REPORT OF THE OVERSIGHT COMMITTEE, NGT, U.P, LUCKNOW

IN THE MATTER OF:-

ORIGINAL APPLICATION NO. 107/2019

SHAH ALAM
VERSUS
STATE OF UTTAR PRADESH

INDEX

Sl. No.	Particulars	Page No.
1.	REPORT OF OVERSIGHT COMMITTEE	1-39
2.	Annexure – 1 & 1.1	49-69
3.	Annexure – 2	70-129
4.	Annexure – 3	130
5.	Annexure – 4	131-142
6.	Annexure – 5	143-242
7.	Annexure – 6	243-323
8.	Annexure – 7	324-326
9.	Annexure – 8	327-331
10.	Annexure – 9	332-333
11.	Annexure – 10	334-356
12.	Annexure – 11	357-362
13.	Annexure – 12	363-412
14.	Annexure - 13	413-414
15.	Annexure - 14	415-541
16.	Annexure - 15	542-543

UPDATED REPORT OF OVERSIGHT COMMITTEE IN COMPLIANCE OF ORDER OF HON'BLE NATIONAL GREEN TRIBUNAL PASSED IN O.A. NO. 107/2019 IN RE: SHAH ALAM VERSUS STATE OF UTTAR PRADESH, WITH REGARD TO VIOLATION OF ENVIRONMENTAL NORMS BY M/S JUBILANT GROUP OF INDUSTRIES AT GAJRAULA, DISTRICT AMROHA IN THE STATE OF UP

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1. Introduction:

Hon'ble National Green Tribunal had taken up the matter of OA No. 107/2019, on several dates i.e 25.03.2019, 03.07.2019, 01.11.2019, 05.02.2020 and 26.08.2020. The issue considered is related to the violation of environmental norms by M/s Jubilant group of Industries at Gajraula, District Amroha, U.P. Vide order dated 01.11.2019 the Hon'ble NGT considered the alleged violation of environmental norms by M/s Jubilant group of Industries at Gajraula, District Amroha, U.P and directed the statutory regulators to take action, in accordance with law against alleged environmental violations. A joint committee was constituted, comprising representatives of CPCB, UPPCB, Health Department, District Administration, U.P Jal Nigam, Horticulture Department and the Krishi Vigyan Kendra, Amroha, which conducted the inspection and submitted its report to the Hon'ble NGT on 13.09.2019.The report pinpointed a number of shortcomings which are summarized below:

1. Did unit have NOC for drawl of Groundwater?
2. Captive Power Plant failed to meet emission norms with respect to NO_2.
3. Capacity od MEE was 1740 KLD whereas Raw Spent wash generation was 1956.27 KLD
4. Rain water Harvesting system in the compost area was found contaminated by the spent wash
5. The Unit operated at 90 KLD of alcohol production which is more than 44 KLD corresponding to incinerator operation 3.2 Kl/hr as a result of which accumulated spent was in lagoon.
6. Possibility of by-pass of accumulated spent wash during rainy season.

7. Bio-compost yard was damaged.
8. Incineration of slop containing such low solid content of 25-30% indicates that the unit only employed bio-composting route for spent wash disposal after MEE concentration.
9. Unit was having storage capacity of 32000 M3 as against permissible 17800 M3. Unit was directed to restrict the storage capacity of lagoon.
10. Temporary lining of sludge storage /ponding area was found damaged. Leachate spent wash was found stored in the ponding area which was threatening groundwater quality.
11. Unit was not operating incinerator/slop furnace as per designed capacity (11.5 KL/Hr) to consume the concentrated spent wash. This resulted in accumulation of excess spent wash with leachate (bio-compost area) in lagoons.
12. The lagoons are almost full and incinerator operates only at 30% of its installed capacity, covered compost yard is completely filled with press mud having high moisture content and damaged roof of covered compost yard which will not allow further disposal of spent wash for bio-composting. Status of already stored spent wash and its processing done through further concentration for the use in the incinerator under supervision of UPPCB.
13. The unit was directed to stop its distillery plant and consume the already stored spent wash. There after capacity of distillery plant shall be restricted to the capacity till the incinerator is commissioned at full capacity.
14. The unit was directed to restricted storage capacity of concentrated spent wash up to 17800 m3 and it should include 07 days for incineration and 30 days for bio-composting, both separately.
15. The unit was directed to dismantle/filling/leveling of the additional storage capacity of the lagoon in time bound manner.
16. The pipelines for carrying the spent wash to the ash ponds shall be dismantled after recycling the stored spent wash from the ash pond to the lagoons.
17. The unit was directed to implement the requisite facility as per suggestion of the water audit report to reduce the withdrawal of the groundwater.

18. The unit was directed to install additional system to improve the quality of CPU permeate.
19. The unit was directed to set up proper and separate systems for concentration of spent wash upto 45 % solids and upto 30 % solids for incineration and for bio-composting respectively."
20. All the consumption points are not metered. It was recommended that all fresh water consumption points and effluent recycling points should be metered.
21. All existing meters should be periodically calibrated and records to be maintained.
22. The existing turbine type water flow meters on bore wells should be converted to digital magnetic flow meters for better accuracy.
23. The unit shall obtain NOC: from CGWA for withdrawal of groundwater at earliest as the CC'."1/. NOCs have already been expired on 04.04.2019.
24. It is recommended to take measures for further reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.
25. Attempt should be made to reduce the quantity of makeup water to each Cooling Tower by increasing Cycle of Concentration (COC)
26. The unit shall maintain and operate Air Pollution Control Systems ESP on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.
27. The unit shall keep and maintain Ash generation as well as disposal record.
28. Reject of CTRO is used for spray on coal stock and ash for dust suppression. This effluent cannot be used for ash quenching which should be stopped immediately.
29. The unit should stop discharge of effluent for horticulture and entire effluent should be recycled/reused in process and or cooling tower.
30. CTRO reject has characteristics BOD-1294 mg/I, COD-3189 mg/I, TDS-6032 mg/I and Colour-147 hazen. This effluent can be used for spray on coal yard only and not for ash quenching. The unit should install a dedicated pipeline along with metering arrangement for carrying CTRO reject upto coal yard and spray arrangement exclusively using this effluent.

31. The unit shall maintain the wet scrubber periodically to restrict SO2 emission within the prescribed norms.
32. To evaluate the performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.
33. Captive Power Plant was found non complying w.r.t NO2 459.99mg/Nm3 against the standard limit of 300 mg/Nm3 To restrict the NO, emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.
34. The ambient air near the CDF plant, near ETP area and near terrace of Admin building was found polluted in terms of PM 10. The unit should get an ambient quality check of all the air pollution sources from MOEF&CC authorized laboratory and submit a report on quarterly basis.
35. The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke /heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes
36. The unit shall maintain date wise record of quantity and category of hazardous waste disposed in the captive SLF.
37. The unit shall maintain date wise record of leachate generated from captive SLF.
38. The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit.
39. The unit shall maintain record of waste disposed at SLF and leachate generation from SLF

2. Hon'ble NGT orders:

A. In its order dated 01.11.2019 the Hon'ble Tribunal observed the following:

1. *"None of the units of Jubilant group of Industries in Gajraula Industrial Complex has requisite permission for ground water extraction but such extraction is continuing in violation of law.*

2. *Captive power plant is not complying with respect to NO2 standards.*
3. *The distillery plant as per the adequacy report of the Joint Committee indicates that the RO and MEE plants are not installed as per the requirements. Further, the compost yard is not maintained as per the guide-lines of CPCB and also the compost quality is not ascertained before providing it to the farmers.*
4. *The effluents of chemical unit 1 and the polymer unit are collectively treated in a chemical effluent treatment plant and both the units have been consented as Zero Liquid Discharge. The treated effluents from the chemical effluent treatment plant should operate on ZLD system and this effluent may not be consented for utilization for horticulture purpose.*
5. *The 400 KLD of sewage after treatment is utilized for horticulture/agriculture. The treated sewage is not meeting with respect to feacal coliform. After treatment, it can be better utilized for industrial use so to reduce consumption of ground water.*
6. *We have also observed that there have been several inspections carried out in the past with regard to all the industries and the actions required to be taken are well known. UPPCB has not taken any action to ensure compliance nor imposed environment compensation so far. As regulatory body, entrusted with statutory functions, has thus failed in its duty so far.*
7. *Though we have yet not issued notice to the units in question which is to be considered in the light of action of the statutory authorities, Shri Sanjay Upadhyay, Advocate sought to appear for the industrial units to submit that once applications are filed for permission to extract groundwater, extraction of groundwater cannot held to be illegal. We are unable to accept this submission. As held by this Tribunal on several occasions, extraction of groundwater in semi critical, critical and over exploited areas is required to be regulated in view of judgment of the Hon'ble Supreme Court in M.C Mehta Vs. Union of India (1997) 11 SCC 312. The report notes that the area in question has deteriorated from semi critical to over exploited. In such a situation, while extraction of groundwater for drinking purposes may stand on different footing, there is no absolute right for such extraction for industrial purposes. Such extraction may lead to further deterioration of*

limited groundwater resource depriving the inhabitants of access to drinking water. The contention is thus rejected. We refrain from dealing with the merits of further remedial action which is yet to be taken by the statutory authorities after giving opportunities to the units in question in accordance with law except that in the light of facts found further action needs to be taken and report furnished to this Tribunal."

On 31.10.2019 SPCB has issued show-cause notice to the Unit and imposed an EC of Rs 6.19 Cr for various environmental violations except the illegal withdrawal of groundwater. The State PCB on 30.10.2019 issued a show-cause notice to the Unit along with levying of environmental compensation of Rs 9.84 Cr for illegal drawl of groundwater.

B. The Hon'ble NGT in its order dated 26.08.2020, considered the report of Oversight Committee as follows:

1. The Unit has so far not paid EC of Rs 6.19 Crores for violation of environmental conditions, nor has it paid EC of Rs 9.84 Crores for illegal drawl of groundwater without CGWA permission. It has also not yet obtained CGWA permission for groundwater drawl however their application along with the recommendation to renew is pending before CGWA. Unit is extracting groundwater on the ground that their application is pending. Pendency of application with CGWA cannot be treated as their consent. We have also gone through the order of SPCB dated 30.06.2020 regarding conditional restoration. It needs further clarification that the restoration will be effective from the date these conditions have been fulfilled. The fulfillment can be verified by a Joint inspection of CPCB and SPCB.
2. NGT also had directed that a joint report of CPCB and SPCB may be filed. The plea of CPCB as expressed in their letter dated 18.08.2020declining to conduct the joint inspection of the Unit on the ground that the case is *subjudice* in High Court does not appear to be acceptable as there is no stay on inspection and no order has been passed yet by Hon'ble High Court. CPCB and SPCB may be directed to conduct a joint inspection once the Unit has complied with the

conditions as mentioned in the conditional revocation order of SPCB dated 30.06.2020.

3. CGWA may be directed to consider all relevant factors and decide on the groundwater permission issue in the light of orders of Hon'ble Supreme Court and Hon'ble NGT on the subject.
4. Also, the Hon'ble Tribunal directed "the State PCB needs to take further prompt action of not allowing the activities of the unit unless assessed compensation is paid and further remedial action is taken in the light of the CPCB and the oversight Committee report".

3. Compliance report received from CGWA as on 01.11.2020

The Oversight Committee-NGT had sent a set of questions to CGWA, with regard to the Jubilant Group of Industries. The details received are as follows:

- The total consumption of water in different units is as follows:

JUBILANT LIFE SCIENCES			
S. No.	**NAME OF THE UNIT**	**MAXIMUM ANNUAL CONSUMPTION AS PER NOC IN CUBIC METER.**	**ANNUAL CONSUMPTION BY THE INDUSTRY IN CUBIC METER**
1	DISTILLERY UNIT	1065000	457232
2	CHEMICAL UNIT I	816500	582371
3	CHEMICAL UNIT II	923000	427560
4	POWER PLANT	1668500	1175586
	TOTAL	**4473000**	
JUBILANT AGRI AND CONSUMER PRODUCTS LTD			
5	POLYMER UNIT	90000	22956
6	FERTILIZER UNIT	497000	No dedicated bore well till recent past.BW2 of Polymer unit was supplying it. Now, the TW has been constructed

	TOTAL	**587000**	
	GRAND TOTAL	**5060000**	

- There are total six units in Jubilant Groups of Industries and the break of water utilized from different sources is as follows:

S. No.	NAME OF THE UNIT	Surface water/ Agency m^3/day	Ground water m^3/day	Treated water m^3/day	Total m^3/day
1	DISTILLERY UNIT	840	2918	3314	7072
2	CHEMICAL UNIT I	672	2236	1255	4163
3	CHEMICAL UNIT II	2498	2600	3133	8159
4	POWER PLANT	0.0	4571	0.0	4571
5	POLYMER UNIT	0.0	250	54	304
6	FERTILIZER UNIT	0.0	1325	92	1417

- The firm is not using any water from nearby drains or getting treated water supply from the nearby municipality. The industry do have a rainwater harvesting system, the details as per the NOC conditions and as per the inspection report are as follows:

S. No.	Unit	Annual Recharge condition as per NOC in m^3	Annual Recharge compliance as per inspection in m^3
1	DISTILLERY UNIT	1000000	1099863
2	CHEMICAL UNIT I	1060000	546914
3	CHEMICAL UNIT II	460000	499539
4	POWER PLANT	834250	1040224
5	POLYMER UNIT	59000	60147
6	FERTILIZER UNIT	334610	212836

- Detailed response received from CGWB, NR, Lucknow/CGWA, New Delhi is annexed as **Annexure 1**.

4. The compliance report received from UPPCB

The compliance report received from UPPCB as on date 14.10.2020 is as follows:

S. No.	Directions by Hon'ble NGT	Concerned Department	Compliance status By UPPCB
1	**Status of** Water consent of SPCB	UPPCB	• The RO UPPCB Bijnore Inspected the Unit on 18.08.2020. The Unit was found complying with the directions dated 30.06.2020 of UPPCB related to functioning of Slop Boiler and Zero Liquid Discharge norms. • Unit has obtained Consent to Operate which is valid till 31.12.2020. • The State Ground water Authority had started the process of issuing of NOCs and a list of industries which have applied for NOC has been annexed as **Annexure-15**.
2	Status of Environmental Compensation: Rs 6.19 Crores for violation of environmental conditions and Rs 9.84 Crores for illegal drawl of groundwater without CGWA permission	UPPCB	• Unit, vide letter dated 03.09.2020 submitted representation requesting for extra time for deposition of EC of Rs. 6.19 Cr. and 9.84 Cr. • UPPCB vide letters dated 01.09.2020 and 16.09.2020 issued directions with show-cause notice under section 33A of Water (Prevention and Control of Pollution) Act 1974 against the Unit to deposit the EC of Rs. 9.84 Cr. and Rs. 6.19 Cr. in the account of UPPCB within 15 days, failing which action against the Unit shall be taken in compliance of the orders of Hon'ble NGT in order dated 26.08.2019 in O.A. 107/2019. • Unit has submitted representation dated 28.09.2020 regarding review of the amount of Environmental Compensation of Rs. 6.19 Cr. assessed by the joint committee and also requested for grant of additional time of two months for payment of EC.

			• The Joint committee constituted by Hon'ble NGT has earlier calculated the EC of Rs. 6.19 Cr. based on the Formula-EC=PIxRxNxLF as included in the methodology of CPCB. • Unit has deposited Environmental Compensation of Rs. 70 Lakh under protest on 01.10.2020.
3	Spent wash was limited to 17800 MT	UPPCB	The unit has a storage tank of 22,325 m^3 for raw spent wash which is in violation of CPCB direction dated 0.12.2015.
4	Compliance of recommen-dations of Joint committee	UPPCB	• Unit has complied with the recommendations made by the joint committee. The compliance-related to adequacy of ZLD infrastructure, maintenance of slop boiler, storage of concentrated spentwash within the permissible limits, cleaning of sludge dumped earlier etc. has been verified during the inspection dated 18.08.2020.
5	Permission of extraction of groundwater	CGWA	• The area of Unit is notified as "Over Exploited". Ministry of Jal Shakti (Department of Water Resources, River Development and Ganga Rejuvenation) Central Ground Water Authority vide notification dated 24.09.2020 has issued directions to the industrial units in over exploited area as follows- ➢ "In Over exploited assessment units, No Objection Certificate shall not be granted for ground water abstraction to any new industry except those falling in the category of Micro, Small and Medium Enterprise (MSME). ➢ All existing industries, drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as applicable as per Table 5.2 B and 5.3 B of the guide-lines of CPCB Annexed as **Annexure 2**. • The renewal application for NOC made by the Unit is under consideration with CGWA. However, as

			State Ground water Authority will be responsible authority for issuing of the NoC the Unit has to apply afresh to the SGWA.

5. The Compliance report received from the M/s Jubilant Group of Industries:

In response to the questionnaire send by the Oversight Committee on 25.10.2020 the response received from M/s Jubliant Group of Industries are as follows:

- The details of water consumption of the Unit along with Unit wise bifurcation for the Period Jan'20 to Sept'20 was as follows:

Unit wise Water consumption (Jan'20 to Sept'20)

Jan'20 to Sept'20	Unit Name : Water consumption (KL)						Total (KL)
	Chemical unit-1	Chemical Unit-2	Distillery Unit	Power plant Unit	Polymer Unit	Fertilizer Unit	
Jan-20	51128	25508	77699	64501	8538	2469	**229843**
Feb-20	46385	14783	62598	68114	3037	2305	**197222**
Mar-20	51620	17816	54691	65299	5423	3632	**198481**
Apr-20	48846	16196	60797	72546	8438	3351	**210174**
May-20	55487	28725	79432	83813	4593	3947	**255997**
Jun-20	52301	29521	65279	59118	5402	5044	**216665**
Jul-20	51787	18590	59028	53852	4643	6765	**194665**
Aug-20	41018	23158	64510	57740	5978	4068	**196472**
Sep-20	33420	20042	59851	75353	5578	3000	**197244**
Total (KL)	**431992**	**194339**	**583885**	**600336**	**51630**	**34581**	**1896763**

- The total production from Jan-Sept. 2020 at each Unit is as per following table:

Unit Name	Total production Jan'20 to Sept'20	Unit of Production
Jubilant Life Sciences Limited		
Chemical Unit-1	1,13,588.99	MT
Chemical Unit-2	26,422.070	MT
Distillery Unit	21,011.73	KL
Power Plant	1,13,161	MWH
Jubilant Agro Consumer Products Limited		
Polymer Unit	8,265.67	MT
Fertilizer Unit	1,76,035.29	MT

- The water utilisation break of Industry from different sources i.e. Surface water, groundwater, and reuse of treated water is as follows:

Unit Name	Jan-Sept 2020			
	Total Water Consumption KL	Fresh Water Consumption KL	Recycling /Reuse water KL	% Recycle /Reuse water
Jan-20	329132	229843	99289	30.2%
Feb-20	309560	197222	112338	36.3%
Mar-20	318198	198481	119717	37.6%
Apr-20	319090	210174	108916	34.1%
May-20	373598	255997	117601	31.5%
Jun-20	311411	216665	94746	30.4%
Jul-20	276690	194665	82025	29.6%
Aug-20	287405	196472	90933	31.6%
Sept-20	298516	197244	101272	33.9%

The source of freshwater in the industry is **groundwater.** To extract the ground water, there are 8 bore wells in the premises of the Industry. The photographs of all the bore wells are annexed as **Annexure-3**.

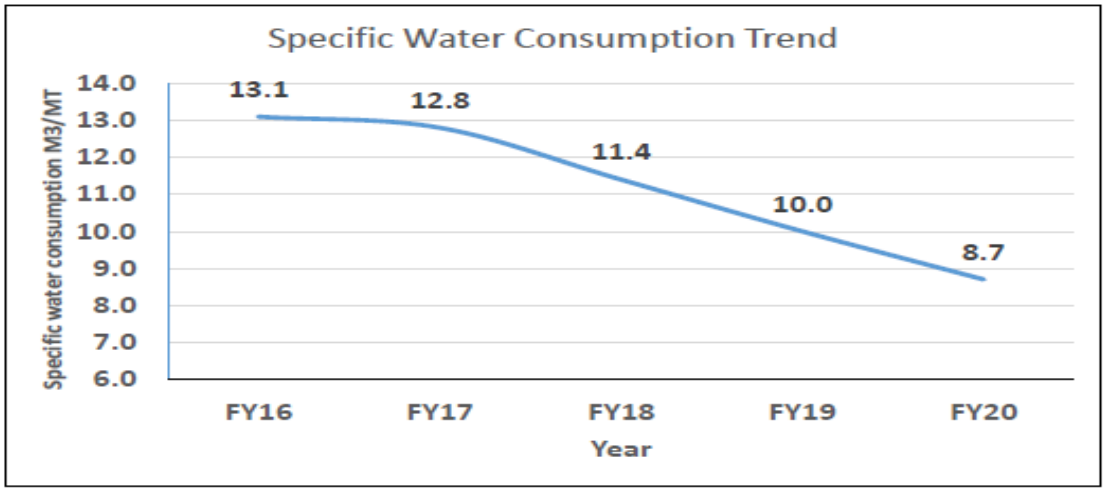
- As per the compliance report submitted by the industry, they have rainwater harvesting systems constructed for groundwater recharge inside the company premises as well in village ponds adopted from the local government. The details of the RWH structures are as follows:

Details	Total number of RWH structures	Remarks
Within Premises	5	Photographs are Annexed as **Annexure-4**.
Chemical Unit-1	45	Unit wise List of RWH structure is annexed as **Annexure-4**.
Chemical Unit-2	42	
Distillery Unit	56	
Power Plant	52	
Polymer Unit	9	
Fertilizer Unit	50	
Total	259	

- The capacity of each rainwater harvesting structure is designed with a recharge capacity of about 500 CuM/day. The representative of the industry informed that they keep inspecting and clean the structures to remove silt and/or replace with fresh filter media if required, every year before monsoon.
- The industry has planned to reduce the overall water consumption in the Industry. The initiatives implemented for reduction in fresh ground water extraction are as follows:
    1. Collection of rainwater runoff from manufacturing plant area and reuse during monsoon season.
    2. Sourcing treated sewage from Gajraula municipality as and when STP is installed for sewage treatment, this is presently discharged to Bagad or Oxidation ponds.
    3. The specific water consumption trends are presented below:

Specific Water Consumption trend (FY16-FY20)

For the integrated Captive coal power, Molasses Distillery and Chemical manufacturing complex of M/s Jubilant Life Sciences Limited, Gajraula.



- The Water meters have been installed for every groundwater extraction well and supply to major consumption points in every Unit. The water consumption is metered and records are maintained through daily logbooks/Registers. The significant points of water meter installed are,

    1. Water Extraction at each Bore wells,
    2. Water consumption points,
    3. Water recycling/reuse,
        a) RO permeates,
        b) Evaporator Condensate
        c) Treated Sewage Water

Periodic calibration of each meter is carried out by instrumentation department through a Calibration bench setup in-house with tractability from National Physical Laboratory.

- Environment Impact Assessment studies were conducted for the industry through MoEF&CC accredited consultants in 2013 by M/s EQMS Consultants, New Delhi for seeking Environment Clearance.
- Groundwater extraction impact assessment study was carried out by M/s NEER, Ghaziabad in June'2020, for all the units for assessing the impact of Ground Water Extraction and submitted to CGWA in June 2020.
- The industry presented that they have been implementing the Hon'ble NGT orders in OA No. 107 of 2019. The Joint Inspection team has duly verified the same in Sept 2020 Re-inspection.
- All units are operating in compliance to the standards laid down by different applicable statutes and the directions given by the Hon'ble NGT.
- A joint inspection was made by the team of CPCB and UPPCB during 17-19 Aug 2019. The pointwise compliance to the Joint Inspection Team (JIT) recommendations along with Photographs showing implementation of the actions recommended by the JIT is annexed as **Annexure-1.1.**
- The Joint Committee of CPCB and SPCB had done a detailed technical inspection and submitted its report dated 13.09.2019. Various violations had been mentioned in detail in Hon'ble NGT's order dated 05.02.2020. The officers of M/s Jubilant Group of Industries mentioned that they had complied with all 52 points raised by the Joint Committee and the compliance is complete. While listening to their compliance, the Committee directed them to file written compliance of these pointed violations separately. The point-wise compliance of industry with regard to the violations mentioned in the order of Hon'ble NGT. The distillery unit was kept closed for over 90 days and was operational under capacity for the period of July and August to handle the rainwater/leachates. The industry concentrated the rainwater leachates in MEE and consumed it. Also, they are adhering to the guidelines for storing spentwash. They are adhering to the SOP for maintaining <50% moisture in windrows and storing the lagoon sludge in covered bio composting shed. They are also complying with the guidelines for Distiller, stipulating minimum 60% vol. reduction and >30% solids. The Air pollution

Control Systems and OCEMS have been installed and connected to the CPCB and UPPCB. The industry is maintaining their records and submitting a quarterly report to the UPPCB on regular basis. They are obtaining 8-10 Cycle of Concentration (COC) based on the process requirements. The industry is using the treated sewage for campus green belt management and had stopped the use of treated effluents for horticulture. The reply of M/s Jubilant Group of Industries point-wise on the violations mentioned by the Hon'ble NGT is enclosed herewith as **Annexure-2**. In another representation they have mentioned that they have constructed >200 village ponds over 15000 Km^2. The UPPCB had issued a Show cause notice vide letter dated 30/10/2019 with a direction to deposit Rs. 30 Lakhs as EC. The industry had paid the said amount on 30/12/2019. Further in compliance to the EC imposed of Rs 6.19 Cr, the industry had paid Rs. 70 Lakh on 28/09/2020.

