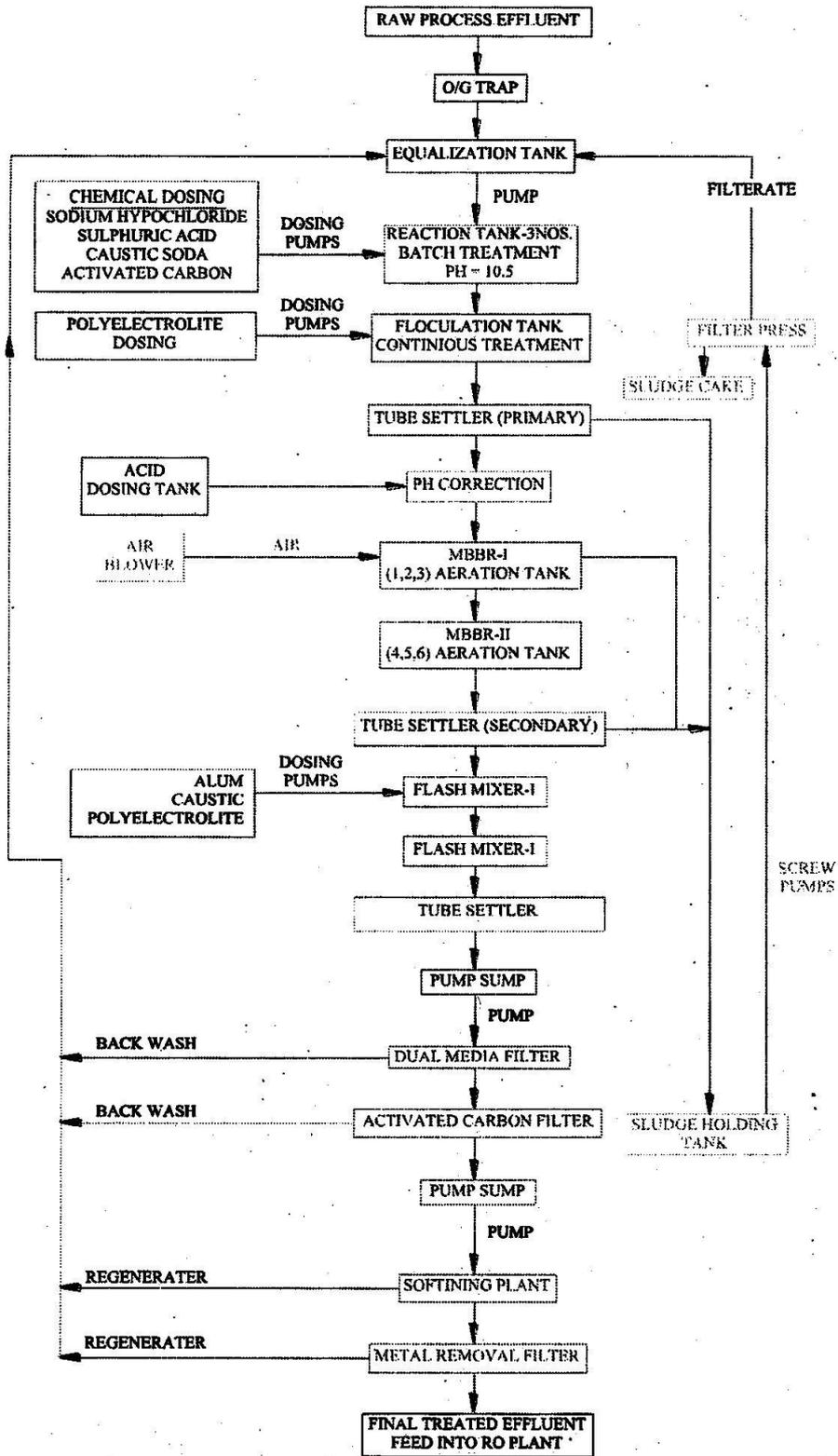
Since the plating/coating/ionic processes are based on inorganic substances and organic substances the organic effluents out of electrophoretic lacquering and paint booths effluents are subjected to pretreatment before they are mixed to inorganic effluent treatments thereby maintaining alkaline, acidic and organic elements.

The details of ETP are:-

1. Names of Area from which this ETP receives raw effluent - Processes waste water
2. Design Capacity of ETP - 6.25 KL/hour or 150 KLD
3. Chemical Use in Common Effluent Treatment Plant
 - a. Sodium Hypochlorite
 - b. Polyelectrolyte
 - c. Sulphuric Acid
 - d. Sodium Sulphate
 - e. Caustic Soda
 - f. Lime Water
 - g. Activated carbon
 - h. Ferric Chloride.



PRE-TREATMENT OF FLOOR WASHING EFFLUENT



EFFLUENT TREATMENT PLANT FLOW SEQUENCE

PROCESSES OF EFFLUENT TREATMENT:-

The effluent generated from plating plant would be segregated into following streams-

1. Rinsing effluent from Electro electrophoretic lacquering, plating and paint booth effluent



Pre Treated in Pre Treated Effluent Plant & Mix with Common Effluent Treatment Plant

2. Floor washing effluent
3. Rinsing & concentrate effluent generated from nickel plating, zinc plating, copper plating, aluminum plating &. + Pre -treated para1 + Pre- treated above para-2

PRE- EFFLUENT TREATMENT PLANT ELECTROPHORETIC LACQUERING & PAINTH BOOTH EFFLUENT

Ist Stage Treatment **(Batch Treatment)**

The effluent from equalization tank is transfer to reaction cum settling tank and treating batch method by dosing bio buster with caustic soda dosing to resulting in reduce the COD from 6000 PPM-8000PPM to 1000 PPM maintaining pH 9.0 and the stirring would do for 1.5-2.0 hrs. The Polyelectrolyte dosing would carry out to build up the size of the floc. This stirring would do for 20-30 minutes. The retention time in reaction tank cum clarifier is around 2.0 hour. The effluent contains mostly soluble and colloidal impurities in soluble form will bring about the precipitation in insoluble form and settle at bottom of reaction cum settling tank. The insoluble settled sludge at the bottom of the reaction cum setting would be transferred to sludge holding tank. The supernatant in reaction tank will further treated as under.

Pre treatment- IInd Stage **(Batch Treatment)**

In the IInd stage treatment basic aim to achieve COD level below 500PPM. The dosing of ferric chloride, sodium hypochlorite, alum and activated carbon powder for removing soluble impurity and reduce the COD from 1000 PPM to below 500 PPM maintaining pH 7.50 by dosing caustic soda and the stirring would do for 1.5-2.0 hrs. The Polyelectrolyte dosing would carry out to build up the size of the floc. This stirring would do for 20-30 minutes. The retention time in reaction tank cum clarifier is around 2.0 hour. The effluent contains mostly soluble and colloidal impurities in soluble form will oxidize and then bring about the precipitation in insoluble form and settle at bottom of reaction cum

settling tank. The insoluble settled sludge at the bottom of the reaction cum setting would be transferred to sludge holding tank. The supernatant will further treated by biological treatment into sequence batch reactor.

Biological Treatment-

Explanation of cyclic operation in sequence batch reactor:

A basic cycle comprises:

- Filling(F)-0.50 HOUR

Aeration (A) – 22.0 Hrs

- Settling (S) 1.0 .Hrs

- Decanting (D) -0.5 .Hrs

Idle (I)-0.250 Hour

Typically total Duration of Each Cycle is 2425 hrs

SLUDGE DEWATERING SYSTEM-

The settled sludge at the bottom of tube settler and excess sludge from sequence batch reactor would transfer to the sludge slurry collection tank and feed into filter press for sludge dewatering and filtered will again transfer into equalization tank for further treatment.

The sludge cake from sludge drying beds having moisture approximate 30% would be disposed off as per the advice of authority

FILTRATION THROUGH DMF & ACV ARRANGEMENT:-

The treated effluent then feed into multi grade and adsorption column i.e. activated carbon filter for polishing purpose which would marginally reduce the pollution parameter like COD, BOD, iron contains and oil & grease etc and collected into pump sump

ULTRAFILTRATION ARRANGEMENT:-

ULTRAFILTRATION arrangement is proposed for disinfection & Fine filtration of treated effluent.

The effluent then mix with electroplating plating & phosphating effluent at common effluent treatment plant.

Pre treatment of Electro Floor Washing Effluent (Above para-2)-

The effluent from equalization tank is transferred to reaction cum settling tank and treating batch method by dosing of sodium hypochlorite, caustic soda, activated carbon powder maintaining pH 9.0 and the stirring would do for 1.5-2.0 hrs. The Polyelectrolyte dosing would carry out to build up the size of the floc. This stirring would do for 20-30 minutes. The retention time in reaction tank cum clarifier is around 2.0 hour. The effluent contains mostly soluble and colloidal impurities in soluble form will bring about the precipitation in insoluble form and settle at bottom of reaction cum settling tank. The insoluble settled sludge at the bottom of the reaction cum setting would be transferred to sludge holding tank. The supernatant will further treated by mixing into common para-3.

Common Treatment of Common Effluent (Above para-3)-

The effluent from rinsing & concentrate effluent generated from nickel plating, zinc plating, copper plating, etc . + Pretreatedpara1 + Pretreatedpara-2 treated as under.

The effluent treatment plant consists of the following units.

1. Equalization tank. – Other Stream
2. Batch type Reaction tank- 3 Nos
3. Flocculation Tank- 1No
4. Dosing tank- 6 Nos.
5. Tube settler-I-2 Nos
6. pH correction Tan-2 Nos
7. Aeration Tank (MBBR Tank-6 Nos)
8. Tube settler-II-3 Nos
9. Flash Mixer - 2No
10. Dosing tank- 3 Nos.
11. Tube settler-III
12. Sludge Slurry Collection Tank.
13. Filter Press
14. Dosing Pumps
15. Pumps for effluent transfer & Sludge transfer
16. Dual Media Filter
17. Adsorption Vessel
18. Softening plant
19. Metal Removal Filter

The effluent from equalization tank would be transferred to the reaction tank 3 nos for batch

treatment. The batch treated effluent after assuring that the metal concentrations are within the limit as per CPCB/UPPCB norms. This is batch treatment and after discharging from reaction tank is treated in continuous method.

The chemical dosing of alum and sulphuric acid is done to bring down pH at 4.0-4.5. The dosing of sodium hypo chloride use for oxidizing the impurities and activated carbon used to adsorb the impurities and also maintain free chlorine present into effluent. The suitable retention time i.e 30 minutes approximate is to be maintained for proper reaction.

The dosing of caustic soda and sodium sulphide enhanced the pH in to the alkaline range from pH 4.0-4.50 to pH 10.0 – 10.50. Since the effluent contains mostly iron, nickel, copper, zinc ions and other heavy metals in soluble form, the alkaline pH will bring about the precipitation in insoluble hydroxide. The lime is added for dosing here so that there is no adverse effect on the total dissolved solids during the treatment process. From reaction tank the effluent would pass through flocculation tank for the agglomeration of floc where requisite dosing of polyelectrolyte (flocculent) is done. The effluent enters into tube settler for separation of insoluble hydroxide and supernatant.

The three reaction tanks are working on the principle of batch cum continuous treatment, i.e. one tank under service condition, one tank under chemically reaction condition and one tank under effluent loading condition.

The clear effluent from the top of tube settler shall enter in aeration tank .The aeration zone is provided with diffused aeration system to oxidize the organic matter by activated sludge. The activated sludge in aeration zone is capable of converting most organic wastes to stable inorganic forms or to cellular mass. In this process, the soluble and colloidal organic material is metabolized by a diverse group of microorganisms to carbon dioxide and water. At the same time, a sizeable fraction of incoming organic matter is converted to cellular mass that can be separated from the effluent by settling.

The mixed liquor then flows into the tube settler II for biomass separation and MLSS is again recirculated again into aeration tank for maintaining MLSS level and excess sludge will transfer into sludge holding tank.

