

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,
PRINCIPAL BENCH, NEW DELHI**

O.A. No. 204/2021

Chanchal Devi

Applicant(s)

Vs

Central Pollution Control Board & Ors.

Respondent(s)

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14/1/22

(Recna Satavan)

Scientist-D

Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi- 110032

Place: Delhi
Date: 14.01.2022

Action taken report in O.A. No. 204/2021 in the matter of Chanchal Devi Vs Central Pollution Control Boards & Ors.

Present matter is related to violation of environmental norms in operation of sugar factory at Village Malaysia, Tehsil Dhanaura, District Amroha, U.P. by M/s Wave Industries Pvt. Ltd., District Amroha, U.P. (herein after referred to as 'the unit').

It is alleged that the said industrial unit is bypassing the untreated waste and contaminated water in open area and into the fields of the farmers, resulting in damage to the environment. The waste water has toxic chemicals. 4–5 kilometer of area has been affected by the said pollution. Water coming from handpumps is brownish in colour in the area and is full of chemicals. It is resulting in hazard to the public health, affecting 5000 students of more than 20 schools and around 1.5 lakh residents of around 15 villages who are in close proximity of this unit.

Hon'ble NGT considered the matter on 19.08.2021 and directed the following:

“3. We are of the view that facts need to be verified by the statutory regulators and, based on such verification, remedial action needs to be taken. For this purpose, we constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law. The Committee may inter alia furnish status of compliance of Consent conditions and standards prescribed including performance of ZLD conditions and discharge of effluents on land or in drain. The ground water quality in the area be monitored with reference to color and feedback taken from the public in the area.

4. The action taken report may be filed within two months 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. If the report is adverse to the industrial unit, a copy thereof may be furnished to the said unit for its response, if any, before the next date.”

In compliance to the Hon'ble NGT order dated 19.08.2021 (**Annexure-I**), CPCB received a letter dated 01.09.2021(**Annexure-II**) from Uttar Pradesh pollution Control Board (UPPCB) regarding the nomination from CPCB for the joint inspection to be conducted in the matter. CPCB vide letter dated 10.09.2021 (**Annexure-III**), nominated its representative for the joint inspection and also scheduled a committee meeting vide the same letter.

Accordingly, a meeting with committee members was convened on 13.09.2021 through video conference with officials from CPCB, UPPCB, CGWA and District Administration Dhanaura. During the meeting, it was informed that the unit was closed since 14.05.2021. In view of this, it was decided that the inspection may be carried out once the unit commences its

crushing season 2021-22. Minutes of the meeting were received from UPPCB vide letter dated 01.10.2021. The same is annexed at **Annexure-IV**.

The joint inspection of the unit was scheduled on 11.11.2021 and the same was communicated to the committee members vide CPCB letter dated 10.11.2021. Copy of the letter is annexed at **Annexure-V**. Accordingly, joint inspection of the unit was carried out on 11.11.2021 by officials from CPCB, UPPCB and SDM Dhanaura. Ground water samples were also taken from hand pumps in in the vicinity of the unit's premises to monitor the ground water quality of the nearby areas. The analysis results of these samples are provided in the inspection report.

As mentioned in the inspection report, considering the analysis results from the samples collected from ETP inlet channel and various subunits of ETP and as per the physical condition of Primary Clarifier and Secondary Clarifier, Sludge Drying Bed & Decanter, it can be concluded that unit was not maintaining and operating the ETP properly.

Detailed inspection report including the observations made during the inspection and the recommendations of joint inspection team is annexed at **Annexure-VI**. The concerned SDM has neither signed the inspection report nor provided his recommendations on the report.

Now this report is submitted for consideration of Hon'ble Tribunal.

Item No. 03

(Court No.1)

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

(By Video Conferencing)

Original Application No. 204/2021

Chanchal Devi

Applicant

Versus

Central Pollution Control Board & Ors.

Respondent(s)

Date of hearing: 19.08.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE MR. JUSTICE BRIJESH SETHI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Applicant: Ms. Mansi Chahal, Advocate

ORDER

1. Grievance in this application is against violation of environmental norms in operation of sugar factory at Village Malaysia, Tehsil Dhanaura, District Amroha, U.P. by Wave Industries Pvt. Ltd., District Amroha, U.P.
2. It is alleged that the said industrial unit is bypassing the untreated waste and contaminated water in open area and into the fields of the farmers, resulting in damage to the environment. The waste water has toxic chemicals. 4-5 kilometer of area has been affected by the said pollution. Water coming from handpumps is brownish in colour in the area and is full of chemicals. It is resulting in hazard to the public health, affecting 5000 students of more than 20 schools and around 1.5 lakh residents of around 15 villages who are in close proximity of this unit. The unit is also illegally extracting groundwater without requisite permission even though the block in question is in the category of 'over-exploited'. The

applicant made representations dated 14.07.2021 and 30.07.2021 to the State PCB, Central Ground Water Authority (CGWA), Chief Secretary, UP and District Magistrate, Amroha but no action has been taken.

3. In view of above, we are of the view that facts need to be verified by the statutory regulators and, based on such verification, remedial action needs to be taken. For this purpose, we constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law. The Committee may inter alia furnish status of compliance of Consent conditions and standards prescribed including performance of ZLD conditions and discharge of effluents on land or in drain. The ground water quality in the area be monitored with reference to color and feedback taken from the public in the area.

4. The action taken report may be filed within two months 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. If the report is adverse to the industrial unit, a copy thereof may be furnished to the said unit for its response, if any, before the next date.

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

The applicant may serve a set of papers on CPCB, State PCB, CGWA and District Magistrate, Amroha and file affidavit of service within one week.

List for further consideration on 26.11.2021.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Brijesh Sethi, JM

Dr. Nagin Nanda, EM

August 19, 2021
Original Application No. 204/2021
DV

H/65221

[सा.ग।ओ.अ.-204/2021

1-9-21

सेवा में,

सदस्य सचिव
केन्द्रीय प्रदूषण नियंत्रण बोर्ड,
परिवेश भवन, पूर्वी अर्जुन नगर,
दिल्ली-110032।

विषय:-माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली में दायर ओ0ए0 सं0-204/2021 चंचल देवी बनाम सेन्ट्रल पोल्यूशन कन्ट्रोल बोर्ड एण्ड अदर्स में पारित आदेश दिनांक 19.08.2021 के अनुपालन में संयुक्त निरीक्षण हेतु नामांकन।

महोदय,

कृपया उपरोक्त विषयक माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली में दायर ओ0ए0 सं0-204/2021 चंचल देवी बनाम सेन्ट्रल पोल्यूशन कन्ट्रोल बोर्ड एण्ड अदर्स में पारित आदेश दिनांक 19.08.2021 के सुसंगत अंश का अवलोकन करना चाहें :-

“.....3. In view of above, we are of the view that facts need to be verified by the statutory regulators and, based on such verification, remedial action needs to be taken. For this purpose, we constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law. The Committee may inter alia furnish status of compliance of Consent conditions and standards prescribed including performance of ZLD conditions and discharge of effluents on land or in drain. The ground water quality in the area be monitored with reference to color and feedback taken from the public in the area.

4. The action taken report may be filed within two months 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. If the report is adverse to the industrial unit, a copy thereof may be furnished to the said unit for its response, if any, before the next date.

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

The applicant may serve a set of papers on CPCB, State PCB, CGWA and District Magistrate, Amroha and file affidavit of service within one week.

List for further consideration on 26.11.2021.

माननीय अधिकरण द्वारा पारित उपरोक्त आदेशों के अनुपालन में केन्द्रीय प्रदूषण नियंत्रण बोर्ड, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, सी0जी0डब्लू0ए एवं जिलाधिकारी, अमरोहा की संयुक्त समिति द्वारा इकाई मै0 वेब इण्डस्ट्रीज प्रा0 लि0 (शुगर इकाई), ग्राम-मलाशिया, तहसील-धनौरा, जनपद-अमरोहा का संयुक्त निरीक्षण किया जाना है। अतः उक्त के क्रम में संयुक्त निरीक्षण हेतु उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा निम्न अधिकारी को नामित किया जाता है :-

1. श्री अशुतोष चौहान, क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर (मो0 नं0 7839891763)।

.....2-

माननीय राष्ट्रीय हरित अधिकरण द्वारा जारी उपरोक्त आदेशों के अनुपालन में संयुक्त निरीक्षण हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड से संबंधित अधिकारी नामित किये जाने एवं तिथि निर्धारित करने का कष्ट करें।

भवदीय,



(अजय कुमार शर्मा)
सदस्य सचिव

प्रतिलिपि:—निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1. जिलाधिकारी, अमरोहा।
2. सदस्य सचिव, सेन्ट्रल ग्राउण्ड वॉटर अथॉरिटी, 18/11 जामनगर हाउस, मानसिंह रोड, नई दिल्ली-110011 को इस आशय से कि कृपया संयुक्त निरीक्षण हेतु संबंधित अधिकारी को नामित करने का कष्ट करें।
3. क्षेत्रीय अधिकारी, उ०प्र० प्रदूषण नियंत्रण बोर्ड, बिजनौर को इस निर्देश के साथ कि उपरोक्त निर्देशानुसार केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं जिलाधिकारी, अमरोहा से संपर्क स्थापित करते हुए संयुक्त निरीक्षण के संबंध में आवश्यक कार्यवाही कराना सुनिश्चित करें।



सदस्य सचिव

o/c Ay - ~~sh~~

By Speed Post/Email

B-19123/WQM-II/Legal/NGT-23/CPCB/2020-21

6105

Date: 10.09.2021

To,

Member Secretary,
Uttar Pradesh Pollution Control Board (UPPCB),
TC-12, Vibhuti Khand, Gomti Nagar,
Lucknow, Uttar Pradesh-226010

Subject: Joint Inspection of Wave Industries Pvt. Ltd., Village Malaysia, Tehsil Dhanaura, District Amroha, U.P. (sugar unit) in compliance to Hon'ble NGT order dated 19.08.2021 (uploaded on 23.08.2021) in the matter Chanchal Devi Vs Central Pollution Control Board in O.A. No. 204/2021 reg.

Sir,

This has reference to your letter dated 01.09.2021 on the above mentioned subject matter.

Mrs. Reena Satavan, Sci. 'D' (Mob. 8376931053 & email id- reenasatawan.cpcb@nic.in) has been nominated to represent CPCB in the joint committee constituted vide the above-mentioned NGT order .

Vide order dated 19.08.2021, Hon'ble NGT has also directed the following;

"We constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law."

In view of above, a meeting of committee as constituted vide Hon'ble NGT order dt. 19.08.2021, is also scheduled to be held on 13.09.2021 at 03:00 PM via video conferencing. Accordingly, all committee members may be communicated.

You are therefore, requested to kindly make it convenient to attend the meeting or depute concerned officials. A line of confirmation through e-mail to ngrba.cpcb@gmail.com will be highly solicited. Link for the meeting shall be shared separately.

Yours faithfully,

A.K. Vidyarthi
10/09/21

(A.K. Vidyarthi)
Additional Director &
Divisional Head, WQM-II

g/c
केन्द्रीय प्रदूषण नियंत्रण बोर्ड
दिनांक... 10/09/21
दिनांक... 14/09/21



उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड

क्षेत्रीय कार्यालय: महर्षि दयानन्द नगर, निकट सैण्टमेरी स्कूल, आदमपुर-चक्कर रोड, बिजनौर-246701

सन्दर्भ सं० : 449/M-38/जनरल-2021

दिनांक : 01-10-2021

सेवा में,

Smt. Reena Satavan, 'Scientist D'
Central Pollution Control Board,
New delhi.

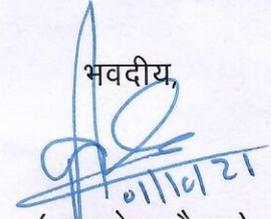
विषय-मा० न्यायालय एन०जी०टी० में वादित ओ०ए०-204/2021 चंचल देवी बनाम केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं अन्य में पारित आदेश दिनांक-19.08.2021 के अनुपालन के सम्बन्ध में दिनांक-13.09.2021 को वीडियो कॉन्फेसिंग के माध्यम से आहूत बैठक के कार्यवृत्त प्रेषण के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक का सन्दर्भ ग्रहण करने का कष्ट करें। उक्त सम्बन्ध में मा० न्यायालय एन०जी०टी० में वादित ओ०ए०-204/2021 चंचल देवी बनाम केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं अन्य में पारित आदेश दिनांक-19.08.2021 के अनुपालन के सम्बन्ध में दिनांक-13.09.2021 को वीडियो कॉन्फेसिंग के माध्यम से आहूत बैठक का कार्यवृत्त पत्र के साथ संलग्न कर आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु प्रेषित है।

संलग्नक-उपरोक्तानुसार।

भवदीय,


(आशुतोष चौहान)
क्षेत्रीय अधिकारी

प्रतिलिपि-

1. सदस्य सचिव महोदय, उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ को सादर सूचनार्थ प्रेषित।
2. मुख्य पर्यावरण अधिकारी (वृत्त-7), उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ को सादर सूचनार्थ प्रेषित।

क्षेत्रीय अधिकारी

Minutes of Meeting dated 13.09.2021 held through video conferencing regarding Joint Inspection of Wave Industries Pvt. Ltd., Village Malaysia, Tehsil Dhanaura, District Amroha, U.P. (sugar unit) in compliance to Hon'ble NGT order dt 19.08.2021 in the matter of Chanchal Devi Vs Central Pollution Control Board in O.A. No. 204/2021

Hon'ble NGT vide order. 19.08.2021 in the matter of Chanchal Devi Vs Central Pollution Control Board, O.A. No. 204/2021 directed,

"We constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law."

To ensure compliance of said Hon'ble NGT order, a meeting of joint Committee was convened on 13.09.2021 at 03:00 P.M. through video conference. The meeting was attended by following officials:

1. Sh. M.R. Chauhan, SDM-Dhanaura
2. Smt. Reena Satavan, 'Scientist D', CPCB
3. Sh. Anil K. Sharma, AEE, UPPCB
4. Sh. Saurabh Saha, AE, GWD, Govt. of Uttar Pradesh.

During the meeting, official of UPPCB informed that unit M/s Wave Industries Ltd., Village-Malaysia, Tehsil- Dhanaura, Dist- Amroha, U.P being a Sugar industry is currently closed since 14.05.2021 due to off-season and same was also communicated by unit vide letter dated 13.05.2021.