- M/s Jubilant Group of Industries made a representation seeking personal hearing against EC imposed on them on the ground that they were complying with all the conditions. However it was made clear to them that Oversight Committee is not the forum for hearing and they have been called to ensure compliance of NGT Order.The M/s Jubilant Group of Industries had presented the status of compliance to this committee with regard to the orders of the Hon'ble NGT. The details are as follows:
    i. The industry had made representations to the UPPCB and CPCB based upon the observations and the inspection of the Joint Inspection Team conducted on 16.09.2020. The report of joint inspection is still awaited.
    ii. The Industry stated that the EC calculated by CPCB which was submitted to the Hon'ble NGT during the hearing Dt.05.02.2020 was Rs, 6.19 Crore. As per Industry, the basis of EC calculation as accessed from the reports submitted to the Hon'ble NGT deviates from the guidelines of the CPCB for assessment of EC and is therefore over estimated and incorrect.
- The Ground Water Aquifer Impact Assessment Report and the Water Audit of the M/s Jubilant Group of Industries are annexed as **Annexure-5** and **Annexure-6**.

- The industry had also submitted that the industry is maintaining the statute as the CPCB guide-lines for ZLD of distillery Dt. 07.12.2015 that stipulates volume reduction by 60% and minimum Solids as 30%. A detailed report is annexed as **Annexure- 7**.
- The MoEF&CCs vide its notification SO. 3305 (E) Dt. 07.12.2015 had given the guidelines with regard to CPP. The MoEFCC guidelines are annexed as **Annexure-8**. Further, the MoEFCC vide its notification GSR 662 (E) Dt. 19.10.2020 has amended the notification Dt. 07.12.2015 with the norms for CPP during 01.01.2004 to 31.12.2016 as 450 mg/Nm3 against 300 mg/Nm3. The amended guidelines are annexed as **Annexure-9**.
- The unit had freshly applied for the NOC with SGWA on 04.11.2020. Detailed application is annexed as **Annexure-10.**

6. Minutes of the Meetings of Oversight Committee:

The Oversight Committee had taken up this case on several dates 20.08.2020, 02.11.2020 and 28.12.2020, the detailed minutes of the meetings are annexed as **Annexure-11**, **Annexure-12** and **Annexure-13**, respectively. The Oversight Committee had earlier reviewed the progress of implementation of Hon'ble NGT's order dated 26.08.2020 in OA No. 107 of 2019 in re: Shah Alam vs State of UP on 02.11.2020. During this meeting the Oversight Committee had directed CPCB and SPCB to send their joint inspection report to Hon'ble NGT with a copy to the Oversight Committee at the earliest and also consider the technical reply of the Unit and send a report on them to Hon'ble NGT with a copy to the Oversight Committee.

On 28.11.2020, the Oversight Committee again conducted a meeting to discuss the status and findings of the joint inspection report conducted on 16.09.2020. Ajit Vidhyarthi, Additional Director, CPCB informed that they had received the approved report from UPPCB on 26.12.2020, which will be filed in Hon'ble NGT in the first week of January 2021 and a copy of same will be provided to this Committee.

He further informed that comments with regard to the technical replies sent by the Unit as mentioned in the Minutes of the Meeting dated 02.11.2020 had been prepared. They had sent their comments to the UPPCB for their concurrence. These comments will also be made

available to Oversight Committee post concurrence from UPPCB by the end of this week i.e 1st Jan 2021. In reference to the EC imposed on the Unit it was informed that on 18th Nov 2020 in writ petition no. C 9908 of 2020 Hon'ble the High Court has restrained the UPPCB from taking any coercive action against the company for recovery of EC provided the company furnishes solvent security for Rs 160300000/- (sixteen crore and three lacs only). The company had furnished the said solvent security on 07 Dec 2020.

7. Observations of CPCB on Status as reported by the unit to Oversight Committee:

- CPCB in its points had mentioned that no information/evidence had been provided on management of concentrated spent wash i.e how much is incinerated and how much is bio-composted. Also, incinerator was not operating at designed capacity and bio-composting area was inadequate.
- The concentrated spent wash was found with 40.6% solid content which was being used for bio-composting, which indicates by-pass of incinerator and also violation of CPCB direction dated 07.12.2015.
- Industry needs to improve operation of MEE and slop boiler in order to achieve ZLD as well as solid content. After third and fifth stage of MEE solid content must meet the norms as per SOP of CPCB.
- The monthly data submitted by the unit does not include quantity of sludge generated from settling tanks/clarifiers before spent wash RO. The record/log-book of disposal of sludge generated as a result of TS removal from 11.4% to 5.7% was not submitted by the unit.
- The documented evidences supporting the claim of the unit regarding trends of ground water abstraction data since 2014-2015 was not available with CPCB.
- The unit had not installed any additional system at Condensate Polishing Unit (CPU) to improve quality of CPU permeate and as per analysis results of sample collected during latest joint inspection, CPU RO permeate have pH-9.84, COD-234mg/l and BOD-160 mg/l. To achieve ZLD, operation of adequate CPU is essential.

- The unit is not maintaining date wise record of leachate generation from captive SLF, however monthly record of leachate generation from captive SLF and disposal of the same is maintaining by the unit.
- The record for year 2019-2020 was not provided by the unit.
- The analysis of STP outlet collected during inspection showed that Coliforms in the treated sewage disposed in the land are noncomplying with the prescribed norms of 1000MPN/100 ml.

A copy of the points of CPCB is annexed in **Annexure 14**.

8. Joint Inspection report of UPPCB and CPCB

Salient Recommendations of the Joint Committee Inspection on 16.9.20 are as follows:

1. Water and Wastewater Management:

- The unit shall obtain NOCs from CGWA for withdrawal of groundwater at earliest for all the groundwater abstraction sources as the CGWA NOCs have already been expired on 04.04.2019.
- Fresh water consumption in cooling tower (2 nos.) was reported around 4 MLD. It is recommended to take measure for further reduction of fresh water consumption in cooling tower through increase in recycling of wastewater/condensate after proper treatment.
- The unit shall provide display board at each piezometer wells.

2. Distillery Plant

- Performance assessment of the installed spent wash management system at 38.6% running load cannot be guaranteed for consented production capacity of 183KLD. However, the main conclusions that can be drawn from the sample analysis results and observations made by joint inspection team are as follows:

i. The unit's 16.8 acres covered bio-compost area is inadequate, if RO and incinerator are not operated at designed capacity on regular basis. Therefore production capacity has to be restricted to 133.01 KLD ~133 KLD.

ii. The unit has a storage tank of 22325 m^3 for raw spent wash which is in violation of CPCB direction dated07.12.2015 wherein storage is permitted only for concentrated spent wash equivalent of 30 days production.

- The unit has 16.80 acres covered bio-compost area against the requirement of 23.1 acres that during monsoon season, permissible operational capacity of distillery unit works out to be 133.01 KLD (183KLD*16.8/23.1)~ 133 KLD of ethyl alcohol production. During non-monsoon unit can operate at consented capacity 183KLD. Production capacity should be restricted to 133.01KLD~ 133KLD in monsoon season and accordingly the consent to operate of the distillery unit shall be modified.
- Based on findings of last two inspections incineration boiler needs retrofitting/replacement to operate at its designed capacity 11.5 KL/hr.
- The unit shall dismantle the storage tank of 22.325 m^3 used for raw spent wash in compliance to CPCB directions dated 07.12.2015.
- The unit shall also install online mass flow meter with totalizer at outlet of MEE after 3rd stage and the same shall be utilized for bio-composting. Connectivity of the same shall be established with CPCB and SPCB server.
- The unit shall restrict storage capacity of concentrated spent wash in lagoon equivalent to 30 days volume for use in bio-composting.
- The pipeline carrying concentrated spent wash (CSW) directly to bio-compost yard should be dismantled to stop direct use of CSW having more than 40% total solids for bio-composting. CSW should be stored in existing lagoon and the same shall be used for bio-composting.
- The Unit shall use MEE concentrate after 3^{rd} stage having 30% total solids for bio-composting while MEE concentration after 5^{th} stage may be used for incineration (slop boiler) having total solids concentration beyond 50%.

- Considering the distance (4.36Km measured using google earth) between unit and lagoon in order to cross check monitor the CSW volume transferred into lagoon, the unit shall install online mass flow meter on pipeline of concentrated spent wash going to the lagoon.
- The unit shall provide additional covered area for storage of ready bio-compost and press mud.

3. Sewage Treatment Plant

- In order to control fecal coliform within 1000 MPN/100ml, the unit shall install disinfection system after biological treatment before utilizing the same in horticulture.

Detailed report is annexed as **Annexure 14**.

9. Issues:

1. **Status of Ground Water abstraction:** After keeping the renewal application with it for about one year, the CGWA has mentioned in the meeting on 02.11.2020 with Oversight Committee that though it has finalised its guidelines on 24.09.2020, yet they are not applicable to the State of UP, which has enacted its own Act and formed its own Ground Water Authority. The Director, State Ground Water Authority mentioned in the meeting that The UP Ground Water Act 2019 has been enacted, their Rules have been notified and their State Ground Water Authority has been set up. He mentioned that it has been decided to implement these Rules from October 2020 and all NOCs will be given by them online through a Portal which has been set up and operational. He mentioned that the unit will have to apply afresh to them with all the documents for renewal.

   The issue of ground water has to be looked at in the light of NGT's orders restricting groundwater extraction in OCS areas. There are a number of such units all over India and many fall in OCS blocks. NGT in its order dated 20.07.2020 in O.A. No. 176/2015 has directed that there must be no general permission for withdrawal of groundwater, particularly to any commercial entity, without environmental impact assessment of such activity on individual Assessment units in cumulative terms covering

carrying capacity aspects by an expert committee. Such permission should be as per Water Management Plans to be prepared in terms of this order based on mapping of individual assessment units. Any permission should be for specified times and for specified quantity of water and not in perpetuity and be necessarily subject to digital flow meters which cannot be accessed by proponents, with mandatory annual calibration by authorized agency at proponents' cost. Now as clear cut guidelines have been drafted and circulated by the SGWA there should be no confusion in this regard and the process of issuing of NOC has to be expedited. The unit has already applied to it (**Annexure-10**). Moreover, not a penny has been paid for the extraction of groundwater by the Unit to CGWA. In the new guide-lines CGWA has come up with a guide-line for charging water tariffs for underground water (**Annexure-2**). CPCB has conducted a comprehensive exercise on 30.05.2019 and proposed groundwater charges for various uses and for different consumer categories which have been accepted by NGT in its order dated 21.5.2020 in **O.A. No. 593/2017** in re: *Paryavaran Suraksha Samiti & Anr. Versus Union of India &Ors.* based upon the above-mentioned formulas the EC should be charged for the previous period for which industry was functional without NOC without paying a penny towards the groundwater withdrawal.

2. **Fulfillment of all JIC conditions of zero pollution discharge by the industry:** The Joint Inspection report dated 13.09.2019 had pinpointed detailed technical irregularities in the operation of the industry. These irregularities had been mentioned in detail in NGT order dated 05.02.2020.Hon'bleNGT had directed the CPCB and State Pollution Control Board to conduct a joint inspection of the unit and file a compliance report. The Oversight Committee had called the representatives of the industry as well as of CPCB, UPPCB, CGWA and SGWA on 02.11.2020 for discussion on the compliance. The representatives of the industry have mentioned that they have complied with all the 52 points raised by the Joint Committee and their compliance is complete. CPCB and UPPCB have conducted a joint inspection on 16.09.2020. Based upon the joint inspection and pointwise responses of the CPCB:

i. no information/evidence had been provided on management of concentrated spent wash i.e how much is incinerated and how much is bio-composted. Also, incinerator was not operating at designed capacity and bio-composting area was inadequate.

ii. The concentrated spent wash was found with 40.6% solid content which was being used for bio-composting, which indicates by-pass of incinerator and also violation of CPCB direction dated 07.12.2015.

iii. Industry needs to improve operation of MEE and slop boiler in order to achieve ZLD as well as solid content. After third and fifth stage of MEE solid content must meet the norms as per SOP of CPCB.

iv. The monthly data submitted by the unit does not include quantity of sludge generated from settling tanks/clarifiers before spent wash RO. The record/log-book of disposal of sludge generated as a result of TS removal from 11.4% to 5.7% was not submitted by the unit.

v. The documented evidences supporting the claim of the unit regarding trends of ground water abstraction data since 2014-2015 was not available with CPCB.

vi. The unit had not installed any additional system at Condensate Polishing Unit (CPU) to improve quality od CPU permeate and as per analysis results of sample collected during latest joint inspection, CPU RO permeate have pH-9.84, COD-234mg/l and BOD-160 mg/l. To achieve ZLD, operation of adequate CPU is essential.

vii. The unit is not maintaining date wise record of leachate generation from captive SLF, however monthly record of leachate generation from captive SLF and disposal of the same is maintaining by the unit.

viii. The record for year 2019-2020 was not provided by the unit.

ix. The analysis of STP outlet collected during inspection showed that Coliforms in the treated sewage disposed in the land are noncomplying with the prescribed norms of 1000MPN/100 ml.

3. **Status of Environmental Compensation:** The Unit has submitted its representations on 17.08.2020 and further on 03.09.2020 praying thereby for extra time to deposit EC of Rs. 6.19 Cr. and 9.84 Cr. In this reference it was informed that on 18th Nov 2020 in writ petition no. C 9908 of 2020 Hon'ble the High Court has restrained the UPPCB from taking any coercive action against the company for recovery of EC provided the company furnishes solvent security for Rs sixteen crore and three lacs. The company has furnished the solvent security on 07 Dec 2020.

4. **Status of Compliances of shortcomings raised in Joint Inspection on 13.9.2019:**

Issues		**Compliance**
1	Did unit have NOC for drawl of Groundwater?	Non-complied Industry had applied to SGWA and application is under process. Application is annexed as **Annexure- 10.**
2	Captive Power Plant failed to meet emission norms with respect to NO_2	Complied **Annexure-14**, Page No. 119
3	Capacity od MEE was 1740KLD whereas Raw Spent wash generation was 1956.27 KLD	Non-complied The concentrated spent wash was found with 40.6% solid content which was being used for bio-composting, which indicates by-pass of incinerator and also violation of CPCB direction dated 07.12.2015. Industry needs to improve operation of MEE and slop boiler in order to achieve ZLD as well as solid content. After third and fifth stage of MEE solid content must meet the norms as per SOP of CPCB. **Annexure-14**, Page No. 115-116
4	Rain water Harvesting system in the compost area was found contaminated by the spent wash	Complied **Annexure-14**, Page No. 115-116

5	The Unit operated at 90 KLD of alcohol production which is more than 44 KLDcorresponding to incinerator operation 3.2 Kl/hr as a result of which accumulated spent was in lagoon.	Non-Complied
6	Possibility of by-pass of accumulated spent wash during rainy season.	Non-complied Performance assessment of the installed spent wash management system at 38.6% running load cannot be guaranteed for consented production capacity of 183KLD. However, the main conclusions that can be drawn from the sample analysis results and observations made by joint inspection team are as follows: iii. The unit's 16.8 acres covered bio-compost area is inadequate, if RO and incinerator are not operated at designed capacity on regular basis. Therefore production capacity has to be restricted to 133.01 KLD ~133 KLD. iv. The unit has a storage tank of 22325 m^3 for raw spent wash which is in violation of CPCB direction dated 07.12.2015 wherein storage is permitted only for concentrated spent wash equivalent of 30 days production.
7	Bio-compost yard was damaged.	Complied The unit has 16.80 acres covered bio-compost area against the requirement of 23.1 acres that during monsoon season, permissible operational capacity of distillery unit works out to be 133.01 KLD

		(183KLD*16.8/23.1)~ 133 KLD of ethyl alcohol production. During non-monsoon unit can operate at consented capacity 183KLD. Production capacity should be restricted to 133.01KLD~ 133KLD in monsoon season and accordingly the consent to operate of the distillery unit shall be modified.
8	Incineration of slop containing such low solid content of 25-30% indicates that the unit only employed bio-composting route for spent wash disposal after MEE concentration.	Non-Complied The concentrated spent wash was found with 40.6% solid content which was being used for bio-composting, which indicates by-pass of incinerator and also violation of CPCB direction dated 07.12.2015. Industry needs to improve operation of MEE and slop boiler in order to achieve ZLD as well as solid content. After third and fifth stage of MEE solid content must meet the norms as per SOP of CPCB. **Annexure-14,** Page No. 115-116
9	Unit was having storage capacity of 32000 M3 as against permissible 17800M3. Unit was directed to restrict the storage capacity of lagoon.	Non-Complied
The Distillery Unit		
10	Temporary lining of sludge storage /ponding area was found damaged. Leachate spent wash was found stored in the ponding area which was threatening groundwater quality.	Complied **Annexure 14**, Page No. 114-115
11	Unit was not operating incinerator/slop furnace as per designed capacity (11.5 KL/Hr) to consume the concentrated spent wash. This resulted in accumulation of excess spent wash with leachate (bio-	Non-Complied The concentrated spent wash was found with 40.6% solid content which was being used for bio-composting, which indicates by-pass of incinerator and also violation of CPCB

	compost area) in lagoons.	direction dated 07.12.2015. Based on findings of last two inspections incineration boiler needs retrofitting/replacement to operate at its designed capacity 11.5 KL/hr.
12	The lagoons are almost full and incinerator operates only at 30% of its installed capacity, covered compost yard is completely filled with press mud having high moisture content and damaged roof of covered compost yard which will not allow further disposal of spent wash for bio-composting. Status of already stored spent wash and its processing done through further concentration for the use in the incinerator under supervision of UPPCB.	CPCB in its points had mentioned that no information/evidence had been provided on management of concentrated spent wash i.e how much is incinerated and how much is bio-composted. Also, incinerator was not operating at designed capacity and bio-composting area was inadequate.
13	The unit was directed to stop its distillery plant and consume the already stored spent wash. Thereafter capacity of distillery plant shall be restricted to the capacity till the incinerator is commissioned at full capacity.	The Distillery unit stopped for over 90 days during and post mosoon. During the inspection the unit was found complying with ZLD norms but the unit had not restricted its capacity yet.
14	The unit was directed to restricted storage capacity of concentrated spent wash up to 17800 m3 and it should include 07 days for incineration and 30 days for bio-composting, both separately.	No information/evidence had been provided on management of concentrated spent wash i.e how much is incinerated and how much is bio-composted. Also, incinerator was not operating at designed capacity and bio-composting area was inadequate. The unit shall dismantle the storage tank of 22.325 m^3 used for raw spent wash in compliance to CPCB directions dated 07.12.2015.

15	The unit was directed to dismantle/filling/leveling of the additional storage capacity of the lagoon in time bound manner.	Partially Complied During the last inspection only one lagoon of 18000m3 capacity was observed for storage of concentrated spent wash used for bio-composting. The other lagoon doesnot exist, as same had been filled and leveled using soil.
16	The pipelines for carrying the spent wash to the ash ponds shall be dismantled after recycling the stored spent wash from the ash pond to the lagoons	Non-Complied **Annexure 14**, Page No. 117 The pipeline carrying concentrated spent wash (CSW) directly to bio-compost yard should be dismantled to stop direct use of CSW having more than 40% total solids for bio-composting. CSW should be stored in existing lagoon and the same shall be used for bio-composting.
17	The unit was directed to implement the requisite facility as per suggestion of the water audit report to reduce the withdrawal of the groundwater.	Non-complied The documented evidences supporting the claim of the unit regarding trends of ground water abstraction data since 2014-2015 was not available with CPCB. **Annexure 14,** Page No. 117
18	The unit was directed to install additional system to improve the quality of CPU permeate.	Non-complied The unit had not installed any additional system at Condensate Polishing Unit (CPU) to improve quality od CPU permeate and as per analysis results of sample collected during latest joint inspection, CPU RO permeate have pH-9.84, COD-234mg/l and BOD-160 mg/l. To achieve ZLD, operation of adequate CPU is essential.
19	The unit was directed to set up proper and separate systems for concentration of spent wash upto 45 % solids and upto 30 % solids for incineration and for bio-	Non-complied **Annexure 14**, Page No. 118

	composting respectively.”	
Water and Waste water Management		
20	All the consumption points are not metered. It is recommended that all fresh water consumption points and effluent recycling points should be metered.	Complied **Annexure 14**, Page No. 121
21	All existing meters should be periodically calibrated and records to be maintained. • At inlet (make up water separately for fresh water and recycled treated waste water) and outlet (blow down) of cooling towers. • Condensate generated from each stream and recycled; • Individual waste water streams at source of generation, effluent treatment plant and recycling points; • Inlet of STP etc.	Complied **Annexure 14**, Page No. 121
22	The existing turbine type water flow meters on bore wells should be converted to digital magnetic flow meters for better accuracy.	Complied **Annexure 14**, Page No. 121
23	The unit shall obtain NOC: from CGWA for withdrawal of groundwater at earliest as the CC'."1/. NOCs have already been expired on 04.04.2019.	Non-complied
24	It is recommended to take measures for further reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment	Complied **Annexure 14,** Page No. 122

25	Attempt should be made to reduce the quantity of makeup water to each Cooling Tower by increasing Cycle of Concentration (COC); • Continuous efforts to be made for reduction in steam consumption and effluent generation thereby reducing fresh water consumption; • It is recommended to provide Rain Water Harvesting system in non-process areas for water conservation.	Complied **Annexure 14,** Page No. 122
Captive Power Plant		
26	The unit shall maintain and operate Air Pollution Control Systems ESP on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.	Complied As per the stack monitoring report NO2, SO2 and SPM were found with in the norms. **Annexure 14,** Page No. 119
27	The unit shall keep and maintain Ash generation as well as disposal record.	Complied Quarterly report is being submitted to UPPCB by the unit. **Annexure 14,** Page no. 120
Chemical Unit-I		
28	Reject of CTRO is used for spray on coal stock and ash for dust suppression. This effluent cannot be used for ash quenching which should be stopped immediately.	Complied **Annexure 14,** Page No. 123
Chemical Effluent Treatment Plant (CETP)		
29	The unit should stop discharge of effluent for horticulture and entire effluent should be recycled/reused in process and or cooling tower.	Complied **Annexure 14,** Page No. 123

Common Cooling Tower Reverse Osmosis Plant (CTRO)		
30	CTRO reject has characteristics BOD-1294 mg/I, COD-3189 mg/I, TDS-6032 mg/I and Colour-147 hazen. This effluent can be used for spray on coal yard only and not for ash quenching. The unit should install a dedicated pipeline along with metering arrangement for carrying CTRO reject upto coal yard and spray arrangement exclusively using this effluent.	Complied **Annexure 14,** Page No. 123
Stack Emission Monitoring Results		
31	The unit shall maintain the wet scrubber periodically to restrict SO2 emission within the prescribed norms.	Complied **Annexure 14,** Page No. 124
32	To evaluate the performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	Complied **Annexure 14,** Page No. 124
33	Captive Power Plant was found non complying w.r.t NO2 459.99mg/Nm3 against the standard limit of 300 mg/Nm3 To restrict the NO, emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	Complied **Annexure 14,** Page No. 124
Ambient Air Quality Monitoring Results		
34	The ambient air near the CDF plant, near ETP area and near terrace of Admin building was found polluted in terms of PM 10. The unit should get an ambient quality check of all the air pollution sources from MOEF&CC authorized	Complied **Annexure 14,** Page No. 124

	laboratory and submit a report on quarterly basis.	
Hazardous waste		
35	The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke /heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes	Complied **Annexure 14,** Page No. 125
36	The unit shall maintain date wise record of quantity and category of hazardous waste disposed in the captive SLF.	Complied **Annexure 14,** Page No. 125
37	The unit shall maintain date wise record of leachate generated from captive SLF.	Complied **Annexure 14,** Page No. 125
38	The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit.	Complied **Annexure 14,** Page No. 125
39	The unit shall maintain record of waste disposed at SLF and leachate generation from SLF	Complied **Annexure 14,** Page No. 125

5. **Modification of conditional revocation order dated 30.06.2020:** Hon'ble NGT had directed the State Pollution Control Board to modify its conditional revocation order dated 30.06.2020 to the effect that the restoration will be effective from the date the conditions have been fulfilled and fulfillment of these conditions would be verified by a joint inspection of Central Pollution Control Board and State Pollution Control Board

10 Observations of Oversight Committee on the CGWA guidelines and SGWA Guidelines:

The Committee discussed the recent Guidelines dated 24.09.2020 issued by the CGWA regarding grant of permission for ground water extraction to various industries. The guidelines mentioned that as far as renewal of NOC in over-exploited blocks is concerned, the renewal for all users would be for two years subject to inability of the local government water supply agency to supply water, use of water efficient technologies , annual water audit by the project proponent, monitoring of water level using piezometers by project proponent, compliance of rain water harvesting by the project proponent, payment of ground water extraction charges and water restoration charges as prescribed by him and submission of Impact Assessment Report and Socio-economic Impact Report by him. In case CGWA is unable to process the application within 90 days, there is a provision of deemed renewal which will be effective till the date of renewal.

The Oversight Committee examined these guidelines in the light of Hon'bleNGT order dated 20.07.2020 in **OA No. 176/2015** in re: *Shailesh Singh vs Hotel Holiday Regency, Moradabad and others*.**)** The NGT in its order dated 20.07.2020 in OA No. 176/2015 had mentioned that CGWA and MoJS should have institutional mechanisms for ensuring prevention of depletion and unauthorized extraction of ground water and sustainable management of groundwater in OCS areas. Regard must be had to water availability and safe levels to which its drawal can be allowed, especially for commercial purposes, based on available and assessed data**.** Hon'ble NGT had directed that there will be no general permission for ground water extraction, particularly to commercial entities without Environment Impact Assessment covering carrying capacity aspects by expert committee. The permission would be granted as per Water Management Plan, based on mapping of individual units. It will be for specified time and specified quantity. Digital flow-meters would be used, which cannot be accessed by the proponent. There will be mandatory annual calibration by the authorized agency at proponent's costs. There will be annual audit by independent and expert evaluators which will be published online. The audit report and record of ground water level would be uploaded on website. The complete exercise would be done within three months.