The supernatant from tube settler-II would transfer to again post physicochemical treatment system which is non-operational during treatment and comes operational when we found any impurities or turbidity in to secondary treated effluent.

The supernatant from tube settler- II enters into flash mixer-3 Nos with the help of pump where

the pH will bring down by sulphuric acid if required at 4.0-4.5, the dosing is carry by metering pump and then PH is enhanced in to the alkaline range from pH 4.0-4.50 to pH 9.0 – 9.50 with the addition of lime. Since the effluent contains mostly iron, nickel, copper ions and other heavy metals in soluble form, the alkaline pH will bring about the precipitation in insoluble hydroxide. The lime is added here so that there is no adverse effect on the total dissolved solids during the treatment process. From flash mixer the effluent would pass through flocculation tank for the agglomeration of floc where requisite dosing of polyelectrolyte (flocculent) id done. The effluent enters into tube settler for separation of insoluble hydroxide and supernatant.

collected into pump sump and feed into multi grade and adsorption column i.e. activated carbon filter for polishing purpose which would marginally reduce the pollution parameter like COD, BOD, iron contains and oil & grease etc and collected into pump sump.

The effluent pump sump and feed into softening plant for removal of hardness and into metal removal vessel for removal of heavy metal through ion exchange treatment. The treated collected into pump sump and feed into ultra filtration plan.

The settled sludge at the bottom of tube settler I & II would transfer to the sludge slurry collection tank and feed into filter press for sludge dewatering and filtrate will again transfer into equalization tank for father treatment.

The sludge cake from sludge drying beds having moisture approximate 30% would be disposed off as per the advice of authority

RECOVERY PLANT-

ULTRAFILTRATION WITH TWO STAGE REVERSE OSMOSIS PLANT

The treated effluent then passes through & ultra filtration @4M³/hour & 8 M³/Hour. The treated water after ultra filtration module are stored in the UF treated storage tank and pumped through the First Stage RO system through high pressure pump @ 10 M³/hour, anti-scalant dosing is provided in order to prevent scaling of membranes owing to the dissolved salts, and micron cartridge filter for fine filtration, wherein the total dissolved solids shall be reduced by the principle of Reverse Osmosis. The membrane system consists of an epoxy painted structural steel skid for mounting of high pressure FRP tubes with spiral wound membrane elements in tube and necessary control valves at feed, product & reject pipes provided with required instruments for safe & proper operation.

Low pressure Switch at the suction & high-pressure switch at the discharge is provided for safe operation of high-pressure pump under specified operating conditions. Pressure gauges, pressure switches, on-line flow indicator, conductivity indicator are provided for controlling desired flow rate & recovery. The product water shall be given a pH correction to be used.

Second Stage RO system through high pressure pump @ 5 M³/hour, the anti-scalant dosing is provided in order to prevent scaling of membranes owing to the dissolved salts, and micron cartridge filter for fine filtration, wherein the total dissolved solids shall be reduced by the principle of Reverse Osmosis. The membrane system consists of an epoxy painted structural steel skid for mounting of high pressure FRP tubes with spiral wound membrane elements in tube and necessary control valves at feed, product & reject pipes provided with required instruments for safe & proper operation.

Third Stage RO system through high pressure pump @ 3M³/hour, the anti-scalant dosing is provided in order to prevent scaling of membranes owing to the dissolved salts, and micron cartridge filter for fine filtration. where in the total dissolved solids shall be reduced by the principle of Reverse Osmosis. The membrane system consists of an epoxy painted structural steel skid for mounting of high pressure FRP tubes with spiral wound membrane elements in tube and necessary control valves at feed, product & reject pipes provided with required instruments for safe & proper operation.

- *RO RECOVERY- 90%*
- *REJECTION- 10%*

MULTI EFFECT EVAPORATOR WITH AGIATED THIN FILM DRYER:

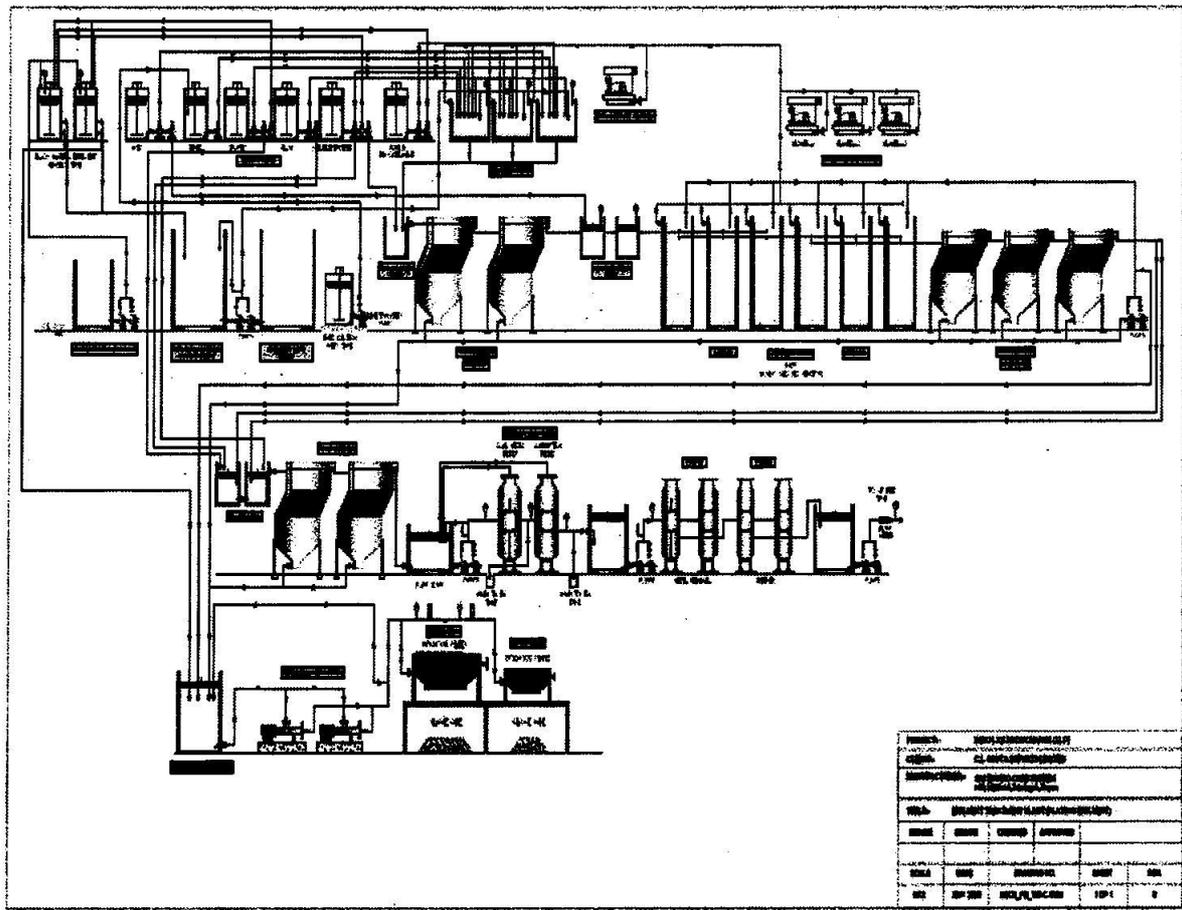
The TDS of recovery is approximate 400-500ppm & TDS of rejection is approximate 20000 ppm25000PPM feed into three multi effect evaporator and concentrated will feed into multi effect evaporator for recovery of balance water.

The condensate water will recycle again into process with RO permeate water. The salt containing moisture 10% would be disposed off as per the advice of authority.

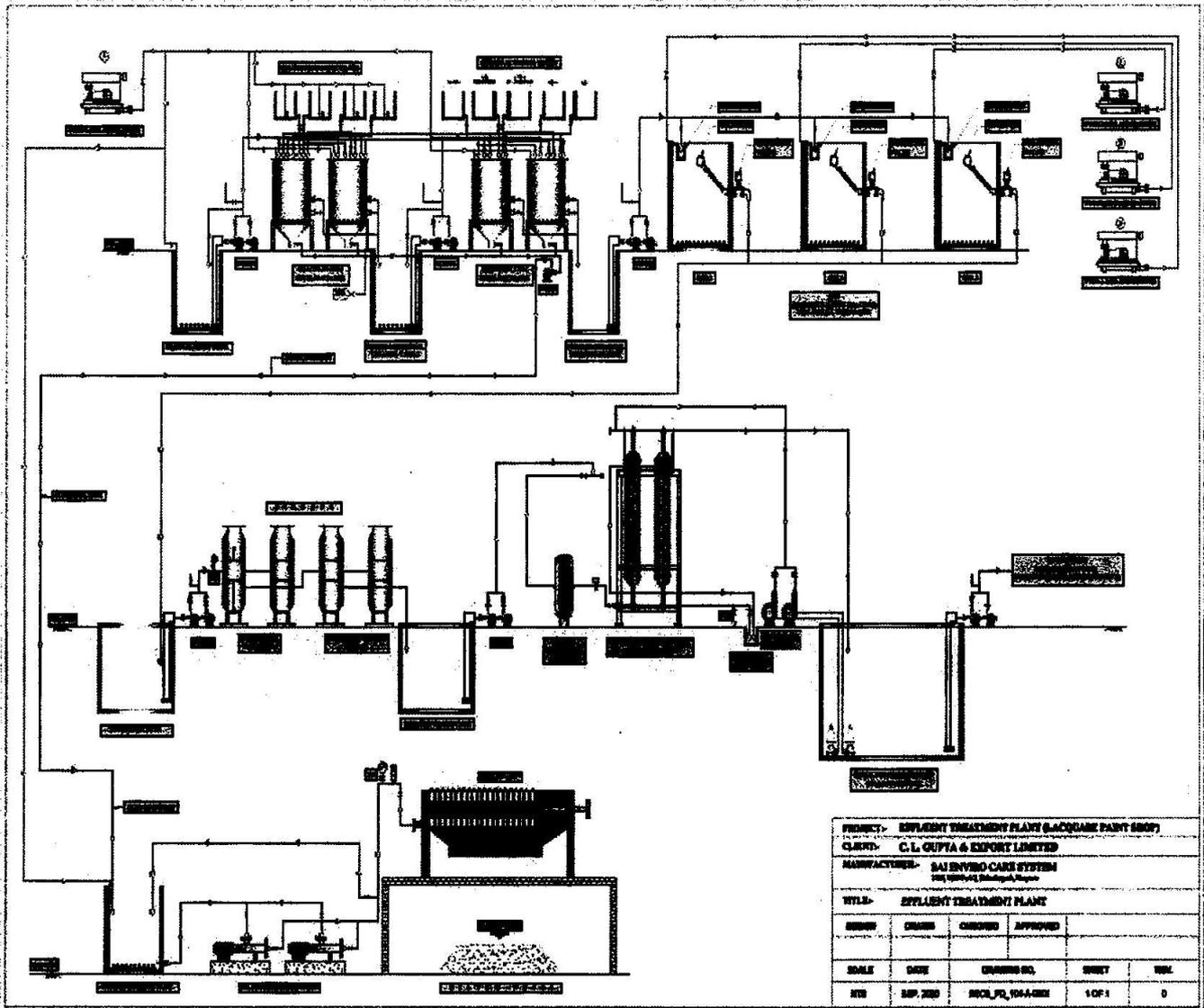
Chemical list for Treatment with Ratio in Dosing Tank:

- Sodium Hypochlorite - 6% Solution
- Polyelectrolyte- 0.5% Solution
- Sulphuric Acid -10% Solution
- Sodium Sulphate--10% Solution
- Caustic Soda- 0.5%Solution