In view of this, the committee was of the opinion that the inspection in compliance to Hon'ble NGT order dated 19.08.2021 in the matter of Chanchal Devi Vs Central Pollution Control Board & Ors, O.A. No. 204/2021 may therefore be carried out once the unit commences its crushing season 2021-22.



(Sh. M.R. Chauhan)

(Smt. Reena Satavan)



(Sh. Anil K. Sharma)



(Sh. Saurabh Saha)

By Email

Annexure-V

B-19123/WQM-II/Legal/NGT-23/CPCB/2020-21

Date: 10.11.2021

To,

As per list

Subject: Joint Inspection of Wave Industries Pvt. Ltd., Village Malaysia, Tehsil Dhanaura, District Amroha, U.P. (sugar unit) in compliance to Hon'ble NGT order dated 19.08.2021 (uploaded on 23.08.2021) in the matter Chanchal Devi Vs Central Pollution Control Board in O.A. No. 204/2021 reg.

Sir,

This has reference to CPCB letter dt 01.09.2021 and minutes of meeting dt 13.09.2021 on the above mentioned subject matter., Hon'ble NGT directed the following vide order dated 19.08.2021:

"3. Facts need to be verified by the statutory regulators and, based on such verification, remedial action needs to be taken. For this purpose, we constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law. The Committee may inter alia furnish status of compliance of Consent conditions and standards prescribed including performance of ZLD conditions and discharge of effluents on land or in drain. The ground water quality in the area be monitored with reference to color and feedback taken from the public in the area.

4. The action taken report may be filed within two months 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. If the report is adverse to the industrial unit, a copy thereof may be furnished to the said unit for its response, if any, before the next date."

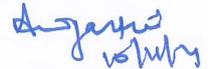
In this regard, a meeting was convened on 13.09.2021 wherein it was decided that the unit may be inspected after commencement of the crushing season for the year 2021-22. Considering that the current crushing season has now commenced, it is proposed that the joint committee inspection may be carried out on 11.11.2021.

In view of above, you are requested to kindly make it convenient to join the joint committee for carrying out the inspection at the given schedule. You are also requested to

o/c

kindly coordinate with Mrs. Reena Satavan, Sci. 'D' (Mob. 8376931053 & email id-reenasatawan.cpcb@nic.in) for the same.

Yours faithfully,



(A.K. Vidyarthi)
Additional Director &
Divisional Head, WQM-II

List of officials:

S.No.	Name of official	Address	Email id
1.	Mr. M.R. Chauhan (SDM Dhanaura)	SDM office, Mandi Dhanaura, Amroha- 244231, UP	
2.	Sh. J.P. Maurya (Regional Officer Bijnor)	Regional Office Bijnor, UPPCB Maharshi Dayanand Nagar, Aadampur-Chakker Road, Bijnor	robijnor@uppcb.in
3.	Sh. Saurabh Saha (Assistant Engineer)	Ground Water Directorate, GoUP: 9th Floor, Indira Bhawan, Ashok Marg Lucknow-26001	gwdmoradabad@gmail.com

Joint Inspection Report

(11.11.2021)

of

M/s Wave Industries Pvt. Ltd., District Amroha- 244221, U.P

Uttar Pradesh

In the Matter of

**Chanchal Devi Vs Central Pollution Control Board & Ors. in O.A. No.
204/2021**

-Prepared by-

The Joint Committee of CPCB & UPPCB

Constituted by

Hon'ble National Green Tribunal

(Order dated 19th August, 2021)



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JOINT INSPECTION REPORT OF M/s, WAVE INDUSTRIES PVT. LTD. AMROHA U.P. ON 11.11.2021 IN COMPLIANCE TO DIRECTION ISSUED BY HON'BLE NATIONAL GREEN TRIBUNAL IN O.A. NO. 204/2021, IN THE MATTER OF CHANCHAL DEVI VS CENTRAL POLLUTION CONTROL BOARD & ORS.- REG.

1.0 BACKGROUND:

Hon'ble NGT vide order dated 19.08.2021 in the matter of Chanchal Devi Vs Central Pollution Control Board & Ors. in O.A. No. 204/2021 had directed following:

".. we are of the view that facts need to be verified by the statutory regulators and, based on such verification, remedial action needs to be taken. For this purpose, we constitute a joint Committee comprising CPCB, State PCB, CGWA and District Magistrate, Amroha. The nominees of the Departments should be of adequate senior rank in order to take credible action. The CPCB and State PCB will be the nodal agency for coordination and compliance. The Committee may meet within 15 days from today, undertake visit to the site, interact with the stakeholders and take remedial action in exercise of its statutory powers, following due process of law. The Committee may inter alia furnish status of compliance of Consent conditions and standards prescribed including performance of ZLD conditions and discharge of effluents on land or in drain. The ground water quality in the area be monitored with reference to color and feedback taken from the public in the area. 4. The action taken report may be filed within two months 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. If the report is adverse to the industrial unit, a copy thereof may be furnished to the said unit for its response, if any, before the next date."

2.0 INSPECTION OF M/S WAVE INDUSTRIES PVT. LTD. AMROHA U.P. ON 11.11.2021 BY JOINT TEAM OF OFFICIALS FROM CPCB AND REGIONAL OFFICE, UPPCB, BIJNOR:

In compliance to the aforesaid direction, a joint team of officials from Central Pollution Control Board, Delhi, Regional Office, Bijnor Uttar Pradesh Pollution Control Board (UPPCB), Uttar Pradesh Ground Water Department (UPGWD) and SDM, Dhanaura, visited the unit M/s Wave Industries Pvt. Ltd. Amroha U.P. premise (hereafter referred as the "Unit") on 11.11.2021.

The groundwater sample was collected from within unit premises as well from nearby areas outside unit viz. Upper primary model school from village Musallepur and Opposite to main gate of the unit, Behind the unit, adjacent to left side wall of Blue birds international school & Backside of new distillery unit from village Malaysia; the analysis result of same is mentioned in Table – 3 and 5 respectively.



3.0 JOINT INSPECTION REPORT OF M/S WAVE INDUSTRIES PVT. LTD., VILLAGE- MALAYSIA, POST- MANDI DHANAURA, DISTRICT AMROHA, U.P. AS PER HON'BLE NGT ORDER DATED 19.08.2021 IN O.A. NO. 204/2021 IN THE MATTER OF CHANCHAL DEVI VERSUS CENTRAL POLLUTION CONTROL BOARD & ORS.:

A. GENERAL INFORMATION

1.	Date of Inspection	11.11.2021																									
2.	Name of the unit with complete postal address	M/s Wave industries Pvt. Ltd., Village- Malaysia, Post- Mandi Dhanaura, District Amroha, U.P.																									
3.	Spatial Co-ordinates Latitude and longitude (in Decimal format only)	Lat: 28.944110 Long: 78.273086																									
4.	Standalone/ integrated (with co-generation) Sugar/ sugar refinery	Sugar refinery with Cogeneration																									
5.	Year of commissioning	1992																									
6.	License capacity of sugar Mill (TCD)	8300 TCD																									
7.	Average actual crush rate (TCD)	As per Daily manufacturing Reports (DMRs) provided by the unit, the average actual crush rate is 5652.5TCD (for duration 07 th November, 2021 – 10 th November)																									
8.	Consent status & its Validity with date a. Air Consent b. Water consent c. Hazardous Waste Authorization	Yes, valid up to 31.12.2021 (Annexure-1) Yes, valid up to 31.12.2021 (Annexure-2) Yes, valid up to 02.02.2023 (Annexure-3)																									
9.	NOC from CGWA & its Validity with date	NOC obtained from UPGWD, valid up to 05.10.2026 Withdrawal permission: <table border="1"> <thead> <tr> <th>S.N.</th> <th>Bore-well No.</th> <th>Date of construction</th> <th>Rate of withdrawal (m³/hr)</th> <th>Max. permitted annual extraction</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>I</td> <td>01.04.1991</td> <td>110.00</td> <td>79200m³</td> </tr> <tr> <td>2</td> <td>II</td> <td>01.04.1991</td> <td>220.00</td> <td>158400 m³</td> </tr> <tr> <td>3</td> <td>III</td> <td>01.04.2007</td> <td>150.00</td> <td>216000 m³</td> </tr> <tr> <td>4</td> <td>IV</td> <td>01.04.2016</td> <td>200.00</td> <td>144000 m³</td> </tr> </tbody> </table> (Annexure- 4A, 4B, 4C & 4D)	S.N.	Bore-well No.	Date of construction	Rate of withdrawal (m ³ /hr)	Max. permitted annual extraction	1	I	01.04.1991	110.00	79200m ³	2	II	01.04.1991	220.00	158400 m ³	3	III	01.04.2007	150.00	216000 m ³	4	IV	01.04.2016	200.00	144000 m ³
S.N.	Bore-well No.	Date of construction	Rate of withdrawal (m ³ /hr)	Max. permitted annual extraction																							
1	I	01.04.1991	110.00	79200m ³																							
2	II	01.04.1991	220.00	158400 m ³																							
3	III	01.04.2007	150.00	216000 m ³																							
4	IV	01.04.2016	200.00	144000 m ³																							
10.	Start period of crushing season	08.11.2021																									
11.	Operational status	Operational																									
12.	Name of contact person	Designation Contact No & E- mail																									

Sh. S.P. Tomar	General Manager	

B. OPERATIONAL STATUS

S.No.	Particulars		
1.	Sources of fresh water		
	a. Bore well/Tube well/ Any other & its No's	Bore-well (04 nos.)	
	b. Flow meter Installation at wells (Yes/No)	Yes	
	c. Reading of Flow Meter during visit	<p>Bore-well-I Flow meter reading=93 m³/hr Totalizer=024608.156 m³</p> <p>Bore-well-II= Not in operation Totalizer=0031372.00 m³</p> <p>Bore-well-III Flow meter reading=88.87 T/hr Totalizer=489525 m³</p> <p>Bore-well-IV Flow meter reading=00.00 m³/hr Totalizer= 3025.39 m³</p>	
	d. Any Logbook maintained (Yes/No), if yes, attach.	Yes, attached as Annexure-5	
	e. Quantity of water withdrawal (KLD)	Refer Table- 2	
2.	Fresh water consumption (m³/hr)		
	a. Sugar plant	As per logbook data from 7 th Nov.-21 to 10 th Nov.-21, quantity of freshwater withdrawal from Bore-wells= 437.5 KLD	
	b. co-generation		
	c. Residential etc.		
	d. Total fresh water Consumption (m ³ /hr)		
3.	Details of Hot & Cold water recycling system	Number	Capacity
	a. Details of Hot water UGR.	1	1000 m ³
	b. Cold water UGR and cooling towers	1	1000 m ³
	c. Hot water - Location of flow meter & its Installation	Flow meter	Flow meter reading
	1. Imbibition water at mills	Yes	Flow= 129.13 m ³ /hr Totalizer = 9723.54m ³
	2. Filter cake wash water at rotary vacuum filter	Yes, from UGR	Flow=12.53 m ³ /hr

			Totalizer = 216581.71 m ³
	3. Sugar melting, pan boiling, molasses conditioning	Yes	Flow=00.00/hr Totalizer = 219448.71 m ³
	4. Wash water at Centrifugal	Yes	Totalizer- I =54172.54 m ³ Totalizer-II =139693.57 m ³
	5. Others	NA	
	d. Cold water -Location of flow meter & its Installation.	Flow meter	Flow meter reading
	1. Mills, fibrizer bearing, pumps cooling	Yes, Recirculation of cold water from UGR	Flow= 100.74 m ³ /hr Totalizer = 321203.60 m ³
	2. Cooling tower of co-generation	Separate cooling tower of capacity 6000 m ³ /hr Flow= 50.89 m ³ /hr Totalizer = 226899.06 m ³	
	3. B and C massecuite cooling	B- massecuite: Flow= 00.00/hr Totalizer = 24410.15 m ³ C-massecuite: Hot water Flow= 00.00 /hr Totalizer = 95617.9 m ³ Cold water Totalizer = 86083.2 m ³	
	4. Final molasses cooling	Yes	Flow= 00.00/hr Totalizer = 45872 m ³
	5. Make water for shortfall at any point operation including process cooling tower.	Yes, Make water for shortfall from cold water UGR	
	6. Cleaning and human requirements including lab requirements	No	
	7. Others	NA	
4.	Waste water (Influent) generation (m³/hr)		

	a. Cooling tower over flow	No separate flow meter installed at mill house, boiling house to calculate influent generation separately. However, the log-book of ETP inlet was maintained based on which the Influent generation from 07.11.2021 to 10.11.2021: 857.75 KLD (including mill house, boiling house and cooling tower overflow)			
	b. Mills, boiling house, D.M./ R.O. Plant boilers etc.				
	c. Co-generation				
	d. Brine solution reject after regeneration. (for refine sugar)			Refinery reject effluent Brine flow= 37 KLD as per log book from 07.11.2021 to 10.11.2021	
	e. IER wash water generation.			Flow= 23.6 m ³ /hr Totalizer = 3600918 m ³	
	f. Brine reject from brine recovery system			Flow= 00.00 m ³ /hr Totalizer = 295565.73 m ³	
	g. Common / total influent generation.			As per log book from 07.11.2021 to 10.11.2021: 857.75 KLD	
5.	Waste water (Influent) generation, Liter/ton of cane	151.75 Lit./ton of cane (Calculated on average actual crush rate i.e. 5652.5TCD for duration 07 th November, 2021 – 10 th November)			
6.	Details of Flow meters	Flow meter	Flow meter reading		
	a. Outlet of mill house and boiling house.	Not installed			
	b. Outlet of steam generation house.	Yes	Flow=144 Ton/hr. Totalizer= 14493 m ³		
	c. Outlet of cooling tower over flow	Yes	Flow = 50.89 m ³ /hr Totalizer=226899 m ³		
	d. At ETP outlet	Yes	Flow= 40.00 m ³ /hr Totalizer= 67928.069 m ³		
	e. At ETP Inlet	Yes	Flow=42.51 m ³ /hr		