The Committee noted with satisfaction that the existing system of calculating the ground water recharge based on the notional Rule of Thumb (having water recharge pits with twice the volume of extracted water by industry) has been replaced by assessment of water recharge based on actual measurements of ground water levels by piezometers. However, monitoring of water level has been left to the project proponent who would record the observations of piezometers and submit to CGWA through a portal. This is in contradiction to the NGT directions which mentioned that digital flow-meters should be used for measurement, which cannot be accessed by the project proponent and which has to be mandatorily calibrated annually by the authorized agency. The Committee noted that while the CGWA guidelines mentioned about the water audit by individual units, there is no provision of water management plan of the area or mapping of the area which could decide the availability of water and determining the carrying capacity of that particular area. The Oversight Committee was concerned whether the function of regulation would be done by the Regulator itself based on technical inputs from experts or it would abdicate its role in favour of a system of self-assessment or at best Third Party Certification. The choice of methodology of regulation would make or mar the efficacy of regulation. The Oversight Committee felt that if strict monitoring of entire arrangement is not done by the regulating agency, there are full chances that this exercise will be only on paper and the users will be fudging the data and tampering with the measurement tools. Even the concept of annual audit by independent expert evaluators has not been provided in the central guidelines. The Oversight Committee felt that the CGWA should be asked to incorporate the directions of Hon'ble NGT fully in its right spirit in their existing guidelines in the light of the NGT order dated 20.07.2020. The committee examined these guidelines because the committee was informed by Director SGWA that the State guidelines are almost similar. It was also informed that in the State of U P the renewal of NOC shall be issued for five years. The Committee felt that instead there should be a provision of 2 yearly review of maintenance of ground water level based on scientific objective methodology and NOC be issued only after ensuring that there is no depletion in ground water level.

As far as permission to existing running units is concerned, the latest CGWA guidelines provide for deemed extension of renewal till the actual date of renewal in case CGWA is unable to

process the application in time. This is an open ended condition and puts premium on inaction with no responsibility being fixed on a lethargic regulator. This is a running unit and already for the past more than one year, the application is pending with the CGWA with no groundwork done so far by the regulator in terms of any mapping studies. Temporary permission of specified quantity may be given at best for a limited period say six months with the conditions that within this period, the decision on NOC will be taken by CGWA/SGWA based on water mapping studies and water management plans which they will get prepared. Any further extension should be accompanied by fixing responsibility on the regulator for the delay. On the part of the existing unit for getting renewal:

(1) Unit will have to ensure that there is no depletion of ground water;

(2) Piezometers will be installed on the site of the industry, they will be calibrated and sealed by SGWA, piezometric readings will be recorded daily and they will be regularly monitored online by SGWA/ CGWA. The readings will be recorded by SGWAauthorised personnel and not by industry personnel.

(3) The Unit will submit Water Audit Report within next 3 Months inter alia certifying the minimum water requirements of the industry.

(4) The Unit will submit EIA by an MOEF accredited agency/NEERI/IIT in the next three months. The Director State Ground Water Authority mentioned in the meeting that there is a deeming provision under the Rules (Rule 15(2) whereby NoC will be given within 30 days of receipt of the application, failing which deemed renewal would become operative. It was further mentioned by the SGWA that the renewal of permission, as per their guidelines, shall be for five years. The Oversight Committee is concerned that the Water Levels of the area have been continuously falling and the area has come in the category of Overdrawn Area. No water mapping of the area has been done; no water management plan has been prepared; no piezometic study for depletion of ground water or impact assessment study has been done either by CGWA or SGWA nor have any timelines been set by CGWA/SGWA. They have inadequate manpower in the field. Even the responsibility of departmental monitoring has been abdicated in

favour of either a system of self-certification or third party assessment. Whatever studies have been done are by the industry without any Departmental study. In such a situation, such cursory provisions could have disastrous consequences for the environment. The State Act of 2019 and the State Rules (notification of Feb25,2020) have not been examined in the light of NGT order dated 20.07.2020 in OA 176/2015. 30 days deemed criteria is too short a time to do any meaningful water study. Giving a licence to the industry for water abstraction for 5 years specially in Overdrawn Blocks without a system of comprehensive checks and balances appears to be too liberal approach that may lead to serious consequences as far as water depletion is concerned. The Committee feels that there cannot be any general permission, particularly to commercial entities without Environment Impact Assessment studies covering carrying capacity aspects by some technical experts. The permission has to be as per water management plans based on mapping of individual units in over-exploited blocks. It needs to be given for a specified quantity of water and has to be annually reviewed. The review should be based on readings of digital flow meters which cannot be accessed by the proponent. These digital flow meters should be mandatorily calibrated annually by regulator at proponent's cost. There has to be a provision for annual audit by independent and expert evaluator. This annual audit should be published online and uploaded on the website. Due changes in the guidelines as per above observations need be incorporated before any permission can be given.

11 Recommendations:

In view of the above we recommend as follows:

11(A) Recommendations pertaining to this Unit:

1. The Unit should immediately take NOC from SGWA for withdrawal of ground water. SGWA should expeditiously take a decision on the extension application of the unit as per its Rules keeping in view NGT guidelines specially in OA 107/2019.

2. All the recommendations of the Joint Inspection be complied with immediately by the Unit. As recommended in the Joint Inspection, the Production Capacity of the Unit be restricted to 133KLD instead of the consented capacity of 183 KLD in view of inadequate bio-compost area. The irregular storage of raw spent wash needs to be done away with by dismantling the storage tank of 22325 cubic meters. The storage capacity of concentrated spent wash also has to be limited to 30 days volume. The unit should improve operation of MEE and slop boiler to achieve ZLD as well as solid content.

   Incineration boiler needs retrofitting to operate at its designed capacity of 11.5KL/hr. Other recommendations like installation of online mass flow meter with totalizer at MEE outlet, dismantling of pipeline carrying CSW to bio compost yard, installation of online mass flow meter on pipeline carrying CSW to lagoon, provision of additional covered area for storage of ready bio compost and press mud and installation of disinfection system after biological treatment before use in horticulture may be given effect to by the unit immedietly. The performance gaps as pointed out in the Joint Inspection of 13.9.19 have not been rectified completely as pointed out in Table given above. They need to be rectified.

3. As mentioned above, CPCB has observed some gaps in record maintenance. The unit should maintain up to date records regarding ground water abstraction. The records of generation of sludge generated from settling tanks/clarifiers before spent wash RO be kept up to date. Leachate Generation data from captive SLF needs to be maintained.

4. The unit should take all measures to minimize the use of groundwater. The unit should take steps to reduce fresh water consumption in cooling tower by increasing recycling

of water. The unit should also explore the possibility of availability of treated water from Municipal STPs and install tertiary water treatment facility to make this water fit for consumption in their unit. They may contact the Municipal Committee in this regard.

5. NGT vide its order dated 26.08.2020 had earlier directed that the State Pollution Control Board should not allow activities of the Unit unless assessed compensation is paid and further remedial action is taken. The Oversight Committee also had asked the State Pollution Control Board to modify its conditional revocation order dated 30.06.2020 to the effect that restoration will be effective from the date when the conditions have been fulfilled and fulfillment of these conditions is verified by a Joint Inspection of CPCB and UPPCB. The unit has to ensure fulfillment of all conditions to the satisfaction of Pollution Regulators. UPPCB needs to ensure compliance of NGT's order and explain reasons for non-compliance.

11(B) General recommendations for other ground water abstracting units:

All groundwater abstracting units should be directed as follows:

1. All Units abstracting ground water should be directed to get water audit conducted to assess the actual water requirement of the plant as well as for assessment of the requirement which could be met from other sources like surface water, reuse of treated water or water harvesting.

2. All such industries should discuss this issue with municipal bodies and find out the ways to use treated water for industrial purposes. A holistic plan which could lead to minimal wastage of water should be prepared and made operational.
3. The industries should be directed to install tertiary water treatment facilities to make the water suitable for drinking and consumption.

4. There should be some mechanism for providing some incentives to those industries which are using innovations/best practices while following all the environmental rules to prevent any kind of air, water and soil pollution during the production. Regarding this certification system, consumer awareness campaigns should also be launched.

5. Also, the Industries should harvest the rainwater and use it, rather than extracting groundwater. Thus they will reduce their dependency of groundwater resources. All the industrial units and industrial parks should be directed to construct their rain water reserves and run on the condition of zero ground water extraction unit.

6. All the small and large scale industries should be directed to develop a green belt in nearby areas equal to three times of their own land area and also to adopt wetlands of the nearby areas and create new ponds and to maintain the same as a component of their Corporate Social Responsibility (CSR) .

The Member Secretary, UPPCB is directed to send this report to the Registrar General, National Green Tribunal, Principal Bench, New Delhi for placing the same before the Hon'ble Tribunal with a copy to the Chief Secretary, Government of UP for necessary action. The report be uploaded on the website of the committee.

25-01-2021

X Anup Chandra Pandey

Dr Anup Chandra Pandey
Member, Oversight Committee
Signed by: ANUP CHANDRA PANDEY

25-01-2021

X SVS Rathore

Justice SVS Rathore
Chairman, Oversight Committee
Signed by: SURENDRA VIKRAM SINGH RATHORE

January 25, 2021

Annexures: As above

Please visit our website: ***oscngt.upsdc.gov.in*** for more information.

CGWB, NR, Lucknow/ CGWA, New Delhi

Reply to Questionnaire regarding OA No. 107 of 2019: Shah Alam *Vs* State of U.P for OSC Meeting on 02.11.2020

1. ***What is the total water consumption of all the units? Provide the details industry-wise.***

Reply: As per NOC

	JUBILIANT LIFE SCIENCES		
S. No.	**NAME OF THE UNIT**	**MAXIMUM ANNUAL CONSUMPTION AS PER NOC IN CUBIC METER.**	**ANNUAL CONSUMPTION BY THE INDUSTRY IN CUBIC METER**
1	DISTELLARY UNIT	1065000	457232
2	CHEMICAL UNIT I	816500	582371
3	CHEMICAL UNIT II	923000	427560
4	POWER PLANT	1668500	1175586
	TOTAL	**4473000**	
	JUBILIANT AGRI AND CONSUMER PRODUCTS LTD		
5	POLYMER UNIT	90000	22956
6	FERTILIZER UNIT	497000	No dedicated bore well till recently, it was being supplied by BW2 of Polymer unit. Now, the TW has been constructed
	TOTAL	**587000**	
	GRAND TOTAL	**5060000**	

2. ***Total Production at each unit?***

Reply: Does not pertain to CGWA.

3. ***What is the water utilisation break from different sources i.e Surface water, Groundwater, and Reuse of treated water?***

Reply: As per Application Form.

S. No.	NAME OF THE UNIT	Surface water/ Agency m^3/day	Ground water m^3/day	Treated water m^3/day	Total m^3/day
1	DISTELLARY UNIT	840	2918	3314	7072
2	CHEMICAL UNIT I	672	2236	1255	4163
3	CHEMICAL UNIT II	2498	2600	3133	8159
4	POWER PLANT	0.0	4571	0.0	4571
5	POLYMER UNIT	0.0	250	54	304
6	FERTILIZER UNIT	0.0	1325	92	1417

4. ***Are they using water from nearby drains? If yes, how much and how?***

Reply: The Firm is not using water from nearby drains.

5. ***What is the current status of rain water harvesting? Had any inspection been done for the rain water harvesting system? What is the efficiency of the rain water harvesting system? Whether it is fully functional?***

Reply: As per Site Inspection Report, the details are as given in following table.

S. No.	Unit	Annual Recharge condition as per NOC in m^3	Annual Recharge compliance as per inspection in m^3
1	DISTILLARY UNIT	1000000	1099863
2	CHEMICAL UNIT I	1060000	546914
3	CHEMICAL UNIT II	460000	499539
4	POWER PLANT	834250	1040224
5	POLYMER UNIT	59000	60147
6	FERTILIZER UNIT	334610	212836

6. ***Is there any agency providing water to the unit?***

Reply: As per the information provided by firm in Application Form, 3 Units (S. No. 1,2 &3) are getting surface water supply or from other agencies to the tune of 840, 672 and 2498 cum/day (KLD) respectively.

7. ***Is there any development or planning to reduce the overall water consumption in the Industry? If any, please elaborate.***

Reply: As per new CGWA Guidelines* ((refer to the Note at the end) notified on 24.09.2020, all industries abstracting ground water in excess of 100 m3/day shall be required to undertake annual water audit report through confederation of Indian Industries (CII)/ Federation Indian Chambers of Commerce (FICCI)/ National Productivity (NPC) certified auditors and submit audit reports within three months completion of CGWA. All such industries shall make efforts to reduce their ground water use at least 20% over the next three years through appropriate means.

8. ***Has the water meters being installed in the Industry? If yes, what is the monitoring mechanism and standardisation process being followed?***

Reply: Yes, Water meters have been installed in the industry. Site Inspection to check compliance of NOC conditions was carried out at the time of renewal of NOC. Furthermore, inspections are also being carried out as and when required or as specifically directed by Hon'ble NGT/ agencies/ authorities.

9. ***Had any EIA being conducted for the industry? If any, please provide the details.***

Reply: Industries are conducting EIA as and when directed by agencies/ authorities. As per New Guidelines of CGWA notified on 24.09.2020, all industries located in OCS blocks has to submit EIA reports prepared by accredited firm/ Individuals*(refer to the Note at the end).

10. ***What is the future plan of industry to work as per the NGT orders? Has any planning and progress being done to run industry as per the standards laid down by different applicable statutes and also the directions given by Hon'ble NGT?***

Reply: CGWA has notified detailed guidelines in this regard on 24.09.20920* (refer to the Note at the end).

Note: In respect of Point Nos. 7, 9 &10, it may be noted that since the State GW Management & Regulation Authority has now taken over the regulation in Uttar Pradesh State, the conditions will be governed by UP State GW Act & Rules.

11. ***Please also attach the photographs wherever it is helpful with the compliance report?***

Reply: Selected photographs are attached from real locations as per inspection reports.

ASSORTED PICS OF DURING INSPECTION

Annexure 1.1

Compliance to the Recommendation of Joint Inspection Team visit Dt. 17th -19th July 2019 in the matter of O.A. No. 107/2019 Shah Alam Vs Govt of UP

Point No	NGT Joint Inspection Team Recommendation (17th -19th July 2019)	Status as on 16.09.2020
i.	The unit shall stop its distillery manufacturing process till compliance of the directions issued.	**Complied**. The Distillery unit stopped for Over 90 days during and post monsoon to handle the large volumes of rainwater leachates generated from unprecedented rainfall. Further, it was also was operated at lower capacities for many days. The production data during 01/07/2019 to 31/08/2020 is attached.
ii.	The unit shall consume the already stored spent wash through further concentration for use in the incinerator.	**Complied**. The stored concentrated spent wash diluted with rainwater leachates was concentrated in MEE and consumed.
iii.	The unit shall recycle the stored spent wash from the old ash pond to ensure that no traces of spent wash remain in ash pond.	**Complied**. The spent wash leachate was stored in Old Ash Pond was transferred to Lagoon 28A and further to MEE for concentration and treatment. Rehabilitation of the old ash pond with green belt has been commenced with plantation of 300 tree samplings in 2020 **Photographs of Old pond is attached.**
iv.	The unit shall restrict its storage capacity of concentrated spent wash up to 17800 m3 including 07 days for incinerator and 30 days for bio-composting separately by dismantling (filling /levelling the additional storage capacity of the lagoon within 30 days.	**Complied.** The storage capacity for Spent wash is adhered as per guidelines as 17800m3. Out of two parts of Lagoon 28 (28A and 28B), One-part Lagoon 28A is filled and levelled with Earth/Ash. **Photograph of backfilled Lagoon 28A is attached**.
v.	The unit has made partition in the lagoon by filling it with soil and made two lagoons i.e., Lagoon 'A' and Lagoon 'B'. The unit shall line up the area by using concrete.	

Old Ash Pond

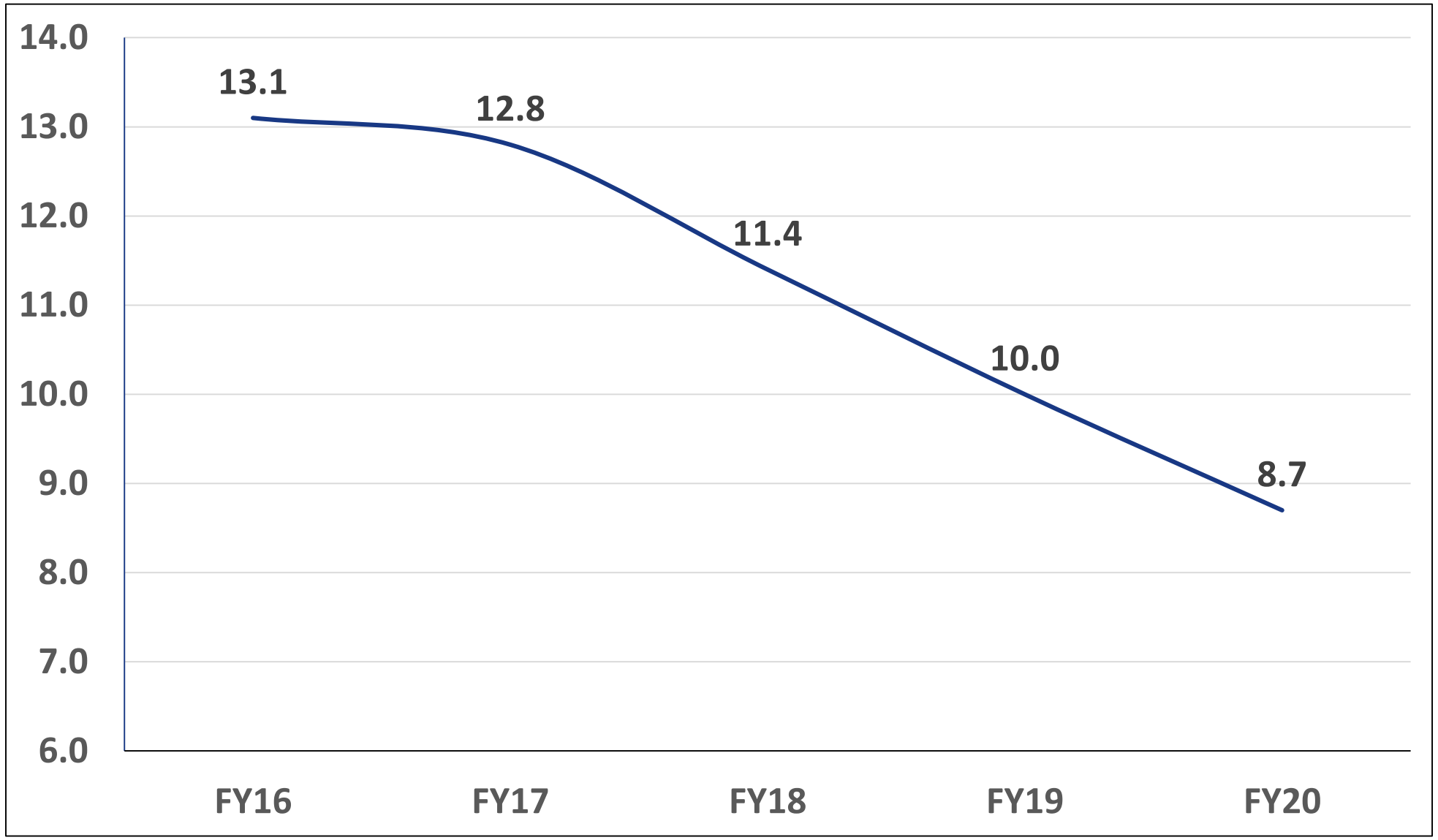
Lagoon 28 A Backfilled

Point No	Recommendation	Status as on 16.09.2020
vi.	To maintain the quality of concentrated spent wash for efficient use in bio composting as well as in incineration the unit shall operate its MEE uniformly.	**Complied.** MEE is operated as per requirement of slop and Bio-composting for reduction in Spent Wash volume by 60% and minimum solids 30% suitable for biocomposting and incineration. Monthly details submitted through NGRBA report.
vii	To avoid the situation of generation of diluted spent, the unit shall restrict the use of excess spent wash in Bio-compost area	**Complied.** The dilute spent wash generation witnessed was due to rainwater ingress from covered shed damaged due to turbulent winds and incessant rains. The SOP for maintaining <50% moisture in windrow is strictly maintained.
viii.	The unit shall stop storage of the lagoon sludge in open area and shall use the sludge directly in bio composting.	**Complied.** The lagoon sludge is stored in covered Bio composting shed and used in Bio composting. Rehabilitation of the sludge storage yard with green belt has been commenced with plantation of 200 tree samplings in 2020 Details of area used for Sludge storage , press mud storage and Bio compost is attached. **Photographs attached.**
ix.	After recycling the stored spent wash from the ash pond, the unit shall dismantle the pipelines for carrying the spent wash to the ash ponds.	**Complied.** The Pipeline has been dismantled.

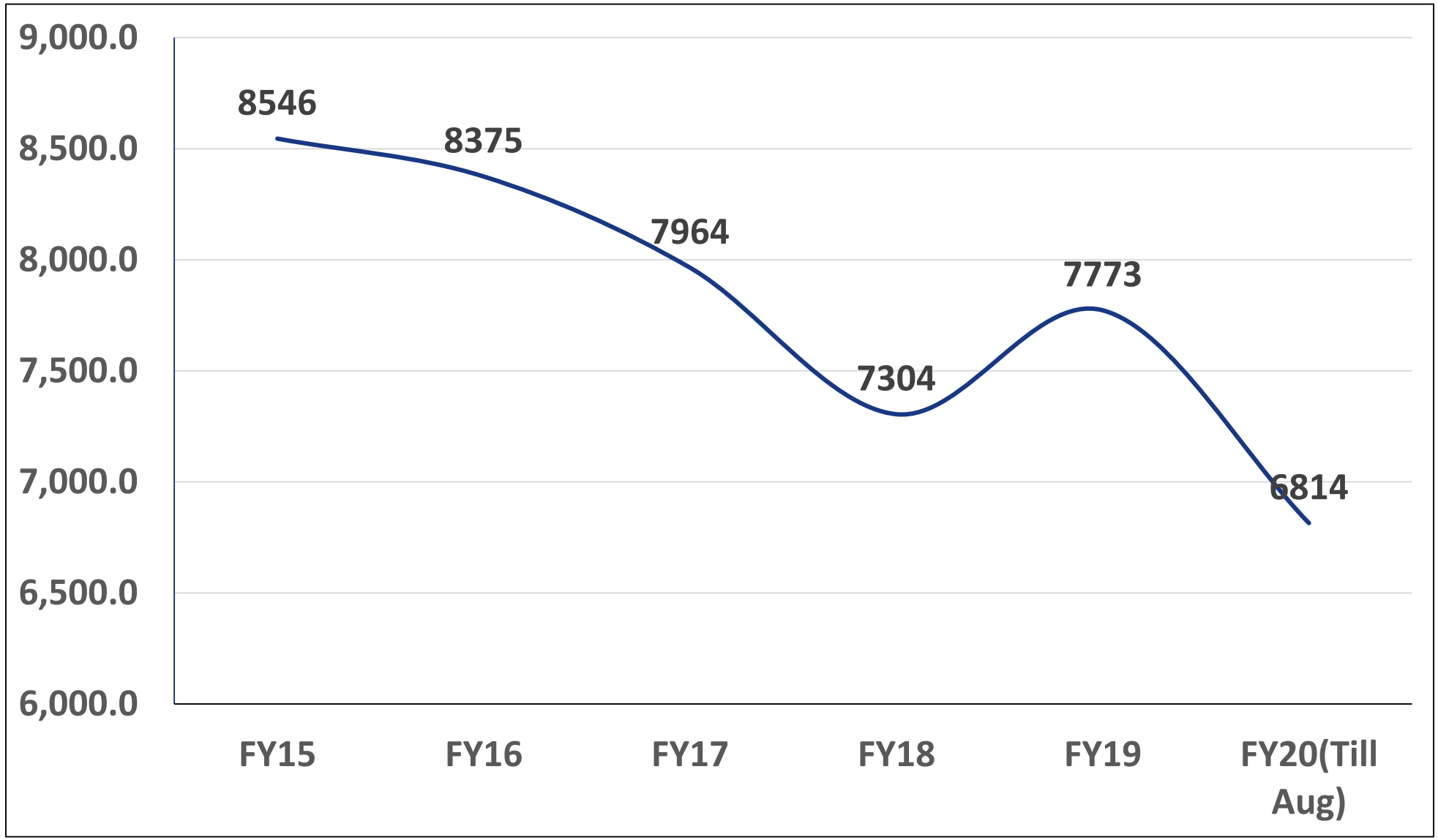
Dismantled Sludge Storage Yard

Point No	Recommendation	Status as on 16.09.2020
x.	The unit shall implement the requisite facility as per suggestion of the water audit report so that detailed study may be carried out to reduce the withdrawal of the ground.	**Complied**. Ground Water extraction for the entire complex has been reducing continuously through different water conservation projects, trend since 2014-15 as attached
xi.	To avoid contamination of the ground water with coloured effluent the unit shall close down the rain water harvesting system at bio-composting site.	**Complied**. Rain water harvesting pit in Bio compost area is filled with Soil and rehabilitated with green belt. **Photographs is attached**.
xii.	The unit shall stop bio-composting during rainy season as the covered bio-compost yard was damaged.	**Complied**. The Bio compost operations were stopped and damaged covered shed were repaired before commencement of bio compost operation.
xiii	The unit shall take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production.	The recommendation is not feasible due to atmospheric distillation technology installed in the 1980's and 1900's. Also, this will require changes in the entire effluent treatment system including Bio Methanation, RO & MEE due to increased solid concentration. We have voluntarily reduced the Spent wash from design norms of 11.7 KL/KL norms of 9.13 KL/KL spent for year 2018-19 and 8.76 Kl/KL for FY 2019-20.