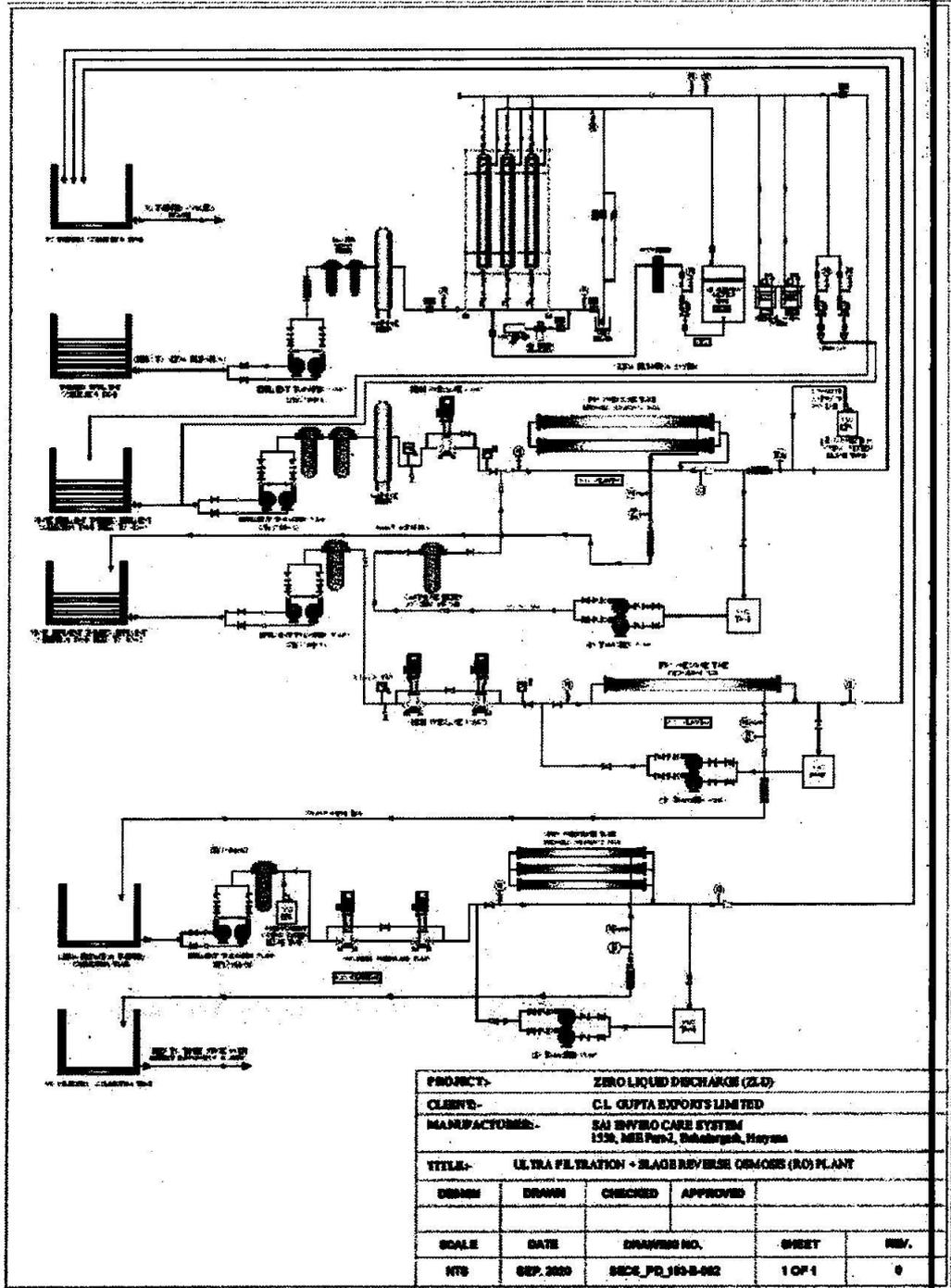
- Lime Water- 5%Solution
- Activated carbon-200 gram per batch
- Ferric Chloride-5% Solution



ETP Process Flow Diagram

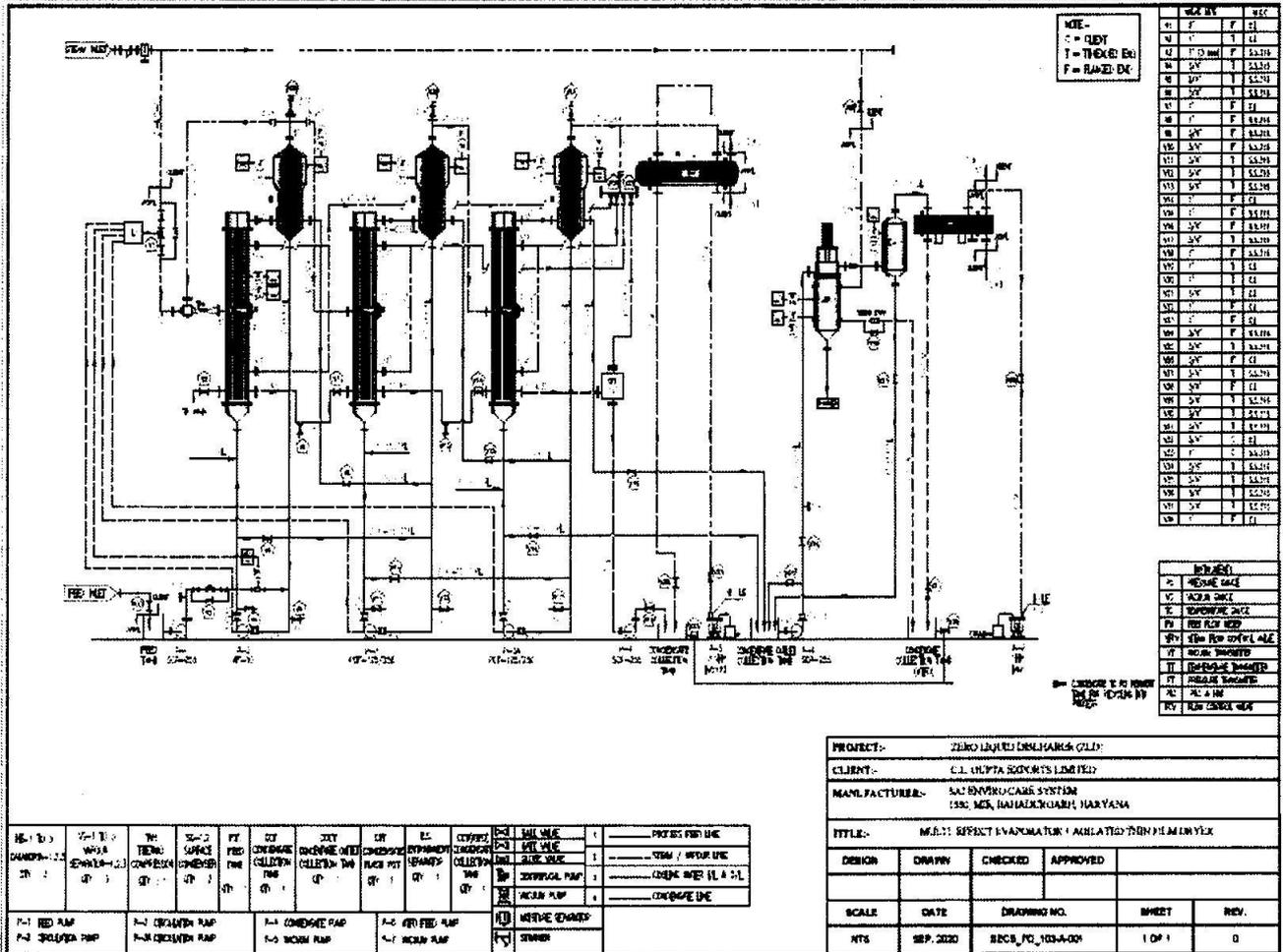


ETP PROCESS FLOW DIAGRAM



PROJECT:-		ZERO LIQUID DISCHARGE (ZLD)		
CLIENT:-		CL. GUPTA EXPORTS LIMITED		
MANUFACTURER:-		SAI INFVRO CARE SYSTEM 132, MIB Park, Sakinaka, Mysore		
TITLE:-		ULTRA FILTRATION + SLUDGE REVERSE OSMOSIS (RO) PLANT		
DESIGN	DRAWN	CHECKED	APPROVED	
SCALE	DATE	DRAWING NO.	SHEET	REV.
NTS	SEP. 2020	SECE_PD_100-B-002	1 OF 1	0

UF+RO PROCESS FLOW DIAGRAM



MULTI EFFECT EVAPORATOR(MEE) PROCESSED FLOW DIAGRAM

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**UTTAR PRADESH POLLUTION CONTROL BOARD**

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

Ref. No : 8531/UPPCB/Bijnore(UPPCBRO)/HWM/JYOTIBA PHULE NAGAR/2019

Dated: 16/07/2019

To,

M/s C L GUPTA EXPORTS LTD

C. L. Gupta Exports Ltd, Vill- Jivai, NH-24 Moradabad- Delhi Highway

Amroha(U.P), AMROHA, 244221

Tehsil : Amroha

District : JYOTIBA PHULE NAGAR

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 8531 and 16/07/2019 .
2. Reference of application (No. and date) 5269513 and 21/05/2019 .
3. Mr TEEVRA GUPTA of M/s C L GUPTA EXPORTS LTD 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 C. L. Gupta Exports Ltd, Vill- Jivai, NH-24 Amroha .

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 1 (category 33.1) Empty Containers	TSDF/Authorized Recyclers	50 no. per day
2	Schedule 1 (category 33.2) Cotton Waste, Used Cloth Mask	TSDF/Authorized Recyclers	10 kg/day
3	Part B Schedule 3 (category B3040) Rubber Gloves	TSDF/Authorized Recyclers	5 kg/month
4	Part B Schedule 3 (category B4030) Old Batteries	TSDF/Authorized Recyclers	20 No./month
5	Schedule 4 (category 19) Paint Booth sludge	TSDF/Authorized Recyclers	50 kg/Month
6	Schedule 1 (category 1.3) Oily Rags	TSDF/Authorized Recyclers	0.15 kg/day
7	Schedule 1 (category 5.1) Used Oil	TSDF/Authorized Recyclers	0.1 KI/Month
8	Part D Schedule 3 (category B3020) Empty Corrugated Cartons	TSDF/Authorized Recyclers	8 kg/day
9	Schedule 1 (category 6.3) Melting Furnace Ash	TSDF	20 kg/Month
10	Schedule 1 (category 15.2) Asbestos Gloves/Cloth	TSDF/Authorized Recyclers	5 kg/month
11	Schedule 1 (category 3.3) Fuel Filter and Air Filter	TSDF/Authorized Recyclers	5 no./Month
12	Schedule 1 (category 12.6) Polishing Dust	TSDF	1000 kg/Month
13	Schedule 1 (category 35.3) ETP Sludge	TSDF	40 kg/day

1. The authorization shall be valid for a period of 16/07/2024 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 of 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 .

B Specific Conditions of Authorization

1-The Authorization issued vide letter no. F72473/C-7/Haz.Auth./68/2016 dated 18-01-2016 is hereby revoked.

2- Unit shall ensure compliance of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

3- Unit shall comply with the provisions of Rule 19 of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and send copy of Form 10 regarding Manifest for Hazardous and Other Wastes.

4- Unit shall comply with the provisions of Rule 20 of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and submit Annual Returns to State Board in Form-IV.

5- Unit shall comply with the directions issued by Hon'ble National Green Tribunal in O.A. No. 220/2019 Adil Ansari vs. M/s C.L. Gupta Export Ltd.

(Authorized Signatory)

Amit
Digitally signed by
Amit Chandra
Chandra
Date: 2019.08.26
17:24:02 +05'30'

UTTAR PRADESH POLLUTION CONTROL BOARD

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

Amit
Digitally signed by
Amit Chandra
Chandra
Date: 2019.08.26
17:24:28 +05'30'

CEO/EE, I/C Circle _____



C.L. Gupta Exports Ltd.