			Totalizer= 1078856.99 m ³
	f. Other places of effluent generation	NA	
7.	Details of tube cleaning method adopted (chemical/ hydrojet/ any other appropriate method if any), provide details	Hydro jet cleaning	
8.	Availability of Hazardous tank to collect wash water generated during chemical/Mechanical cleaning of evaporator tubes. If Yes give Details.	Yes, 01 nos. Capacity- 110 m ³ for caustic soda tank	
9.	Total waste water (effluent) at ETP outlet (Liters/ton of cane) (waste water generation from process+ Waste water (Influent) generation)	809.5 KLD (As per logbook data from 7 th Nov.-21 to 10 th Nov.-21) 143.21 Liters/ton of cane.	
10.	Condensate polishing system adopted by the factory (for boilers >45 kg/cm² steam pressure)	Not installed. Unit is having boiler of 105kg/cm ² steam pressure	
11.	Construction of small pits with smooth inner surface with ceramic tiles near to boiler feed pumps, condensate pumps, Injection pumps and RVF vacuum to collect gland cooling water. give details	Yes, a common pit is provided, which collects gland cooling water from different places through water channel.	
12.	Aeration in equalization tank	Equalization tank with diffused aeration system Capacity- 900 m ³	
13.	Type of aeration in aeration tank Diffused/ surface/ any other	Diffused aeration	
14.	Tertiary treatment, give Details	Yes, Sand filter- 02 nos. (2.8 M Øx2.5M depth, Capacity- 15m ³) Carbon filter- 02 nos. (2.8 M Dia. * 2.5M depth, Capacity- 15m ³)	
15.	Schematic diagram of ETP (flow chart to be collected)	Effluent collection tank→ Oil & Grease skimmers→ Equalization tank→ Flocculation tank→ Primary Clarifier-I & II→ Aeration tank-I & II→ Secondary Clarifier-I & II→ Sand Filter→ Activated Carbon Filter→ Chlorination→ Treated water storage lagoon	
16.	Rain water harvesting system adopted	Yes	
17.	Treatment capacity of ETP (KLD)	2800 KLD (Maximum daily discharge as per consent- 1660 KLD i.e. 830 KLD industrial and 830	

		KLD for cooling tower blow down)	
18.	Retention time (Min/hr)	Retention Time/Contact Time (Mentioned in CPCB charter)	As per Industry Flow-69 m ³ /hr (200 lit/ton of cane) @ 8300 TCD
	1. Bar screen Chamber	30 minutes	30 minutes
	2. Oil & grease tank	45 minutes	01 hr. 30 min.
	3. Equalization tank with aeration	6 hrs	13 hrs
	4. Primary Clarifier	5-6 hrs	10 hr. 15 min.
	5. Aeration tank	24-28 hrs	53 hrs.
	6. Secondary Clarifier	7-8 hrs	10 hrs. 15 min.
	7. Sand filter	20-25 minutes	41 min.
	8. Activated carbon filter	20-25 minutes	41 min.
	9. Sludge drying bed (SDB)	Capacity- 675m ³ (as per flow diagramme of ETP) SDB Nos- 12	
	10. Centrifuge	0.054 m ³ /ton of cane	
19.	Any further treatment after ETP (Yes/No)	No, Only storage in lagoon	
20.	Brief processing details (flow chart)	Raw sugar Melting→ Direct contact heater→ Reaction tank→ Clarifier→ Filters→ Ion Exchange Column-1 st phase (2 columns) →2 nd Phase (2 columns) →Crystallization	
21.	ETP Analysis (Performance Parameters): Refer Table- 6		
22.	Number of Piezometer wells available in the unit premises: Refer Table- 1		
23.	Storage of treated Effluent		
	a. No. & size of lagoons	01 no. Capacity- 20,000 m ³	
	b. Retention time	11 days as per the ETP validation report of NSI, Kanpur in season 2019-20	
	c. Lagoon type- permeable/impermeable	Impermeable	

24.	Recirculation of treated effluent in Sugar plant		
	Consumption point	Flow meter	Flow meter reading
	a. Filter cake washing	Yes	Condensate is used Flow=12.53 m ³ /hr Totalizer = 216581.71 m ³
	b. Centrifugal Machine	Yes	Condensate is used Totalizer- I =54172.54 m ³ Totalizer-II =139693.57 m ³
	c. Pan boiling, Melting etc.	Yes	Condensate is used Flow=00.00/hr Totalizer = 219448.71 m ³
	d. Boiling House & Lab	Fresh water is used	
	e. Co-generation Cooling tower	Fresh water is used	
	f. Any other	Not Applicable	
25.	Sludge Handling Process (Yes/No), gives details.		
	a. Sludge Digestion Method	No sludge digestion	
	b. Sludge Drying Process	Sludge drying bed available of capacity- 675 m ³	
	c. Final Disposal of Sludge	As informed by unit representative, dewatered sludge is being distributed to farmers as organic manure. Surplus sludge is being dried in sludge drying bed. The unit has provided the sludge record distributed to the farmers in the previous crushing season.	
	d. Whether mechanical sludge handling system installed	Yes, 1.Decanter 2.Centrifuge	
26.	Any Hazardous Substances (Yes/No), if yes, give details. (Quantity & way of Disposal)	Yes, Hazardous Substances: Schedule 1- category-5.1 (Used oil) Way of Disposal: Provided to Bharat Oil & Waste Management Ltd. (BOWML)	

27.	Manpower employed for ETP operation & maintenance.	Manpower for ETP operation & maintenance				
		S.No.	Staff	Nos.	Qualification	Training
		1	ETP Incharge	01	B.Sc.	VSI
		2	ETP Chemist	01	B.Sc., Biotechnology	
		3.	ETP Chemist	01	MSc.,	NSI
		4	ETP Chemist	01	B.A.	-
		5	ETP Chemist	01	ITI	-
		6	ETP Chemist	01	B.Sc.	-
		7	ETP Operator	01	-	-
8	ETP Operator	01	12 TH	-		
28.	Details of irrigation system & treated effluent used quantity					
	1. Own land area for irrigation	Yes,				
	2. Farmer land area and their agreement.	Yes				
	3. Flow meter to measure amount of water used for irrigation.	Not installed				
	4. Net effluent generation left for Irrigation (KLD)	Net effluent generation left for irrigation can't be calculated as the flow meter is not installed on the line carrying treated effluent from lagoon to agricultural fields.				
	5. Distance of land Area from the Unit (Km)	Approx. 01 Km radius				
	6. Total Available Area (Hectare)	190 hectares (as per irrigation management plan) adequate area to handle the treated effluent discharge from ETP. (Refer Annexure – 6)				
	7. Soil Texture of land (Sandy, Sandy loam, Loam, Clay loam, Clay)	Soil Texture: Sandy loam and sandy soil Loading rate as per MoEF&CC Gazette notification dated 14.01.2016: Sandy -225-280 m ³ /Ha/Day Sandy loam- 170-225 m ³ /Ha/Day				
	8. Crop area under effluent application	As per Irrigation Management Plan 190 hectare (20 hectare factory land, lawn & green belt, forest tree with yard, 150.5 hectare for Sugarcane, 18.5 hectare for Wheat crop)				
29.	Cleaning mechanism at ETP and factory floor	Dry cleaning of factory floors using bagasse.				
30.	Color coding of pipelines for water distribution network	Yes				

31.	Mode of disposal (route to reach Ganga)	No drain or water body/river is located nearby the sugar mill. Treated effluent is being used for irrigation purposes.
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4.0 OBSERVATIONS:

1. The unit M/s Wave Industries Pvt. Ltd., Village- Malaysia, Tehsil- Dhanaura, District- Amroha, U.P., situated on Amroha Dhanaura highway, which was engaged in producing refined sugar by Defco Remelt Phospho Flotation process.
2. The unit has started its crushing season 2021-22 on 08th November, 2021
3. Unit was found operational on the date of visit i.e. 11th November.2021.
4. Unit is having valid Consent to Operate under section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) and under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent, both valid up to **31/12/2021**.
5. The unit is also having valid Authorization issued under the provisions of Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 for storage and disposal of hazardous wastes valid up to **02.02.2023**.
6. As per Daily Manufacturing Reports (DMRs) provided by the unit, the average actual crush rate (TCD) is 5652.5TCD (for duration 07th November, 2021 – 10th November), against the consented capacity of 8300 TCD.
7. The unit is an integrated refinery sugar unit with 30 MW cogeneration power plant.
8. The unit has installed Ion Exchange Technology for decoloring of sugar syrups. The Ion Exchange resin gets saturated/ exhausted after repeated usage and has to be regenerated. The unit re-generates exhausted resin using caustic brine solutions.
9. As per the logbook submitted by unit, Brine is generated @ 37 KLD. Brine solution reject is recovered through Brine Recovery System (BRS) @ 05 m³/hr and reject is generated @ 0.5 – 1.0 m³/hr. This reject is sprayed on bagasse and boiler ash. The unit prepares fresh brine solution for every cycle in Ion Exchange Resin Column (IER).
10. The unit is having 03 boilers with capacity of 170 TPH and two boilers with 20 TPH capacity. 170 TPH is equipped with ESP and stack height was 90 m from ground level and two boilers of 20 TPH are equipped with wet scrubber and common stack of 40 m from ground level.
11. The team observed that the unit has not installed Condensate Polishing Unit (CPU) for high pressure boiler having capacity of 105 kg/cm².
12. The unit has 03 DG sets having capacity of 1250 KVA, 300 KVA and 625 KVA.
13. The unit has not provided log book for the generation of used oil. However, as per Specific condition no. 4, Waste oil shall be disposed through authorized TSDF and recyclers only.
14. As informed, the unit is giving used oil to third party (Bharat Oil & Waste Management Ltd.) for its disposal on quarterly basis. The unit has provided membership certificate (BOWML/K/3118/18) with Bharat Oil & Waste Management Ltd, valid up to 14.01.2022.
15. The unit has not installed separate flow meter at mill house and boiling house to quantify the effluent generation separately.
16. The team has observed that adjacent to Sugar Mill, construction of a new dual feed (molasses and cane syrup based) distillery by the Wave group having capacity of 100 KLPD was under-going. As informed, the new distillery is equipped with incineration boiler and shall fulfill the fresh water requirement from the treated effluent of sugar mill.
17. The unit has setup environmental laboratory and has maintained the ETP log book for daily analysis of





effluent parameter.

18. The ETP has provision of both type of sludge handling system as decanter and horizontal type dewatering centrifuge unit (0.054 m³/ton of cane@8300 TCD), wherein, sludge from primary Clarifier-I, II and secondary Clarifier-I & II are received and polyelectrolyte is added. Water content is transferred to ETP inlet and sludge is being distributed to farmers as organic manure. Surplus sludge is being dried in sludge drying bed, having capacity of 675 m³. The unit has provided the sludge record of previous crushing season distributed to the farmers.
19. The team observed that all the sludge drying beds as well as decanter were empty as no fresh sludge was found in sludge drying bed & decanter on the day of inspection.
20. Boiler ash were observed to be collected and used to fill low lying area within the unit premises. The unit has generated 7526 quintal/day of boiler ash as per the boiler ash record submitted for duration from 08.11.2021 to 11.11.2021.
21. Press mud was observed to be collected separately, which is being provided to distillery unit, however, the unit has not provided any document or agreement for the same.
22. The unit has two underground reservoirs (UGR) for hot water and cold water recirculation having capacities 1000 m³ each.
23. The unit has total four bore-wells for fresh water abstraction and installed two Piezometer to monitor the ground water level. Out of four bore-wells only three are being used to meet the fresh water requirement, which was located at different places within the premises for sugar unit as below:

Table 1:Details of bore-wells & piezometer installed at M/s Wave Industries Pvt. Ltd., District Amroha, U.P.

S.No	Borewell No.	Nearby location	Lat., Long.	Depth (m) as per NOC from UPGWD	Flow meter reading	Piezo meter well	Ground water level recording		Used for
							Sensor reading (m)	Manual reading by UPGWD (m)	
1	Borewell No.-01	Near Godown	28.943928, 78.276000	120	Flow- 93 m ³ /hr, Totalizer +024608.156 m ³	Yes	1.56	14.90	Colony
2	Borewell No.-02	Near Store	28.942, 78.276	120	Totalizer 0031372.0 m ³	Yes	10.31	15	Not in operation
3	Borewell No.-03	Near Cooling Tower	28.941, 78.276	120	Flow- 88.87 Ton/hr, Totalizer +489525 m ³	Piezometer purchased, installation pending	-	15.10	-
4	Borewell No.-04	Near Park	28.943, 78.276	120	Flow- 0.0 m ³ /hr, Totalizer +3025.39 m ³	NA	-	-	-

24. The team has observed that Piezometer near Godown, showing erroneous reading (i.e. 1.56 meter) as

compared with the manual reading (i.e.- 14.90 meter) measured by the Uttar Pradesh Ground Water Department (UPGWD). The Piezometer sensor readings and manual readings measured by the officials of UPGWD are mentioned in above Table -1.

25. It was observed that Bore-well no. - 02 was not in operation since long time, however the same is not dismantled too. Flow meters at bore-well no.-III and IV are not exactly installed at bore-well site, instead of this the flow meter are distantly located on water pipe. The same has been verified by the officials of UPGWD.
26. The team has observed unused boring/pumping structure near effluent collection tank in the premises (Coordinate- Lat-28.942330, Long-78.275276) (**Pic no-41**).
27. The unit is having permission to abstract 3320 m³/day of groundwater from four existing bore-wells as per No Objection Certificate (NOC) from Uttar Pradesh Ground Water Department (UPGWD), which is valid up to 05.10.2026. It is observed that the unit has abstracted 437.5 m³/day fresh water from existing bore-well, which is under permitted value. The month wise details of fresh water abstraction from 07th November, 2021 to 10th November, 2021 is given in Table- 2.

Table 2: Details of fresh water abstraction (from 07th Nov. 2021 to 10th Nov.-2021).

Bore-well No.	Fresh water abstraction (KLD)	
	(As per logbook data from 07 th Nov.-21 to 10 th Nov.-21)	
	Nov-21	Total Average (KLD)
Bore-well- I	00.00	00.00
Bore-well- II	00.00	00.00
Bore-well- III	550	137.5
Bore-well- IV	1200	300
Total	1750 KL	437.5 KLD

28. Ground water samples were collected from bore-well no. I, III and IV, installed in the unit premises. The analysis results of the sample are placed in Table-3 below:

Table 3: Analysis results of samples collected from Borewells within unit premises.