Fresh Water Specific Consumption Trend, M3/MT



Ground Water withdrawal Trend, M3/Day



BackFilled rainwater Harvesting Structure at Biocompost Area

52

Point No	Recommendation	Status as on 16.09.2020
xiv	The unit shall install additional system to improve the quality of CPU permeate. As per the analysis result, CPU RO Permeate have pH-9.48, COD-2083 mg/l and BOD 1078 mg/l is being utilized in cooling tower, which may not be appropriate at such high pH.	**Complied**. pH is maintained between 7.5 and 8.0 before end use in cooling tower. The operation parameters are technically viable and have been in practice since 24 months. No operational issue or environmental impact encountered due to the practice. We request for exemption from this direction.
xv	The unit shall set up proper and separate systems for concentration of spent wash up to 45 % solids and up to 30 % solids for incineration and for bio-composting respectively.	Complied The unit is in compliance to the guidelines for Distillery, stipulating minimum 60% volume reduction and >30% solids.

Point No	Recommendation	Status as on 16.09.2020
i.	The unit shall maintain and operate Air Pollution Control Systems (ESP) on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.	**Complied** • Requisite APCS are installed and are operating satisfactorily to meet the emission norms. • OCEMS is installed and connected to CPCB and UPPCB.
ii	The unit shall submit time bound action plan for augmentation / retrofitting of ESP.	**Completed**. • ESP of standby 34 TPH & 25 TPH MP Boilers are Replaced during FY-2019. • Monthly compliance report is being submitted to Chairman, CPCB.
iii	The unit shall submit the ambient air quality report and stack report of all the air pollution sources from MOEF&CC authorized laboratory on quarterly basis.	**Complied**. • Report is being regularly submitted to UPPCB as stipulated in the consent.
iv	To avoid additional ash disposal on ash pond, the unit shall ensure and increase the disposal of fly ash as per the agreement.	**Complied** Entire fly ash generated is supplied to Shree Cement/Ultra tech Cement as per the agreement. Ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation. Agreement with Cement companies are provided as Annexure
v	The unit shall keep and maintain Ash generation as well as disposal record.	**Complied** Records are maintained. A quarterly report is being submitted to UPPCB on regular basis. A Copy of report is provided as Annexure.

Pt. No.	Recommendation	Status as on 16.09.2020
i.	The unit shall install meter on all fresh 'water consumption and effluent recycling points.	**Complied**. All important fresh water consumption and effluent recycling points are metered and monitored on daily basis. The log book is maintained for the same.
ii	The unit shall calibrate and maintain records of all existing meters periodically.	**Complied** Calibration bench is installed to calibrate the existing meters with traceable source from National Physical Laboratory and calibration started. Copy of calibration certificate are provided during visit.
iii	The unit shall replace the existing turbine type water flow meters on bore wells with digital magnetic flow meters.	**Complied**. **Magnetic flowmeters are in place on all bore wells since 2017.** The daily water meter reading is also being recorded. Copy of water consumption details provided during visit. Also photographs of each water meter was taken in presence of Company representative.
iv	The unit shall send all domestic waste water generated from plant and colony to STP and metering at STP inlet shall be done.	**Complied**. **Magnetic flow meter were in place at inlet and outlet of STP since** 2017 photographs of inlet and outlet meters was taken in presence of Company representative.
v	The unit shall obtain NOCs for withdrawal of groundwater from CGWA at earliest as NOCs already expired on 04.04.2019.	**As per Gazette S.O. 3289(E) issued on 24.09.2020 on Guidelines to regulate and control ground water extraction in India, the renewal of NOC is deemed approved from the date of its expiry**. • Renewal application to CGWA was filed through Manual filing on 04.01.2019 and online on Dt. 28.02.2019. • CGWB Lucknow inspection done Dt. 03.05.2019 to 08.05.2019 and have found us in full compliance. • The CGWB Lucknow forwarded the recommendation for grant of NOC to CGWA New Delhi on Dt. 26.11.2019. • The NoC renewal is pending before the CGWA New Delhi, citing restriction imposed by the NGT

Water meter at Bore wells

Bore well No. - 7

Bore well No. - 8

Magnetic Flow meter at STP Inlet and Outlet

STP Inlet

STP Outlet

CGWB Lucknow recommendation to CGWA New Delhi.

CGWB Lucknow forwarded our recommendation for grant of NOC to CGWA New Delhi.

Speed Post/ Registered
21-4/1181/REN/UP/IND/2016 - 3496
Government of India
Ministry of Water Resources, RD & GR
Central Ground Water Board, NR
Bhujal Bhawan, Sector 'B'
Sitapur Road Yojna, Aliganj
Lucknow 226021
Phone: 0522 – 2363812 Fax: 2732478
Dated: 26 NOV 2019

To,
The Member Secretary
Central Ground Water Authority
Ministry of water Resources, RD & GR
18/11, Jamngar House,
Mansingh Road, New Delhi,
110011.

Sub: Renewal of Ground Water Clearance in respect of M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh-Reg.

Ref: Online Application No: 21-4/1181/REN/UP/IND/2016 dated 28/02/2019.

Sir,

Kindly refer to online application No. 21-4/1181/UP/IND/2016 dated 28/02/2019 for renewal of NOC, received from M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh for ground water abstraction for **2,918 m3/day** i.e. **10,65,070 m3/year,** Which has been examined and is recommended. The hardcopy of duly filled online evaluation proforma and copy of proposal is also being submitted for necessary action. This application has been processed in reference to NGT order dated 1.11.2019 in O.A. No. 107/2019.

Encl. As above

Yours Sincerely

(Y B Kaushik)
Regional Director

Copy to:

M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh 244223

Point No	Recommendation	Status as on 16.09.2020
vi.	The unit shall take measures for reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.	**Complied**. The COC is obtained at its highest level 8-10, based on the process requirement. Further the CT Blow Down is recovered through RO thus reducing fresh water consumption. Also, Fresh water conservation is achieved through recycling of treated effluent RO Permeate and MEE condensate towards achieving ZLD.
vii	The unit may reduce the quantity of makeup water used in each Cooling Tower by increasing Cycle of Concentration (COC).	
viii	The unit may make efforts for reduction in steam consumption and effluent generation thereby reducing fresh water consumption.	
ix	The unit shall provide Rain Water Harvesting system in non-process areas for water conservation.	**5 nos. of Rainwater Harvesting structures already provided in non processing area** since 2017. The same is verified by CGWA during inspection.

Rain Water Harvesting Structure in Non-Process Area

Near Time Office Gate

Outside of Canteen

Back side of Director bungalow – Colony

Back Side Of Guest House

Near B-13 and B-14 Block Colony

Point No	Recommendation	Status as on 16.09.2020
i.	The unit shall immediately stop the spray of RO reject on ash for dust suppression.	**Complied** • The RO reject use for dust suppression during ash handling is stopped.
ii	The unit shall set up the incinerator facility to achieve ZLD.	• As Coal storage yard fire quenching water requirement is met with RO reject, no incinerator is proposed for ZLD. • There is no environment damage established with the practice, instead fresh water is conserved. • We may kindly be exempted from implementing this recommendation.
Chemical Effluent Treatment Plant (CETP)		
i.	The unit shall stop discharge of effluent for horticulture purposes and the entire effluent shall be recycle/reuse in process or cooling tower.	**Complied**. Treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant (CTBDRO). The permeate is reused in cooling tower makeup. The same is verified during visit.
Common Cooling Tower Reverse Osmosis Plant (CTRO)		
i.	The unit shall install a dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard and make spray arrangement exclusively for using this effluent.	**Complied.** A dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard is provided. **The photograph of metering arrangement is attached.**

Flow Meter at RO Reject Line

M/s Jubilant Life Sciences Ltd. , Stack Emission Monitoring Results

Point No	Recommendation	Status as on 16.09.2020
Stack Emission Monitoring Results		
i	The unit shall maintain the wet scrubber periodically to restrict SO2 emission within the prescribed norms. To evaluate the performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied.** The wet scrubber was being maintained and its stack has been regularly being monitored through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.
ii	To restrict the NOx emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied**. As bed height is level control is rigorously monitored and maintained as a measure for NOx control. Regular stack monitoring is being done through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.

Point No	M/S Jubilant Life Sciences Ltd., Distillery unit	Status as on 16.09.2020
i.	The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke [heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes	**Complied**. Well designed Fire fighting system is available around the storage of incinerable hazardous wastes area. Following fire fighting arrangements are at place which is sufficient for addressing any fire incident :- • Monitors (For water sprinkling arrangement) – 5 Nos.; Alarm system (MCP) – 1 No.; Hydrant Point - 4 Nos.; Hose box with hoses – 2 Nos. • Safety Shower – 1 Nos.; Emergency display board with communication system – 1 No.; Dedicated storage of 7000 KL fire water ;Company owned fire tenders – 2 Nos.; Fire crew - 26 firemen
ii	The unit shall sell caustic lye along with other hazardous waste generated by the unit only to the authorized utilizer/recycler; and shall maintain records and manifest document as required under Rule 9 of the HOWM Rules, 2016	**Complied.** End user have all necessary permissions.
iii	The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit	**Complied.** The display board is installed since 2016. Photographs attached.
iv	The unit shall maintain date wise record of leachate generated from captive SLF.	**Complied.** Record of leachate generation and disposal is maintained.

Fire fighting arrangements around hazardous waste storage area

Display board displaying details of hazardous wastes

Display board displaying details of hazardous wastes being handled

Display board displaying details of hazardous wastes

Online Digital Display Board at main gate

Point No	NGT Observation on 05/02/2020	Compliance Status
i	The effluents of chemical unit I and the polymer unit are collectively treated in a chemical effluent treatment plant and both the units have been consented as Zero Liquid Discharge. The treated effluents from the chemical effluent treatment plant should operate on ZLD system and this effluent may not be consented for utilization for horticulture purpose.	**Complied**. • Treated effluent was used for horticulture was as per consent condition and is now stopped. • The treated ETP water is reused in cooling tower makeup after recovery in an RO
ii	The 400 KID of sewage after treatment is utilized for horticulture/agriculture. The treated sewage is not meeting with respect to faecal coliform. After treatment, it can be better utilized for industrial use so to reduce consumption of ground water.	• The treated sewage is analyzed on regular basis by MoEF & CC approved lab and all the results including E-coli found with in limit. • Treated sewage is used for campus green belt management and thus is a Water conservation measure to reduce ground water extraction.

THANK YOU

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

सी.जी.-डी.एल.-अ.-24092020-221952
CG-DL-E-24092020-221952

असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)
PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

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No. 2941] NEW DELHI, THURSDAY, SEPTEMBER 24, 2020/ASVINA 2, 1942

जल संसाधन, नदी विकास और गंगा संरक्षण विभाग

(केंद्रीय भूमि जल प्राधिकरण)

अधिसूचना

नई दिल्ली, 24 सितम्बर, 2020

का.आ. 3289(अ).—जबकि,1985 की सिविल रिट याचिका 4677, एमसी. मेहता बनाम भारत संघ में पारित दिनांक 10 दिसंबर, 1996 के माननीय उच्चतम न्यायालय के आदेश के माध्यम से इसके दिशा-निर्देशों पर केंद्र सरकार ने भूमि जल प्रबंधन और विकास के विनियमन और नियंत्रण के उद्देश्यों से और कतिपय शक्तियों का प्रयोग करने और उससे संबंधित कतिपय कार्यों को करने के लिए पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 5 के तहत शक्तियों का प्रयोग करने के लिए दिनांक 14 जनवरी, 1997 की अधिसूचना सं.का.आ. 38(अ) के माध्यम से केंद्रीय भूमि जल प्राधिकरण (इसके बाद इसे "प्राधिकरण" के रूप में कहा गया है) गठित किया है।

और जबकि प्राधिकरण उद्योगों, अथवा आधारभूत परियोजनाओं अथवा खनन परियोजनाओं इत्यादि के लिए भूजल निष्कर्षण के लिए "अनापत्ति प्रमाणपत्र" जारी करके भूजल विकास और प्रबंधन को विनियमित करता रहा है और बाइस राज्यों और दो संबंधित संघ शासित क्षेत्रों में, जहां पर भूजल विकास संबंधित राज्य सरकारों तथा संघ शासित प्रशासनों द्वारा विनियमित नहीं किया जा रहा है, समय-समय पर इस संबंध में इसने दिशा-निर्देश तैयार किये थे।

और जबकि, कुछ राज्य सरकारों अथवा, संघ शासित क्षेत्रों ने विधान अधिनियमित किए हैं और भूजल विकास और प्रबंधन को विनियमित करनेकेलिए विनियामक दिशा-निर्देश अथवा आदेश जारी किए हैं।

और जबकि, माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली ने 2014 की ओ.ए. सं. 204/205/206 में दिनांक 15 अप्रैल 2015 के आदेश के माध्यम से प्राधिकरण को निर्देश जारी किए हैं कि वह सुनिश्चित करें कि ऐसे किसी भी व्यक्ति जो भूजल निष्कर्षण के लिए ट्यूबवेल, अथवा कोई अन्य साधन संचालित कर रहा है, को प्राधिकरण से अनुमति प्राप्त करनी

होगी और वह इसे लागू कानून की शर्त पर संचालित करेगा चाहे ऐसी यूनिट मौजूद यूनिट हो अथवा यूनिट को अभी स्थापित करना हो;

और जबकि, उक्त माननीय अधिकरण ने 2014 की ओ ए सं. 34 और 37 में दिनांक 09 जुलाई 2015 को अपने आदेश के माध्यम से सभी औद्योगिक इकाइयों को, जो सामान्य बहिर्स्राव परिशोधन संयंत्र (सीईटीपीएस) की सदस्य हैं, कानून के अनुसार "अनापत्ति प्रमाणपत्र" प्राप्त करने के लिए राज्य प्रदूषण नियंत्रण बोर्ड के माध्यम से प्राधिकरण से संपर्क करने के निर्देश दिए हैं;

और जबकि, माननीय अधिकरण ने 2014 के ओ.ए सं. 200 में दिनांक 13 जुलाई, 2017 के आदेश के माध्यम से निर्देश दिए कि प्रत्येक उद्योग को ऐसे जल की निकासी के लिए भुगतान करने के निर्देश दिये जाने चाहियें और वह भी, कि यह ऐसी जल निकासी की अनुमति देने के आदेश में बताई गई शर्तों के अनुरूप हो।

और जबकि, उक्त माननीय अधिकरण ने क्रमशः 2015 की ओ.ए. सं. 176 और 2012 की 59 में दिनांक 28 अगस्त 2018 के अपने आदेश में जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय को भूजल संसाधनों के संरक्षण के लिए प्रभावी कदम सुनिश्चित करने के लिए मौजूदा तंत्र की आगे समीक्षा करने के निर्देश दिए;

और जबकि, माननीय राष्ट्रीय हरित अधिकरण के निर्देशों और पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 और धारा 5 की उप धारा (3) के तहत प्रदत्त शक्तियों के अनुसरण में प्राधिकरण ने भूजल संसाधनों के बचाव की दृष्टि से 11 अक्टूबर, 2017 को "अनापत्ति प्रमाणपत्र" प्रदान करने के लिए प्रारूप दिशा-निर्देश परिचालित किये जिसमें सभी स्टेकहोल्डरों से टिप्पणियां और सुझाव मांगे गए।

और जबकि, उक्त प्रारूप दिशा-निर्देश के प्रत्युत्तर में प्राप्त सभी आपत्तियों और सुझावों पर केंद्र सरकार द्वारा विधिवत रूप से विचार किया गया है, प्राधिकरण दिनांक 12 दिसंबर, 2018 की अधिसूचना सं.का.आ. 6140 (अ) के माध्यम से देश में भूजल के अति-दोहन को विनियमित करने और भूजल संसाधनों के संरक्षण के दिशा-निर्देश अधिसूचित किए;

और जबकि, उक्त माननीय अधिकरण ने 2015 की ओ ए. सं. 176 में दिनांक 03 जनवरी, 2019 के आदेश के माध्यम से निर्देश दिए थे कि दिनांक 12 दिसंबर, 2018 की उपर्युक्त अधिसूचना को लागू नहीं किया जा सकता,क्योंकि यह स्थाई नहीं है यदि इसकी "पूर्वोपाय सिद्धांत सतत विकास और अंतर-उत्पादन इक्विटी सिद्धांतों" पर जांच की जाती है तो यह स्थाई नहीं है और यदि यह कार्यान्वित की जाती है, तो भूजल में बहुत तेजी से गिरावट आएगी और जल निकाय क्षतिग्रस्त हो जाएंगे और भारत के संबिधान के अनुच्छेद 21 के तहत जीवन के मौलिक अधिकार का हनन होगा;

और जबकि, माननीय अधिकरण ने दिनांक 11 सितंबर, 2019 के आदेश के माध्यम से भूजल की गिरावट को रोकने के लिये, गैर अधिकृत जल निष्कासन के विरूद्ध सख्त मॉनीटरिंग तंत्र और "अनापत्ति प्रमाणपत्र" शर्तों को पूरा करने, पर्यावरण क्षतिपूर्तिइत्यादि पर चर्चा करने के लिए एक समिति गठित की है और इस पर रिपोर्ट प्रस्तुत करने को कहा गया है;

और जबकि, उक्त समिति ने भूजल निष्कर्षण को विनियमित करने और भूजल संरक्षण के प्रारूप दिशा-निर्देशों सहित रिपोर्ट दिनांक 16 मार्च, 2020 को माननीय अधिकरण में प्रस्तुत कर दी है;

और जबकि, उक्त माननीय अधिकरण ने दिनांक 20 जुलाई, 2020 के अपने आदेश के माध्यम से प्राधिकरण द्वारा वाणिज्यिक स्थापनाओं को "अनापत्ति प्रमाणपत्र" जारी करते समय सतत भूजल प्रबंधन के लिए कतिपय बिन्दुओं के साथ अनुकरण करने का निर्देश दिया है।;

अब इसलिए माननीय राष्ट्रीय हरित अधिकरण के दिशा-निर्देशों और पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 की 29) की धारा 5 के साथ पठित धारा 3 की उपधारा (3) द्वारा प्रदत्त शक्तियों के अनुकरण में जल संसाधन, नदी विकास और गंगा संरक्षण विभाग एतद द्वारा नीचे दी गई अधिसूची के अनुसार इस मंत्रालय की अधिसूचना का.आ. 6140 (अ), दिनांक 12 दिसंबर, 2018 का अधिक्रमण करके देश में भूजल निकासी को विनियमित और नियंत्रित करने के दिशा-निर्देश अधिसूचित करता है।

अनुसूची

भारत में भूजल निकासी को विनियमित और नियंत्रित करने के दिशा-निर्देश

(तत्काल प्रभाव से)

इंडेक्स

मद **पृष्ठ सं.**

प्रस्तावना और पृष्ठभूमि सूचना

1.0 'अनापत्ति प्रमाण पत्र' प्राप्त करने से छूट 5

2.0 रेजीडेंशिलय अपार्टमेंट/ग्रुप हाउसिंग सोसाइटी/शहरी क्षेत्रों में सरकार जलापूर्ति एजेंसियों के लिए पेय और घरेलू उपयोग 5

3.0 कृषि क्षेत्र 6

4.0 वाणिज्यिक उपयोग 6

4.1 औद्योगिक प्रयोग.....6

4.2 खनन परियोजनाएं.....8

4.3 अवसंरचनात्मक परियोजनाएं.....8

5.0 भूजल निकासी/रेस्टॉरेशन प्रभार.....12

5.1 भूजल निकासी/रेस्टॉरेशन प्रभार दरें 10

6.0 बड़ी मात्रा में जलापूर्ति 12

7.0 लवणीय भूजल की निकासी.....13

8.0 नम भूमि क्षेत्रों का संरक्षण 13

9.0 अनापत्ति प्रमाणपत्र में सामान्य अनुपालन की शर्तें 13

10.0 अनापत्ति प्रमाणपत्र की शर्तों के अनुपालन की मॉनिटरिंग 14

11.0 अनापत्ति प्रमाणपत्र का नवीकरण 14

12.0 अनापत्ति प्रमाणपत्र की अवधि को बढ़ाना.....15

13.0 असंवैधानिक रूप से भूजल निकासी के विरूद्ध शक्तियों का प्रत्यायोजन 15

14.0 भूजल स्तर मॉनिटरिंग.....15

15.0 पर्यावरणीय प्रतिपूर्ति.....16

15.1 पर्यावरणीय प्रतिपूर्ति की दरें.....16

15.2 हानि और पर्यावरणीय नुकसान (सीलबंद पेयजल इकाइयां, खनन, उद्योग और आधारभूत डिवाटरिंग परियोजनाएं) की प्रतिपूर्ति के लिए निवारक कारक.....17

16.0 दंड का प्रावधान.....17

17.0 अन्य महत्वपूर्ण शर्तें (सभी पर लागू) 19

[फा. सं. सीजीडब्ल्यूए-21/4/2020- सीजीडब्ल्यूए]

आशीष कुमार, निदेशक

अनुलग्नक

अनुलग्नक I: पेय और घरेलू उपयोग के लिए जल की आवश्यकता का अनुमान।

अनुलग्नक II: पीजोमीटर के निर्माण और भूजल स्तरों और गुणवत्ता की मॉनिटरिंग के लिए दिशा-निर्देश।

अनुलग्नक III: प्रदूषित करने वाले उद्योगों/परियोजनाओं के संयंत्र क्षेत्रों में प्रदूषण निवारण को सुनिश्चित करने के लिए अपनाए जाने वाले उपाय।

अनुलग्नक IV: उद्योगों के लिए अनापत्ति प्रमाण पत्र प्राप्त करने हेतु जल-भूवैज्ञानिक रिपोर्ट की रूपरेखा।

अनुलग्नक V: भूजल स्थिति (खनन परियोजनाओं के लिए) संबंधी रिपोर्ट का फार्मेट।

अनुलग्नक VI: आधारभूत परियोजनाओं की सांकेतिक सूची।

अनुलग्नक VII: परित्यक्त बोरवेलों और ट्यूबवेलों मेंबच्चों के गिर जाने की गंभीर दुर्घटनाओं को रोकने के उपायों के संबंध में 2009 की सिविल रिट याचिका 36 में उच्चतम न्यायालय के आदेश।

अनुलग्नक VIII: उन राज्यों/संघ राज्य क्षेत्रों की सूची, जहां भूजल की निकासी सीजीडब्ल्यूए द्वारा विनियमित की जा रही है।

अनुलग्नक IX: प्रयुक्त तकनीकी शर्तों की शब्दावली

अनुलग्नक X : उद्योगों द्वारा वार्षिक जल लेखा परीक्षा।

भारत में भूजल निकासी को विनियमित और नियंत्रित करने के दिशा-निर्देश

प्रस्तावना और पृष्ठभूमि सूचना:

एमसी मेहता बनाम भारत संघ की 1985 की सिविल रिट याचिका सं. 4677 में जारी दिनांक 10 दिसंबर, 1986 के माननीय उच्चतम न्यायालय के आदेश के माध्यम से इसके दिशा-निर्देशों पर केंद्र सरकार ने भूजल प्रबंधन और विकास के विनियमन और नियंत्रण के उद्देश्यों और उक्त अधिनियम के अनुसार कतिपय शक्तियों का प्रयोग करने और कतिपय कार्य करने के लिए पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 5 के तहत शक्तियों का प्रयोग करने के लिए 14 जनवरी, 1997 की अधिसूचना सं.का.आ. 38 (अ) के माध्यम से केंद्रीय भूमि जल बोर्ड को प्राधिकरण के रूप में गठित किया है।

प्राधिकरण उद्योगों अथवा अवसंरचनात्मक परियोजनाओं अथवा खनन परियोजनाओ इत्यादि के लिए भूजल निकासी के लिए 'अनापत्ति प्रमाणपत्र' जारी करके भूजल विकास और प्रबंधन को विनियमित कर रहा है और 22 राज्यों और 2 यू टी में, जहां राज्य सरकार, संबंधितयू टी प्रशासनों द्वारा भूजल विकास विनियमित नहीं किया जा रहा है, लागू इस संबंध मेंसमय समय पर दिशा-निर्देश तैयार किए हैं।

देश में जल के संसाधन के सतत विकास के लिए देश में भूजल निकासी को विनियमित करने और कम भूजल संसाधनों को संरक्षित करने के लिए भूजल निकासी दिशा-निर्देश तैयार किए गए हैं।

ये दिशा-निर्देश राजपत्र अधिसूचना की तारीख से तत्काल प्रभावी होंगे और केंद्रीय भूमि जल प्राधिकरण (सीजीडब्ल्यूए) द्वारा जारी पहले के सभी दिशा-निर्देश के स्थान पर होंगे।

ये दिशा-निर्देश पैन-इंडिया में लागू होंगे। राज्य/संघ राज्य क्षेत्र (जो भूजल निकासी को विनियमित नहीं कर रहे हैं) में भूजल निकासी केंद्रीय भूमि जल प्राधिकरण द्वारा विनियमित की जानी जारी रखी जाएंगी।