18 km before Moradabad - Delhi Highway,
VIII, Jivai, Amroha - 244221, (U.P.) India
CIN : U74999 DL2004 PLC 125090
GSTIN : 09AACCG0992J1ZC

Tel. : +91-591-2477000
Fax : +91-591-2477300
e-mail : mail@clgupta.com
Web : www.clgupta.com

CLG /HR-31/21-22/180

26-05-2021

The Chief Environment Officer (Circle-7)
Uttar Pradesh Pollution Control board
Building No. TC-12V, Vibhuti Khand
Gomti Nagar, Lucknow-226010

Sub: - Amendment in Hazardous Waste.

Sir,

This has reference to our earlier letter no. CLG/HR-31/20-21/134 dated 22.12.20 wrt above. In this regards, it is confirmed that we had already obtained the amendment in agreement with M/s Bharat Oil & waste Management Ltd. wrt revised quantities of hazardous waste items and the same is attached herewith in compliance to your letter no. H-61713/Hazardous-68/2021 dt 13.04.21. The statement however, in nutshell is as under.

Details wrt initial agreement/authorisation dated 16.07.19			Details wrt agreement as amended with additional quantities.		
S.No.	Description	Quantity	S.No.	Description	Quantity
3	Part B Schedule 3 (category B3040) Rubber Gloves	5 Kg/Month	3	Part B Schedule 3 (category B3040) Rubber Gloves	10 Kg/Month
11	Schedule 1 (category 3.3) Fuel Filter and Air Filter	5 No./Month i.e. 60 No./Year	11	Schedule 1 (category 3.3) Fuel Filter and Air Filter	160 Nos./Year
13	Schedule 1 (category 35.3) ETP Sludge including MEE Sludge	40 Kg/day i.e. 12 MT/Year	13	Schedule 1 (category 35.3) ETP Sludge including MEE Sludge	125 MT/Year

You are kindly requested to please approve the above amendment making net authorisation as per Annexure I.

Thanking You
Yours Faithfully
For C. L. Gupta Exports Ltd.

(Signature)
GM (HR/Admin)

Manufacturer & Exporters

Wrought Iron Ware • Wrought Iron Ware • Glass & Crystal Ware • Iron & Steel Ware • Wooden Furniture & Accessories

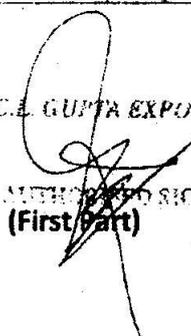
DLF PRIME TOWER, OKHLA, NEW DELHI-110020

Annexure to Agreement

Ref. Concurrence on the extension of agreement upto 31.03.2024 vide letter no. CLG/HR-96/18-19/547 dated 15.2.19 along with incorporation of quantities to be lifted, transporting, storing, treatment and disposing of hazardous waste generated at M/s C L Gupta Exports Ltd. Village-Jivai Distt. Amroha U.P.

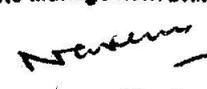
S No.	Category of Hazardous Waste as per the Schedules I,II and III of these rules	Authorized mode of disposal or recycling or utilization or co-processing, etc.	Quantity(ton/annum)
1	Schedule 1 (category 33.1) Empty Containers	TSD/Authorized Recyclers	50 no. per day
2	Schedule 1 (category 33.2) Cotton Waste, Used Cloth Mask	TSD/Authorized Recyclers	10 kg/day
3	Part B Schedule 3 (category 83040) Rubber Gloves	TSD/Authorized Recyclers	10 kg/month
4	Part B Schedule 3 (category 84030) Old Batteries	TSD/Authorized Recyclers	20 No./month
5	Schedule 4 (category 19) Paint Booth sludge	TSD/Authorized Recyclers	50 kg/Month
6	Schedule 1 (category 1.3) Oily Rags	TSD/Authorized Recyclers	0.15 kg/day
7	Schedule 1 (category 5.1) Used Oil	TSD/Authorized Recyclers	0.1 KL/Month
8	Part D Schedule 3 (category 83020) Empty Corrugated Cartons	TSD/Authorized Recyclers	8 kg/day
9	Schedule 1 (category 6.3) Melting Furnace Ash	TSD	20 kg/Month
10	Schedule 1 (category 15.2) Asbestos Gloves/Cloth	TSD/Authorized Recyclers	5 kg/month
11	Schedule 1 (category 3.3) Fuel Filter and Air Filter	TSD/Authorized Recyclers	160 no./Year
12	Schedule 1 (category 12.6) Polishing Dust	TSD	1000 kg/Month
13	Schedule 1 (category 35.3) ETP Sludge including MEE Sludge	TSD	125 Ton/ Year

For C.L. GUPTA EXPORTS LTD.



AUTHORIZED SIGNATURE
(First Part)

For Bharat Oil & Waste Management Ltd.



(Second Part)

Director



WTS-27
C.L. Gupta Exports Ltd.

18 km Before Moradabad, Delhi Highway,
Vill. Jivai, Amroha-244221, India
Cin :- U74999 DL2004 PLC 125090

16
Tel. : +91-591-2477000
Fax : +91-591-2477300
e-mail : mail@clgupta.com

CLG/HR(96)/18-19/547

15.02.19

M/s. Bharat Oil & Waste Management Ltd.
Building. No: 11 , Community Center,
Near National Heart institute,
East of kailash, LGF,
New Delhi-110065

Sub: Extension of agreement and revision of charges

Sir,

Kindly refer to agreement with you wrt lifting, transporting, treatment, storing and disposing of the hazardous waste generated at our facility. We are agreeable for revision of charges proposed by you as attached and request you to extend the validity of agreement upto 31.03.2024.

Kindly send your concurrence and endorse the agreement accordingly.

Thanking You
Yours Faithfully
For C. L. Gupta Exports Ltd.

(A.K. Jhri)
GM(HR & ADMIN)

For Bharat Oil & Waste Management Ltd.

Director

Encl:aa

ANNEXURE- 'A'

Waste Management & Handling Charges (as revised wef 1.4.19 in supersession of rates wef 1.4.14)

01. USER CHARGES; M/s C. L. Gupta Exports Ltd will have to pay the following charges for the Waste Management Services provided by BOWML. Viz Lifting, Transport, Treatment, Storage and Disposal Charge (as follows)

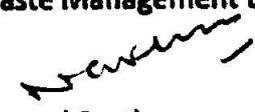
Non-Recyclable Hazardous Waste

S.No.	Type Hazardous Waste	BOWML Charges
1	Cotton Waste, Hand Gloves, Used cloth masks, Air filters/Fuel Filter /Oily Rugs & spent oil clay/ sand/Oily soaked, Varnish Mix Clothes, Empty Cans/Drums/Bottles Oily Sludge/Mud Chemical Waste, Asbestos Gloves / Asbestos cloth Sand paper & Used polythene Fused Tube light, LED, Bulbs & CFL Rubber Gloves & Used Masks (organic), Used Carbon Mask Epoxy Powder Empty Corrugated Cartons, Paint Booth Sludge, Used Oil/ Old Batteries	Rs 19/ kg (Rupees Nineteen only)
2	ETP Sludge, Boiler/Thermic Heater/ Melting ASH, Polishing Dust	Rs 2.5/- kg (Rupees TWO and Fifty Paise only)

2. Payment Terms:

- a) Payment shall be made by M/s. C. I. Gupta Exports Ltd. in favor of Bharat Oil & Waste Management Ltd, by Cheque with in 30 days from date of BOWML invoice.
Failure to make the payment shall attract interest @ 18% per annum.
- b) Taxes/ LEVIES:- All Government /Municipal Taxes / Duties/Levies/Octroi/Tolls etc, as applicable from to time, will payable by first party.

For Bharat Oil & Waste Management Ltd.

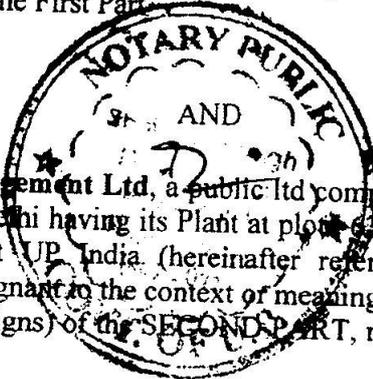

(Second Part)



उत्तर प्रदेश UTTAR PRADESH

AGREEMENT

THIS AGREEMENT made on this 1st day of April 2014 between M/s C.L. Gupta Exports Ltd. a company incorporated under The Companies Act, 1956 having its registered Office at B-82 Gulmohar Park, New Delhi :- 110049 India & Its Plant at 17 Km MBD-Delhi NH-24 village - Jivai; Amroha, India (herein after called as "First Part which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include its successors and assigns) of the First Part



AND
Bharat Oil & Waste Management Ltd, a public ltd company with its registered office at B-5 East of Kailash, New Delhi having its Plant at plot# 672, NH-2 Kumbhi village Tehsil Akbarpur, Kanpur – Dehat UP, India (hereinafter referred to as "BOWML" (which expression shall, unless repugnant to the context or meaning thereof, be deemed to mean and include its successors and assigns) of the **SECOND PART**, represented by it's Director, Mr. Naresh Manglani

WHEREAS BOWML has set up an engineered common facility at plot# 672, NH-2 Kumbhi village Tehsil Akbarpur, Kanpur-Dehat UP to treat, store and dispose of Hazardous Waste (hereinafter referred as "Hazardous Waste") as per the guidelines under the Environment (Protection) Act, 1986 (for short ' the Act') and the Notifications issued there-under from time to time, Hazardous Waste (Management & Handling) Rules, 1989 and as amended from time to time ('the Rules'). BOWML is authorized by up Pollution Control Board (hereinafter called as 'BOWML Authorization') for lifting of Hazardous Wastes for management, handing and its disposal.

For C.L. GUPTA EXPORTS LTD.

AUTHORISED SIGNATORY

For Bharat Oil & Waste Management Ltd.

Naresh Manglani
Director

AND WHEREAS FIRST PART is engaged, inter alia, in manufacturing of Handicrafts at its plant addressed above. During the said manufacturing process, different types of wastes are generated including the Hazardous Wastes.

AND WHEREAS FIRST PART desires that the Hazardous waste, being generated at its production unit mentioned above, to be lifted, transported, treated, stored and disposed off, by utilizing the services of BOWML, as per the Pollution Control Board Authorization. A list of Hazardous Wastes which would be generated at the First Part's production unit at (address) M/s C.L.Gupta exports Ltd. 17th km MBD-Delhi NH-24 village Jivai Amroha, India is enclosed herewith marked as Annexure A.

AND WHEREAS BOWML has represented and assured to FIRST PART that at its facility as above, BOWML is capable of handling the Hazardous Wastes generated at the FIRST PART'S said production plant addressed above.

AND WHEREAS FIRST PART has agreed to avail the services for treating hazardous wastes at the facilities at E-18, Site IV, Sahibabad Industrial Area, Ghaziabad, UP.

Now therefore, those present witnesses hereby declared & agreed by and between the Parties hereto as follow.

1. The Scope of Services to be provided by BOWML is limited to Lift, Transport, Treat, and Store & Dispose off Hazardous Waste of FIRST PART.
2. BOWML on receipt of written information from FIRST PART will plan & schedule lifting logistic of the Hazardous Wastes from premises of FIRST PART within 14 (Fourteen) business days of receipt of such information FIRST PART shall ensure that Hazardous Wastes must be packed in proper container / bags.
3. BOWML shall at all times comply with all the provisions HW (M & H) Rules 1989 as amended in 2003 MoEf / CPCB.
4. BOWML shall indemnify and keep indemnified FIRST PART in cases of non compliance of statutory norms on the part of BOWML.
5. FIRST PART shall ensure that the above Hazardous Waste as per the mandate given to BOWML for lifting as it is common facility catering to diverse Wastes. BOWML shall follow Ministry of Environment & & Forests, Central Pollution Control Board and State Pollution Control Board guidelines, future amendments & latest disposal technologies.
6. First Part shall provide comprehensive laboratory Analysis report form CPCB approved laboratories of each type of Hazardous Waste twice a year (Once every 6 months) on identified parameters as discussed with BOWML. BOWML shall also analyze the hazardous waste for finger print Analysis. In the event there are differences in the analysis results, First part may send its sample to a mutually agreed third party at their own cost. New Comprehensive Analysis Report shall be provided by First part when there is a change in the Hazardous Waste characteristics, Manufacturing process or change in product mix etc. Report must be provided to BOWML prior to scheduling pickup of Hazardous Waste. Report

For C.L. GUPTA EXPORTS LTD.