Parameters ↓	Sampling location →	Bore well No.1	Bore well No.3	Bore well No.4	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
pH		7.8	7.7	7.6	6.5-8.5
Conductivity (µmho/cm)		348	560	345	-
Colour (color units)		BDL	BDL	03	15
COD (mg/l)		BDL	BDL	17	-
TDS (mg/l)		226	338	208	2000
Total hardness as CaCO ₃ (mg/l)		152	254	146	600

Total alkalinity as CaCO ₃ (mg/l)	165	231	165	600
Chloride (mg/l)	08	19	10	1000
Sulfate (mg/l)	13	91	09	400
Fluoride (mg/l)	BDL	BDL	0.2	1.5
NO ₃ -NO ₃ (mg/l)	BDL	BDL	BDL	45
PO ₄ -P (mg/l)	0.03	0.08	0.07	
As (mg/l)	0.08	BDL	0.02	0.05
Cd (mg/l)	BDL	BDL	BDL	0.003
Co (mg/l)	BDL	BDL	BDL	-
Cr (mg/l)	0.02	BDL	BDL	0.05
Cu (mg/l)	0.04	BDL	BDL	1.5
Fe (mg/l)	9.00	0.01	2.00	0.3
Mn (mg/l)	0.28	0.10	0.20	0.3
Ni (mg/l)	BDL	BDL	BDL	0.02
Pb (mg/l)	0.01	BDL	BDL	0.01
Sb (mg/l)	BDL	BDL	BDL	-
Se (mg/l)	BDL	BDL	BDL	0.01
V (mg/l)	BDL	BDL	BDL	-
Zn (mg/l)	0.02	BDL	0.01	15

29. Ground water sample analysis results collected from Bore-well No.-1 showed that all the parameters were within the acceptable limit as per drinking water standard ISO 10500:2012 except Arsenic- **0.08 mg/l** against 0.05 mg/l in Bore-well No.-1 and Iron (Fe) i.e. **9.0 mg/l** and **2.0 mg/l** in Bore-well No.-1 & 2 against 0.3 mg/l.
30. Analysis results of samples collected from Borewell No.-4 shows the **COD -17 mg/l**, which indicates contamination in Ground Water.
31. Samples were also collected from the handpumps in the vicinity of the unit's premises. Details are mentioned in Table 4 and analysis results of samples collected from these handpumps are mentioned in Table below:

Table 4: Details of handpumps monitored in the vicinity of the unit's premises

S. No.	Name of location	Coordinates	Village	Denoted as
1.	Opposite to Blue birds international school	28.948212, 78.275555	Malaysia	Handpump-1
2.	Upper primary model school	28.939825, 78.283874	Musalapur	Handpump-2
3.	Opposite to main gate of the unit	28.943725, 78.277946	Malaysia	Handpump-3
4.	Behind the unit, adjacent to left side wall of Blue birds international school	28.946359, 78.269172	Malaysia	Handpump-4
5.	Backside of new distillery unit	28.944883, 78.269584	Malaysia	Handpump-5

Table 5: Analysis results of samples collected from handpumps in the vicinity of the unit's premises

Parameters	Handpump -1	Handpump -2	Handpump -3	Handpump -4	Handpump -5	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
pH	7.7	7.6	7.5	7.7	7.5	6.5-8.5
Conductivity (µmho/cm)	235	505	258	281	923	-
Colour (hazen)	BDL	BDL	BDL	BDL	20	15
COD (mg/l)	BDL	BDL	BDL	06	BDL	-
TDS (mg/l)	148	312	168	192	492	2000
Total hardness as CaCO ₃ (mg/l)	100	230	116	136	322	600
Total alkalinity as CaCO ₃ (mg/l)	87	204	122	142	466	600
Chloride (mg/l)	08	14	11	07	14	1000
Sulfate (mg/l)	15	62	09	BDL	67	400
Fluoride (mg/l)	0.4	0.3	0.3	0.3	0.2	1.5
NO ₃ -NO ₃ (mg/l)	BDL	BDL	BDL	BDL	BDL	45
PO ₄ -P (mg/l)	0.05	0.03	0.05	0.04	0.03	
As (mg/l)	0.01	BDL	BDL	BDL	0.02	0.05
Cd (mg/l)	BDL	BDL	BDL	BDL	BDL	0.003
Co (mg/l)	BDL	BDL	BDL	BDL	BDL	-
Cr (mg/l)	BDL	BDL	BDL	BDL	BDL	0.05
Cu (mg/l)	BDL	BDL	BDL	BDL	BDL	1.5
Fe (mg/l)	0.93	0.29	1.00	0.07	6.60	0.3
Mn (mg/l)	0.21	0.10	0.07	0.04	1.20	0.3
Ni (mg/l)	BDL	BDL	BDL	BDL	BDL	0.02
Pb (mg/l)	BDL	BDL	BDL	BDL	BDL	0.01
Sb (mg/l)	BDL	BDL	BDL	BDL	BDL	-
Se (mg/l)	BDL	BDL	BDL	BDL	BDL	0.01
V (mg/l)	BDL	BDL	BDL	BDL	BDL	-
Zn (mg/l)	0.10	0.23	0.02	0.34	0.98	15

32. The analysis results of samples collected from **Handpump-1** outside the unit premises shows pH- 7.7, COD- BDL, Total Hardness- 100 mg/l, Total alkalinity- 87 mg/l, SO₄²⁻- 15 mg/l and Phosphate- 0.05 mg/l, which are complying as per acceptable limit of Drinking Water Standards (BIS) IS 10500:2012. Analysis for heavy metal shows compliance w.r.t. the BIS standards except Fe-0.93 mg/l

against the standard of 0.3 mg/l.

33. The analysis results of sample collected from **Handpump-2** outside the unit premises shows pH- 7.6, COD- BDL, Total Hardness- 230 mg/l, Total alkalinity- 204 mg/l, SO_4^{2-} - 62 mg/l and Phosphate- 0.03 mg/l, which are complying as per acceptable limit of Drinking Water Standards (BIS) IS 10500:2012. Analysis for heavy metal shows compliance w.r.t. the BIS standards.
34. The analysis results of sample collected from **Handpump-3** outside the unit premises shows pH- 7.5, COD- BDL, Total Hardness- 116 mg/l, Total alkalinity- 122 mg/l, SO_4^{2-} - 09 mg/l and Phosphate- 0.05 mg/l, which are complying as per acceptable limit of Drinking Water Standards (BIS) IS 10500:2012. Analysis for heavy metal shows compliance w.r.t. the BIS standards except **Fe- 1.00 mg/l** against the Standard of 0.3 mg/l.
35. The analysis results of sample collected from **Handpump-4** outside the unit premises shows pH- 7.7, **COD- 06 mg/l**, Total Hardness- 136 mg/l, Total alkalinity- 142 mg/l, SO_4^{2-} - BDL and Phosphate- 0.04 mg/l, which are complying as per acceptable limit of Drinking Water Standards (BIS) IS 10500:2012, however presence of COD is indicates groundwater contamination. Analysis for heavy metal shows compliance w.r.t. the BIS standards.
36. The analysis results of sample collected from **Handpump-5** outside the unit premises shows pH- 7.5, COD- BDL, Total Hardness- 322 mg/l, Total alkalinity- 466 mg/l, SO_4^{2-} - 67 mg/l and Phosphate- 0.03 mg/l, which are complying as per acceptable limit of Drinking Water Standards (BIS) IS 10500:2012. Analysis for heavy metal shows compliance w.r.t. the BIS standards except **Fe- 6.60 mg/l** (against the norm of 0.3 mg/l) and **Mn- 1.20 mg/l** (against the norm of 0.3 mg/l)
37. The unit has installed Sewage Treatment Plant (STP) having capacity of 150KLD, which is based on MBBR technology for the treatment of domestic waste water generated from its residential colony having population around 200 – 250 people.
38. The STP comprises of Old equalization tank → Bar screen (0.5mx0.5m) → Oil skimmer (power- 0.5HP) → Equalization tank (5mx4mx3m) → CT (2.2mx1.5mx3m) → MBBR-1 (2.2mx2.3mx3m) → MBBR-2 (2.2mx2.3mx3m) → TS (2.mx2.2mx3m) → Chlorine contact tank (2.2mx1.5mx3m) → Water break tank (2.5mx2.5mx3m) → Dual media filter (0.8mx1.8m) → ACF (1mx1.8m).
39. The team has collected sample from inlet and outlet of STP for physico-chemical analysis. The analysis results are shown in Table 6 below:

Table 6: Analysis results of sample collected from STP inlet and outlet.

Location	pH	COD	BOD	TSS	TDS	Color	SO_4^{2-}	$PO_4 - P$	$NO_3 - N$	$NH_3 - N$
STP Inlet	7.2	238	87	115	424	44	149	2.76	5.79	18
STP Outlet	7.8	49	16	43	192	10	91	1.69	3.07	08
Notified standards as per consent	-	250	30	100	-	-	-	-	-	-
Notified standards for land disposal	5.5 - 8.5	250	100	100	2100	-	-	-	-	-
All Parameters in mg/l except pH, Color in color units										

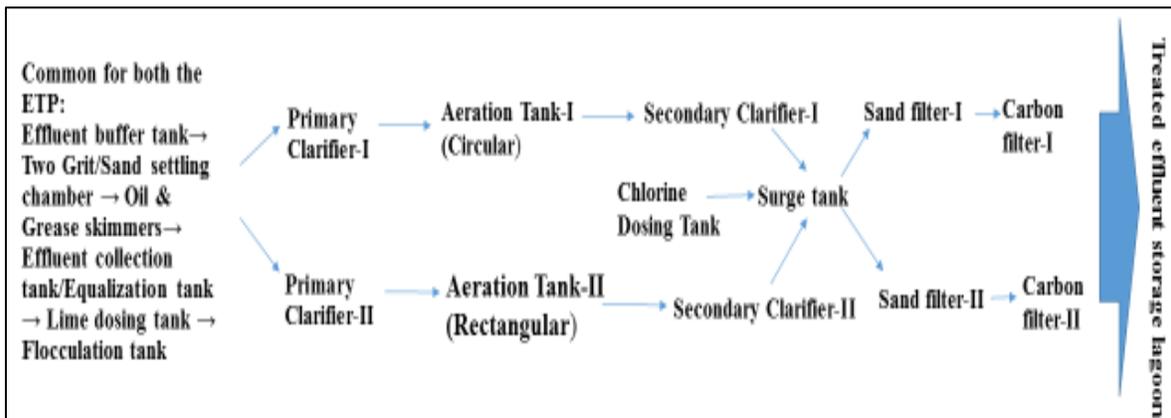
40. The analysis results of sample collected from STP outlet show pH- 7.8, COD- 49 mg/l, BOD- 16

mg/l, TSS- 43 mg/l, TDS- 192 mg/l) are complying w.r.t. the consented and notified effluent discharge norms for land disposal.

41. The joint team has observed that railings and stairs in mill house were in poor condition, which may be a serious issue concerning with the health and safety of the personnel working in vicinity.

5.0 OBSERVATIONS W.R.T. EFFLUENT TREATMENT PLANT (ETP):

1. The unit has an effluent collection chamber in the premise from where it is pumped to the ETP inlet channel. Flow meter is not installed to measure raw effluent volume into the ETP.
2. The unit is having a ETP, which comprises of two parallel ETP with total treatment capacity of 2800 KLD for treatment of effluent generated from various sections of sugar mill. Both the ETP utilize common Effluent buffer tank, Two Grit/Sand settling chamber connected in series, Oil & Grease skimmers, Effluent collection tank/Equalization tank and Surge tank. However, as per the water consent, the effluent discharge should not exceed 1660 KLD (i.e. 830 KLD mill effluent + 830 KLD of cooling tower blowdown).
3. The flow diagram of ETP is as follows:



4. During visit, the joint team observed that Primary Clarifiers (I & II) were functional, however, septic conditions were observed in the tanks as the gas bubbles were formed consistently with foul smell emerging from both clarifiers indicating that clarifiers were filled with dead sludge & settled sludge is not removed periodically as desired (**refer pic no.-08**). The team has observed the sludge drying bed was empty and also the decanter was found dry, which indicates that sludge is not removed periodically.
5. During the visit, flocculation tank was found functional. However, lime dosing arrangement was found non-operational.
6. The unit has not installed Oil & Grease trap at main inlet of ETP, however it is installed in separate O & G tank after Grit/Sand settling chamber after the manual bar screen.
7. The unit has not installed flow meter at inlet of ETP, however, it is installed between equalization tank (Flow- 29.97 m³/hr, Totalizer - 1078856.99 m³) and Flocculation tank. The unit has also installed flow meter at outlet of ETP (Flow- 42.51m³/hr, Totalizer – 67928.06 m³). The unit has not installed flow meter at pipeline carrying treated wastewater from lagoon to agricultural fields to quantify the use of treated effluent for irrigation purpose.
8. The unit is complying w.r.t. quantity of final treated effluent discharge norms as the treated effluent discharge i.e. 143.21Liter/ton of cane crushed as against the notified norm of 200 Liter/ton of cane

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crushed.

9. The team has collected effluent samples from ETP inlet, outlet & various units of ETP and treated effluent storage lagoon. The analysis results are placed in Table 7 below.