इसके अलावा, जिन राज्यों/संघ राज्य क्षेत्रों के अपने भूजल निकासी दिशा-निर्देश हैं, जो सीजीडब्ल्यूए के अनुरूप नहीं है, वहां सीजीडब्ल्यूए के दिशा-निर्देशों के प्रावधान लागू होंगे। तथापि यदि ऐसे राज्यों/संघ राज्य क्षेत्रों द्वारा अनुसरण किए जाने वाले दिशा-निर्देशों में सीजीडब्ल्यूए के दिशा-निर्देशों से अधिक कठोर प्रावधान हैं, तो वहां सीजीडब्ल्यूए के दिशा-निर्देशों में निहित प्रावधानों के अलावा राज्य/संघ राज्य क्षेत्र के प्राधिकरणों द्वारा उन प्रावधानों को भी लागू किया जाएगा। राज्य स्थानीय जल-भूवैज्ञानिक स्थितियों के आधार पर अतिरिक्त शर्तों/मानदंडों का सुझाव देने के लिए स्वतंत्र हो सक्ते हैं, जिसकी स्वीकार करने से पहले सीजीडब्ल्यूए/जल शक्ति मंत्रालय, भारत सरकार द्वारा समीक्षा की जाएगी।

सभी नए/ मौजूद तथा विस्तार माँगने वाले उद्योगों, अवसंरचनात्मक परियोजनाओं और खनन परियोजनाओं को, जब तक कि पैरा 1.0 के अंतर्गत इसे विशिष्ट रूप से छूट प्राप्त न हो, वेब आधारित एप्लीकेशन प्रणाली के माध्यम से अनापत्ति प्रमाण पत्र (एनओसी) प्राप्त करना अपेक्षित होगा।

जल प्रबंधन योजनाएं अतिदोहित यूनिटों के साथ शुरू करके सभी अतिदोहित, गंभीर और अर्ध-गंभीर मूल्यांकन यूनिटों के लिए सभी राज्य भूजल प्राधिकरणों/संगठनों द्वारा तैयार की जाएंगी। जल प्रबंधन योजनाओं की समीक्षा की जाएगी और यह आवधिक रूप से अद्यतन की जाएंगी। इस संबंध में तैयार जल प्रबंधन योजनाएं जल उपलब्धता और कमी के आंकड़े तथा नीति केंद्रीय भूमि जल प्राधिकरण/राज्य भूमि जल प्राधिकरण की वेबसाइटों पर दर्शाई जाएगी।

1.0 एनओसी प्राप्त करने से छूट:

उपभोक्ताओं की निम्नलिखित श्रेणियों को भूजल निकासी के लिए एनओसी प्राप्त करने से छूट दी जाएगी:

(i) पेयजल और घरेलू उपयोग के लिए ग्रामीण और शहरी दोनोंक्षेत्रों में वैयक्तिक घरेलू उपभोक्ता।

(ii) ग्रामीण पेयजल आपूर्ति स्कीमें।

(iii) ग्रामीण और शहरी दोनों क्षेत्रों में सशस्त्र बलों के प्रतिष्ठान और केन्द्रीय सशस्त्र पुलिस बल।

(iv) कृषि कार्यकलाप।

(v) 10 सी यू एम / दिन से कम भूजल का आहरण करने वाले माइक्रो और स्माल उद्योग।

1 . 1 ड्रिलिंग रिगों का पंजीकरण

राज्य/संघ राज्य सरकारें अपने क्षेत्राधिकार में संचालित ड्रिलिंग रिगों के पंजीकरण और उनके द्वारा ड्रिल किए गए कुओं के डेटाबेस के रख-रखाव के लिए जिम्मेदार होंगी। सीजीडब्ल्यूए को आंकड़े उपलब्ध कराने के लिए सीजीडब्ल्यूए पोर्टल में उपयुक्त लिंक दिए जाएंगे।

2.0 शहरी क्षेत्रों में रेजीडेंसियल अपार्टमेंट/ग्रुप हाउसिंग सोसाइटी/सरकारी जलापूर्ति एजेंसियों के लिए पेय और घरेलू प्रयोग के लिए जल

भूजल निकासी के लिए अनापत्ति प्रमाण पत्र (एनओसी) देने के लिए परियोजना प्रस्तावक को सीजीडब्ल्यूए वेबसाइट में उपलब्ध उपयुक्त फॉर्मेट में सीजीडब्ल्यूए द्वारा जारी दिशा-निर्देशों के अनुसार ब्यौरा भेजना होता है। नए/मौजूदा कुओं के लिए एनओसी केवल ऐसे मामलों में ही दिया जाता है, जहां स्थानीय सरकारी जलापूर्ति एजेंसी उस क्षेत्र में अपेक्षित मात्रा में जल की आपूर्ति करने में सक्षम नहीं है।

एनओसी तभी दिया जाएगा बशर्ते कि निम्नलिखित विशिष्ट शर्ते पूरी हों:

i) सीवेज परिशोधन संयंत्रों का संस्थापन सभी रेजीडेंशियल अपार्टमेंट/ग्रुप हाउसिंग सोसाइटी के लिए अनिवार्य होगा जहां भूजल, की आवश्यकता 20 घनमीटर/दिन से अधिक है। एसटीपी का जल शौचालय फ्लशिंग, कार धोने, बागवानी इत्यादि के लिए उपयोग किया जाएगा।

ii) यह एनओसी जारी होने की तारीख से 5 वर्षों की अवधि अथवा परियोजना क्षेत्र के लिए स्थानीय सरकार द्वाराजलापूर्ति करने के समय तक, जो भी पहले हो, वैध होगा। यदि परियोजना प्रस्तावक एनओसी की वैधता के दौरान संबंधित स्थानीय सरकार से जलापूर्ति प्राप्त करता है, तो परियोजना प्रस्तावक को सीजीडब्ल्यूए को जलापूर्ति की उपलब्धता के संबंध में सूचित करना होगा और प्राधिकरण द्वारा एनओसी रद्द कर दिया जाएगा। अन्य मामलों में परियोजना प्रस्तावक एनओसी की समाप्ति के 90 दिनों से पहले एनओसी के नवीकरण के लिए आवेदन करेगा।

iii) प्रस्तावक को तालिका 6.1 में उल्लिखित दरों के अनुसार जल निकासी के प्रस्तावित भूजल के लिए भूजल निकासी प्रभार का भुगतान करना होगा।

आवेदन के साथ प्रस्तुत किए जाने वाले दस्तावेज

क) फ्लाशिंग इत्यादि के लिए पुनः चक्रित/परिशोधित जल के पुनः प्रयोग को ध्यान में रखते हुए राष्ट्रीय भवन कोड, 2016 (अनुलग्नक-I) के अनुसार अपेक्षित जल के ब्यौरे।

ख) आवेदक द्वारा 10/- रु. के गैर-न्यायिक स्टैंप पर हलफनामा जिसमें पेय/घरेलू उपयोग के लिए 10 घनमीटर/दिन तक उपभोक्ता की भूजल की आवश्यकता होने की स्थिति में लोक जलापूर्ति की गैर/अपर्याप्त उपलब्धता कीपुष्टि की जाये।

ग) पेय/घरेलू उपयोग के लिए 10 घनमीटर/दिन से अधिक भूजल आवश्यकता के मामलों में स्थानीय सरकारी जलापूर्ति एजेंसियों को एनओसी के लिए आवेदन करते समय कार्यान्वित की जाने वाली स्कीम/प्रस्तावित परियोजना के लिए सरकारी अनुमोदन की प्रति प्रस्तुत करनी होगी।

घ) किसी भी नेशनल अक्रेडिशन बोर्ड फौर टेस्टिंग एंड कैलिब्रेशन लैबोरेटरी (एनएबीएल) से प्रत्यायित प्रयोगशाला अथवा सरकार से अनुमोदित प्रयोगशाला से (एनओसी के लिए आवेदन कर रही मौजूदा परियोजनाओं के मामले में) मौजदा बोरवेल/ट्यूबबेल के भूजल गुणवत्ता आंकड़े।

ड.) आवास और शहरी कार्य मंत्रालय द्वारा जारी मॉडल भवन उपनियमों के अनुसार क्षेत्र के भीतर वर्ष जल संचयन/पुनर्भरण के लिए प्रस्ताव।

3.0 कृषि क्षेत्र

कृषि क्षेत्र भारतीय अर्थव्यवस्था की रीढ़ की हड्डी है। वर्ष 2013-14 की लघु सिंचाई गणना के अनुसार 87.86 प्रतिशत कुएं 4 हेक्टेयर तक की भूमि वाले सीमान्त, लघु और अर्ध-मध्यम किसानों के हैं। लगभग 9.18 प्रतिशत कुएं 4-10 हेक्टेयर की भूमि वाले मध्यम किसानों के हैं और 2.96 प्रतिशत कुएं 10 हेक्टेयर से अधिक भूमि वाले किसानों के हैं।

भूजल निकासी संरचनाओं की संख्या पर विचार करते हुए 'कमांड एंड कंट्रोल' नीति के माध्यम से कृषि क्षेत्र में भूजल का विनियमन करना कठिन कार्य होगा। इसलिए सतत भूजल प्रबंधन के लिए भागीदारी दृष्टिकोण अधिक सार्थक होगा।

राज्यों/संघ राज्य क्षेत्रों को किसानों के लिए मुफ्त/रियायती विद्युत नीति की समीक्षा करने, उपयुक्त विद्युत मूल्य नीति तैयार करने और भूजल पर अत्यधिक निर्भरता को कम करने के लिए फसलों की अदला-बदली/विविधीकरण/अन्य पहलों के प्रति कार्य करने की सलाह दी जाती है।

कृषि क्षेत्र को भूजल निकासी के लिए एनओसी प्राप्त करने से छूट दी जाएगी।

4.0 वाणिज्यिक प्रयोग

नीति दिशा-निर्देशों के अनुरूप के अतिरिक्त अतिदोहित मूल्यांकन क्षेत्रों में किसी भी नये वृहद उद्योग को एनओसी नहीं दिया जाएगा।

वाणिज्यिक प्रयोग के लिए एनओसी देने हेतु आवेदन पर विचार करते समय भूजल संसाधनों की उपलब्धता पर पर्याप्त ध्यान दिया जाएगा।

भूजल निकालने वाले वाणिज्यिक उद्यमों को संदर्भित धाराओं में उल्लिखित जल प्रयोग के लेखा सहित वार्षिक जल लेखा परीक्षा रिपोर्ट ऑनलाइन प्रस्तुत करनी होगी। सीजीडब्ल्यूए/राज्य भूजल प्राधिकरण (एसजीडब्ल्यूए) सभी ऐसी लेखा परीक्षा रिपोर्ट ऑनलाइन प्रकाशित करेगा।

सीजीडब्ल्यूए/एसजीडब्ल्यूए आवधिक रूप से एनओसी के अनुपालन की जांच करने के लिए स्वायत्त एजेंसियों को कार्य पर लगाएगा।

4.1 औद्योगिक प्रयोग

अतिदोहित मूल्यांकन इकाइयों में सूक्ष्म, लघु और मध्यम उद्यमों (एमएसएमई) की श्रेणी में आने वालों के अलावा किसी भी नए उद्योग को भूजल निकासी के लिए एनओसी नहीं दिया जाएगा। तथापि कार्यबल के लिए पेयजल/घरेलू प्रयोग, इन नए उद्योगों द्वारा ग्रीनबेल्ट उपयोग के लिए अनओसी की अनुमति होगी। अतिदोहित क्षेत्रों में नए सीलबंद जल उद्योगों को, चाहे वे एमएसएमई श्रेणी में आते हों, एनओसी नहीं दिया जाएगा।

उद्योगों द्वारा भूजल निकासी के लिए एनओसी दिया जाएगा बशर्ते कि निम्नलिखित शर्ते पूरी हों:-

I. ऐसे मामलों में ही एनओसी प्रदान किया जाएगा, जहां स्थानीय सरकारी जलापूर्ति एजेंसियां जल की अपेक्षित मात्रा की आपूर्ति करने में सक्षम नहीं है।

II. सभी उद्योगों को अद्यतन जल दक्ष प्रौद्योगिकी को अपनाना अपेक्षित होगा, ताकि भूजल संसाधन पर निर्भरता कम की जा सके।

III. 100 घनमीटर/दिन से अधिक भूजल की निकासी वाले सभी उद्योगों को कंफेडरेशन ऑफ इंडियन इंडस्ट्रीज (सीआईआई)/फेडरेशन इंडियन चेम्बर ऑफ कॉमर्स एंड इंडस्ट्रीज (एफआईसीसीआई)/नेशनल प्रोडक्टिविटी काउंसिल (एनपीसी) कोप्रमाणित लेखा परीक्षकों के माध्यम से वार्षिक जल लेखा परीक्षा करवाना और इसके पूरे होने के तीन माह के भीतर लेखा परीक्षा रिपोर्ट सीजीडब्ल्यूए को प्रस्तुत करना अपेक्षित होगा। ऐसे सभी उद्योगों को उपयुक्त साधनों के माध्यम से अगले तीन वर्षों तकअपने भूजल प्रयोग को कम से कम 20 प्रतिशत कम करना अपेक्षित होगा।

IV. अपने क्षेत्र के भीतर पर्यवेक्षण कुएं, पीजोमीटर का निर्माण और धारा 15 में यथा उल्लिखित उपयुक्त जल स्तर मॉनीटरिंग तंत्र की संस्थापना करना 10 घनमीटर/दिन से अधिक की भूजल निकासी करने का प्रस्ताव करने वाले उद्योगों के लिए अनिवार्य होगा। जल स्तर की मॉनीटरिंग परियोजना प्रस्तावक द्वारा की जाएगी। बोरवेल/प्रोडक्शन वेल से कम से कम 15 मीटर की दूरी पर पीजोमीटर (अन्वेषण कुएं) का निर्माण किया जाएगा। पीजोमीटर में गहराई और चिह्नित जलभृत क्षेत्र पम्पिंग कुएं/कुओं के समान ही होंगे। पीजोमीटर के डिजाइन और निर्माण के विस्तृत दिशा-निर्देश अनुलग्नक-II में दिए गए हैं। मासिक जल स्तर आंकड़े वेब पोर्टल के माध्यम से सीजीडब्ल्यूए को प्रस्तुत किए जाएंगे।

V. प्रस्तावक को परियोजना क्षेत्र में छतका वर्षाजल संचयन/पुर्नभरण करना अपेक्षित है। भूजल को प्रदूषित करने की संभावना वाले उद्योगों(रसायन, फार्मास्यूटिकल, डाई, पिगमेंट, पेंट, वस्त्र,टैनिंग,पेस्टिसाइड/कीटनाशक, उर्वरक, स्लॉटर हाउस, विस्फोटक इत्यादि) को उद्योग में प्रयोग करने के लिए सतह संग्रह टेंकों में वर्षाजल संचय करना होगा।

VI. जलभृत सिस्टम में शोधित/गैर शोधित अपशिष्ट जल डालने की सख्त मनाही है।

VII. भूजल प्रदूषण के सम्भावित कारक उद्योगों जैसे टैनिंग, स्लॉटर हाउस, डाई, रसायन/पेट्रोकेमिकल, कोयला वॉशरीज, अन्य खतरनाक इकाइयों आदि को (सी पी सी बी लिस्ट के अनुसार) भूजल प्रदूषण के निवारणको सुनिश्चित करने के लिये आवश्यक वेल हेड संरक्षण उपायों को करने की आवश्यकता हैं (अनुलग्नक-III)।

VIII. सुरक्षित, अर्ध गंभीर और गंभीर आकलन यूनिटों में भूजल की निकासी करने वाले सभी उद्योगों को तालिका 5.2 क और 5.3 क के अनुसार लागू भूजल निकासी प्रभार का भुगतान करना अपेक्षित होगा।

IX. अतिदोहित आकलन यूनिटों में भूजल निकासी करने वाले सभी मौजूदा उद्योगों को तालिका 5.2 ख और 5.3 ख के अनुसार लागू भूजल निकासी प्रभारों का भुगतान करना होगा।

आवेदन के साथ प्रस्तुत किए जाने वाले दस्तावेज

(क) ऐसे मामलों में, जहां भूजल 10 घनमीटर/दिन तक अपेक्षित है, स्थानीय सरकारी एजेंसियों से जलापूर्ति उपलब्ध न होने के संबंध में 10/- रु. के गैर न्यायिक स्टैंप पेपर पर एक हलफनामा।

(ख) ऐसे मामलों में, जहां भूजल 10 घनमीटर/दिन से अधिक अपेक्षित है, स्थानीय सरकारी जलापूर्ति एजेंसियों से ताजे जल/शोधित अपशिष्ट जल की आपूर्ति की उपलब्धता न होने/आंशिक रूप से होने का प्रमाणपत्र।

(ग) किसी भी एनएबएल प्रत्यायित प्रयोगशाला अथवा सरकार से अनुमोदन प्राप्त प्रयोगशाला (एनओसी के लिए आवेदन कर रही मौजूदा परियोजनाओं के मामले में) से मौजूदा बोरवेल/ट्यूबवेल/डगवेल के भूजल गुणवत्ता आंकड़े।

(घ) एनएबीएल प्रत्यायित प्रयोगशाला/सरकार से अनुमोदन प्राप्त प्रयोगशालाओं से मौजूदा उद्योगों के संबंध में बोरवेल/ट्यूबवेल/डगवेल के जल गुणवत्ता आंकड़े।

(ङ) आवासन और शहरी कार्य मंत्रालय द्वारा जारी मॉडल भवन उप-विधिवों के अनुसार क्षेत्र के भीतर वर्षा जल संचयन/पुनर्भरण के लिए प्रस्ताव।

(च) **प्रभाव आकलन रिपोर्टः** अतिदोहित, गंभीर और अर्ध गंभीर क्षेत्रों में 100 घनमीटर/दिन से अधिक भूजल निकालने वाली/प्रस्तावित सभी परियोजनाओं के लिए भूजल रिजीम पर मौजूदा/प्रस्तावित भूजल निकासी की प्रभाव आकलन रिपोर्ट और प्रत्यायित सलाहकारों द्वारा तैयार सामाजिक-आर्थिक प्रभाव रिपोर्ट भी प्रस्तुत करना अनिवार्य होगा। इस रिपोर्ट का प्रोफार्मा अनुलग्नक-IV में दिया गया है।

4.2 खनन परियोजनाएं-

सभी मौजूदा और नई खनन परियोनजाओं को भूजल निकासी के लिए एनओसी प्राप्त करना अपेक्षित होगा। चूंकि खनन परियोजनाएं स्थान विशिष्ट होती हैं, इसलिए अतिदोहित आकलन यूनिटों में ऐसी परियोजनाओं के लिए भूजल निकासी हेतु एनओसी देने पर कोई रोक नहीं होगी।

खनन परियोजनाओं के लिए एनओसी प्रदान किया जाएगा, बशर्ते कि निम्नलिखित विशिष्ट शर्तें पूरी हों:

i) सभी खनन उद्योगों के लिए यह सुनिश्चित करना अनिवार्य होगा कि डी-वाटरिंग कार्यों से उपलब्ध जल उपयुक्त रूप से शोधित है और इसे सिंचाई, डस्ट सप्रेशन, खनन प्रक्रिया, अनुप्रवाह में पुनर्भरण और नदी सिस्टम में ई-फ्लो के रख-रखाव के लिए लाभप्रद रूप से उपयोग किया जाना चाहिए।

ii) मासिक भूजल स्तर मॉनीटरिंग के लिए क्षेत्र में परिधि के साथ अन्वेषण कुएं (पीजोमीटर) का निर्माण, भूजल की 10 घनमीटर/दिन से अधिक की निकासीकरने वाली/इसका प्रस्ताव करने वाली खानों के लिए अनिवार्य होगा। गहराई और पीजोमीटर में चिह्नित जलभृत क्षेत्र पम्पिंग कुएं/कुओं के अनुरूप होगा।

iii) इसके अतिरिक्त, प्रस्तावक एनओसी में बताए गए मुख्य और प्रतिरोधक क्षेत्रों में अन्वेषण कुओं (पीजोमीटर) की स्थापना करके भूजल स्तरों को मॉनीटरिंग करेगा।

iv) कोयला और अन्य मूल धातु खनन के मामले में परियोजना प्रस्तावक सतही जल के संदूषण से बचाव के लिए उच्च स्तर की डिवाटरिंग प्रौद्योगिकी (डिवाटरिंग अवरोधक संरचनाओं की श्रृंखला का निर्माण करके) का प्रयोग करेगा।

v) इसके अलावा सभी खनन यूनिटें एनएबीएल प्रत्यायित/सरकार से अनुमोदन प्राप्त प्रयोगशालाओं के माध्यम से खान रिसाव और खानडिस्चार्जकी जल गुणवत्ता को भी मॉनीटर करेंगी और स्वयं अनुपालान के समय इसे प्रस्तुत किया जायेगा।

vi) सुरक्षित, अर्ध गंभीर और गंभीर आकलन यूनिटों में भूजल की निकासी करने वाली सभी खनन परियोजनाएं तालिका 5.4 क के अनुसार लागू भूजल निकासी प्रभारों का भुगतान करेंगी।

vii) अतिदोहित आकलन यूनिटों में भूजल की निकासी करने वाली सभी खनन परियोजनाओं को तालिका 5.4 ख के अनुसार भूजल संग्रहण प्रभार का भुगतान करना होगा।

आवेदन के साथ प्रस्तुत किए जाने वाले दस्तावेज

(क) संबंधित सरकारी एजेंसी/विभाग द्वारा अनुमोदित खनन योजना।

(ख) आवासन और शहरी कार्य मंत्रालय द्वारा जारी मॉडल भवन उप नियमों के अनुसार क्षेत्र के भीतर वर्षा जल संचयन/पुनर्भरण के लिए प्रस्ताव।

(ग) खनन के मूल और प्रतिरोधक क्षेत्रों दोनो में भूजल स्थिति का गहराई वार और वर्षवार खनन रिसाव गणना, खनन और डिवाटरिंग काभूजल क्षेत्र में आकलन प्रभाव और इसका सामाजिक-आर्थिक प्रभाव, पुनर्चक्रण, पुनः प्रयोग और पुनर्भरण का ब्यौरा, स्थानीय परिस्थितियों के आधार पर भूजल पर प्रतिकूल प्रभाव को न्यूनतम और समाप्त करने के लिए खनन और जल प्रबंधन के लिए प्रौद्योगिकी का प्रयोग करके पम्पिंग को कम करने के संबन्ध में प्रत्यायित सलाहकार द्वारा तैयार की गई व्यापक रिपोर्ट। रिपोर्ट का फॉर्मेट अनुलग्नक V में दिया गया है।

4.3 आधारभूत परियोजनाएं

चूंकि आधारभूत परियोजनाएं स्थान विशिष्ट होती हैं, अतिदोहित आकलन यूनिटों में स्थित ऐसी परियोजनाओं को एनओसी देने पर कोई रोक नहीं होगी। नई आधारभूत परियोजनाओं/आवासीय भवनों को निर्माण कार्यकलाप के दौरान डिवाटरिंग और / अथवा निर्माण के लिए भूजल का उपयोग अपेक्षित होगा। दोनों ही मामलों में आवेदक कार्य आरम्भ होने से पहले

सीजीडब्ल्यूए से एनओसी प्राप्त करेगा। तथापि अतिदोहित आकलन यूनिटों में निर्माण कार्यकलापों के लिए भूजल का प्रयोग तभी अनुमत्य होगा। यदि उस स्थान के 10 किलोमीटर की परिधि के भीतर कोई भी शोधित सीवेज जल उपलब्ध न हो। नई और मौजूदा आधारभूत परियोजनाओं को भूजल निकासी के लिए एनओसी प्राप्त करना भी अपेक्षित होगा।

अतिदोहित आकलन यूनिटों में वाटर पार्क, थीम पार्क, और मनोरंजन पार्कों के लिए भूजल की निकासी हेतु एनओसी नहीं दिया जाएगा।

आधारभूत परियोजनाओं की सांकेतिक सूची अनुलग्नक VI में दी गई है।

भूजल की निकासी के लिए एनओसी दिया जाएगा बशर्ते कि निम्नलिखित विशिष्ट शर्तें पूरी हों:

i) आधारभूत परियोजनाएं, जिनके लिए डिवाटरिंग अपेक्षित हैं, के मामले में प्रस्तावक को डिवाटरिंग बहिर्स्राव दर (डिजीटल वाटर फ्लो मीटर का प्रयोग करके) की नियमित मॉनीटरिंग करनी और सीजीडब्ल्यूए/ एसजीडब्ल्यूए जो भी लागू हो, के वेब पोर्टल के माध्यम से आंकड़े प्रस्तुत करना आवश्यक होगा। मॉनीटरिंग रिकॉर्डों और परिणामों को सीजीडब्ल्यूए/ एसजीडब्ल्यूए की अपेक्षानुसार निरीक्षण अथवा रिपोर्टिंग के लिए प्रस्तावक द्वारा दो वर्ष तक रखना अपेक्षित होगा।

ii) ऐसी नई परियोजनाओं के लिए, जहां 20 घनमीटर/दिन से अधिक भूजल की आवश्यकता है, सीवेज परिशोधन संयंत्रों (एसटीपी) की संस्थापना अनिवार्य होगी। एसटीपी का जल शौचालय फ्लशिंग, कार धोने, बागवानी करने इत्यादि के लिए प्रयोग किया जाएगा।

iii) आधारभूत डिवाटरिंग/निर्माण कार्यकलापों के लिए परियोजना प्रस्तावक द्वारा प्रस्तुत विस्तृत प्रस्ताव के अनुसार विशिष्ट अवधि के लिए एनओसी वैध होगा।

iv) सुरक्षित, अर्ध गंभीर और गंभीर आकलन यूनिटों में भूजल निकासी की सभी आधारभूत परियोजनाओं को तालिका 5.3 क के अनुसार लागू भूजल निकासी प्रभार देना अपेक्षित होगा।

v) अति-दोहित आकलन यूनिटों में भूजल निकालने वाली सभी आधारभूत परियोजनाओं (नई/मौजूदा) को तालिका 5.3 ख के अनुसार भूजल संग्रहण प्रभार का भुगतान करना होगा।