For Bharat Oil & Waste Management Ltd.

AUTHORISED SIGNATORY

must be sent via Electronic mail as well as by courier to BOWML However, it is specifically agreed between the parties the process details provided by First Part shall be kept confidential and BOWML shall not disclose it to an third party without the First Part's prior written consent. This clause shall survive termination for a period of 5 years after the determination of this Agreement for any reason whatsoever.

7. The Comprehensive Analysis Report shall determine the Disposal Pathway based on the Waste Characteristics and as per Waste Acceptance Criteria given to FIRST PART and any other condition / solution that would help in safe disposal of Hazardous Waste. Disposal Pathway is mutually agreed between FIRST PART and BOWML to finalize the disposal base User charges. The base User Charges are defined in Annexure - A attached to this Agreement.
8. If FIRST PART provides any false information / declaration or withholding information (related to Schedule 5 & 6 of the Rules) any time during the term of this Agreement, all liabilities of Hazardous Wastes during Transportation, Handling, Treatment, Disposal including post disposal period, shall remain vested as the responsibility of FIRST PART.
9. The charges for Lifting, Treatment, Storage, Disposal facility (herein after called as User Charges) will be applicable to FIRST PART as per Annexure A.
10. FIRST PART shall make payment for Waste Management Services to BOWML as per the User Charges & other terms & conditions as per payment terms outlined in Annexure - A & Transportation Charges.
11. FIRST PART is responsible to segregate / store / accumulate / fill / load the Hazardous Waste in the container provided by FIRST PART in a sanitary manner and as also, the container area should be accessible to BOWML vehicle, to come & lift the waste. The transporter / BOWML reserves the right to reject lifting of Hazardous Waste spilled over the ground and Container whose exteriors are soiled by Hazardous Waste spillage.
12. In case, for any reason, if BOWML vehicle is sent back without giving the Hazardous Waste, even after being requisitioned by FIRST PART, FIRST PART has to pay the actual Transport Charges for that trip assuming Fully loaded truck of Waste.
13. FIRST PART shall at all times comply with all the provisions of the Act & rules from time to time in force & the Guidelines issued from time to time regarding handling of Waste involving the collection, storage, transportation & delivery thereof, and shall, without prejudice to the generality of the foregoing, also comply with all Environment Protection Laws, Safety Laws & regulations from time to time in force & the Rules, Regulations & Notifications made or issued there under from time to time. In the event of FIRST PART committing any breach of the terms of this clause of the Agreement, FIRST PART shall indemnify & keep indemnified BOWML from and against all claims, payments, costs & actions of whatsoever nature brought against or sustained or incurred by BOWML and whether paid for or not arising from or as a result of such breach committed by FIRST PART in that behalf.

For C.L. GUPTA ENTERPRISES LTD.

AUTHORIZED SIGNATORY

For Bharat Oil & Waste Management Ltd.


Director

14. The FIRST PART shall indemnify & keep indemnified BOWML at all time from & against all actions, suits, proceedings, claims third party claims, costs, Payments & expenses of whatsoever nature made or suffered or incurred by BOWML whether by reason of or by virtue of non-performance or non-observance or non-compliance by FIRST PART of any terms & conditions of this Agreement or the Act, the Rules and the Guidelines.

IT IS FURTHER HEREBY AGREED BY & BETWEEN THE PARTIES AS UNDER

15. This Agreement is valid from 1st April 2014 to 31 March 19 (As per clause 6 above) and can be renewed there after on similar or revised terms and conditions as may be mutually agreed between the parties.

16. First Part shall exclusively use BOWML during the period of this contract to dispose all generated hazardous waste at agreed prices, while the agreement is in force. BOWML must legally & safely collect, transport, treat, dispose hazardous waste from First part during the agreed period per rates agreed while the agreement is in force and payments made per agreement terms.

17. If all the terms & conditions as per the clauses of this Agreement are adhered to by FIRST PART, it will be BOWML's responsibility to Lift, Transport, Treat & dispose of the Hazardous Wastes generated by FIRST PART in accordance with prevailing Govt. rules under HAZARDOUS Waste Management & Handling Rules, 1989 as amended from time to time and FIRST PART shall not have any liability whatsoever in this regard.

18. The main mode of disposal shall be Stabilization / Treatment followed by Direct Incineration. The modes of disposal are dependant on the Hazardous Wastes characteristics and RIRST PART shall not have any liability whatsoever in this regard.

19. The User Charges are subject to Annual Revision on the basis of Govt. of India Wholesale Price Index [WPI], (Commodities Index - All India) and once a quarter in the event of escalation of fuel costs and on major price escalations, escalation of fuel cost viz. Power Tariff, Change in Disposal Technologies / Method, Wage Hike etc to name a few. For the purpose of escalation in fuel cost, 30% of freight rate will be considered as fuel element of the cost.

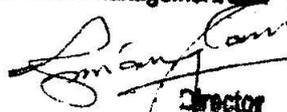
20. BOWML reserves the right to cancel this Agreement if FIRST PART fails / refuses to pay the bills / dues as per the payment terms applicable to the FIRST PART as mentioned in Annexure - A. Notice period of maximum 15 days will be allowed from the date of submission of Invoice. IF FIRST PART fails to pay in settlement of the Invoice, FIRST PART shall be liable to pay interest @ 24% per annum may also result in cancellation of Membership, Forfeiture of Deposit Termination of this Agreement. Repeated defaults & violations of payment terms will result in forfeiture of Membership and Membership deposit.

21. Hazardous Waste that require other alternate destruction technologies shall be handled at BOWML's facility. However the prices for such treatment techniques shall be determined on a case to case basis on their characteristics.

For C.L. GUPTA EXPORTS LTD.

AUTHORISED SIGNATORY

For Bharat Oil & Waste Management Ltd.


Director

22. Notwithstanding anything contained herein, nether Party hereto shall be liable for damages or to have this Agreement terminated for any delay or default in the performance of such Party hereunder if such delay or default in performance derives form conditions beyond the reasonable control of such Party, including but not limited to acts of God, fires, floods, extreme drought, riots, work stoppages, embargoes, governmental actions of damage to the plant or facility or any cause unavoidable or beyond the control of either party including any arbitrary ruling b the Government prohibiting the handling of the Waste or continuing domestic or international problems such as wars or insurrections.

23. This Agreement shall be deemed to represent the entire Agreement between the parties hereto regarding the subject matter hereof & shall be supersede, cancel and replace any and all prior Agreements or arrangements, if any, in this behalf, signed / entered into by and between the parties hereto.

24. This Agreement is on principal to principal basis and nothing contained herein shall be deemed to constitute a partnership, joint venture or agency by & between the parties hereto.

25. This Agreement may be modified or amended only in writing, duly executed by or on behalf of the parties hereto.

26. Any terms and conditions of this Agreement may be waived at any time by the party that is entitled to the benefit thereof. Such waiver must be in writing and must be executed by an authorized officer of such party. A waiver on one occasion will not be deemed to be a waiver of the same or any other breach or non-fulfilment on a future occasion.

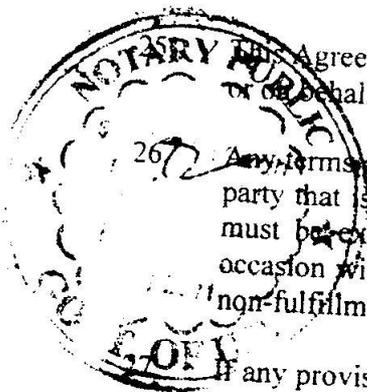
If any provision of this agreement is held to be illegal, invalid or unenforceable under any present or future law such provision shall be deemed terminable and the remaining parts and provisions of this Agreement shall remain in full force & effect.

28. It will be responsibility of BOWML to get the authorization renewed / extended from State pollution Control Boards before the due dates.

29. Either party shall have the right to terminate the agreement in the event of violation of any of the terms & conditions as agreed upon in this Agreement upon giving 30 days written notice to the other party.

30. It is clearly and expressly understood by and between the parties that the activity of lifting, transportation treatment, storage and disposal of Hazardous Wastes is an independent contract & it does not come within the purview of the FIRST PART's manufacturing & selling activities. It is also clearly understood & confirmed by and between the parties that this contract is for performance of work & not for supply of labour.

31. Nothing contained in these terms & conditions shall be constructed as creating any relationship either direct or indirect of employer & employee between the FIRST PART and the persons engaged by BOWML. The FIRST PART shall have no liability towards such persons and such persons will not have any claim whatsoever against the FIRST PART for salary, wages, provident fund, gratuity,



For C.L. GUPTA EXPORTS LTD.

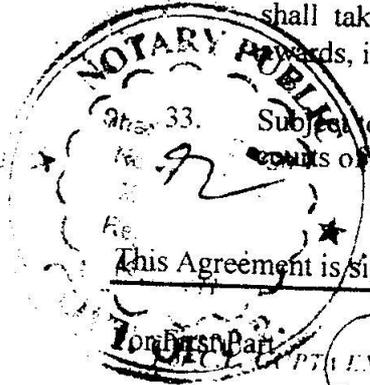
AUTHORIZED SIGNATORY

For Bharat Oil & Waste Management Ltd.

[Signature]
Director

retrenchment compensation or any other compensation for accident or death or any other claim whatsoever.

32. Any disputes arising on any clauses or clauses of this Agreement and the contents of the Annexure- A hereto between FIRST PART and BOWML shall be referred to Arbitration. The Arbitration shall be governed by & conducted in accordance with the provisions of the Arbitration & Conciliation Act, 1996. Each party shall nominate & appoint one arbitrator & the arbitrators so appointed shall appoint a third arbitrator who will act as presiding arbitrator. The arbitration proceedings shall be conducted in English & the Arbitration shall take place at New Delhi, India. The arbitral award, including interim awards, if any, shall be final & binding upon both parties.



Subject to Clause 32, FIRST PART and BOWML mutually agrees that the courts of Delhi alone, the exclusion of any other, shall have the jurisdiction.

This Agreement is signed on this 1st day of April 2014 at New Delhi.

Authorized Signatory SIGNATORY

(Name) A. K. Johari
Designation GM (HR/ADM)
(First Part)

Witness:

- 1.
- 2.

For M/s Bharat Oil & Waste Management Ltd.

For Bharat Oil & Waste Management Ltd.
By its Director

(Naresh Mangani) Director
Director
(Second Part)

Witness

- 1.
- 2.

ATTESTED

Shailendra Singh
Regd No 62(45)201
Notary Public
Distt Moradabad

26



Handwritten signature



BHARAT OIL & WASTE MANAGEMENT LTD. (BOWML)

www.bharatoil.com

Passionately Protecting Mother-Nature Since 1978

MEMBERSHIP CERTIFICATE

M / s. **C.L.Gupta Exports Ltd.**

18th km Before Moradabad, Delhi Highway Jivai, N. H - 24 J.P. NAGAR-244221, UP

is a registered member of our facility



Gate No. 672. Vill. Kumbhi, Akbarpur Road, NH - 2 Kanpur-Dehat-209101, UP

for safe, legal & scientific Disposal of Hazardous Waste

BOWML/K/3603/19

Member # : _____

March 31, 2022

Expiry Date : _____



One may verify 'active' membership by calling
Bharat Oil & Waste Management Ltd. at
011-4100 0710, 2621 6466 or Email : sales@bharatoil.com

For Bharat Oil & Waste Management Ltd.