Table 7: Analysis results of sample collected from Effluent Treatment Plant (ETP)

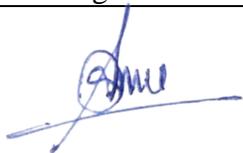
Parameters in mg/l except pH, Color in color units												
Sample Analysis	Effluent flow rate (m ³ /hr)	pH	CO D	BO D	TSS	TD S	Color	SO ₄ ²⁻	PO ₄ -P	NO ₃ -N	Oil & Grease	MLSS and MLVSS
ETP Inlet	42.51	11.3	439	162	1351	152	09	69	0.43	3.55	05	-
Equalization tank	-	5.8	2359	1130	223	848	44	16	0.39	5.34	-	-
Primary clarifier outlet-1	-	4.8	2923	1123	139	1284	37	143	0.69	6.03	-	-
ETP Aeration tank-1	-	-	-	-	-	-	-	-	-	-	-	605, 432
Secondary clarifier outlet-1	-	6.9	562	162	682	272	17	30	7.31	42.5	-	-
Primary clarifier outlet-2	-	4.7	2252	1080	200	1132	60	39	0.60	6.56	-	-
ETP Aeration tank-2	-	-	-	-	-	-	-	-	-	-	-	2178, 1476
Secondary clarifier outlet-2	-	7.2	184	41	190	124	14	12	3.41	25.41	-	-
ETP Outlet (After filtration)	40.00	6.9	79	22	19	100	09	28	2.79	19.50	BDL	-
Heavy metal analysis results for ETP outlet	As-BDL, Cd-BDL, Co-BDL, Cr-BDL, Cu-0.01 mg/l, Fe-0.39 mg/l, Mn-0.05 mg/l, Ni-BDL, Pb- BDL, Sb- BDL, Se- BDL, V- 0.02 mf/l, Zn- 0.03 mg/l											
Lagoon	-	8.0	42	04	16	88	10	21	2.48	23.13	-	-
Values of OCEMS at 12:46 PM on	-	7.31	49.13	4.01	2.64	-	-	-	-	-	-	-

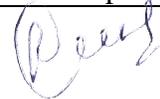
11.11.2021												
Notified standards for land disposal	-	5.5 - 8.5	250	100	100	210 0			-	-	10	-

10. The analysis results of sample collected from ETP inlet channel (basic pH- 11.3, COD- 439 mg/l, BOD- 162 mg/l, TSS- 1351 mg/l, TDS- 152 mg/l and Oil & Grease- 05) is **not showing the characteristics of Refinery sugar effluent** (pH- 5.5-6.5, COD- 1500-2500 mg/l, BOD- 600-1000 mg/l, TSS- 100-400 mg/l, TDS- 1000-2500 mg/l and Oil & Grease- 16-20), which indicate dilution of fresh water at ETP inlet.
11. However, the analysis of sample collected from Equalization Tank shows acidic pH- 5.8, COD- 2359 mg/l, BOD- 1130 mg/l, TSS- 223 mg/l, TDS- 848 mg/l, which was near to the characteristics of Refinery sugar effluent.
12. Low values of MLSS- 605mg/l, MLVSS- 432 mg/l in Aeration Tank-1 (circular) indicates that it was not stabilized properly. Reduction in BOD from 1123 mg/l at Primary Clarifier to BOD-162 mg/l at Secondary Clarifier-I (approx. 85% reduction in BOD) seems doubtful and hence possibility of dilution can't be ruled out.
13. Similarly, Aeration Tank-II also have low value of MLSS- 2178mg/l, MLVSS- 1476 mg/l with indication of unstabilised aeration tank, hence, reduction of effluent BOD-1080 mg/l at Primary Clarifier to 41 mg/l Secondary Clarifier-II (approx. 96.21% reduction in BOD) seems unrealistic.
14. It was observed that sludge drying bed and decanter was in dry condition.
15. **Considering the analysis results from the samples collected from ETP inlet channel and various subunits of ETP, also as per the physical condition of Primary Clarifier and Secondary Clarifier, Sludge Drying Bed and Decanter, it can be concluded that unit was not maintaining and operating the ETP properly.**
16. Above observations regarding ETP were enough to explain that the ETP of the Sugar Mill was not operating properly and violating the good practice to take care of the effluent treatment in ETP at each subunit and the complying analysis results are due to the dilution of ETP effluent at ETP inlet and Secondary Clarifier-I and II only.
17. The unit has installed Online Continuous Effluent Monitoring System (OCEMS), however the analyzers and display both are located in the environmental laboratory. Joint Team has observed a pipeline carries treated effluent to the laboratory for analysis in OCEMS.
18. The unit has impermeable lagoon of capacity 20,000 m³ to store treated wastewater (industrial effluent and sewage). The treated wastewater is pumped for irrigation to nearby farmer's field as per the demand through pipeline. The network of irrigation pipeline was observed around the boundary of ETP unit.
19. The team has observed improper color coding of pipelines for water distribution network w.r.t. the defined coding of color for particular pipe carrying trade effluent, treated effluent and fresh water.

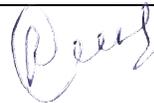
6.0 CONCLUSION:

1. The unit has ETP with treatment capacity of 2800 KLD for treatment of effluent, generated from various sections of sugar mill adequate for crush rate of 14000 TCD. However as per the water consent, the effluent discharge permission is 1660 KLD (i.e. 830 KLD mill effluent + 830 KLD of cooling tower blowdown), hence the ETP has overcapacity for effluent treatment,





- which is a violation of Consent condition issued by UPPCB on 03.02.2019.
2. Flow meter was not installed between effluent collection tank within premises to the ETP inlet channel for measurement of influent volume in to ETP. Flow meter of ETP inlet was installed between equalization tank and Flocculation tank.
 3. Flow meter at the outlet of treated effluent storage lagoon was not installed to quantify the use of treated effluent for irrigation purpose.
 4. Separate flow meter at mill house and boiling house not installed to quantify the effluent generation from mill house and boiling house.
 5. Effluent at ETP inlet was found to be diluted as the effluent has not shown the characteristics of typical sugar refinery effluent as other subunits has shown high values of BOD, COD and TSS as per sample collected on the day of visit. The loose black plastic pipe observed at ETP inlet seems to be dilution arrangement.
 6. ETP was not properly stabilized to treat the sugar mill industrial effluent efficiently as analysis of sample collected from Aeration Tank-I & II for MLSS & MLVSS has low value, hence BOD reduction at Secondary Clarifier-I & II are due to dilution with fresh water.
 7. Sludge withdrawal from Primary Clarifiers (I & II) and Secondary clarifiers (I & II) has not been performed on regular basis as septic condition was observed in the clarifiers.
 8. ETP has been designed for continuous mode of operation, however, uniform overflow from the Primary Clarifiers (I & II) and Secondary clarifiers (I & II) were not observed.
 9. Lime dosing was not in practice in flocculation tank properly as per dosing protocol, which resulted in acidic nature of sugar mill effluent in downstream treatment units of ETP after flocculation tank.
 10. **Considering the analysis results from the samples collected from ETP inlet channel and various subunits of ETP, also as per the physical condition of Primary Clarifier and Secondary Clarifier, Sludge Drying Bed and Decanter, it can be concluded that unit was not maintaining and operating the ETP properly.**
 11. Oil & Grease trap installed was not in line with the inlet stream and installed in a separate Oil & Grease tank. The unit has not maintained the proper record of used oil & grease as per valid Authorization issued under the provisions of Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 for storage and disposal of hazardous wastes.
 12. No record regarding legal document or agreement for providing Press mud to distillery unit as claimed was provided to Joint Committee.
 13. The unit installed OCEMS sensor distantly from ETP outlet location in environmental laboratory and provision for pumping treated effluent, separate pipe was made for analysis through OCEMS sensor.
 14. Poor health and safety arrangements were observed in the mill house and boiling house.
 15. Non-operational structure for fresh water withdrawal present in the unit premises identified as Borewell No.-2.
 16. Flow meters of Borewell- 3 & 4 are distantly located from the boring sites.
 17. Improper color coding of pipelines for water distribution network observed w.r.t. the defined coding of color for particular pipe carrying sugar effluent, treated effluent and freshwater.
 18. Ground water sample of Bore-well No.-1 installed within the unit premises have Arsenic contamination.
 19. Handpump-4 installed outside the unit premises shows presence of COD- 06 mg/l which indicates groundwater contamination.



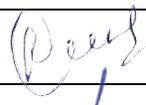
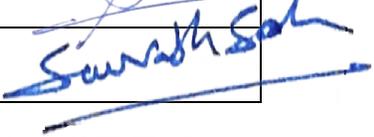
20. Condensate Polishing Unit for high pressure boiler having capacity of 105 kg/cm² was not installed.

7.0 RECOMMENDATIONS:

1. It is recommended that the unit shall revise its Water Consent issued by UPPCB as the ETP has overcapacity for effluent treatment (i.e. 2800 KLD). The unit shall not be allowed for violation the consent condition at any level.
2. The unit shall install flow meter between effluent collection tank within premises to the ETP inlet channel for measurement of influent volume in to ETP.
3. The unit shall dismantle any provision of dilution at ETP inlet or any subunits of ETP.
4. The unit shall install separate flow meter at mill house and boiling house to quantify the effluent generation separately.
5. The unit shall maintain the proper record of used oil & grease as per valid Authorization issued under the provisions of Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 for storage and disposal of hazardous wastes.
6. The unit shall maintain proper record of Press Mud, which is being provided to distillery units.
7. The unit shall perform sludge withdrawal from Primary Clarifiers (I & II) and Secondary clarifiers (I & II) periodically to avoid septic conditions in in the clarifiers
8. The unit shall operate the lime dosing arrangement in flocculation tank properly as per dosing protocol.
9. The unit shall install Oil & Grease trap in line with the inlet stream.
10. The unit shall maintain adequate MLSS & MLVSS concentration in aeration Tank-I & II while operating the ETP to ensure proper stabilization of ETP.
11. The unit shall ensure that Effluent Treatment Plant (ETP) to be stabilized one month prior to the start of the crushing season and continue to operate one month after the crushing season.
12. The unit shall maintain and operate the Effluent Treatment Plant properly to comply with notified discharge standards.
13. The unit should relocate the OCEMS at ETP outlet from environmental laboratory.
14. The unit shall dismantle the structure of Bore-well No.-2 as it is not in operation and shall also rectify the Piezometer reading of Bore-well No.-I in consultation with UPGWD. It is also recommended that the unit shall ensure the cancellation of NOC for Bore-well No.-2 as it has no use for industrial or domestic purpose.
15. The unit shall relocate the flow meters of Bore-well No.- 1, 2 and 4 installed inside the unit premises, at the boring sites of wells in consultation with UPGWD.
16. The unit shall ensure to dismantle the unused boring/pumping structure (Lat-28.942330, Long-78.275276) (**Pic-41**) near effluent collection tank in the premises.
17. Since, Arsenic beyond the permissible limit (i.e. 0.05 mg/l) has been detected in ground water from Bore-well No.-1 inside the unit premises, it is recommended that the unit shall immediately restrict the supply of fresh water from the Borewell for any further use.
18. The unit shall have made proper color coding of pipelines for water distribution network w.r.t. the defined coding of color for particular pipe carrying sugar effluent, treated effluent and fresh water.

19. The unit shall install Condensate Polishing Unit (CPU) as the unit has pressure boiler of 105 kg/cm² as recommended by expert institute (NSI) in ETP validation report-2019-20.
20. It is recommended that the unit shall take serious steps to make the mill house safe for personnel's, working in the vicinity and a health and safety audit by a reputed institute/organization may also be recommended to avoid any future economic loss of unit and human life.

8.0 INSPECTION TEAM:

S. No.	Name of the inspecting officers	Designation	Signature
1	Sh. Arun Kumar	Sub-Divisional Magistrate, Tehsil-Dhanaura, Dist.-Amroha	
2	Sh. Ashutosh Chauhan	Regional Officer, Bijnor, Uttar Pradesh Pollution Control Board	
3	Ms. Reena Satavan	Sc-'D', Central Pollution Control Board, Delhi	
4	Sh. Anil Sharma	Assistant Engineer., Regional Office, Bijnor, Uttar Pradesh Pollution Control Board	
5	Sh. Saurabh Shah	Assistant Engineer, Uttar Pradesh Ground Water Department (UPGWD)	

9.0 PHOTOGRAPHS OF M/S WAVE INDUSTRIES PVT. LTD., VILLAGE- MALYSIA, POST- MANDI DHANAURA, DISTRICT AMROHA, U.P.:



Pic-01: Entry gate of sugar mill from ETP lagoon side



Pic-02: Inlet of ETP showing pipeline carrying sugar effluent from mill house through pump and other line for effluent dilution



Pic-03: Oil & Grease tank



Pic-04: Grit/Sand settling chamber



Pic-05: Equalization tank with diffused aeration facility



Pic-06: Flocculation tank with lime dosing facility



Pic-07: Lime dosing tank (non-operational)



Pic-08: Primary clarifier-I (septic condition)



Pic-09: Secondary Clarifier-I (non-uniform overflow)



Pic-10: Rectangular Aeration tank-II with diffused aeration facility



Pic-11: Measuring cylinder showing poor settling of sludge from Aeration tank-I



Pic-12: Circular Aeration tank-I



Pic-13: Tertiary treatment system (02 nos. sand filter & 02 nos. activated carbon filter)



Pic-14: Chlorine dosing tank



Pic-15: Sludge decanter



Pic-16: Surge tank



Pic-17: Sludge centrifuge



Pic-18: Sludge Drying Bed (capacity- 675 m³)



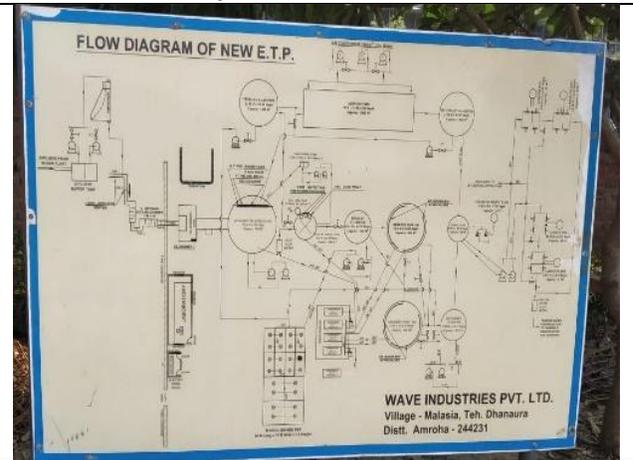
Pic-19: Treated effluent storage lagoon



Pic-20: OCEMS (OCMS sensor & display) installed in Env. laboratory



Pic-21: Environmental laboratory



Pic-22: Flow Chart of ETP displayed at ETP area



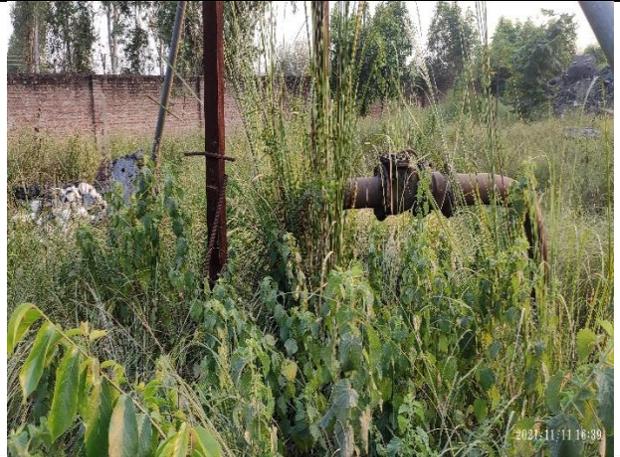
Pic-23: Ground water level recorder at borewell no.-1