आवेदन के साथ प्रस्तुत किए जाने वाले दस्तावेज

(*क*) ऐसे मामले, जहां डिवाटरिंग होती है, में पम्पिंग की विस्तृत योजना बताते हुए क्षेत्र में भूजल की स्थिति, पंप किए गए जल का प्रस्तावित प्रयोग और उसका भूजल रिजीम पर व्यापक प्रभाव आकलन के सम्बंध में प्रत्यायित सलाहकार द्वारा तैयार की गई प्रभाव आकलन रिपोर्ट प्रस्तुत करना अनिवार्य होगा। रिपोर्ट में भूजल स्तर की गिरावट, भूमि धंसान इत्यादि जैसे किन्ही विशिष्ट पर्यावरणीय मुद्दों से जूझने के लिए पर्यावरणीय जोखिम और प्रस्तावित प्रबंधन नीतियों को दर्शाया जाना चाहिए।

(*ख*) सुरक्षित और अर्ध गंभीर क्षेत्रों में निर्माण के लिए जल की अपेक्षा होने की स्थिति में किसी अन्य स्रोत से जल उपलब्ध न होने के संबंध में 10/-रु. के गैर-न्यायिक स्टैंप पेपर पर एक हलफनामा।

(*ग*) गंभीर और अतिदोहित क्षेत्रों में स्थल की 10 कि.मी. की परिधि के भीतर निर्माण के लिए परिशोधित सीवेज जल के उपलब्ध न होने के संबंध में सरकारी एजेंसी से प्रमाणपत्र।

(*घ*) वाणिज्यिक प्रयोग के लिए आकलन यूनिटों की सभी श्रेणियों के संबंध में स्थानीय सरकारी जलापूर्ति एजेंसी से जल के उपलब्ध न होने के संबंध में प्रमाण पत्र।

(*ङ*) आवासन और शहरी कार्य मंत्रालय द्वारा जारी मॉडल भवन उप-नियमों के अनुसार क्षेत्र के भीतर वर्षाजल संचयन/पुनर्भरण के लिए प्रस्ताव।

(*च*) फ्लशिंग इत्यादि के लिए परिचक्रण/परिशोधित जल के पुनः उपयोग (वाणिज्यिक प्रयोग के लिए पूरी हो चुकी आधारभूत परियोजनाओं के मामले में) को ध्यान में रखते हुए राष्ट्रीय भवन कोड, 2016 (अनुलग्नक-I) के अनुसार संगणित जल आवश्यकता का ब्यौरा।

(*छ*) वाणिज्यिक प्रयोग के लिए जल की आवश्यकता वाली आधारभूत परियोजनाओं के लिए संबंधित एजेंसी से पूरा होने का प्रमाणपत्र।

5.0 भूजल निकासी/संग्रहित प्रभार

शहरी क्षेत्रों में सभी रेजीडेंशियल अपार्टमेंट/ग्रुप हाउसिंग सोसाइटी/सरकारी जलापूर्ति एजेंसियों को भूजल निकासी के लिए भुगतान करना अपेक्षित होगा।

सुरक्षित, अर्ध गंभीर और गंभीर आकलन यूनिटों में भूजल की निकासी करने वाले सभी उद्योगों/खनन/आधारभूत परियोजनाओं को भूजल निकासी की मात्रा और इस दिशा-निर्देश में दिए गए ब्यौरों के अनुसार आकलन यूनिट की श्रेणी के आधार पर भूजल निकासी प्रभार का भुगतान करना होगा।

अतिदोहित आकलन यूनिटों में भूजल की निकासी करने वाले एमएसएमई सहित सभी मौजूदा खनन/आधारभूत परियोजनाओं और मौजूदा उद्योगों को भूजल निकासी की मात्रा के आधार पर भूजल संग्रहण प्रभार देने होंगे। इसके अतिरिक्त, अतिदोहित क्षेत्रों में नए एमएसएमई, नई अवसंरचना और नई खनन परियोजनाओं को भी भूजल संग्रहण प्रभार का भुगतान करना अपेक्षित होगा।

एनओसी देते समय अथवा उसके नवीकरण के समय मौजूद भूजल दिशा-निर्देशों में निर्धारित शर्तों के अनुकरण में जिन मौजूदा उद्योगों, आधारभूत यूनिटों और खनन परियोनजाओं ने कृत्रिम पुनर्भरण संरचनाएं संस्थापित/निर्मित की हैं, को भूजल निकासी प्रभार/ भूजल संग्रहण प्रभार में 50 प्रतिशत की छूट मिलेगी, बशर्ते कि उनका कार्य निष्पादन और जांच संतोषजनक हो।

प्रस्तावित जल निकासी/संग्रहण प्रभार से सृजित राजस्व स्थल विशिष्ट उपयुक्त मांग/आपूर्ति पक्ष के कार्यों के कार्यान्वयन हेतु अलग निधि में रखा जाएगा।

5.1 भूजल निकासी/संग्रहण प्रभार की दरें

I. **शहरी क्षेत्रों में रेजीडेंसियल अपार्टमेंट/ग्रुप हाउसिंग सोसाइटी/सरकार जलापूर्ति एजेंसियों के लिए पेय और घरेलू प्रयोग।**

केवल पेय/घरेलू प्रयोग के लिए जल की आवश्यकता वाले सभी रेजीडेंशियल अपार्टमेंट/ग्रुप हाउसिंग सोसाइटी को एनओसी लेने के लिए तालिका 5.1 में दी गई दरों के अनुसार भूजल निकासी प्रभार देना होगा।

तालिका 5.1 में पेय और घरेलू प्रयोग के लिए भूजल निकासी प्रभार

निकाले गए भूजलकी मात्रा (घनमीटर/माह)	भूजल निकासी प्रभार की दर (रु. प्रति घनमीटर)
0-25	कोई प्रभार नहीं
26-50	1.00
>50	2.00

सरकारी जलापूर्ति एजेंसियों और सरकारी आधारभूत परियोजनाओं को 0.50 रु. प्रति घनमीटर की दर से भूजल निकासी प्रभार का भुगतान करना होगा।

II. **सीलबंद पेयजल यूनिटें**

सुरक्षित, अर्ध गंभीर और गंभीर आकलन यूनिटों में सीलबंद पेयजल यूनिटों के लिए भूजल निकासी प्रभारों की दर तालिका 5.2 क में दी गई है और अति दोहित आकलन यूनिटों में भूजल संग्रहण प्रभार तालिका 5.2 ख दिए गए हैं।

तालिका 5.2 कः सीलबंद पेयजल यूनिटों के लिए भूजल निकासी प्रभार की दरें (रु. प्रति घनमीटर)

क्र.सं.	क्षेत्र की श्रेणी ↓ / भूमिजल प्रयोग →	निकाले गए भूजल की मात्रा				
		50 घनमीटर/ दिन तक	51से<200 घनमीटर/दिन	200 से<1000 घनमीटर/दिन	1000 से <5000 घनमीटर/दिन	5000 घनमीटर/ दिन और अधिक
1.	सुरक्षित	1.00	3.00	5.00	8.00	10.00
2.	अर्ध-गंभीर	2.00	5.00	10.00	15.00	20.00
3.	गंभीर	4.00	10.00	20.00	40.00	60.00

तालिका 5.2 ख सीलबंद पेयजल यूनिटों के लिए भूजल रेस्टॉरेशन प्रभार की दरें (रु. प्रति घनमीटर)

क्र.सं.	क्षेत्र की श्रेणी ↓ / भूमिजल → प्रयोग	निकाले गए भूजल की मात्रा				
		50 घनमीटर/ दिन तक	51 से<200 घनमीटर/ दिन	200 से<1000 घनमीटर/दिन	1000 से <5000 घनमीटर/दिन	5000 घनमीटर/ दिन और उससे अधिक
1.	अतिदोहित (केवल मौजूदा उद्योग)	8.00	20.00	40.00	80.00	120.00

III. **अन्य उद्योग और आधारभूत परियोजनाएं**

सुरक्षित, अर्ध-गंभीर और गंभीर आकलन यूनिटों में अन्य उद्योगों और आधारभूत परियोजनाओं के लिए भूमिजल निकासी प्रभार की दरें तालिका 5.3 क में दी गई हैं और अतिदोहित आकलन यूनिटों में भूजल संग्रहण प्रभार तालिका 5.3 ख में दिए गए हैं।

तालिका 5.3 कः अन्य उद्योगों और आधारभूत परियोजनाओं के लिए भूजल निकासी प्रभार की दरें (रु. प्रति घनमीटर)

क्र.सं.	क्षेत्र की श्रेणी ↓ / भूमिजल → प्रयोग	निकाले गए भूजल की मात्रा			
		< 200 घनमीटर/ दिन	200 से<1000 घनमीटर/दिन	1000 से <5000 घनमीटर/ दिन	5000 घनमीटर/दिन और उससे अधिक
1.	सुरक्षित	1.00	2.00	3.00	5.00
2.	अर्ध-गंभीर	2.00	3.00	5.00	8.00
3.	गंभीर	4.00	6.00	8.00	10.00

तालिका 5.3 खः अन्य उद्योगों और आधारभूत परियोजनाओं के लिए भूजल निकासी प्रभार की दरें (रु. प्रति घनमीटर)

क्र.सं.	क्षेत्र की श्रेणी ↓ / भूमिजल प्रयोग →	निकाले गए भूजल की मात्रा			
		< 200 घनमीटर/ दिन	200 से<1000 घनमीटर/दिन	1000 से <5000 घनमीटर/ दिन	5000 घनमीटर/दिनऔर उससे अधिक
1.	अतिदोहित (वर्तमान दिशा-निर्देशों के अनुसार मौजूद उद्योग/नए उद्योग)	6.00	10.00	16.00	20.00

IV. **खनन परियोजनाएं**

सुरक्षित, अर्ध-गंभीर और गंभीर आकलन यूनिटों में भूजल निकालने वाले खनन के लिए भूजल निकासी प्रभार की दरें तालिका 5.4 क में दी गई हैं और अतिदोहित आकलन यूनिटों में भूजल निकालने वाली परियोजनाओं के मामले में भूजल संग्रहण प्रभार तालिका 5.4 ख में दियाँ गया हैं।

तालिका 5.4 कः खनन के लिए भूजल निकासी प्रभार की दरें (रु. प्रति घनमीटर)

क्र.सं.	क्षेत्र की श्रेणी ↓ / भूमिजल प्रयोग →	निकाले गए भूजल की मात्रा			
		< 200 *घनमीटर/ दिन*	200 से<1000 *घनमीटर/दिन*	1000 से <5000 *घनमीटर/ दिन*	5000 *घनमीटर/दिन* और उससे अधिक
1.	सुरक्षित	1.00	2.00	2.50	3.00
2.	अर्ध-गंभीर	2.00	2.50	3.00	4.00
3.	गंभीर	3.00	4.00	5.00	6.00

तालिका 5.4 ख खनन के लिए भूजल निकासी प्रभार की दरें (रु. प्रति घनमीटर)

क्र.सं.	क्षेत्र की श्रेणी → ↓ / भूमिजल प्रयोग	निकाले गए भूजल की मात्रा			
		< 200 *घनमीटर/ दिन*	200से<1000 *घनमीटर/दिन*	1000 से <5000 *घनमीटर/ दिन*	5000 *घनमीटर/दिन* और उससे अधिक
1.	अति-दोहित	4.00	5.00	6.00	7.00

6.0 प्रचुर जलापूर्ति

भूजल निकालने और उसकी आपूर्ति करने वाले सभी निजी टैंकर, जो प्रचुर जलापूर्ति करते हैं, को भूजल निकासी के लिए एनओसी प्राप्त करना अब जरूरी होगा। सुरक्षित, अर्ध-गंभीर और गंभीर आकलन इकाइयों में भूजल निकालकर टैंकरों के

माध्यम से प्रचुर जलापूर्ति करने वाले आपूर्तिकर्ता को तालिका 6.1 के अनुसार भूजल निकासी प्रभार का भुगतान करना होगा। अति-दोहित आकलन इकाइयों में भूजल निकालने वाले प्रचुर मात्रा में जलापूर्तिकर्ताओं को तालिका 6.1 ख के अनुसार भूजल संग्रहण प्रभार का भुगतान करना होगा। सभी टैंकरों में उनकी मूवमेंट/कार्य क्षेत्र की मॉनिटरिंग के लिए जीपीएस आधारित सिस्टम संस्थापित करना होगा।

प्रचुर/टैंकर जलापूर्ति के लिए एनओसी जारी करने की कार्य प्रणाली राज्यों/संघ राज्य क्षेत्रों के साथ परामर्श करके तैयार की जायेगी और इस संबंध में उपयुक्त दिशा-निर्देश तैयार किए जाएंगे और उनके लिए अलग से जारी किए जाएंगे।

तालिका 6.1 क प्रचुर/ टैंकर जलापूर्ति के लिए भूजल निकासी प्रभार	
श्रेणी	प्रति घनमीटर की दर (रु. में)
सुरक्षित	**10**
अर्ध-गंभीर	**20**
गंभीर	**25**

तालिका 6.1 ख प्रचुर/ टैंकर जलापूर्ति के लिए भूजल निकासी प्रभार	
श्रेणी	प्रति घनमीटर की दर (रु. में)
अतिदोहित	**35**

7.0 लवणीय भूजल की निकासी

अति-दोहित क्षेत्रों में स्थित आधारभूत / खनन परियोजनाओं द्वारा उद्योगों/डिवाटरिंग द्वारा प्रयोग के लिए ताजे जल की अपेक्षा सभी गहराइयों पर लवणीय भूजल अथवा अन्यथा लवणीय ताजे जल क्षेत्र में लवणीय भूजल की पॉकेटों से युक्त क्षेत्रों में लवणीय भूजल की निकासी को प्रोत्साहित किया जाएगा।ऐसे उद्योगों को भूजल निकासी प्रभार का भुगतान करने से छूट दी जाएगी।

डायनामिक भूजल संसाधन के अद्यतन मूल्यांकन के अनुसार सभी गहराइयों पर लवणीय भूजल वाली ऐसी आकलन इकाइयों की सूची सीजीडब्ल्यूए द्वारा उनकी वेबसाइट पर उपलब्ध कराई जाएगी। तथापि, यूनिटों द्वारा बह्रिस्राव के निपटान के संबंध में पर्याप्त ध्यान दिया जाएगा ताकि जल निकायों और जलभृतों को प्रदूषण से बचाया जा सके।

इस संबंध में विस्तृत दिशा-निर्देश तैयार कर लिए गए हैं और अलग से जारी कर दिए गए हैं।

8.0 आद्र भूमि क्षेत्रों का संरक्षण

देश में आद्र भूमि क्षेत्र बहुत महत्वपूर्ण होते हैं क्योंकि वे ही ऐसे क्षेत्रों में भूजल की उपस्थिति का प्रत्यक्ष प्रतिबिंब होते हैं। आद्र भूमि प्राधिकरणों द्वारा आद्र भूमि क्षेत्रों की सुरक्षा का रखरखाव अलग से किया जा रहा है। चूंकि आद्र भूमि क्षेत्र के अस्तित्व के लिए भूजल बहुत महत्वपूर्ण होता है इसलिए आद्र भूमि क्षेत्र में किसी भी भूजल विकास की गतिविधि से उस क्षेत्र में जल की मात्रा प्रभावित होती है।

आद्र भूमि क्षेत्रों की 500 मीटर परिधि की सीमा के भीतर आने वाली परियोजनाओं को अनिवार्य रूप से एक विस्तृत प्रस्ताव प्रस्तुत करना होगा जिसमें यह दर्शाना होगा कि परियोजना प्रस्तावक द्वारा निकाले जाने वाले भूजल का संरक्षित आद्र भूमि क्षेत्रों पर प्रभाव नही पड़ेगा। इसके अलावा, सीजीडब्ल्यूए से अनुमति लेने से पहले, परियोजना क्षेत्र में अपनी परियोजनाओं को स्थापित करने के लिए उपयुक्त आद्र भूमि प्राधिकरणों से सहमति/अनुमोदन लेना होगा।

9.0 अनापत्ति प्रमाणपत्र में सामान्य अनुपालन की शर्तें

i. एनओसी प्राप्त करने वाले सभी उपयोगकर्ताओं को डिजिटल वॉटर फ्लो मीटर (बीआईएस/आईएस मानकों के अनुरूप) को स्थापित करना और एब्सट्रैक्शन संरचना (ओं) में टेलीमेट्री सिस्टम लगाना अनिवार्य होगा और एनओसी देने के 30 दिनों के भीतर वेब-पोर्टल के माध्यम से सीजीडब्ल्यूए को इसकी स्थापना के बारे में सूचित किया जाएगा।

ii. प्रस्तावकों द्वारा जल प्रवाह मीटर की अधिकृत एजेंसी से अनिवार्य रूप से एक वर्ष में एक बार जांच कराई जाएगी।

iii. प्रस्तावक परियोजना क्षेत्र में छत पर वर्षा जल संचयन और पुनर्भरण प्रणाली स्थापित करेंगे।

iv. प्रस्तावक धारा 6 में दी गई दरों के अनुसार भूजल निष्कर्षण की मात्रा के आधार पर भूजल निकालने/पुनर्भरण शुल्क का भुगतान करेंगे।

v. भूजल स्तर निगरानी के उद्देश्य से निर्मित अवलोकन कुओं (पाईजोमीटर) का निर्माण धारा 15 के अनुसार अनिवार्य होगा। जल स्तर का डाटा सीजीडब्ल्यूए को वेब पोर्टल के माध्यम से उपलब्ध कराया जाएगा। पाईजोमीटर के निर्माण के लिए विस्तृत दिशानिर्देश अनुबंध- II में दिए गए हैं।

vi. प्रस्तावकों को वर्ष में एक बार निष्कर्षण संरचना (ओं) से भूजल की गुणवत्ता की निगरानी करनी होगी। बोरवेल/नलकूपों/खोदे गए कुओं से जल के नमूने को हर साल अप्रैल/मई के दौरान एकत्र किया जाएगा और बुनियादी मानकों (धनायन और आयन), भारी धातुओं, कीटनाशकों/ जैविक यौगिकों इत्यादि का एनएबीएल अधिकृत प्रयोगशालाओं में विश्लेषण किया जाएगा। जल की गुणवत्ता के आंकड़ों को वेब पोर्टल के माध्यम से सीजीडब्ल्यूए को उपलब्ध कराया जाएगा।

vii. यदि एनओसी की वैधता अवधि के भीतर यांत्रिक विफलता के कारण मौजूदा कुंआ अस्तित्व में नहीं रह जाता है, तो उपयोगकर्ता वेब पोर्टल पर सीजीडब्ल्यूए को सूचना देकर इसी तरह का दूसरे कुंए का निर्माण कर सकता है। अप्रचलित कुआं ठीक से सील किया जाएगा (अनुबंध VII का संदर्भ लें)। उपयोगकर्ता को इस संबंध में दस्तावेजी प्रमाण प्रस्तुत करना आवश्यक होगा। यदि मौजूदा निष्कर्षण संरचनाएं जल प्रदान करने में विफल रहती हैं और प्रस्तावक उसी परिसर में एक और ट्यूबवेल ड्रिल करने की इच्छा रखता हैतो प्राधिकरण की पूर्व अनुमति लेना अपेक्षित होगा। यदि प्रतिस्थापन कुएं को दूसरी अलग जगह पर ड्रिल किया जाना हैतो प्रस्तावक को नया एनओसी प्राप्त करना होगा।

viii. जहां कहीं भी संभव हो, वहां रि-साईकिल्ड/अपशिष्ट जल शोधन से ग्रीनबेल्ट (बागवानी) में जल की आवश्यकता को पूरा किया जाएगा।

ix. स्वामित्व परिवर्तन के मामले में, उद्योग के नए मालिक द्वारा परिसर पर कब्जा लेने के 60 दिनों के भीतर दस्तावेजी प्रमाण के साथ एनओसी में आवश्यक परिवर्तनों को शामिल करने के लिए आवेदन करना होगा।

10.0 एनओसी शर्तों के अनुपालन की निगरानी

एनओसी की शर्तों के अनुपालन की निगरानी के लिएकेंद्रीय भूजल प्राधिकरण और राज्य/संघ शासित क्षेत्रों के भूजल प्राधिकरण निम्नलिखित कदम उठाएंगे:

क. अनुपालन निगरानी के लिए उपयुक्त एमआईएस विकसित किया जाएगा।

ख. जिला कलेक्टर/उपायुक्त (डीसी) / जिला मजिस्ट्रेट (डीएम) अनधिकृत भूजल निष्कर्षण संरचनाओं को सील करना, बिजली काटना, एनओसी की शर्तों का उल्लंघन करने वालों के खिलाफ अभियोजन शुरू करना और पर्यावरण क्षतिपूर्ति की कार्रवाई जैसे बाध्यकारी उपायों को करने के लिए अधिकृत हैं।

ग. सक्षम प्राधिकारी के अनुमोदन से सीजीडब्ल्यूबी/ सीजीडब्ल्यूएऔर राज्य भूजल संगठनों के तकनीकी अधिकारियों को निगरानी और आवधिक निरीक्षण की कार्रवाई करने के लिए अधिकृत किया जाता है।

घ. एनओसी शर्तों में किसी भी तरह के उल्लंघन के मामले में, प्रस्तावक धारा 16 के अनुसार दंड का भुगतान करने के लिए उत्तरदायी होंगे।

11.0 एनओसी का नवीनीकरण

एनओसी का समय-समय पर नवीनीकरण किया जाएगा, जिसमें निम्नलिखित शर्तों का अनुपालन किया जाएगा:

i. आवेदक को इसकी वैधता की समाप्ति से कम से कम 90 दिन पहले एनओसी के नवीकरण के लिए आवेदन करना होगा।

ii. एनओसी के नवीकरण का आवेदन अनुपालन रिपोर्ट के साथ होगा।

iii. नवीनीकरण प्रदान करने से पहले, केंद्रीय भूजल प्राधिकरण या राज्य / संघ राज्य क्षेत्र प्राधिकरण को स्वयं को संतुष्ट करेगा कि एनओसी की शर्तों का अनुपालन किया गया है।

iv. मूल्यांकन श्रेणी में परिवर्तन के मामले में, नई श्रेणी में निर्धारित शर्तों के साथ नवीकरण की अनुमति दी जाएगी।

v. निर्दिष्ट शर्तों के अनुसार विभिन्न उपयोगों के लिए एनओसी का नवीनीकरण निम्नानुसार किया जाएगा:

श्रेणी	उपयोग	नवीनीकरण की अवधि
गंभीर, अर्ध-गंभीर और सुरक्षित	पीने और घरेलू उपयोग एवं शहरी जल आपूर्ति एजेंसियों के लिए बुनियादी ढांचा परियोजनाएं	5 वर्ष
	इंडस्ट्रीज	3 वर्ष
	खान	2 वर्ष
अति दोहित	अति-दोहित क्षेत्रों में सभी उपयोगकर्ता	2 वर्ष

vi. यदि नवीनीकरण का आवेदन समय पर प्रस्तुत किया गया है और सीजीडब्ल्यूए / संबंधित राज्य / संघ राज्य क्षेत्र के प्राधिकरण, समय पर आवेदन की प्रक्रिया को आगे बढ़ाने में असमर्थ हैं तोएनओसी को एनओसी के नवीकरण की तारीख से बढ़ाया जाना माना जाएगा।

vii. यदि प्रस्तावक एनओसी की समाप्ति की तारीख से 3 महीने के भीतर नवीकरण के लिए आवेदन करने में विफल रहता हैतो प्रस्तावक पर एनओसी की समाप्ति की तारीख से शुरू होने वाली अवधि और सक्षम प्राधिकारी द्वारा नवीनीकरण किए जाने की तारीख तक पर्यावरण क्षतिपूर्ति के भुगतान का उत्तरदायी होगा।

12.0 एनओसी का विस्तार

यदि प्रस्तावक वास्तविक कारणों से एनओसी की वैधता अवधि में कुएं (ओं) का निर्माण करने में असमर्थ रहता हैतो प्रस्तावक को एनओसी के विस्तार के लिए आवेदन करना होगा। विस्तार के आवेदन में विलंब के कारणों को दस्तावेजों के आधार पर पुष्ट किया जाना चाहिए। एनओसी को विस्तार दिए जाने की अन्य शर्तें, नई एनओसी के समान ही होंगी।

एनओसी को अधिकतम दो वर्षों के लिए बढ़ाया जाएगा। इस बढ़ाई गई अवधि की समाप्ति के बाद इसमें कोई और विस्तार नहीं दिया जाएगा। ऐसी स्थिति में, आवेदक को एनओसी लेने के लिए नए सिरे से आवेदन करना होगा।

13.0 अवैध भूजल निकासी के खिलाफ शक्तियों का प्रत्यायोजन

केंद्रीय भूजल प्राधिकरण ने प्रत्येक राजस्व जिला/ सब डिविजनल के जिला मजिस्ट्रेटों/जिला कलेक्टरों/ सब डिविजनल मजिस्ट्रेटों को प्राधिकृत अधिकारी नियुक्त किया है, जिन्हें अवैध कुओं को सील करने, कुंओं को मिलने वाली बिजली को काटने, उल्लंघन करने वालों के खिलाफ अभियोजन इत्यादि शुरू करने की शक्ति प्रदान की गई है, जिसमें उनके संबंधित अधिकारक्षेत्र में भूजल से संबंधित शिकायतों का निवारण शामिल है।

दिशा-निर्देशों के अनुसार निगरानी और अनुपालन तंत्र को और अधिक विकेन्द्रीकृत और मजबूत बनाने के लिए, राज्यों/संघ राज्य क्षेत्रों के राजस्व और उद्योगों के संबंधित विभागों के अधिकारियों को राज्य/संघ राज्य क्षेत्रों की सरकारों के परामर्श से प्राधिकृत अधिकारी के रूप में नियुक्त किया जाएगा।