Pragati Rohtagi
Sales Coordinator
sales@bharatoil.com
Digitally Signed By:Pragati Rohtagi
Date: 2021-03-03 14:55:40
IP: 122.160.48.54
ID: ygaP7IZjaHVIDs4XY1Sjw==
Click here to E-verify

Authorized Signatory



For Bharat Oil & Waste Management Ltd.

Sunder K Kukreja
GM (Admin & Fin.)
sales@bharatoil.com
Digitally Signed By:Sunder K Kukreja
Date: 2021-03-03 15:09:19
IP: 122.160.48.54
ID: e3M3KEY1+JIJ4p0bnjEAXA==
Click here to E-verify

Authorized Signatory



*Membership is subject to the terms & conditions of agreement & may be terminated by BOWML, upon non-payment of dues / payment.

7

FORM 10
[Spec. rule 19 (1)]

Copy for 3PCB

MANIFEST FOR HAZARDOUS AND OTHER WASTE

S.No.: 49624

1 Occupier's Name & Mailing Address (including Phone No. and email)	C.L. Gupta Exports Ltd. Vill- Jivai Amroha.			
2 Sender's Authorization No.				
3 Manifest Document No.	Challan Dated - 18/06/2021			
4 Transporter's Name & Address (including Phone No. and email)				
5 Type of Vehicle	(Truck / Tanker / Special Vehicle)			
6 Transporter's Registration				
7 Vehicle Registration No.	UP23AT-1470			
8 Receiver's Name & Mailing Address (including Phone No. and email)	(i) BHARAT OIL COMPANY E-18, Site-IV, Sahibabad Ind. Ghaziabad, UP-201010 Tel. e-mail:sales@bharatoil.com			
(ii) BHARAT OIL & WASTE MANAGEMENT LTD. Maaza Mukampur, Roorkee-Lakshar Road, Roorkee - 247664 UK, Tel. :08874267664 e-mail:sales@bharatoil.com	(iii) BHARAT OIL & WASTE Plot # 672, Sikandra Road, N.T. Tehsil Akbarpur, Kanpur Dehat e-mail:sales@bharatoil.com			
9 Receiver's Authorization No.	(i) 1486/U/PPCB/Ghaziabad(U/PPCBRO)/HW/UGH.2/ABAD/2018 Valid upto: 03/03/2022			
(ii) 057/PCB/HO/C.M-B-14/2018/5/8 Valid upto: 31/03/2023	(iii) 1403/U/PPCB/KanpurDehat(U/PPCBRO)/HW/UKAN.PUR DEHAT/2018 Valid upto: 30/03/2022			
10 Waste Description	ETP Sludge, Empty Containers, Corrosive, Used oil, empty pipes, Galvan Calover, Gask, Dust			
11 Total Quantity No. of Containers	(104 St. 212.5 + 140 + 68 + 2 m ³ or MT + 3 St. 15 + 895 Kg Nos.			
12 Physical Form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)			
13 Special Handling Instructions & Additional Information	Do not throw Drums from truck. In case of leakage/seepage, use Washing soap at point of leak to stop its leakage.			
14 SENDER'S CERTIFICATE		I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised packed, marked and labeled, and are in all respects in proper condition for transport by road.		
Typed Name & Stamp	Signature	Month	Day	Year
		06	18	2021
15 Transporter Acknowledgement of Receipt of Waste		Month	Day	Year
Typed Name & Stamp	Signature	06	18	2021
16 Receiver's Certificate for Receipt of Hazardous and other Waste		Month	Day	Year
Typed Name & Stamp	Signature	06	18	2021

E-WASTE MANIFEST

S.No.: 1359

1 Occupier's Name & Mailing Address (including Phone No. and email)		CL Gupta. Exports, Ltd, Vill - Jwal, Amroha.							
2 Sender's Authorization No. if applicable									
3 Manifest Document No		Challan Date - 18/06/2021							
4 Transporter's Name & Address (including Phone No. and email)									
5 Type of Vehicle		(Truck / Container / Special Vehicle)							
6 Transporter's Registration									
7 Vehicle Registration No.		UP23AT-K10							
8 Receiver's Name & Mailing Address (including Phone No. and email)		(I) BHARAT OIL COMPANY (I) REGD. E-18, Site-IV, Sahibabad Industrial Area, Ghaziabad, UP-201010 Tel: 0120-4187924, E-mail: sales@bharatoil.com							
(II) BHARAT OIL & WASTE MANAGEMENT LTD Kauza Mukampur, Roorkee-Lalstar Road, Roorkee - 221301, U.K Tel: 036874237664, E-mail: sales@bharatoil.com		(III) BHARAT OIL & WASTE MANAGEMENT LTD. Plot # 672, Sikandra Road, NH-2, Kumbhi Village, Tehsil Akharpur, Kannur Distt. UP. Tel: 0512-2285296, E-mail: sales@bharatoil.com							
9 Receiver's Authorization No. if applicable		(I) G-132/Haz Order-30/13							
(ii) UEPPC3/HO/Haz-B-06/11/290		(II) 93/C-2/Haz/857/13							
10 Description of E-Waste	Code	Desc.	Qty	Code	Desc.	Qty.	Code	Desc	Qty.
		Old Battery	30.6 Kg						
11 Name and Stamp of Sender* (Manufacturer or Franchiser or Bulk Consumer or Collection Centre or Refurbisher or Dismantler)									
Signature: _____									
Month: 06 Day: 18 Year: 2021									
12 Transporter Acknowledgement of Receipt of E-Waste									
Name & Stamp: _____ Signature: _____									
Month: 06 Day: 18 Year: 2021									
13 Receiver* (Collection Centre or Refurbisher or Dismantler or Recycler) Certificate for Receipt of E-Waste (* As Applicable)									
Name & Stamp: _____ Signature: _____									
Month: 06 Day: 19 Year: 2021									



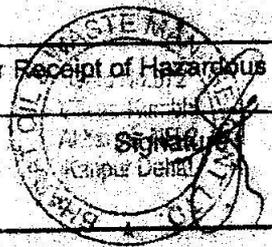
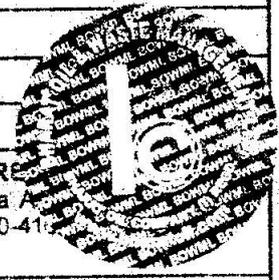
E WASTE TYPE	CODE	E WASTE TYPE	CODE	E WASTE TYPE	CODE	E WASTE TYPE	CODE
CPU: Mainframes, Minicomputers	ITEM1	Telephones	ITEM12	UPS, Inverter, Power Strips	BOCI7	Fluorescent and other Mercury containing lamps	CEEW5
PC: CPU with Monitor & Keyboard, Mouse	ITEM2	Pay telephones	ITEM13	Printer	BOCI8		
Laptop	ITEM3	cordless telephones	ITEM14	Misc IT	BOCI9		
Notebook	ITEM4	Cellular telephones	ITEM15				
Tablets	ITEM5	Answering systems	ITEM16	Consumer electrical and electronics:	CEEW1	ROG/ROWEL Codes:	
Printers including cartridges	ITEM6	Cathode Ray Tubes (CRT)	BCCI1	Television sets (including cable based)	CEEW2	Copper Wire	BCGCE1
Copying equipment	ITEM7	Flat Panel Displays	BCCI2	on (Liquid Crystal Display and Light	CEEW3	Dry Cell Battery	BCGCE2
Electrical and electronic typewriters	ITEM8	Keyboards, Mouse	BCCI3	Emitting Diode technology	CEEW4	Lead Acid Battery; UPS (batter y	BCGCE3
User terminals and systems	ITEM9	Modems, Hub, Switch	BCCI4	Refrigerator	CEEW5	Motors	BCGCE4
Facsimile	ITEM10	Mother Board	BCCI5	Washing Machine	CEEW6	Transformers, CVT	BCGCE5
Telex	ITEM11	Memory Modules-SRAM/DRAM	BCCI6	Air-conditioners excluding	CEEW7	Speakers	BCGCE6
		Flash Drives, Disk Drive	BCCI7	centralized air conditioning	CEEW8	AUDIO/VIDEO SYSTEMS	BCGCE7
				centralized air conditioning		Miscellaneous IT	BCGCE8

MANIFEST FOR HAZARDOUS AND OTHER WASTE

S.No.:

47664

1 Occupier's Name & Mailing Address (including Phone No. and email)	C.L. Gupta Exports Ltd. Vill- Jwai Amroha						
2 Sender's Authorization No.							
3 Manifest Document No.	Challan - Dated - 11/05/2021						
4 Transporter's Name & Address (including Phone No. and email)							
5 Type of Vehicle	(Truck / Tanker / Special Vehicle)						
6 Transporter's Registration							
7 Vehicle Registration No.	UP23AT-1470						
8 Receiver's Name & Mailing Address (including Phone No. and email)	(I) BHARAT OIL COMPANY (I) RE E-18, Site-IV, Sahibabad Industria A Ghaziabad, UP-201010 Tel.: 0120-41 e-mail:sales@bharatoil.com						
(II) BHARAT OIL & WASTE MANAGEMENT LTD. Mauza Mukimpur, Roorkee-Lakshar Road, Roorkee - 247664 UK. Tel.:08874207654 e-mail:sales@bharatoil.com	(III) BHARAT OIL & WASTE MANAGEMENT LTD. Plot # 672, Sikandra Road, NH-2, Kumbhi Village, Tehsil Akbarpur, Kanpur Dehat, UP, Tel.: 0512-2285296 e-mail:sales@bharatoil.com						
9 Receiver's Authorization No.	(I) 1486/UPPCB/Ghaziabad(UPPCBRO)/HWW/GHAZIABAD/2018 Valid upto: 03/05/2023						
(ii) UEPPCB/HO/Con-B-84/2018/548 Valid upto: 31/03/2023	(II) 1403/UPPCB/KanpurDehat(UPPCBRO)/HWW/KANPUR DEHAT/2018 Valid upto: 30/04/2023						
10 Waste Description	ETP Sludge Empty Container Empty Colligated Carton Used Oil, Dirty Rags, Cabin Filters, Mixture, Dust						
11 Total Quantity No. of Containers	1050kg + 267.5kg + 118kg + 80kg or MT 4.5kg + 4.25kg + 23.5kg + 953 Nos.						
12 Physical Form	(Solid/Semi-Solid/Sludge/Dirt/Tarry/Slurry/Liquid)						
13 Special Handling Instructions & Additional Information	Do not throw Drums from truck. In case of leakage/ seepage, use Washing soap at point of leak to stop its leakage.						
14 SENDER'S CERTIFICATE	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised packed, marked, and labeled, and are in all respects in proper condition for transport by road						
Typed Name & Stamp : Signature :	<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>05</td> <td>11</td> <td>2021</td> </tr> </table>	Month	Day	Year	05	11	2021
Month	Day	Year					
05	11	2021					
15 Transporter Acknowledgement of Receipt of Waste	<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>05</td> <td>11</td> <td>2021</td> </tr> </table>	Month	Day	Year	05	11	2021
Month	Day	Year					
05	11	2021					
Typed Name & Stamp : Signature :							
16 Receiver's Certificate for Receipt of Hazardous and other Waste	<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>05</td> <td>11</td> <td>2021</td> </tr> </table>	Month	Day	Year	05	11	2021
Month	Day	Year					
05	11	2021					
Typed Name & Stamp : Signature :							