Pic-24: Flowmeter at borewell no.-1



Pic-25: Flowmeter of borewell no.-2 (Not in operation)



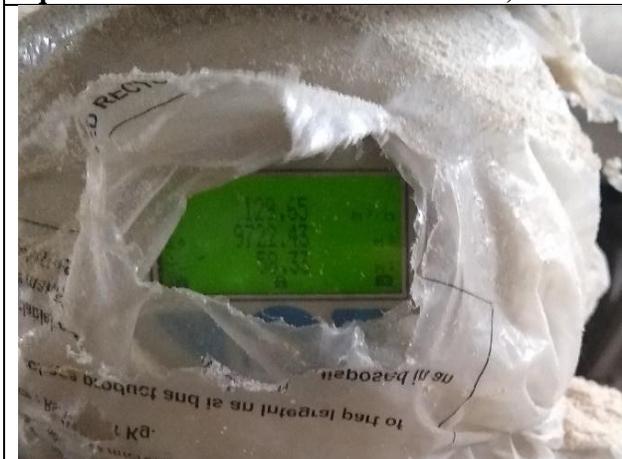
Pic-26: Borewell no.-3



Pic-27 Flow meter: ETP Inlet (installed between equalization tank and flocculation tank)



Pic-28 Flow meter: ETP outlet



Pic-29 Flow meter: Imbibition water at mills



Pic-30 Flow meter: Filter cake wash water at rotary vacuum filter



Pic-31 Flow meter: Sugar melting, pan boiling, molasses conditioning



Pic-32 Flow meter: Mills, Fibrizer bearing, pumps cooling



Pic-33 Flow Meter: Wash water at centrifugal (1)



Pic-34 Flow Meter: Wash water at centrifugal (2)



Pic-35 Flow meter: Final Molasses Cooling



Pic-36 Flow meter: B- masecuite



Pic-37 Flow meter: C- massecuite (Hot Water)



Pic-38 Flow meter: B- massecuite (Cold Water)



Pic-39 Flow meter: Brine reject from brine recovery system & Reject acid after regeneration of IER column



Pic-40 Flow meter: IER wash water generation



Pic-41: Unused boring/pumping structure near effluent collection tank (Coordinate: Lat-28.942330, Long-78.275276)

10.0 ANNEXURES:

S.No.	Annexures	Annexure No.
1	Air Consent	Annexure-1
2	Water consent	Annexure-2
3	Hazardous Waste Authorization	Annexure-3
4	NOC from CGWA	Annexure-4A, 4B, 4C & 4D
5	Photocopy of data recorded on log books of fresh water abstraction and consumption.	Annexure-5
6	Irrigation Management Plan	Annexure-6
7	ETP details with flow diagram.	Annexure-7



U.P. Pollution Control Board

Aamem - 1

CONSENT ORDER

Ref No. - 40790/UPPCB/Bijnore(UPPCBRO)/CTO/air/JYOTIBA
PHULE NAGAR/2018

Dated : 03/02/2019

To ,

Shri DP SINGH
M/s WAVE INDUSTRY PVT LTD
VILLAGE-MALAYSIA, POST-MANDI DHANAURA, AMROHA, 244231
JYOTIBA PHULE NAGAR

Sub : Consent under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended)
to M/s. WAVE INDUSTRY PVT LTD

Reference Application No. 3788899

Dated : 03/02/2019

1. With reference to the application for consent for emission of air pollutants from the plant of M/s WAVE INDUSTRY PVT 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 02/02/2019 to 31/12/2021 .
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
Digitally signed by
AMIT CHANDRA
Date: 2019.02.03
21:06:35 +05'30'

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

Chief Environment Officer

Enclosed : As above
(condition of consent):

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

AMIT
CHANDRA
Digitally signed by
AMIT CHANDRA
Date: 2019.02.03
21:06:53 +05'30'
Chief Environment Officer

CONDITIONS OF CONSENT

1. This consent is valid only for the approved production capacity of Cane crushing capacity of 8300 TCD and 30 MW cogeneration power.
- 2(a). The maximum rate of emission of flue gas should not be more than the emission norms for the stacks.

Air Pollution Source Details					
S.No	Air Pollution Source	Type of Fuel	Stack No.	Parameters	Height
1	boilers of 170TPH , 32 TPH and 32TPH	bagasse-2472TPD	1	Particulate Matter	170 TPH is equipped with ESP and stack height of 90 meter from ground level and 02 boilers of 20 TPH are equipped with wet scrubber and common stack of 40 meter from ground level
2	DG sets of 1250KVA, 300 KVA and 625 KVA	diesel	2	Particulate Matter	6 meter, 3.4 meter and 5 meter above from the roof of nearest building.

- 2(b). 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	1	Particulate Matter	150 MG/NM3
2	2	Particulate Matter	as per standards stipulated in E(P)Rules 1986

3. Quantity of other pollutants should also be as per the norms prescribed by the Board/MOEF & CC/or otherwise mandatory .
4. 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 .
5. The modification or installation in the existing pollution control equipments should be done only by prior approval of Board
6. 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 .
7. Unit should do provisions for fugitive emissions chimney/stack as per the norms of the Board/MOEF & CC/or otherwise mandatory .
8. 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 .

Specific Conditions:

1. This consent to operate is valid for production Sugar and cane crushing capacity of 8300TCD and 30 MW cogeneration power
2. Boiler of 170 TPH equipped with ESP and stack height of 90 meter from ground level and 02 boilers of 20 TPH equipped with wet scrubber and common stack of 40 meter from ground level must ensure stack emissions within the prescribed norms.
3. DG sets of 1250 KVA , 300 KVA and 625 KVA shall be equipped with acoustic enclosure and stack height shall be 6 meter, 3.4 meter and 5 meter above from the roof of nearest building.
4. Unit shall operate and maintain the APCS in such a manner so that the ambient air quality of the area shall not be effected.
5. Unit shall maintain and operate properly the installed Online Emission Monitoring System at the stack of boilers and ensure the connectivity with the servers of CPCB and UPPCB.
6. Unit shall use Bio-briquette as co-fuel with main fuel in the ratio of minimum 20 percent in boiler subject to its availability.
7. 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.
8. The overall noise levels in and around area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc, on all sources of noise generation. The ambient noise level shall conform to the standards under the Environment (Protection) Act 1986.
9. Fly ash shall be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with storm water . Direct exposure of workers to fly ash & dust shall be avoided.
10. Unit shall comply the provisions of Water (Prevention and Control of Pollution) Act 1974 as Amended, 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 in Order dated 13.07.2017 in OA no. 200/2014, M.C. Mehta v/s Union of India
11. Unit shall submit emission monitoring report of the stack of air polluting sources done by MoEF & CC approved laboratory in every 3 months.
12. 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 .

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Date: 2019.02.03
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For and on behalf of U.P. Pollution Control Board .

Chief Environment Officer



U.P. Pollution Control Board

Annexure-2

CONSENT ORDER

Ref No. -
40807/U.P.PCB/Bijnore(U.P.PCBRO)/CTO/water/J
YOTIBA PHULE NAGAR/2018

Dated : 03/02/2019

To ,

Shri DP SINGH
M/s WAVE INDUSTRY PVT LTD
VILLAGE-MALAYSIA, POST-MANDI DHANAURA, AMROHA, 244231
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 WAVE INDUSTRY PVT LTD

Reference Application No :3790199

Dated :03/02/2019

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. WAVE INDUSTRY PVT 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 tank/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 02/02/2019 to 31/12/2021 .
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 (Prevention and Control of Pollution) Act, 1974 as amended .

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

AMIT
CHANDRA

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AMIT CHANDRA
Date: 2019.02.03
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For and on behalf of U.P. Pollution Control Board

Chief Environment Officer

Enclosed : As above
(condition of consent):

Copy to: Regional Officer U.P.PCB Bijnore for information and to ensure the compliance of the conditions imposed in the consent order.

AMIT
CHANDRA

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CHANDRA
Date: 2019.02.03 21:05:00
+05'30'

Chief Environment Officer

U.P. POLLUTION CONTROL BOARD, LUCKNOW

Annexure to Consent issued to M/s.WAVE INDUSTRY PVT LTD vide

Consent Order No. 3790199/ Water

Dated : 03/02/2019

CONDITIONS OF CONSENT

1. This consent is valid only for the approved production capacity of cane crushing capacity of 8300TCD and 30 MW cogeneration power.
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	48KLD	Septic Tank
2	Industrial	830 KLD and Cooling Tower blow down shall be restricted to 830 KLD, only one outlet is allowed	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	100 mg/l
2	Oil & Grease	10mg/l
3	BOD	30 mg/l
4	COD	250mg/l
5	Quantity of Discharge	48 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	COD	250mg/l
2	Oil & Grease	10mg/l
3	Oil & Grease	10mg/l
4	Quantity of Discharge	830 KLD and Cooling Tower blow down shall be restricted to 830 KLD, only one outlet is allowed
5	Total Suspended Solids	100 mg/l(for disposal on land) , 30 mg/l (for disposal on surface water)
6	BOD	100 mg/l(for disposal on land) , 30 mg/l (for disposal on surface water)

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

Specific Conditions:

1. This consent to operate is valid for production Sugar and cane crushing capacity of 8300TCD and 30 MW cogeneration power
2. Industrial effluent quantity shall be restricted to 830 KLD and Cooling Tower blow down shall be restricted to 830 KLD in compliance of notification no G.S.R.35(E) dated 14.01.2016 of MoEF&CC.
3. The discharge norms must confirm as per the notification no G.S.R. 35 (E) dated 14.01.2016 of MoEF&CC.
4. Unit shall submit the proposal of STP for the domestic effluent 48 KI D and use the treated water in irrigation within 6 months.
5. Unit shall identify recipient drains/ rivulets and their u/s & d/s location in consultation with UPPCB and shall carry out monthly monitoring of identified recipient drains at u/s & d/s location through lab recognized under Environment (Protection) Act, 1986 and shall submit the analysis report on monthly basis by 10th of every month to CPCB and UPPCB.
6. Unit shall obtain NOC from CGWA for ground water extraction
7. Unit shall install sealed electromagnetic flow meter at water source and outlet of ETP with running hours and maintain the records of water extracted and treated effluent supplied to irrigation.
8. Unit shall maintain pipe line from outlet of ETP and to the point of irrigation land.
9. Unit shall maintain and operate properly the installed online effluent monitoring system at the outlet of ETP and ensure the connectivity to the servers of CPCB and UPPCB.
10. 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.
11. Unit shall comply the provisions of Water (Prevention and Control of Pollution) Act 1974 as Amended, 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 in Order dated 13.07.2017 in OA no. 200/2014, M.C. Mehta v/s Union of India.
12. Unit shall submit treated effluent monitoring report of the ETP and ground water quality of premises as well as of the irrigated area done by MoEF & CC approved laboratory in every 3 months.
13. 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

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AMIT CHANDRA
Date: 2019.02.03
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For and on behalf of U.P. Pollution Control Board .

Chief Environment Officer

UTTAR PRADESH POLLUTION CONTROL BOARD
TC-12V, Vibhuti Khand, Gomti Nagar, Lucknow-226010

Ref. No : 6202/UPPCB/Bijnore(UPPCBRO)/HWM/JYOTIBA PHULE NAGAR/2018
Dated: 02/02/2019

To,

M/s WAVE INDUSTRY PVT LTD
VILLAGE-MALAYSIA, POST-MANDI DHANAURA, AMROHA, 244231
Tehsil :Dhanaura
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 6202 and 02/02/2019 .
2. Reference of application (No. and date) 3790495 and 11/12/2018 .
3. Mr DP SINGH of M/s WAVE INDUSTRY PVT 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 VILLAGE-MALAYSIA, POST-MANDI DHANAURA, AMROHA, 24423 .

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- cat-5.1(Used Oil)	TSDF/ Authorized recyclers	6KL/Annum

1. The authorization shall be valid for a period of 02/02/2023 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- Unit shall ensure compliance of The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- 2- 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.
- 3- 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.
- 4- Waste oil shall be disposed through authorized TSDF and recyclers only.

(Authorized Signatory)

AMIT

CHANDRA

Digitally signed by
AMIT CHANDRA
Date: 2019.02.03
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UTTAR PRADESH POLLUTION CONTROL BOARD

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

AMIT

CHANDRA

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AMIT CHANDRA
Date: 2019.02.03
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CEO/EE, I/C Circle



Annexure - 4A

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

Form 8 (E)

[See rules 15(2)]

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

VALID UP TO : 05/10/2026

Registration No.: 202108000762

Name of the Owner	DINESH PAL SINGH	Application Form Serial No.	AMRH0821RIN0044
Address of the Applicant	VILLAGE-MALAYSIA, POST-MANDI DHANAURA, DISTT-AMROHA	Specimen Signature	
Date of Submission	24/08/2021	Company Address	VILLAGE- MALESHIYA, BLOCK- DHANAURA DISTRICT- AMRO
Company Name	WAVE INDUSTRY PVT LTD, SUGAR UNIT DHANAURA		

Location Particulars

District	Amroha (J.P.Nagar)	Block	DHANORA
Plot No./Khasra No.	Existing Land details attached	Municipality/Corporation	No
Ward No./Holding No.			NA

Particular of the Existing Well and Pumping Device

Date of Construction/Sinking of the Well	01/04/1991		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	120.00
Purpose of well	Industrial	Assembly Size (For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H P of the Pump	45.00 ✓
Operational Device	Electric Motor	Rate of Withdrawal (m ³ /hr.)	110.00
Date of Energization (In Case of Electric Pump)			01/04/1991
Approx. Strainer Length (For Tube Well)	0.00	Diameter (For Dug Well)	0.00
Maximum Allowable Rate of Withdrawal (m ³ /hr.)	110.00	Maximum Allowable Running Hours Per Day:	4.00
Maximum Allowable Annual Extraction of Ground Water:			79200
Reason for renewal of N.O.C. एवं ओ सी के नवीनीकरण का कारण	Our application was pending with CGWA. Details of CGWA application are as follows: Application No. - 21-4/557G/UP/IND/2018. Date of Filing of application of Renewal: 28/08/2018 Now as per UPGWD guideline and instruction, we have submitted application for Renewal of NOC.		
Against Case	No		

This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (3) 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.