सीजीडब्ल्यूए द्वारा एनओसी एप्लीकेशन पोर्टल (एनओसीएपी) में जारी एनओसी की एक प्रति संबंधित जिला मजिस्ट्रेट/जिला कलेक्टर को भेजी जाएगी। केंद्रीय भूजल प्राधिकरण के निर्देशों के उल्लंघन और एनओसी में निर्धारित शर्तों को पूरा न करने की स्थिति मेंप्राधिकृत अधिकारी, पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 15 से 21 के तहत उचित याचिका/मूल आवेदन आदि उचित न्यायालयों में दायर करेंगे।

14.0 भूजल स्तर की निगरानी

भूजल स्तर की निगरानी के लिए सभी परियोजना प्रस्तावकों (10 सीयूएम/डी से अधिक भूजल निकासी) को अपने परिसर के भीतर अनिवार्य रूप से पाईज़ोमीटर (अवलोकन कुओं) का निर्माण करना पड़ता है। अनुपालन शर्तों की ऐसी व्यवस्था यह सुनिश्चित करने के लिए बनाई गई है जिससे कि हर महीने परियोजना क्षेत्र में भूजल स्तर की निगरानी और अवलोकन किया जा सके। इस संबंध में परियोजना प्रस्तावकों द्वारा पाईजोमीटर के माध्यम से जल स्तर की निगरानी के आवश्यक मानदंडों को तालिका 15.1 में दिया गया है।

निर्माण किए जाने वाले पीजोमीटर और जल स्तर निगरानी तंत्र के प्रकार की तालिका **15.1**					
क्र.सं.	भूजल निकासी की मात्रा (सीयूएम/डी)	अपेक्षित पीजोमीटर की संख्या	निगरानी प्रणाली		
			मैनुअल	डीडब्ल्यूएलआर	डीडब्ल्यूएलआरके साथ टेलीमेटरी
1	<10	0	0	0	0
2	11-50	1	1	0	0
3	51-500	1	0	1	0
4	>500	2	0	1	1

पाईजोमीटर उपयुक्त ढंग से स्थापित किया जाएगा जिससे पाईजोमीटर में टैप किए गए जलभृत्त क्षेत्र की समानता पंप्ड कुएं के समान सुनिश्चित हो सके।

15.0 पर्यावरणीय क्षतिपूर्ति

उपयुक्त प्राधिकरण से वैध एनओसी लिए बिना उद्योगों, इंफ्रास्ट्रक्चर इकाइयों और खदान परियोजनाओं द्वारा व्यावसायिक उपयोग के लिए भूजल निष्कर्षण अवैध माना जाएगा और इस तरह के निकाय भूजल निकासी की मात्रा के लिए पर्यावरण क्षतिपूर्ति के भुगतान के लिए उत्तरदायी होंगे। नीचे उल्लिखित केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) द्वारा निर्धारित मानदंडों का उपयोग पर्यावरणीय क्षतिपूर्ति की गणना के लिए किया जाएगा:

ईसीजीडब्ल्यू = प्रतिदिन भूजल खपत x पर्यावरण क्षतिपूर्ति दर (ईसीआरजीडब्ल्यू) x दिन की संख्या x निवारण घटक

जहां भूजल खपत घन मीटर/ दिन और ईसीआरजीडब्ल्यू रु./ सीयूएम में है

15.1 पर्यावरणीय क्षतिपूर्ति की दरें:

मूल्यांकन इकाइयों की विभिन्न श्रेणियों में अलग-अलग उपयोगकर्ताओं की पर्यावरणीय क्षतिपूर्ति (ईसीआरजीडब्ल्यू) की दरें तालिका 15.1 से 15.3 में दी गई हैं।

तालिका 15.1 : पैकेज्ड पेयजल इकाईयों के लिए ईसीआरजीडब्ल्यू

क्र.सं.	क्षेत्र वर्गीकरण	जल की खपत (सीयूएम/दिन)			
		<200/	200 to <1000	1000 to <5000	5000 & above
		पर्यावरणीय क्षतिपूर्ति दर (ईसीआरजीडब्ल्यू) रु./घन मीमें .			
	सुरक्षित	12	18	24	30
2	अर्ध-गंभीर	24	36	48	60
3	गंभीर	36	48	66	90
4	अति-दोहित	48	72	96	120
टिप्पणी:-न्यूनतम ईसीजीडब्ल्यू 1,00,000/- रुपए से कम नहीं होगा।					

तालिका 15.2: खनन/इंफ्रास्ट्रक्चर डि-वाटरिंग परियोजनाओं के लिए ईसीआरजीडब्ल्यू

क्र.सं.	क्षेत्र वर्गीकरण	जल खपत (सीयूएम/दिन)			
		<200	200 to <1000	1000 to <5000	5000 & above
		पर्यावरणीय क्षतिपूर्ति दर (ईसीआरजीडब्ल्यू) रु./घन मीमें .			
1	सुरक्षित	15	21	30	40
2	अर्ध-गंभीर	30	45	60	75
3	गंभीर	45	60	85	115
4	अति-दोहित	60	90	120	150
टिप्पणी:-न्यूनतम ईसीजीडब्ल्यू 1,00,000/- रुपए से कम नहीं होगा।					

तालिका 15.3: औद्योगिक इकाईयों के लिए ईसीआरजीडब्ल्यू

क्रं.सं.	क्षेत्र वर्गीकरण	जल की खपत (सीयूएम/दिन)			
		<200	200 to <1000	1000 to <5000	5000 & above
		पर्यावरणीय क्षतिपूर्ति दर (ईसीआरजीडब्ल्यू) रु./घन मीमें .			
1	सुरक्षित	20	30	40	50
2	अर्ध-गंभीर	40	60	80	100
3	गंभीर	60	80	110	150
4	अति-दोहित	80	120	160	200
टिप्पणी:-न्यूनतम ईसीजीडब्ल्यू 1,00,000/- रुपए से कम नहीं होगा।					

15.2 नुकसान और पर्यावरणीय क्षति की भरपाई के लिए निवारक कारक (पैकेज्ड पेयजल यूनिट्स, खनन, उद्योग और इंफ्रास्ट्रक्चर से जुड़ी परियोजनाओं के लिए)

अवैध भूजल निष्कर्षण की अवधि के आधार पर निम्नलिखित निवारक कारकों को नुकसान और पर्यावरणीय क्षति की भरपाई का विवरण तालिका 15.4 में दिया गया है।

तालिका 15.4: भूजल निकासी की मात्रा और अवैध निकासी के वर्षों की संख्या के आधार पर निवारक कारक

क्र.सं.	जल की खपत	निवारक कारक		
		< 2 वर्ष	2-5 वर्ष	>5 वर्ष
1	<1000 केएलडी	1.00	1.00	1.25
2	1000-5000 केएलडी	1.00	1.00	1.50
3	>5000 केएलडी	1.00	1.25	2.00

टिप्पणी: केएलडी – किलोमीटर प्रतिदिन

16.0 दंड का प्रावधान

उपयुक्त प्राधिकारी द्वारा जारी एनओसी शर्तों का पालन न करने की स्थिति में प्रस्तावकों पर जुर्माना लगाया जाएगा। एनओसी की विभिन्न शर्तों का पालन नहीं करने की प्रस्तावित दंड की दरें तालिका 16.1 में दी गई हैं। जल शक्ति मंत्रालय में सक्षम प्राधिकारी के अनुमोदन से दंड की दरों की समय-समय पर समीक्षा की जाएगी।

तालिका 16.1: एनओसी शर्तों का अनुपालन न करने पर दंड का प्रावधान

क्र.सं.	मदें	शुल्क रुपए में
1	टेलीमेट्री सिस्टम के साथ स्थापित नहीं होना/ दोषपूर्ण डिजिटल वॉटर फ्लो मीटर।	200000
2	अतिरिक्त भूजल निष्कर्षण संरचनाओं का अप्रकटीकरण/निर्माण क) गैर-कार्यात्मक संरचनाएं। ख) अप्रचलित/ परित्यक्त टिप्पणी: दी गई दरें गैर-कार्यात्मक/अप्रचलित/ परित्यक्त संरचनाओं के लिए हैं। समेकित दंड के लिए इस तरह की संरचनाओं की कुल संख्या के साथ इसे गुणा किया जाएगा।	 200000 100000
3	ताजे जल क्षेत्रों की रिपोर्टिंग आवेदन में ब्रैकिश/लवणता क्षेत्र के रूप में ।	200000
4	पाईज़ोमीटर को स्थापित नहीं किया जाना।	200000
5	दोषपूर्ण डीडब्ल्यूएलआर / टेलीमेट्री प्रणाली / स्थापित नहीं होना	100000
6	पुनर्भरण की अपर्याप्त क्षमता / जल संरक्षण संरचनाओं का निर्माण नहीं होना।	500000
7	पुनर्भरण संरचनाओं का रखरखाव न होना।	200000
8	शोधित / बिना शोधित जल को जलभृत्त प्रणाली में पहुंचाना। नोट: जुर्माने के अलावा, प्रस्तावक पर्यावरण (संरक्षण) अधिनियम, 1886 के प्रावधानों के अनुसार जलभृत्त सुधार लागत वहन करेगा।	1000000
9	जल स्तर / जल गुणवत्ता डाटा को प्रस्तुत नहीं करना।	50000
10	भूजल की दैनिक निकासी/निष्कर्षण आंकडों की लॉग बुक का रखरखाव नही करना।	50000
11	पुनर्भरण संरचना (ओं) की तस्वीर न प्रस्तुत करना।	50000
12	अपनी अनुपालन रिपोर्ट प्रस्तुत न करना।	100000
13	प्राधिकृत/अपंजीकृत ड्रिलिंग रिग्स (प्रति संरचनाओं) द्वारा भूजल निष्कर्षण संरचनाओं का निर्माण।	100000
14	जलापूर्ति टैंकरों का पंजीकरण न करना।	500000
15	गलत सूचना / वचन देना।	100000

मौजूदा जारी एनओसी पत्र में सुधार / संशोधन के लिए शुल्क का भुगतान भी करना होगा। ऐसे शुल्कों का विवरण तालिका 16.2 में दिया गया है।

तालिका 16.2: जारी मौजूदा एनओसी में सुधार / संशोधन के लिए प्रस्तावित शुल्क

क्र.सं.	मदें	शुल्क रुपए में
1	पुनर्भरण मात्रा में बदलाव	10000
2	उपयोगकर्ता आईडी में परिवर्तन।	5000
3	फर्म के नाम में बदलाव	5000
4	एनओसी को बढ़ाया जाना	5000
5	एनओसी को प्रतिरूप में जारी करना	5000
6	एनओसी के शुद्धिपत्र को जारी करना	5000
7	कोई अन्य मद / सुधार आदि	5000

17.0 अन्य महत्वपूर्ण शर्तें (सभी पर लागू):

i. केंद्रीय भूजल बोर्ड/ राज्य भूजल प्राधिकरण से जारी होने वाली वैध एनओसी के बिना किसी व्यक्ति/एजेंसी को भूजल की बिक्री करने की अनुमति नहीं है।

ii. इंफ्रास्ट्रक्चर परियोजनाओं मेंभूजल समावेशन/भंडारण सुनिश्चित करने के लिए पक्के / पार्किंग क्षेत्र को इंटरलॉकिंग / छिद्रित टाइलों या अन्य उपयुक्त उपायों के साथ कवर किया जाना चाहिए।

iii. इंफ्रास्ट्रक्चर परियोजनाओं के मामले में, फर्म/संस्था, परियोजनाओं में दोहरी जलापूर्ति प्रणाली के कार्यान्वयन को सुनिश्चित करेगी। इसका अनुपालन वेब पोर्टल के माध्यम से प्रस्तुत किया जाएगा।

iv. एनओसी में उल्लिखित शर्तों का अनुपालन न करने पर प्रदान की गई एनओसी के रद्द होने / एनओसी के नवीकरण न होने का पर्याप्त कारण माना जा सकता है।

v. संबंधित श्रेणियों में निर्दिष्ट पुख्ता दस्तावेजों के बिना किसी भी आवेदन पर विचार नहीं किया जाएगा।

vi. निष्कर्षण संरचना (ओं) को परियोजना संपत्ति परिसर के अंदर स्थित होना चाहिए।

vii. एनओसी में निर्धारित शर्तों का अनुपालन उपयोगकर्ताओं द्वारा सीजीडब्ल्यूए / राज्य भूजल प्राधिकरण के वेब पोर्टल में ऑनलाइन रिपोर्ट किया जाएगा।

viii. निर्धारित प्रसंस्करण शुल्क, यदि कोई हो, समय-समय पर विभिन्न सेवाओं के लिए, लिया जाएगा।

टिप्पणी:

1. दिशानिर्देश समय-समय पर संशोधन के अधीन हैं।

2. इस दस्तावेज़ में अनुलग्नक सहित हिंदी और अंग्रेजी संस्करणों के बीच किसी भी विसंगति के मामले में, बाद वाला मान्य होगा।

अनुलग्नक I

पेयजल और घरेलू उपयोग के लिए जल की आवश्यकताओं का अनुमान

(स्रोत: नेशनल बिल्डिंग कोड 2016, बीआईएस)

क) आवासीय भवन:

आवास	आबादी
1 शयनकक्ष आवास इकाई	4
2 शयनकक्ष आवास इकाई	5
3 शयनकक्ष आवास इकाई	6
4 शयनकक्ष आवास इकाई और उससे अधिक	7

टिप्पणियां:

1) उपरोक्त आंकड़े सहयोगी कार्मिकों सहित घरेलू परिवारों पर विचार करते हैं, जहां कहीं भी लागू हो।

2) प्लॉट किए गए विकास में घरेलू परिवार इकाइयों की अपेक्षित संख्या और इनके प्रकार पर विचार करने के बाद आबादी का अनुमान लगाया जा सकता है।

3) ईडब्ल्यूएस श्रेणी के तहत आवासीय इकाई में अपेक्षित आबादी 4 होगी और स्टूडियो अपार्टमेंट में अपेक्षित आबादी 2 होगी।

एक सामान्य नियम के अनुसार घरेलू और गैर-घरेलू जरूरतों के लिए प्रति व्यक्ति प्रति दिन निम्नलिखित दरों पर विचार किया जा सकता है:

क) 20,000 तक की आबादी वाले समुदायों के लिए:

1)	स्टैंड पोस्ट के माध्यम से जलापूर्ति:	40 एलपीएचडी (न्यूनतम)
2)	घरेलू सेवा के माध्यम से जलापूर्ति: कनेक्शन	70 से 100 एलपीएचडी

ख) उन समुदायों के लिए: 100 से 135 एलपीएचडी

पूर्ण फ्लशिंग प्रणाली के साथ 20,000

से 100,000 की एक साथ आबादी

ग) उन आबादी वाले समुदायों के लिए: 150 से 200 एलपीएचडी

पूर्ण फ्लशिंग प्रणाली के साथ 100,000

से अधिक आबादी के लिए

टिप्पणी - मौजूदा परिस्थितियों और जल की उपलब्धता पर निर्भरता को ध्यान में रखते हुए मध्यम आय समूह (एमआईजी) और निम्न आय वर्ग (एलआईजी) और आर्थिक रूप से कमजोर वर्ग (ईडब्ल्यूएस) के लिए घरों में प्रति दिन 150 से 200 लीटर प्रति व्यक्ति के हिसाब से की जाने वाली जलापूर्ति को प्रति दिन 135 लीटर तक घटाया जा सकता है। 150 से 200 लीटर प्रति दिन प्रति व्यक्ति में से 45 लीटर प्रति व्यक्ति जल की मात्रा फ्लशिंग और दूसरे घरेलू उद्देश्यों में प्रयोग की जा सकती है।

क. आवासीय इमारतों के अलावा अन्य भवनों में जल की आवश्यकता

क्र. सं.	**भवन का प्रकार**	**घरेलू लीटर प्रति व्यक्ति प्रतिदिन**	**फ्लशिंग लीटर प्रति व्यक्ति प्रतिदिन**	**कुल खपत लीटर प्रति व्यक्ति प्रतिदिन**
1.	कैंटीन सहित कारखाने जहां स्नानगृह उपलब्ध कराना आवश्यक है	30	15	45
2.	कैंटीन सहित कारखाने जहां स्नानगृह उपलब्ध कराना आवश्यक नहीं है	20	10	30
3.	अस्पताल (कपड़े धोना और रसोई को छोड़कर):			
	क) बिस्तरों की संख्या 100 से अधिक नहीं	230	110	340
	ख) बिस्तरों की संख्या 100 से अधिक	300	150	450
	ग) बाह्य रोगी विभाग (ओपीडी)	10	5	15
4.	नर्सों के घर और मेडिकल क्वार्टर	90	45	135
5.	हॉस्टल	90	45	135
6.	होटल (3 सितारा तक) कपड़े धोना, रसोई, कर्मचारियों और जल निकायों को छोड़कर	120	60	180
7.	होटल (4 सितारा और इससे अधिक) कपड़े धोना, रसोई, कर्मचारियों और जल निकायों को छोड़कर	260	60	320
8.	कार्यालय (कैंटीन सहित)	25	20	45
9.	रसोई के लिए अपेक्षित जल सहित रेस्तरां और फूड कोर्ट:			
	क) रेस्तरां	55 प्रति सीट	15 प्रति सीट	70 प्रति सीट
	ख) फूड कोर्ट	25 प्रति सीट	10 प्रति सीट	35 प्रति सीट
10.	क्लब हाउस	25	20	45
11.	स्टेडियम	4	6	10
12.	सिनेमा, कॉन्सर्ट हॉल, थियेटर और मल्टीप्लैक्स	5 प्रति सीट	10 प्रति सीट	15 प्रति सीट
13.	13. स्कूल / शैक्षणिक संस्थान:			
	क) बिना बोर्डिंग सुविधाओं के	25	20	45
	ख) बोर्डिंग सुविधाओं सहित	90	45	135

14.	खरीदारी और खुदरा (मॉल)			
	क) कर्मचारी	25	20	45
	ख) आगंतुक	5	10	15
15.	ट्रैफिक टर्मिनल स्टेशन			
	क) हवाई अड्डे	40	30	70
	ख) स्नान की सुविधा सहित रेलवे स्टेशन (जंक्शन)	40	30	70
	ग) बिना स्नान की सुविधा वाले रेलवे स्टेशन (जंक्शन)	30	15	45
	घ) स्नान की सुविधा सहित रेलवे स्टेशन (इंटरमीडिएट)	25	20	45
	ड) बिना स्नान की सुविधा वाले रेलवे स्टेशन (इंटरमीडिएट)	15	10	25
	च) अंतरराज्यीय बस टर्मिनल	25	20	45
	छ) अंतरराज्यीय बस टर्मिनल/मेट्रो स्टेशन	10	5	15

टिप्पणियां:

1. आगंतुकों के लिए जल की मांग की गणना प्रति दिन प्रति व्यक्ति 15 लीटर की खपत हो सकती है।

2. जल की मांग में रोगियों, परिचारकों, आगंतुकों और कर्मचारियों की आवश्यकता शामिल है। रसोई, कपड़े धोना और क्लीनिकल जल की अतिरिक्त मांग की गणना वास्तविक आवश्यकताओं के आधार पर की जाएगी।

3. कर्मचारियों और विक्रेताओं द्वारा प्रयोग की जा रही सुविधाओं पर विचार करते हुए स्टेशनों द्वारा नियंत्रित किए जाने वाले यात्रियों की औसत संख्या के आधार पर लोगों की संख्या का निर्धारण किया जाएगा।

4. औसत सीजनल पीक आवश्यकताओं पर विचार किया जाना चाहिए।

5. अस्पतालों को श्रेणी क (25 से 50 बिस्तर), श्रेणी ख (51 से 100 बिस्तर), श्रेणी ग (101 से 300 बिस्तर), श्रेणी घ (301 से 500) और श्रेणी ड (501 से 750 बिस्तर) में वर्गीकृत किया जा सकता है।

अनुलग्नक II

पाईजोमीटर के निर्माण और भूजल स्तर और गुणवत्ता की निगरानी के लिए दिशानिर्देश

पाईज़ोमीटर एक बोरवेल/ट्यूबवेल है जिसका उपयोग केवल टेप को घटाकर/साउंडर या स्वचालित / डिजिटली जल स्तर मापने वाले उपकरण के तौर पर किया जाता है। जब भी जरूरत होती है तो जल की गुणवत्ता के परीक्षण के लिए जल नमूना लेने के लिए भी इसका उपयोग किया जाता है। पाईजोमीटर को स्थापित करने के सामान्य दिशानिर्देश निम्नानुसार हैं:

- पंपिंग कुएं से 50 मीटर की न्यूनतम दूरी पर पाईजोमीटर को स्थापित/निर्माण किया जाना होता है जहां से भूजल निकाला जा रहा है। पाईजोमीटर का व्यास लगभग चार इंच से छह इंच होना चाहिए।
- पाईजोमीटर की गहराई पंपिंग कुएं से समान होनी चाहिए, जहां से भूजल निकाला जा रहा है। अगर, एक से अधिक पम्पिंग कुओं का निर्माण एक्वीफर्स को अलग-अलग गहराई पर करने के लिए किया जाता है, तो एक से अधिक पाईज़ोमीटरों को अलग-अलग एक्विफ़र्स को टैप करने वाले कुओं की तरह बनाने की आवश्यकता होगी।
- आसपास के ट्यूबवेल से पंपिंग को लगभग चार से छह घंटे के लिए रोक जाने के बाद ही पाईजोमीटर में जल स्तर की माप ली जानी चाहिए।

- उद्योगों और खनन द्वारा जल की निकासी के लिए प्री-मानसून (अप्रैल / मई) की अवधि के दौरान वर्ष में एक बार भूजल गुणवत्ता की निगरानी की जानी चाहिए। एनएबीएल मान्यता प्राप्त प्रयोगशाला से भूजल के नमूनों का विश्लेषण किया जाना चाहिए।
- मानदंडों और पहचान के लिए पाईज़ोमीटर / ट्यूबवेल की संख्या, गहराई और पाईज़ोमीटर / ट्यूबवेल ज़ोन टैप की जानकारी उपलब्ध कराने के लिए पाईज़ोमीटर / ट्यूबवेल साइट पर एक स्थायी डिस्प्ले बोर्ड स्थापित किया जाना चाहिए।
- मापन के लिए सुरक्षा और पहुंच के संबंध में किसी अन्य साइट की विशिष्ट आवश्यकताओं का ध्यान रखा जा सकता है।

अनुलग्नक III

प्रदूषणकारी उद्योगों / परियोजनाओं के संयंत्र परिसर में प्रदूषण की रोकथाम को सुनिश्चित करने के लिए अपनाए जाने वाले उपाय

यह देखा गया है कि चर्मशोधन, स्लॉटर हाउस, डाई, केमिकल, कोलवाशरी, अन्य खतरनाक इकाइयोंआदि जैसे प्रदूषित उद्योगिक स्थलों में और इसके आसपास के क्षेत्रों में भूजल प्रदूषित होता है। भूजल की गुणवत्ता में और अधिक गिरावट को रोकने के लिए आवश्यक है कि इसको संरक्षित करने के सभी जरूरी उपाय किए जाएं। इस श्रेणी के अंतर्गत आने वाले सभी उद्योग / परियोजनाओं को मौजूदा और नई श्रेणी दोनों के तहत निम्नलिखित प्रक्रिया का पालन करने का निर्देश दिया जाता है।

1. किसी भी नलकूप / बोरवेल / कुएं का निर्माण प्रसंस्करण इकाई के आसपास के क्षेत्र में नहीं किया जाना चाहिए। नलकूप / बोरवेल का निर्माण उस स्थान पर किया जाना चाहिए जहां स्वच्छता हो।

2. असेंबली / केसिंग और पीवीसी (पॉली विनाइल क्लोराइड) के लिए केवल हल्के स्टील पाइप का उपयोग किया जाना चाहिए या इस तरह के अन्य पाइप का उपयोग नहीं किया जाना चाहिए। पीवीसी या इसी तरह के दूसरे पाइप वाले ट्यूबवेल / बोरवेल को छोड़ दिया जाना चाहिए और उसे भर देना चाहिए।

3. नलकूप / बोरवेल के आसपास, आरसीसी (प्रबलित कंक्रीट सीमेंट) 3 मीटर (लंबाई) x 3 मीटर (चौड़ाई) x 2 मीटर (गहराई) की ग्राउटिंग की जानी चाहिए। नलकूप / बोरवेल के पाइप को जमीन के स्तर (1 एमएजीएल) से 1 मीटर ऊपर उठाया जाना चाहिए। किसी भी सतही संदूषण को रोकने के लिए नलकूप / बोरवेल को 0.5 मीटर ऊंचाई और 1.5 मीटर गहराई की आरसीसी दीवार से घिरा होना चाहिए जिससे निर्माणाधीन ट्यूबवेल / बोरवेल में संदूषण को रोका जा सके। योजना / अनुभागीय आरेख को संदर्भ के लिए (परिशिष्ट 1 और 2) में संलग्न किया गया है ।

3. नलकूप / बोरवेल में नॉन रिटर्न वॉल्व लगाया जाना चाहिए जिससे यह सुनिश्चित हो सके कि निर्मित नलकूप / बोरवेल का उपयोग केवल भूजल निष्कर्षण के लिए किया जाता है।

4. किसी भी समय निर्माणाधीन नलकूप / बोरवेल / पाईजोमीटर में जल या तरल पदार्थ नहीं जाना चाहिए।