E-WASTE MANIFEST

S.No.: 1257

1 Occupier's Name & Mailing Address (including Phone No. and email)	C.L. Gupta Exports Ltd. Vill. Jivai Amroha
2 Sender's Authorization No. if applicable	
3 Manifest Document No.	Challan - Date: 11/05/2021
4 Transporter's Name & Address (including Phone No. and email)	
5 Type of Vehicle	(Truck / Container / Special Vehicle)
6 Transporter's Registration	
7 Vehicle Registration No.	UP23AT-1470
8 Receiver's Name & Mailing Address (including Phone No. and email)	(I) BHARAT OIL COMPANY (I) REGD. E-18, Site-IV, Sahibabad Industrial Area, Ghaziabad Tel.: 0120-4167924, E-mail:sales@bharatoil.com
(II) BHARAT OIL & WASTE MANAGEMENT LTD. Mauza Makimour, Roorkee-Lakshar Road, Roorkee - 247634 UK Tel. 05814207634 E-mail:sales@bharatoil.com	(III) BHARAT OIL & WASTE MANAGEMENT LTD. Plot # 672, Sikandra Road, NH-2, Kurathi Village, Teesri Akbarpur, Kanpur Dehat, UP. Tel : 05 2-2285296, E-mail:sales@bharatoil.com
9 Receiver's Authorization No. if applicable	(I) G-132/Haz Order-30/13 (II) UEPF/CB/HO/Haz-B-06/11/290 (III) G-93/C-2/Haz/657/13



10 Description of E-Waste	Code	Desc.	Qty.	Code	Desc.	Qty.	Code	Desc.	Qty.
		old Battery - 35.6 Kg. (22 Pcs)							

11 Name and Stamp of Sender* (Manufacturer or Producer or Bulk Consumer or Collection Centre or Refurbisher or Dismantler):	Month	Day	Year
Signature:	05	11	2021
12 Transporter Acknowledgement of Receipt of E-Waste	Month	Day	Year
Name & Stamp: Signature:	05	11	2021
13 Receiver* (Collection Centre or Refurbisher or Dismantler or Recycler) Certificate for Receipt of E-Waste (* As Applicable)	Month	Day	Year
Name & Stamp: Signature:	05	11	2021



E WASTE TYPE	CODE	E WASTE TYPE	CODE	E WASTE TYPE	CODE	E WASTE TYPE	CODE
CPU: Mainframes, Minicomputers	ITEM1	Telephones	ITEM2	UPS, Inverters, Power Strips	BOC01	Fluorescent and other Mercury containing lamps	CEW5
PC: CPU with Monitor & Keyboard, Mouse	ITEM2	Pay telephones	ITEM3	Printers	BOC02		
Laptop	ITEM3	Cordless telephones	ITEM4	Misc IT	BOC03		
Notebook	ITEM4	Cellular telephones	ITEM5	Consumer electrical and electronic		BOC/ROWM Codes:	
Tablets	ITEM5	Answering systems	ITEM6	Television sets (including sets based on Liquid Crystal Display and Light Emitting Diode technology)	CEEW1	Copper Wire	BOCCE1
Printers including cartridges	ITEM6	Cathode Ray terminals (CRT)	ITEM7	Refrigerator	CEEW2	Dry Cell Battery	BOCCE2
Copying equipment	ITEM7	Flat Panel Displays	ITEM8	Washing Machine	CEEW3	Lead Acid Battery; UPS Battery	BOCCE3
Electrical and electronic typewriters	ITEM8	Keyboards, Mouse	ITEM9	Air-conditioners including central air conditioning	CEEW4	Motors	BOCCE4
User terminals and systems	ITEM9	Modem, Hub, Switch	ITEM10			Transformers, CVT	BOCCE5
Facsimile	ITEM10	Mother Board	ITEM11			Speakers	BOCCE6
Telex	ITEM11	Memory Modules-SRAM/DRAM				AUDIO/VIDEO SYSTEMS	BOCCE7
		Flash Drives, Disk Drive				Nickel-Ni	BOCCE8

FORM 10

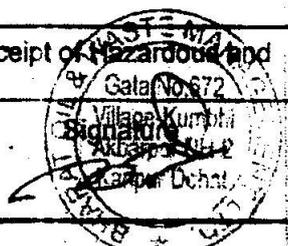
Copy for SPCB

[See rule 19 (1)]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

S.No.: 46655

1 Occupier's Name & Mailing Address (including Phone No. and email)	C.L. Gupta Exports Ltd. 18 Km Beha Moradabad, Delhi Highway Vill. Inai, Amroha - 244221 U.P.		
2 Sender's Authorization No.			
3 Manifest Document No.	Challan Dated: 20.03.2021		
4 Transporter's Name & Address (including Phone No. and email)	By Occupier		
5 Type of Vehicle	(Truck / Tanker / Special Vehicle)		
6 Transporter's Registration			
7 Vehicle Registration No.	UP23 AT 1470		
8 Receiver's Name & Mailing Address (including Phone No. and email)	(I) BHARAT OIL COMPANY (I) E-18, Site-IV, Sahibabad Industrial Ghaziabad, UP-201010 Tel.: 0120-416722 e-mail:sales@bharatoil.com		
(II) BHARAT OIL & WASTE MANAGEMENT LTD. Mauza Mukimpur, Roorkee-Lakshar Road, Roorkee - 247664 UK, Tel. :09374207664 e-mail:sales@bharatoil.com	(III) BHARAT OIL & WASTE MANAGEMENT LTD. Plot # 672, Sikandra Road, NH-2, Kumbhi Village, Tehsil Akbarpur, Kanpur Dehat UP, Tel. : 0512-2285296 e-mail:sales@bharatoil.com		
9 Receiver's Authorization No.	(I) 148AUPPCB/Ghaziabad(UPPCBRO)/HWM/GHAZIABAD/2018 Valid upto: 30/03/2023		
(ii) UEPPCB/HO/Con-B-84/2018/548 Valid upto: 31/03/2023	(III) 148BUPPCB/KanpurDehat(UPPCBRO)/HWM/KANPUR DEHAT/2018 Valid upto: 30/04/2023		
10 Waste Description	Sludge (STP Plant Booth) = 960 Kg, Empty Containers = 457 Nos, Empty Corrugated Carton = 160 Kg, Used oil = 25 Hr, Oily Paper = 375		
11 Total Quantity No. of Containers	Cotton Glue = 234 Nos, Used Mop = 9 Kg, Solid oil = 980 Kg Nos.		
12 Physical Form	✓ (Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)		
13 Special Handling Instructions & Additional Information	Do not throw Drums from truck. In case of leakage/seepage, use Washing soap at point of leak to stop its leakage.		
14 SENDER'S CERTIFICATE	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorized, packed, marked, and labeled, and are in all respects in proper condition for transport by road		
Typed Name & Stamp : Signature :	Month Day Year 03 20 2021 Amroha		
15 Transporter Acknowledgement of Receipt of Waste	Month Day Year 03 20 2021		
Typed Name & Stamp : Signature :	Month Day Year 03 21 2021		
16 Receiver's Certificate for Receipt of Hazardous and other Waste	Month Day Year 03 21 2021		
Typed Name & Stamp :	Gata No. 672 Village Kumbhi Akbarpur, Kanpur Dehat		



E- WASTE MANIFEST

S.No.: 1336

1 Occupier's Name & Mailing Address (including Phone No. and email)	C.L. Gupta Exports Pvt. Ltd. 18 Km. Behre Moradabad, Delhi Highway Village Jwal Ambaha
2 Sender's Authorization No. If applicable	
3 Manifest Document No.	Kallan Dated - 20/03/2021
4 Transporter's Name & Address (including Phone No. and email)	By Occupier
5 Type of Vehicle	(Truck / Container / Special Vehicle)
6 Transporter's Registration	
7 Vehicle Registration No.	UP23AT-1470
8 Receiver's Name & Mailing Address (including Phone No. and email)	(i) BHARAT OIL COMPANY (I) REGD. E-18, Site-IV, Sahibabad Industrial Area, Ghaziabad, UP-201010 Tel.: 0120-4167924, E-mail:sales@bharatoil.com
(ii) BHARAT OIL & WASTE MANAGEMENT LTD. Mauza Mukimpur, Roorkee-Lakshar Road, Roorkee - 247664 UK Tel. 08874207664, E-mail:sales@bharatoil.com	(iii) BHARAT OIL & WASTE MANAGEMENT LTD. Plot # 672, Sikandra Road, NH-2, Kumbhi Village, Tehsil Akbarpur, Kanpur Dehat, UP. Tel 0512-2285298, E-mail:sales@bharatoil.com
9 Receiver's Authorization No. if applicable	(i) G-132/Haz Order-30/13 (ii) UEPPCB/HO/Haz-B-08/11/290 (iii) 93/G-2/Haz/657/13



10 Description of E-Waste	Code	Desc.	Qty.	Code	Desc.	Qty.	Code	Desc.	Qty.
		Old Battery =	36 Kg		= 20 Pcs				

11 Name and Stamp of Sender* (Manufacture or Producer or Bulk Consumer or Collection Centre or Refurbisher or Dismantler) :

Month Day Year

Signature : 03 20 20 21

12 Transporter Acknowledgement of Receipt of E-Waste

Name & Stamp : Signature :

Month Day Year

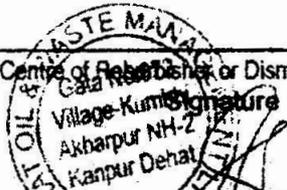
03 20 20 21

13 Receiver* (Collection Centre or Refurbisher or Dismantler or Recycler) Certificate for Receipt of E-Waste (* As Applicable)

Name & Stamp : Signature :

Month Day Year

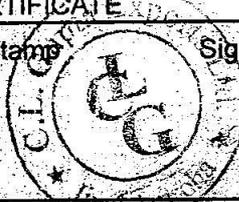
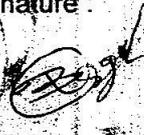
03 21 20 21



E WASTE TYPE	CODE	E WASTE TYPE	CODE	E WASTE TYPE	CODE	E WASTE TYPE	CODE
CPU: Mainframes, Minicomputers	ITEW1	Telephones	ITEW12	UPS, Inverters, Power Strips	BOCI7	Fluorescent and other Mercury containing lamps	CEEW5
PC-CPU with Monitor & Keyboard, Mouse	ITEW2	Pay telephones	ITEW13	Printer	BOCI8		
Laptop	ITEW3	Cordless telephones	ITEW14	Disc IT	BOCI9		
Notebook	ITEW4	Cellular telephones	ITEW15				
Tablets	ITEW5	Answering systems	ITEW16	Consumer electrical and electronics	CEEW1	BOC/BOW/BL Codes:	BOCCE1
Printers including cartridges	ITEW6	Cathode Ray Terminals (CRT)	BOCI1	Television sets (Including sets based on Liquid Crystal Display and Light Emitting Diode technology)	CEEW2	Copper Wire	BOCCE2
Copying equipment	ITEW7	Flat Panel Displays	BOCI2	Refrigerator	CEEW3	Dry Cell Battery	BOCCE3
Electrical and electronic typewriters	ITEW8	Keyboards, Mouse	BOCI3	Washing Machine	CEEW4	Lead Acid Battery; UPS Battery	BOCCE4
User terminals and systems	ITEW9	Modem, Hub, Switch	BOCI4	Air-conditioner		Motors	BOCCE5
Facsimile	ITEW10	Mother Board	BOCI5	Refrigerator		Transformers, CVT	BOCCE6
Telex	ITEW11	Memory Modules-SRAM/DRAM	BOCI6	Air-conditioner excluding controlled air conditioning		Speakers	BOCCE7
		Flash Drivers, Disk Drive				AUDIO/VIDEO SYSTEMS	BOCCE8
						Miscellaneous IT	BOCCE9