*Renewal
No-1*

Conditions

- (1) In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- (2) 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.
- (3) 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
- (4) 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.
- (5) In case of any change of ownership of the existing well, fresh registration has to be obtained.
- (6) 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.
- (7) 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.
- (8) The Certificate of Authorization/ NOC shall be valid for a period of three 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.
- (9) 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.
- (10) Guidelines for Installation of Piezometers and their Monitoring
- Piezometer is a borewell /tube well 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 whenever needed. General guidelines for installation of piezometers are as follows for compliance of NOC:
 - 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 piezometer 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 up to two decimals.
- 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.
- (11) Any other condition(s) that may be imposed by the concerned Authority.
- (12) 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.
- (13) Any other condition imposed by the concerned Authority
- **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 certificate is electronically generated and does not require digital signature

Annexure-4B

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

Form 8 (E)

[See rules 15(2)]

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

VALID UP TO : 05/10/2026

Registration No.: 202108000764			
Name of the Owner	DINESH PAL SINGH		
Address of the Applicant	VILLAGE-MALAYSIA, POST MANDI DHANAURA, DISTT-AMROHA	Application Form Serial No.	AMRH0821RIN0045
Date of Submission	24/08/2021	Specimen Signature	
Company Name	WAVE INDUSIRY PVT LTD, SUGAR UNIT DHANAURA	Company Address	VILLAGE- MALESHIYA, BLOCK- DHANAURA DISTRICT- AMR
Location Particulars			
District	Amroha (J.P.Nagar)	Block	DHANORA
Plot No./Khasra No.	Existing Land details attached	Municipality/Corporation	No
Ward No /Holding No.			NA
Particular of the Existing Well and Pumping Device			
Date of Construction/Sinking of the Well	01/04/1991		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	120.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	85.00 ✓
Operational Device	Electric Motor	Rate of Withdrawal (m3/hr.)	220.00
Date of Energization (In Case of Electric Pump)		01/04/1991	
Approx. Strainer Length (For Tube Well)	0.00	Diameter (For Dug Well)	0.00
Maximum Allowable Rate of Withdrawal (m3/hr.)	220.00	Maximum Allowable Running Hours Per Day:	4.00
Maximum Allowable Annual Extraction of Ground Water:			158400
Reason for renewal of N.O.C. एन.ओ.सी. के नवीनीकरण का कारण	Our application was pending with CGWA. Details of CGWA application are as follows: Application No. - 21-4/5576/UP/IND/2018. Date of Filing of application of Renewal: 28/08/2018 Now as per UPGWD guideline and instruction, we have submitted application for Renewal of NOC.		
Against Case	No		

3022 well
No 2 -

This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (3) 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.

Conditions

- (1) In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- (2) 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.
- (3) 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
- (4) 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.
- (5) In case of any change of ownership of the existing well, fresh registration has to be obtained.
- (6) 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.
- (7) 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.
- (8) The Certificate of Authorization/ NOC shall be valid for a period of three 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.
- (9) 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.
- (10) Guidelines for Installation of Piezometers and their Monitoring
- Piezometer is a borewell /tube well 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 whenever needed. General guidelines for installation of piezometers are as follows for compliance of NOC:
 - 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 piezometer 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 up to two decimals.
- 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.
- (11) Any other condition(s) that may be imposed by the concerned Authority.
- (12) 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.
- (13) Any other condition imposed by the concerned Authority
- 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 certificate is electronically generated and does not require digital signature

Annexure-4C

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

Form 8 (E)

[See rules 15(2)]

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

VALID UP TO : 05/10/2026

Registration No.: 202108000765			
Name of the Owner	DINESH PAL SINGH		
Address of the Applicant	VILLAGE-MALAYSIA, POST MANDI DHANAURA, DISTT-AMROHA	Application Form Serial No.	AMRH0821RIN0046
Date of Submission	24/08/2021	Specimen Signature	
Company Name	WAVE INDUSTRY PVT LTD, SUGAR UNIT DHANAURA	Company Address	VILLAGE- MALESHIYA, BLOCK- DHANAURA DISTRICT- AMRO
Location Particulars			
District	Amroha (J.P.Nagar)	Block	DHANORA
Plot No /Khasra No	Existing Land details attached	Municipality/Corporation	No
Ward No /Holding No			NA
Particular of the Existing Well and Pumping Device			
Date of Construction/Sinking of the Well	01/04/2007		
Type of Well	Tube Well/Boring	Depth of the Well (In meter)	120.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	50.00 ✓
Operational Device	Electric Motor	Rate of Withdrawal (m ³ /hr.)	150.00
Date of Energization (In Case of Electric Pump)		01/04/2007	
Approx. Strainer Length (For Tube Well)	0.00	Diameter (For Dug Well)	0.00
Maximum Allowable Rate of Withdrawal (m ³ /hr.):	150.00	Maximum Allowable Running Hours Per Day:	8.00
Maximum Allowable Annual Extraction of Ground Water:			216000
Reason for renewal of N.O.C. एन.ओ.सी. के नवीनीकरण का कारण	Our application was pending with CGWA. Details of CGWA application are as follows. Application No. - 21-4/5576/UP/IND/2018. Date of Filing of application of Renewal: 28/08/2018 Now as per UPGWD guideline and instruction, we have submitted application for Renewal of NOC.		
Against Case	No		

This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (3) 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.

Borewell
No 3

Conditions

- (1) In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- (2) 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.
- (3) 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 the recorded rate from water meters
- (4) 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.
- (5) In case of any change of ownership of the existing well, fresh registration has to be obtained.
- (6) No change of location, design, rate of withdrawal and pumping device in respect of the existing well as indicated at SI. (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.
- (7) 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.
- (8) The Certificate of Authorization/ NOC shall be valid for a period of three 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.
- (9) 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.
- (10) Guidelines for Installation of Piezometers and their Monitoring
Piezometer is a borewell /tube well 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 whenever needed. General guidelines for installation of piezometers are as follows for compliance of NOC:
• 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 piezometer 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 up to two decimals.
- 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.
- (11) Any other condition(s) that may be imposed by the concerned Authority.
- (12) 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.
- (13) Any other condition imposed by the concerned Authority
- **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 certificate is electronically generated and does not require digital signature



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

Annexure-4 D

Form 8 (E)

[See rules 15(2)]

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

VALID UP TO : 05/10/2026

Registration No.: 202108000766

Name of the Owner	DINESH PAL SINGH		
Address of the Applicant	VILLAGE-MALAYSIA, POST-MANDI DHANAURA, DISTT-AMROHA	Application Form Serial No.	AMRH0821RIN0043
Date of Submission	24/08/2021	Specimen Signature	
Company Name	WAVE INDUSTRY PVT LTD, SUGAR UNIT DHANAURA	Company Address	VILLAGE- MALESHIYA, BLOCK-DHANAURA DISTRICT- AMRO
Location Particulars			
District	Amroha (J.P.Nagar)	Block	DHANORA
Plot No./Khasra No.	Existing Land details attached	Municipality/Corporation	No
Ward No./Holding No.			NA
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)	120.00
Purpose of well	Industrial	Assembly Size(For Tube Well)	
Strainer Position (For Tube Well)			
Type of Pump Used	Submersible	H.P. of the Pump	45.00
Operational Device	Electric Motor	Rate of Withdrawal (m3/hr.)	200.00
Date of Energization (In Case of Electric Pump)		01/04/2016	
Approx. Strainer Length (For Tube Well)	0.00	Diameter (For Dug Well)	0.00
Maximum Allowable Rate of Withdrawal (m3/hr.):	200.00	Maximum Allowable Running Hours Per Day:	4.00
Maximum Allowable Annual Extraction of Ground Water:			144000
Reason for renewal of N.O.C. एन.ओ.सी. के नवीनीकरण का कारण	Our application was pending with CGWA. Details of CGWA application are as follows: Application No. - 21-4/5576/UP/IND/2018. Date of Filing of application of Renewal: 29/08/2018 Now as per UPGWD guideline and instruction, we have submitted application for Renewal of NOC.		
Against Case	No		

This No-Objection certificate authorizes the owner applicant (user) to sink a well in the location specified at Sl. (3) 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.

Renewal No-4

Conditions

- (1) In case of any change of ownership of the proposed well, fresh authorization has to be obtained.
- (2) 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.
- (3) 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
- (4) 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.
- (5) In case of any change of ownership of the existing well, fresh registration has to be obtained.
- (6) 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.
- (7) 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.
- (8) The Certificate of Authorization/ NOC shall be valid for a period of three 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.
- (9) 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.
- (10) Guidelines for Installation of Piezometers and their Monitoring
- Piezometer is a borewell /tube well 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 whenever needed. General guidelines for installation of piezometers are as follows for compliance of NOC:
- 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 piezometer 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 up to two decimals.
- 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.
- (11) Any other condition(s) that may be imposed by the concerned Authority.
- (12) 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.
- (13) Any other condition imposed by the concerned Authority
- **EPECIFIC 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 certificate is electronically generated and does not require digital signature

Month of Nov. 2021

Cooling Tower side
Tube well no 3

NEW BHARAT	Page No.
Date	/ /

S. No.	Date	Meter Reading		Water Consumption K.L/day	Running Hrs	Sign
		Initial	Final			
1.	1.11.2021	0013533	0013643	110	01	R
2	2.11.2021	0013643	0013863	220	02	R
3	3.11.2021	0013863	0013973	110	01	R
4	4.11.2021	0013973	0014083	110	01	R
5	5.11.2021	0014083	0014193	110	01	R
6.	6.11.2021	0014193	0014303	110	01	R
7.	7.11.2021	0014303	0014413	110	01	R
8	8.11.2021	0014413	0014523	110	01	R
9.	9.11.2021	0014523	0014743	220	02	R
10	10.11.2021	0014743	0014853	110	01	R
11	11.11.2021	0014853				
				Σ = 1320	10 LD	1320 Avg 10 LD

Tubewell no. 4
Nov. 2021 (Hear Park)

S.No	Date	Meter Reading		Water Consumption K.L/day	Running Hrs	Sign
		Initial	Final			
1.	1.11.2021	0000	0100	100	0.30	✓
2	2.11.2021	0100	0500	400	02	✓
3	3.11.2021	0500	0700	200	01	✓
4	4.11.2021	0700	01100	400	02	✓
5	5.11.2021	01100	01400	300	1 1/2	✓
6	6.11.2021	01400	01800	400	02	✓
7	7.11.2021	01800	02300	500	2 1/2	✓
8	8.11.2021	02300	02700	400	02	✓
9	9.11.2021	02700	02900	200	01	✓
10	10.11.2021	02900	03000	100	0.30	✓
11	11.11.2021	03000				
				Σ = 3000	10LD	
				Avg = $\frac{3000}{10}$	300 (CLD)	

✓

UTILIZATION OF TREATED EFFLUENT FOR IRRIGATION PURPOSE

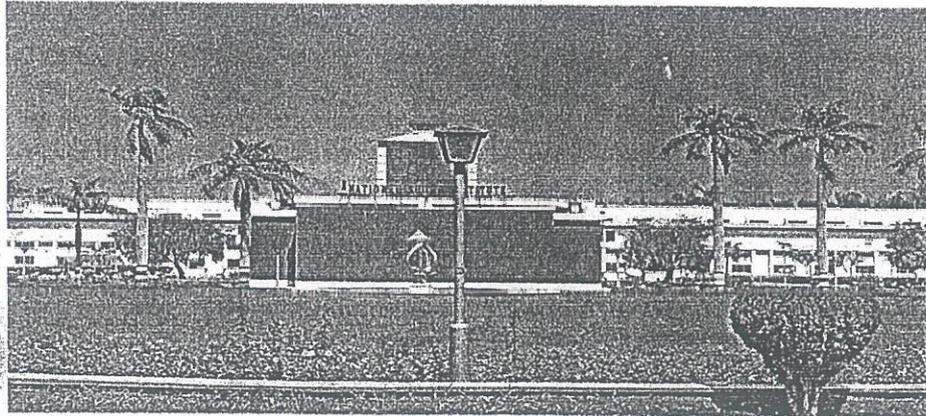
FOR

M/s WAVE INDUSTRIES.PVT.LTD.

DHANAURA

District-AMROHA, Uttar Pradesh

PREPARED BY:



NATIONAL SUGAR INSTITUTE

Government of India

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1. Introduction

M/s Wave Industries Pvt. Ltd, Dhanaura, District Amroha (UP) was incorporated in 1993 for producing Plantation White refined Sugar. It is spread in 60 acres land, operates as a sugar manufacturing company which having co-generates power etc. It has installed capacity of 8300 TCD.

Factory Performance:

S. No.	Particulars	2014-15	2015-16	2016-17
1.	Duration of season (days)	150.92	136.75	157.28
2.	Average sugarcane crushed per day (TCD)	6519.1	6722.5	6430.6
3.	Total sugarcane crushed (Qts)	99,75,498.3	91,07,069.69	102,89,017.63

2. VISIT UNDERTAKEN:

A visit was paid to the factory on 26th Sept. 2017 by Dr. Ashok Kumar, Assistant Professor (Agriculture Chemistry). Factory officials, namely, Shri B.S Aneja (Unit Head), Shri V.S Sharma, Senior GM (Production), Shri D.P Singh G.M. (Production), Environment Chemist Shri Lucky Choudhary and Shri Jagatvir Singh GM (Cane) were present at the site during the visit.

3. OBSERVATIONS & DISCUSSIONS:

To assess the adequacy of the ETP Plant, a separate visit was paid by the Institute officials. Since the visit was undertaken during the off-season of the sugar factory, it was not possible to physically observe the working of the Effluent Treatment Plant and verify the processing and other conditions, particularly, with respect to water usage, its conservation and quantity & quality of waste water discharge. The adequacy of the irrigation plan is also based on the data provided by the factory with respect to area available, crop pattern and the up made with the farmers.

Kumar
24/10/17

4. **Effluent generation:** Copies of analysis reports of treated effluent and data communicated to UPPCB server is attached as Annexure-I. Broad details of effluent treatment plant are attached as Annexure-II (Newly installed E.T.P.). A schematic diagram of the effluent treatment plant is attached as Annexure-III.

5. **Storage lagoon:** 4000 M³ Old units of E.T.P. converted into storage lagoon.

6. **Cropping pattern of the area:** The principal crops are: (i) wheat, (ii) paddy, (iii) sugarcane, (iv) bajra, and (v) urd at command area of M/s Wave Industries. Pvt. Ltd., Dhanaura. Sugar-cane is grown as main cash crop and wheat is secondary rabi crop with its area about 10 percent only.

7. **Quantity of effluent available for land application (1660 KL/day):**

- a. Capacity of the Sugar plant - 8300 TCD
- b. Estimated average Effluent generation per day @ 200 liters/ton of cane crushed - 1660KL/day
- c. Net effluent generation left for irrigation after treatment - 1660KL/day
- d. Total treated effluent generated for average crushing for 160 days (days considered on the basis of past track record)
= 160 x 1660 = 2,65,600KL/Crushing Season

8. **Characteristics of treated effluent:**

S. No.	Particular	Range
1.	pH	7-7.50
2.	BOD	8-29mg/liter
3.	COD	43-75mg/liter
4.	TSS	24-40mg/liter

The above values are as per data transmitted by M/s Wave industries. Pvt. Ltd., Dhanaura to CPCB/PCB server through Real time monitoring system during crushing season 2016-17 (16th November, 2016 to 25th April, 2017). The copies are enclosed as annexure-I.

9. Command area:

S. No.	Soil texture	Effluent loading rate(KL/hectare/day)
1	Sandy Loam	170-225 (average 197 m ³ /hectare/day or say 200 m ³ /hectare/day)
2	Sandy	240M ³ /hectare/day

On the basis of soil test report, the soil of the command area of factory is sandy loam while under factory premises soil is sandy.

10. Command area identified:

S. No.	Total available area (hectare)	Area available at 70 % land efficiency	Distance from unit (Km)	Mode of Effluent Transport
1.	124.43	87.10	Within 1.0 km.	MS Pipe Lines
2.	44.57	31.20	Within 1.0km.	MS pipe and Pumping set
3.	20	14	Within 1.0. km.	HDPE Pipe Lines
	Total = 189 (hectare)	132.30		

Details of farmer fields to be used for irrigation purpose with farmer's name, area, distance and crops cultivated attached as Annexure-IV.

11.Details of crop area:

S. No.	Location/Village	Total available area (Ha)	Crop area under effluent application		
			Kharif	Rabi	Annual
1.	Malaysia	124.43	-	13.23	111.20
2.	Musallepur	44.57	-	5.27	39.30
	Total	169	-	18.50	150.5

12.Total treated effluent water balance with respect to land available for irrigation for different crops keeping in view of the loading rates for different soil textures:

S No	Land Particular	Area (Hect.)	Area available at 70 % land efficiency (hectare)	Water loading	Irrigation Interval (days)	Average Crushing days	Water Requirement KL
1.	Factory land, lawn & Green belt, forest tree with yard (Sandy Soil)	20	14	240	05	160	1,07,520
2.	Sugarcane	150.5	105.35	200	15	160	2,24,746.67
3.	Wheat	18.5	12.95	200	25	160	16,576
						Total	3,48,842.67

13.Effluent application scheme:

A. **Storage and transportation:**Treated effluent is stored in a lagoon of 4000 KLCapacity (Old E.T.P. will be utilized as lagoon). Treated effluent is to be transported to the farmers' land and also to the premises of M/s Wave Industries.Pvt. Ltd. Dhanaura(Factory land, lawn &Green belt area).

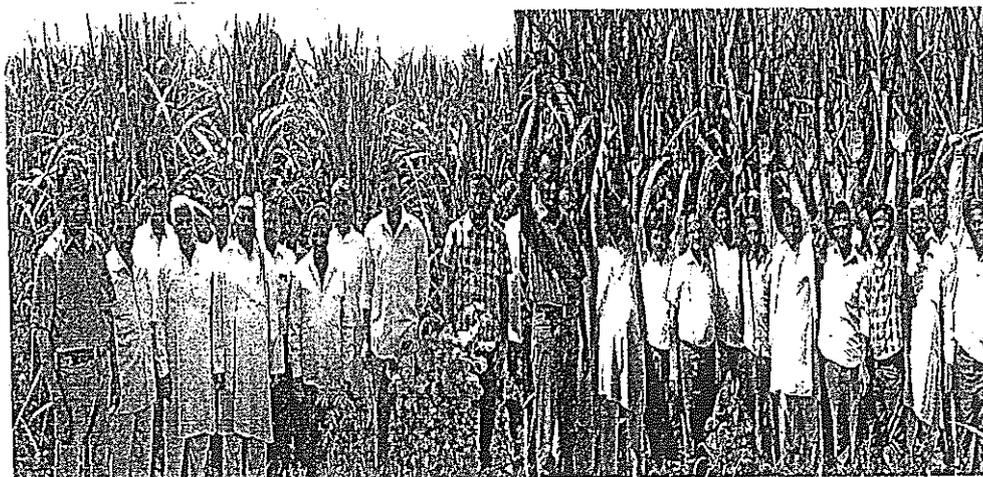
B. **Irrigation schedule & plan of the command area:** The treated effluent is available from November to April depending upon the duration of crushing season which is

generally below 160 days (attached as Annexure-V). In Amroha area, intensive agriculture is practiced by farmers where in wheat is immediately sown after ratoon cane harvest and land is not left vacant. This intensive agriculture requires continuous use of water. The effluent provided to the farmer is a great help to them as it is available on weekly rotation schedule of the farmers.

According to the weather condition of area, the farmers provide irrigation to cane field at 12-15 days interval. Similarly, wheat is also provided irrigation within 3 week interval. Sugarcane is a crop which requires water in abundant through its life span. After sugarcane, wheat is the major crop of area and it is efficient in taking up moisture of sub soil. For raising wheat crop successfully, water is required in abundant quantity particularly for germination, crown root initiation, tillering, flowering and grain formation stage.

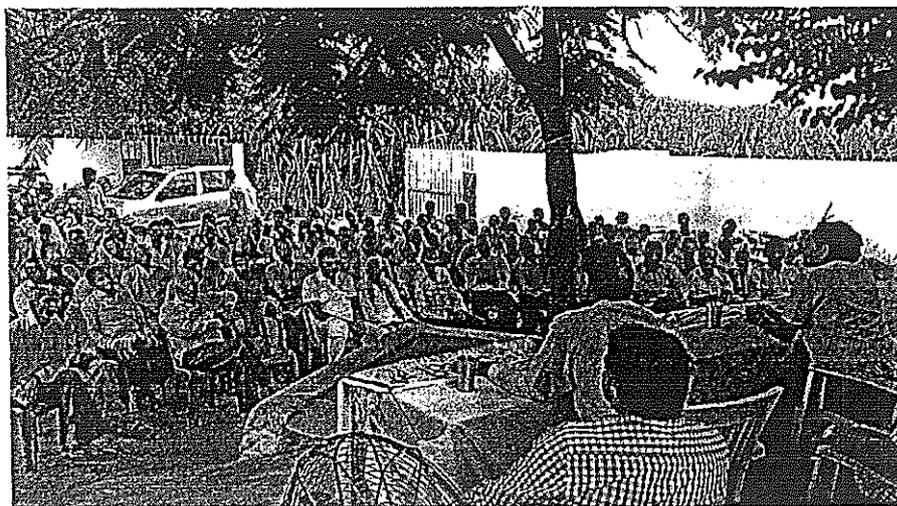
C. Agreement with farmers: Attached as Annexure-VI.

D. Demonstration farm trials: The cane department of the factory undertakes demonstration of farm trials are regularly to the farmers of the area (Photo attached). The demonstration is not restricted to cultivation of the new sugar varieties but also about the best agricultural practices including irrigation techniques. In each of the demonstration, large no. of the farmers participates who are imparted the knowledge about such techniques by the staff of the factory.



E. **KishanGosthi:**Gosthis are regularly organized on various aspects of crop production by factory's cane department. Conservation of natural resources and proper use of treated effluent in irrigation is a regular point of village meeting and farmer Gosthis.

S. No.	Activity	Schedule
1	KishanGosthi	Bimonthly
2	Field monitoring	Monthly



14. Basic requirement and monitoring schedule:

The basic requirement of irrigation plan is un-interrupted supply of treated effluent and monitoring of fields for proper use. Four skilled field staff is deputed to look after the irrigation supply independently. They visit fields under irrigation and interact with farmers on day to day basis. However, the system needs to be strengthened.

15. Technical backup and man power deployed:

M/s Wave Industries Pvt. Ltd, Dhanaura has a backup of technical team for repairing of effluent supply line & daily maintenance requirement through its existing maintenance staff. In addition, Cane professionals deputed by M/s Wave Industries Pvt. Ltd, Dhanaura are guiding and will continue to guide farmers about the use of treated water proficiently.

16. Physico-chemical properties of soil:

The factory reported following details with respect to analysis of the soil of the envisaged area where treated effluent is proposed to be used for irrigation purposes:

S. No.	Particular	Average
1.	pH	7.2
2.	EC	0.321
3.	Bulk density	1.42 g/cc
4.	Particle density	2.83 g/cc
5.	Porosity %	49.83 %
6.	Sand	61.0 %
7.	Silt	25.00 %
8.	Clay	14.00 %
9.	Ca	136.00 mg/kg
10.	Mg	44.0 mg/kg
11.	Na	76.0 mg/kg
12.	K	21.0 mg/kg
13.	P ₂ O ₅	0.89 mg/kg
14.	CaCO ₃	298.18 mg/kg
15.	Cl	136mg/kg
16.	SO ₄	46 mg/kg

Analysis report of soil is attached as **Annexure-VII**. It may be seen from the analysis report the factory command area mostly have Sandy Loam.

CONCLUSION:

1. The irrigation management plan proposed by M/s Wave Industries Pvt. Ltd, Dhanaura, may be considered to be in order for irrigation to be carried out for the autumn and spring planted sugarcane & also for wheat. The proposed system shall be able to cope up with the requirement of utilization of the generated effluent for irrigation purposes.

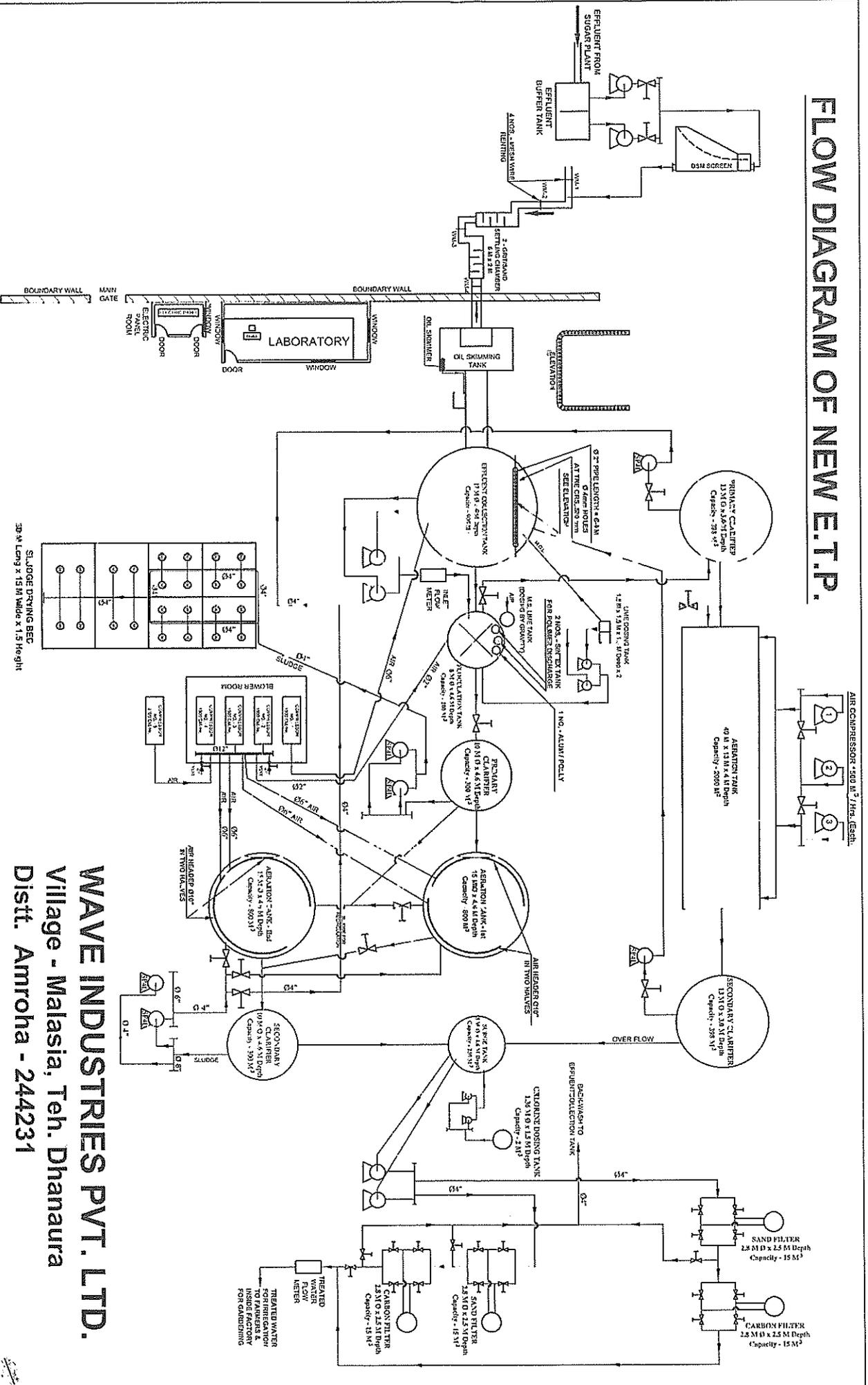
2. Since the factory visit was undertaken during off season when treated effluent was not available, as such, the actual assessment shall be possible during crushing only when the sugar plant will be in operation.
3. However, the factory should strengthen its strength for supervising and maintaining the irrigation plan while using the treated effluent. They should clearly prepare a responsibility chart for implementation.

Ksu
०५/१०/१३

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FLOW DIAGRAM OF NEW E.T.P.



Answer - 7

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 Distt. Amroha - 244231