MANIFEST FOR HAZARDOUS AND OTHER WASTE

S.No. **45920**

1 Occupier's Name & Mailing Address (including Phone No. and email)	<i>Export</i>
2 Sender's Authorization No.	
3 Manifest Document No.	<i>Waste Paper - 07-02-2021</i>
4 Transporter's Name & Address (including Phone No. and email)	
5 Type of Vehicle	(Truck/Tanker/Special Vehicle)
6 Transporter's Registration	
7 Vehicle Registration No.	
8 Receiver's Name & Mailing Address (including Phone No. and email) CIN: U14201DL2007PLC160923	(i) BHARAT OIL COMPANY E-18, Site-IV, Sahibabad Industrial Shahzadpur, UP-201010 Tel: 0120-2711111 e-mail: sales@bharatol.com
(ii) BHARAT OIL & WASTE MANAGEMENT LTD. Mauza Mukinpur, Boetkee-Lakshar Road, Bareilly-241664, UP. Tel: 08874207664 e-mail: sales@bharatol.com	(iii) BHARAT OIL & WASTE MANAGEMENT LTD. Plot No 77, Sikandra Road, NH-2, Kumbhi Village, Khasi Akhatpur, Kanpur Dehal, UP. Tel: 0512-2285296 e-mail: SAC@bharatol.com
9 Receiver's Authorization No.	UPPCB/CR-5/20/2015/300 and no. 2403/2023
(iv) UPPCB/CR-5/20/2015/300 and no. 2403/2023	UPPCB/CR-5/20/2015/300 and no. 2403/2023
10 Waste Description	
11 Total Quantity No. of Containers	<i>2499 Nos</i>
12 Physical Form	(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)
13 Special Handling Instructions & Additional Information	Do not throw Drums from truck. In case of leakage/seepage, use Washing soap at point of leak to stop its leakage.
14 SENDER'S CERTIFICATE	I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised packed, marked, and labeled, and are in all respects in proper condition for transport by road
Typed Name & Stamp 	Signature: 
15 Transporter Acknowledgement of Receipt of Waste	Month Day Year 02 09 2021
Typed Name & Stamp 	Signature Month Day Year 02 09 2021
16 Receiver's Certificate for Receipt of Hazardous and other Waste	Month Day Year 02 10 2021
Typed Name & Stamp 	Signature Month Day Year 02 10 2021

FORM-4

[See rules 5(6) and 22(2)]

FORM FOR FILING ANNUAL RETURNS
BY THE OCCUPIER OR OPERATOR OF A FACILITY[To be submitted by occupier/operator of disposal facility to State Pollution Control Board/
Pollution Control Committee by 30th June of every year for the preceding period 1st April 2020
to 31st March 2021]

1.	Name and address of the generator/operator of facility	: C. L. Gupta Exports Ltd. Vill- Jivai, 18 Kms Stone before Moradabad – Delhi Highway NH-24 Amroha (U.P)-244221			
2.	Name of the Authorized person and full address with telephone and fax number	: A. K. Johri C. L. Gupta Exports Ltd. Vill- Jivai, 18 Kms Stone before Moradabad – Delhi Highway NH-24 Amroha (U.P)-244221 Tel: 0591-2477450, 98370-38040 Fax: 0591-2477300			
3.	Description of hazardous waste	: Physical form with description		Chemical form	
		Used Mask, Gloves		Sludge	
		Batteries, Tube Lights		Used Oil	
		Empty Containers etc.			
4.	Consented quantity of product/others	: As per authorization			
5.	Quantity of hazardous Wastes (in MTA) Note: If the space is not sufficient enclose annexure	: Type of hazardous waste as per Authorization		Quantity (in Kg)	
				Authorized	Generated (Kg)
		1. Sludge (ETP-Paint Booth)	ETP-40 Kg/day Booth- 50 Kg/month		10071
		2. Old Batteries	20 Nos./month		401.4
		3. Used Masks	10 Kg/day		143.68
		4. Empty Containers	50 Nos./day		414.33
		5. Empty Corrugated	08 Kg/day		304.5
		6. Rubber Gloves	05 Kg/day		111.6
		7. Cotton Gloves	10 Kg/day		59.75
		8. Used Oil	0.1 KL/month		168
		9. Used Filter	05 Nos./month		13.16
		10. Polish Dust	1000 Kg/month		2230
		11. Oily Rags	0.15 Kg/day		9.75
6.	Description of Storage	: SLUDGE CHAMBER OF ETP PLANT			
7.	Description of Treatment	: As per authorization No. 8531/UPPCB/Bijnore (UPPCBRO)/HWM/YOTIBA PHUL NAGAR/2019 Dated: 16/07/2019			
8.	Details of transportation	Name & address of consignee	Mode of packing	Mode of transportation	Transportation Date
		M/s Bharat Oil & Waste Management Ltd. Kanpur	Every 3 Month Bags	Authorized Vehicle	Same Day
10.	Details of disposal of hazardous waste	Name & address of consignee	Mode of packing	Mode of transportation	Transportation Date
		M/s Bharat Oil & Waste Management Ltd. Kanpur	Every 3 Month Bags	Authorized Vehicle	Same Day
11.	Quantity of useful Materials sent back to the manufacturers* and others#	: Name and Type of Material sent back to Manufacturers* and Others#			NII

*delete whichever is not applicable

#encloselistofotheragencies

Date: 22/06/2021
Place: Jivai, AmrohaSignature: A. K. Johri
Designation: GM (HR/Adm)

From: Neeraj Bansal <nbansal@clgupta.com>
To: nbansal@clgupta.com
Cc: nbansal@clgupta.com
Subject: UTR NO OF UP POLLUTION CONTROL BOARD (NEFT)

Sent: Fri 19 Jun 20 5:02 PM

R/Sir

We are given below the UTR No. of Amount paid to U P Pollution Control Board :-

19/06/2020	CHQ TRANSFER-NEFT UTR NO: SBIN220171842298--140027 UP POLLUTION CONTROL BOARD	/ 140027 UP POLLUTION CONTROL BOARD		4113	3753600
19/06/2020	CHQ TRANSFER-NEFT UTR NO: SBIN220171842422--140026 UP POLLUTION CONTROL BOARD	/ 140026 UP POLLUTION CONTROL BOARD		4113	10000
19/06/2020	CHQ TRANSFER-NEFT UTR NO: SBIN220171867465--140025 UP POLLUTION CONTROL BOARD	/ 140025 UP POLLUTION CONTROL BOARD		4113	100000

Regards

Neeraj Bansal
C L Gupta Exports Limited
18 KM Before Amroha- 244221
CIN No. U74999 DL2004 PLC 125090



You forwarded this message on 25 Dec 20 12:11 PM.

From: Neeraj Bansal <nbansal@dgplata.com>
To: agp@nrtgs.pla.com
Cc:
Subject: FW: RTGS UTR

Sent: Fri 06 Nov 20 9:59 AM

R/sir

We are given below the details of RTGS paid to U P Pollution Control Board .

05/11/2020	05/11/2020	CHQ TRANSFER-RTGS UTR NO: SBINR52020110500162607--443437 UP POLLUTION CONTROL BOARDS	/443437 UP POLLUTION CONTROL BOARDS	4113	612567
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Regards

Neeraj Bansal



AK Johri

From: Neeraj Bansal <nbansal@clgupta.com>
Sent: Tuesday, June 08, 2021 4:41 PM
To: ajaijohri@clgupta.com
Subject: UTTAR PRADESH POLLUTION CONTROL BOA

R/Sir

We are given below the UTR No. against payment paid to U P Pollution Control Board:

TO TRANSFER
08-Jun-2021 (08-Jun-2021) INB NEFT UTR NO: SBIN421159087452
UTTAR PRADESH POLLUTION CONTROL BOA

70.96.400.00

Regards

Neeraj Bansal
C L Gupta Exports Ltd
18th Km Before Moradabad, Delhi Highway,
Vill. Jivai , amroha-244221, India.
CIN No. U44999 DL2004 PLC 125090



AK Johri

From: Neeraj Bansal <nbansal@clgupta.com>
Sent: Saturday, July 10, 2021 11:59 AM
To: ajaijohri@clgupta.com
Subject: UP POLLUTION CONTROL BOARD

R/Sir

We are given below the UTR no. against payment paid to U P Pollution control Board for your information please

Txn Date	Value Date	Description	Ref No./Cheque No.	Branch Code	Debit
10/07/2021	10/07/2021	TO TRANSFER-INB NEFT UTR NO: SBIN121191377343--UP POLLUTION CONTROL BOARD	NEFT INB: AODN155977 POLLUTION CONTROL BOARD	TRANSFER TO 3197944044306 / UP 99922	67160

Regards

Neeraj Bansal
C L Gupta Exports Ltd
18th Km Before Moradabad, Delhi Highway,
Vill. Jivai , amroha-244221, India.
CIN No. U44999 DL2004 PLC 125090

Table 5.57 Typical process parameters for SBR configurations (for unsettled sludge)

S. No.	Parameters	Units	Continuous Flow and Intermittent Decant	Intermittent Flow and Intermittent Decant
1	F/M ratio	d ⁻¹	0.05 - 0.08	0.05 - 0.3
2	Sludge Age	d	15 - 20	4 - 20
3	Sludge Yield	kg dry solids/ kg BOD	0.75 - 0.85	0.75 - 1.0
4	MLSS	mg/L	3,000 - 4,000	3,500 - 5,000
5	Cycle Time	h	4 - 8	2.5 - 6
6	Settling Time	h	> 0.5	> 0.5
7	Decant Depth	m	1.5	2.5
8	Fill Volume Base	-	Peak Flow	Peak Flow
9	Process Oxygen			
	BOD	kg O ₂ /kg BOD	1.1	1.1
	TKN	kg O ₂ /kg TN	4.6	4.6
* For Phosphorous ≤ 1 mg/L, after bio-P removal, metal precipitant (Fe ³⁺ or Al ³⁺) shall be added. Sludge yield factor and sludge age not applicable for primary settled sewage; typical primary TSS removal 60%, BOD 30%.				

In the case of SBR, the biomass metabolism takes place under "unsteady state conditions" where the BOD profile decreases with time during the batch time interval. Thus, calculating the oxygen requirements is a challenge depending on many factors. In actual practice, the oxygen requirement is calculated as though it is a steady state condition as in the CFR and then the rate of air delivery to the basin is calculated by delivering the entire volume of air in the actual aeration interval. This will need a much bigger air compressor and air diffuser system.

However the motor is controlled by VFD and thereby the delivery of the compressor is gradually adjusted down to suit the real need or maintained as it is based on maintaining the required residual D O in the basin at the end of aeration. It is a unique feature in the design of SBR aeration facilities.

However, it needs a focussed study to establish the actual oxygen uptake rate as a function of aeration interval to make future designs more realistic. Such data as validated by actual observations is not found in literature.

5.18.12.4.1 Disinfection tank volume

The capacity of the chlorine contact tank for the treated sewage of batch processes such as the SBR will be based on 30 minutes detention time of the rate of decant flow calculated as volume of decant flow divided by the duration of decanting of any one or multiple reactors decanting simultaneously.

Table 2-13
Metals of importance in wastewater management^a

Metal	Symbol	Nutrients necessary for biological growth		Concentration threshold of inhibitory effect on heterotrophic organisms, mg/L	Used to determine SAR for land application of effluent	Used to determine if biosolids are suitable for land application
		Macro	Micro ^b			
Arsenic	As			0.05		✓
Cadmium	Cd			1.0		✓
Calcium	Ca	✓			✓	
Chromium	Cr		✓	10 ^c , 1 ^d		
Cobalt	Co		✓			
Copper	Cu		✓	1.0		✓
Iron	Fe	✓				
Lead	Pb		✓	0.1		✓
Magnesium	Mg	✓	✓		✓	
Manganese	Mn		✓			
Mercury	Hg			0.1		✓
Molybdenum	Mo		✓			✓
Nickel	Ni		✓	1.0		✓
Potassium	K	✓				
Selenium	Se		✓			✓
Sodium	Na	✓			✓	
Tungsten	W		✓			
Vanadium	V		✓			
Zinc	Zn		✓	1.0		✓

^aFrom Crites and Tchobanoglous (1998).

^bOften identified as trace elements needed for biological growth.

^cTotal chromium.

^dHexavalent chromium.

Typical Effluent Discharge Limits for Metals

Increasingly, metallic constituents in effluent discharges and in-biosolids are being regulated. Typical discharge requirements for metals and other toxic constituents are reported in Table 2-15. In addition to complying with existing U.S. EPA requirements, many states have adopted more restrictive standards to protect specific beneficial uses.