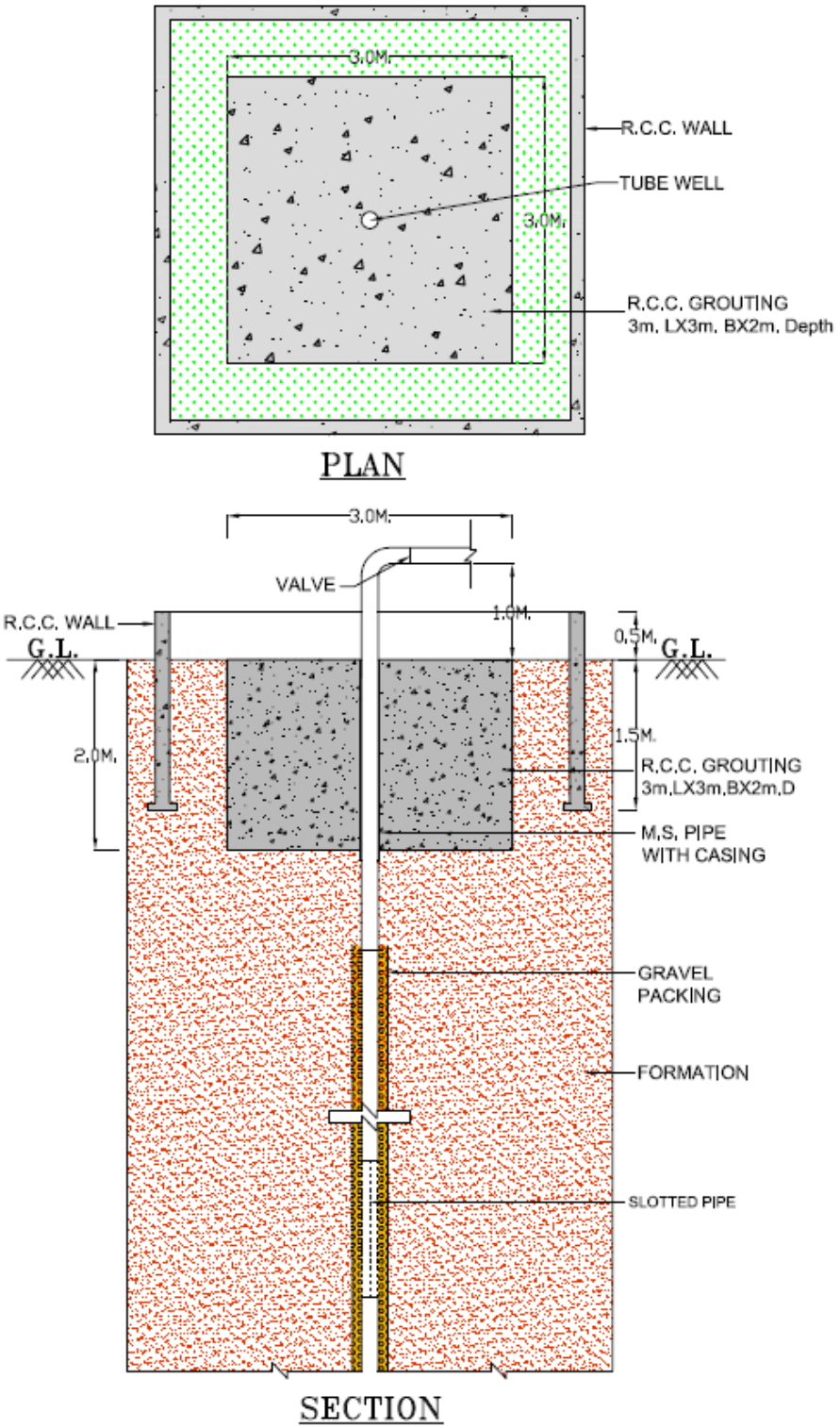
5. इस श्रेणी के अंतर्गत आने वाले उद्योगों / परियोजनाओं को संयंत्र परिसर के भीतर किसी भी तरह के पुनर्भरण उपाय लागू नहीं करने चाहिए।

6. एसटीपी (सीवेज ट्रीटमेंट प्लांट) या ईटीपी (एफ्लुएंट ट्रीटमेंट प्लांट) के आसपास के क्षेत्र में स्थित किसी भी नलकूप / बोरवेल को छोड़ दिया जाना चाहिए और उसे भर देना चाहिए।

7. निगरानी के उद्देश्य से बनाए जाने वाले पाइजोमीटर में नलकूप / बोरवेल के निर्माण में अपनाई जाने वाली प्रक्रिया का पालन होना चाहिए।

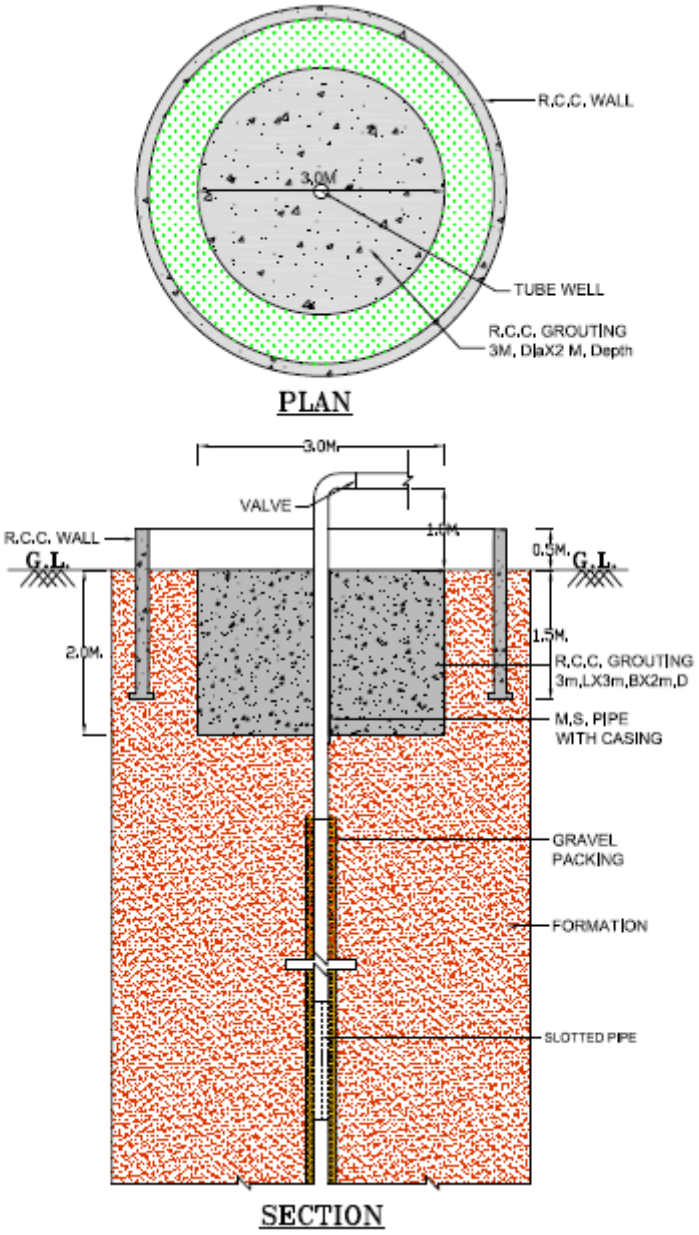
परिशिष्ट 1

कुएं की ऊपरी हिस्से को सुरक्षित करने की योजना / अनुभागीय आरेख



परिशिष्ट 2

कुएं की ऊपरी हिस्से को सुरक्षित करने की योजना / अनुभागीय आरेख



अनुबंध- IV

<u>उद्योगों द्वारा एनओसी प्राप्त करने के लिए हाइड्रो-जियोलॉजिकल रिपोर्ट की रूपरेखा</u>

1. प्रस्तावित परियोजना के बारे में परियोजना क्षेत्र का सीमांकन करते हुए इसकी जगह का विवरण, निर्देशांक, गूगल / टोपोशीट मानचित्र आदि का संक्षिप्त विवरण।

2. परियोजना और उसके आसपास के क्षेत्र में जल स्तर और इसकी गुणवत्ता के आंकड़ों एवं नक्शों सहित इससे जुड़े मुद्दों को शामिल करते हुए भूजल की स्थिति, यदि कोई हो। खदान के मामले में, कोर और बफर ज़ोन दोनों में भूजल स्थिति का वर्णन किया जाना चाहिए।

3. प्रस्तावित निर्माणाधीन ट्यूबवैल / बोरवेल का विवरण। इसमें ड्रिलिंग गहराई, व्यास, संभावित लिथोलॉजिकल लॉग, कम किए जाने वाले पंप का विवरण,पंप का एच.पी., नलकूपों / बोरवेलों की संभावित निकासीआदि को शामिल किया जाता है। जगहों को साइट योजना / मानचित्र पर चिह्नित किया जाना चाहिए। प्रस्तावित पाईजोमीटर की जगह।

4. परियोजना और उसके आसपास क्षेत्र में किए गए जियो-फिजिकल अध्ययनों का विवरण। परियोजना वाले ब्लॉक में भूजल संसाधन की गणना।

5. खदानों के मामले में स्वीकृत खदान योजना और खान / इंफ्रास्ट्रक्चर परियोजनाओं के मामले में विस्तृत डि-वाटरिंग परियोजनाएं।

6. खनन / इंफ्रास्ट्रक्चर डि-वाटरिंग परियोजनाओं के मामले में पंप किए गए जल का प्रस्तावित उपयोग।

7. परियोजना और उसके आसपास क्षेत्र में भूजल पर पड़ने वाले प्रभाव का व्यापक मूल्यांकन और इसके जोखिमों को उजागर करते हुए किसी भी महत्वपूर्ण पर्यावरणीय मुद्दों के समाधान के लिए प्रस्तावित प्रबंधन रणनीतियां।

8. लवणता युक्त जल निकालने वाले उद्योगों द्वारा अपशिष्ट जल के निपटान के लिए प्रस्तावित उपाय।

9. जल संरक्षण के लिए अपनाए जाने वाले उपायों में रि-साइक्लिंग, पुन: उपयोग, शोधन आदि उपाय शामिल हैं, इसमें फर्म द्वारा अपनाए जा रहे जल संतुलन चार्ट के साथ-साथ अपनाए जाने वाले जल संरक्षण के तरीके भी शामिल रहते हैं।

- परियोजना के अंतर्गत मौजूदा / प्रस्तावित एसटीपी / ईटीपी / सीईपीटी की क्षमता और प्रवाह चार्ट का संक्षिप्त लेख।

- भूजल बचाने के लिए अपनाए जाने वाले जल संरक्षण उपायों का विवरण।

- विभिन्न प्रक्रियाओं में जल के उपयोग को दर्शाने वाला कुल जल संतुलन चार्ट।

10. परियोजना से संबंधित कोई अन्य विवरण।

अनुलग्नक-V

भूजल स्थितियों पर रिपोर्ट का फार्मेट

- परिचय
- परियोजना वर्णन
- पृष्ठ भूमि
- लक्ष्य और अवसर
- क्षेत्रीय व्यवस्था
- स्थान
- भूमि उपयोग
- जलवायु
- स्थालाकृति और जल निकास
- भूविज्ञान-क्षेत्रीय और स्थानीय

– सामान्य हाइड्रोज्योलॉजी (जलीय प्रकार, जलीय गहराई, जोन टेप- किया गया आदि) भूजल स्थिति (कोर और बफर जोन में)

  भूजल गुणवत्ता के जल स्तर में स्थानिक और लैकिक भिन्नता (छिछला और गहरा जलभृत)

– स्थानीय भूजल पर भूजल निष्कर्षण का प्रभाव जल स्तर का जलारेख/निगरानी कुओं में दाबमापी ऐतिहासिक और जल स्तर के प्रचलन विश्लेषण शुद्ध विश्लेषण है। (भूजल के बहाव की दिशा)

  अनुमोदित खनन योजना के अनुसार वर्षावार/बेंचवार खन जल निष्कासन का अभिकलन

– निष्कर्ष

अनुलग्नक-VI

परियोजनाओं के आधारभूत संरचना का निर्देशात्मक सूची

वाणिज्यिक इमारतों सहित आवासीय नगर क्षेत्र

कार्यालय इमारत

विद्यालय कॉलेज

विश्वविद्यालय

सेज

मेट्रो स्टेशन

बस डिपो

हाइवे आधार भूत संरचना

दमकल केन्द्र

गोदाम

व्यापार प्लाजा

मॉल और मल्टीप्लेक्स

अस्पताल

नर्सिंग होम

रिजोर्ट

होटल/रेस्टोरेन्ट/फुड प्लाजा

होलीडे होम/अतिथि गृह/छात्रावास

बैंक्वेट हॉल/

मैरिज गार्डन

आईटी कॉम्प्लेक्स

आईटी कॉम्प्लेक्स

लॉजिस्टिक एण्ड कारगो

क्लबस

व्यापार केन्द्र

अनुलग्नक-VII

2009 के सिविल रिट याचिका में सुपर्रिम कोर्ट के आदेश में परिव्यक्त वेध कूपों और नल कूपों में उनके गिरने के कारण छोटे बच्चों के घातक दुर्घटनाओं के रोकथाम के लिए पैमाना जवाब में परिव्यक्त वेध कूपो और नल कूलों में उनके गिरने के कारण छोटे बच्चों के घातक दुर्घटनाओं के रोकथाम के लिए पैमाना भारतीय संघ और संगठन उत्तर देने वाला आदेश वर्तमान रिट याचिक में कुछ नहीं है, विषय में हल्के, इसके साथ न्यायालय के आदेश दिनांक 11 फरवरी, 2010के जारी किये गए आपेक्षित दिशा-निर्देश देखिए।

वह संशोधन इस प्रकार है:

i) जमीन/परिसर के मालिक को वेध कूप/नल कूप बनाने के लिए कोई कदम उठाने से पहले क्षेत्र में संबंधित अधिकारी को लिखित में सूचना देना चाहिए, जो है, जिलाधिकारी, जिला मजिस्ट्रेट/ग्राम पंचायत के सरपंच/कोई अन्य सांवधिक अधिकारी/भूजल विभाग के संबंधित अधिकारी/लोक स्वास्थ्य/नगर निगम, जैसा मामला हो सकता है, वेध कूप/नल कूल के निर्माण के लिए।

ii) सभी ड्रिलिंग ऐजेंसियों का पंजीयन, मुख्यत: सरकारी/अर्द्ध सरकारी निजीइत्यादि जिला प्रशासन/वैधानिक अधिकारी जहां भी लागू हो के साथ अनिवार्य होना चाहिए।

iii) निम्नलिखित विवरण के साथ कुएं के समीप निर्माण के समय पर सूचना पटठ् की स्थापना:-

(क) कुएं के सुधार/निर्माण के समय पर ड्रिलिंग ऐजेंसी का पूरा पता।

(ख) कुएं के मालिक/उपयोग करने वाले ऐजेंसी का पूरा पता

iv) निर्माण के दौरान कुएं के चारों ओर कांटेदार तार घेराबंदी या कोई अन्य उपयुक्त घेरा का स्थापना।

v) कुएं के चारों और के आवरण से (0.30 मीटर जमीन स्तर से ऊपर और 0.30 मीटर जमीन स्तर से नीचे) 0.50x0.50x0.60 मीटर की दूरी पर कोंक्रीट प्लेट फार्म/सिमेंट का निर्माण।

vi) बोल्ट्स और नट्स के साथ पाइप के आवरण को फिक्स करने के लिए मजबूत कैप उपलब्ध कराते हुए स्टील की वेल्डिंग द्वारा कुएं के सज्जीकरण का कैपिंग।

vii) पम्प मरम्मत के मामले में नल कूल को खुला नहीं छोडना चाहिए।

viii) कार्य के पूरे होने के पश्चात् कीचड के गडेढ और नाली को भरना।

ix) परित्यवत वेध कूपों को नीचे से जीमन स्तर तक मिट्टी/रेत/पत्थर/कंकड/ड्रिल कटिंग आदि से भरना।

x) खास जगह पर ड्रिलिंग प्रचालन के पूरे होने पर, ड्रिलिंग के शुरू होने से पहले जमीन के स्थिति का मरम्मत करना।

xi) जिलाधिकारी को सत्यापित करने अधिकार होना चाहिए कि उपरोक्त निशा-निर्देश को अनुसरण ओर उचितनिगरानी किया जा रहा है, केन्द्रीय सरकार ऐजेंसियों/संबंधित राज्य द्वारा नल कूपों/वेध गडढों की स्थिति के विषय में जांच का ख्याल रखा जा रहा है।

xii) जिला स्तर पर जिला/प्रखण्ड/ग्राम-वार ड्रिल्ड नल कूपों/वेध कूपों की स्थिति जिला/प्रखण्ड/ग्राम-वार अर्थात् उपयोग में कूपों की संख्या, परित्वक्त वेध कूप/खूले पायेगए नल कूपों की संख्या, परित्वक्त वेध कूपों/जमीनी स्तर तक उचितसे भरे गए नल कूपों और परित्यक्त वेध कूपों/जमीनी स्तर तक भरे गये नल कूपों को बनाए रखा जाता है।

ग्रामीण क्षेत्रों में उपरोक्त निगरानी कृषि विभाग से कार्यपालक और ग्राम सरपंच द्वारा किया जाता है। गहरी क्षेत्र के मामले मामले में, उपरोक्त निगरानी कनिष्ठ अभियंता और संबंधित भूजल विभाग से कार्यपालक/लोक स्वास्थ्य/नगर निगम आदि द्वारा किया जाता है।

xiii) यदि कोई स्तर पर परित्यक्त वेध कूप/नल कूप है, तो संबंधित भूजल विभाग/लोक स्वास्थ्य/नगर निगम/निजी ठेकेदार आदि से एक प्रमाण पत्र पूर्व कथित एजेंसी द्वारा लेनी चाहिए कि परित्यक्त वेध कूल और नल कूप उचितरूप से जमीन स्तर तक भरा गया। संबंधित विभाग/ऐजेंसी के कार्यपालक द्वारा बिना सोचे समझे जांच किया जाना है। उपरोक्त ऐसी सभी आंकडों की सूचना राज्य के प्रखण्ड विकास कार्यालय/जिला अधिकारी के पास उपलब्ध होनी है।

हमें सूचना दिया गया कि दिनांक 11 फरवरी, 2010 के पहले आदेश का अंतिम पैराग्राफ से संबंधित पब्लिसिटी का विधिवत अनुपालन किया गया है।

उपरोक्त के अधिन, रिट याचिका का निपटारा किया गया है।

.....सीजेआई

[एस.एच.कपाडिया]

.....

के.एस. राधाकृष्णन

.....

स्वतंत्र कुमार

नई दिल्ली,

06 अगस्त, 2010

अनुलग्नक-VIII

सीजीडब्ल्यूए द्वारा राज्यों/संघीय प्रदेशों की सूची जहां भूजल निकर्षण नियंत्रित किया जाता है-

1. अंडमान और निकोबार
2. असम
3. अरूणाचल प्रदेश
4. बिहार
5. छत्तीसगढ
6. दादर और नगर हवेली और दमन और द्वीव
7. गुजरात
8. हरियाणा
9. झारखंड
10. मध्य प्रदेश
11. महाराष्ट्र
12. मणीपुर
13. मेघालय
14. मिजोरम
15. नागालैंड
16. ओडिशा
17. पंजाब
18. राजस्थान
19. सिक्किम
20. त्रिपुरा
21. उत्तर प्रदेश
22. उत्तराखंड
23. आंध्र प्रदेश (केवल खनन परियोजनाएं)
24. तेलंगाना (केवल खनन परियोजनाएं)

अनुलग्नक-IX

प्रयुक्त तकनीकी शब्दों के शब्दावली

1) **सुरक्षित क्षेत्र**: सीजीडब्ल्यूबी और राज्य भूजल संगठनों द्वारा संयुक्त रूप से किए गये नवीनतक भूजल संसाधनों के आकलन के आधार पर भूजल संसाधनों की दृष्टिकोण से सुरक्षित के रूप में वर्गीकृत किया गया है। एनओसीएपी और सीजीडब्ल्यूबी के वेबसाइट पर विवरण उपलब्ध है।

2) **अर्द्ध-नाजुक क्षेत्र**: सीजीडब्ल्यूबी और राज्य भूजल संगठनों द्वारा संयुक्त रूप से किए गये नवीनतम भूजल संसाधनों के आकलन के आधार पर भूजल संसाधनों की दृष्टिकोण और सीजीडब्ल्यूबी के वेबसाइट पर विवरण उपलब्ध है।

3) **नाजुक क्षेत्र**: सीजीडब्ल्यूबी और राज्य भूजल संगठनों द्वारा संयुक्त रूप से किये गये नवीनतम भूजल संसाधनों के आकलन के आधार पर भूजल संसाधनों की दृष्टिकोण से नाजुक के रूप में वर्गीकृत किया गया है। एनओसीएपी और सीजीडब्ल्यूबी के वेबसाइट पर विवरण उपलब्ध है।

4) **अतिदोहित क्षेत्र**: सीजीडब्ल्यूबी और राज्य भूजल संगठनों द्वारा संयुक्त रूप से किये गये नवीनतम दृष्टिकोण से अतिदोहित के रूप में वर्गीकृत किया गया है। एनओसीएपी और सीजीडब्ल्यूबी के वेबसाइट पर विवरण उपलब्ध है।

5) **जलभृत**: भूवैज्ञानिक संरचना भूजल संचारण और भंडारण के लिए सक्षम है।

6) **गहरा जलभृत**: बहुधा जलभृत प्रणाली के क्षेत्र में ऊपर वाले जलभृत के नीचे जलभृत घटित हुई।

7) **कुंआ**: भूजल के निष्कषर्ण के लिए उपयोग किया जाने वाला कोई भी ढांचा, जिसमें खुले कुएं खोदे गए कुएं, बोरवेल, खोदने वाले कुएं , नल कूल, फिल्टर प्वांइट, कलेक्टर कुएं , घुसपैठ गैलरियां, रिचार्ज कुएं या उनके किसी भी संयोजन या विविधताएं शामिल है।

8) **सरकारी ऐजेंसी**: केन्द्रीय या राज्य सरकार का निकाय हो सकता है।

9) **आपूर्तिकत्ती** : सरकार/सरकार ने जल आपूर्ति ऐजेंसी को मंजूरी दी।

10) **खनन** : खनन के पश्चात् परित्यक्त क्षेत्र या क्षेत्र जहां खनन गतिविधियां चल रही है।

11) **गैर कानूनी भूजल निष्कर्षण संरचना**: केन्द्रीय जल प्राधिकरण से ठोस एनओसी के बिना भूजल को निकालने के लिए प्रयोग किया जा रहा है जो कोई ऊर्जावान निष्कर्षण संरचना है अर्थात डगवेल, नलकूप, वैध्र कूप।

12) **वर्षाजल संचयन**: भूजल के रिचार्ज के लिए या भविष्य के उपयोग के लिए रूफ-टॉप संचयन को शामिल करते हुए सूक्ष्म जल विभाजक पैमान पर वर्षाजल के भंडारण और जमाव की प्रणाली और तकनीक।

13) **खनन परियोजना**: परियोजना जो खनन गतिविधि को शामिल करती है या तो खुली कास्ट या भूमिगत या दोनों।

14) **भूजल प्रारूप**: भूजल निकासी का अपेक्षित मात्रा।

15) **लवणीय जल**: 25° से. पर 2500M साइमेन्स/से.मी. की अधिकता में लवणता वाला जल युक्त जल।

16) **वाटर टेबल इंटरसेक्शन** : खनन या अन्य गतिविधियों के कारण ऑवर लेईंग सामग्री की खुदाई पर जल वाटर टेबल इंटरसेक्शन।

17) **पेय और घरेलू उपयोग**: पेय और घरेलू उपयोग के अलावा, यह श्रेणी अस्पताल, होटल, मॉल और मल्टीप्लेक्स संस्थाने, कार्यलय बैंकेट हॉल, फायर स्टेशन, मेट्रो स्टेशन, रेलवे स्टेशन, हवाई अड्डा, बंदगाह, स्टेडियम आदि औद्योगिक प्रक्रिया के लिए आवश्यक जल नहीं ब्लकि औद्योगिक के पेय जरूरतों को कवर करेगी।

18) **रिसाइकल/पुन: उपयोग**: विभिन्न उद्देश्यों के लिए ट्रिटेड वेस्ट जल का उपयोग/बहुल उपयोग के लिए जल को रखना।

19) **सरकारी विभाग** : केन्द्रीय या तो राज्य।

20) **नगरपालिका** : नगरपालिका, नगर निगमया अन्य दूसरे नाम द्वारा स्थानीय शहरी शासन का समान निकाय।

21) **भूजल** : पानी जो संतृप्ति के क्षेत्र में सतह के नीचे मौजूद है और कुओं या किसी अन्य माध्यम से निकाला जा सकता है या झरनों और नदियों में झरनों और आधार प्रवाह के रूप में उभरता है।

22) **बीजीएल** : जमीनी स्तर के नीचे।

23) **बीसएम** : बिलियन क्यूबिक मीटरस्।

24) **भूजल निष्कर्षण संरचना** : भूजल निकासी के लिए प्रयुक्त संरचना जैसे वैध कूल/नल कूप/डगवेल/डग कम बोर वेल/सुरंग कुआं।

25) **अवलोकन कुआं या पीजोमीटर** : एक बोरवेल/जल स्तर मापने के लिए केवल प्रयुक्त नल कूप/पाईजोमेट्रिक हेड और समय-समय पर पानी का नमूना लेने के किया जाता है, लेकिन भूजल पृथक्करण के लिए इसका उपयोग नहीं किया जाता है।

26) **वाटर ऑडिट** : पानी के उपयोग को कम करने और अक्सर अनावश्यक पानी के उपयोग पर पैसे बचाने के उद्देश्य से सरल या जटिल प्रणालियों में पानी की उपयोग की मात्रा निर्धारित करने की एक विधि।

27) **भूजल प्रदूषण** : यदि भूजल में किसी भी पैरामीटर की सांद्रता भारतीय मानक ब्यूरो द्वारा निर्धारित पेयजल की अधिकतम अनुज्ञेय सीमा से अधिक है।

28) **सहकारी समूह हाउसिंग सोसायटी/बिल्डर फ्लैट**: एक हाउसिंग सोसायटी एक आवासीय परिसर के भीतर घर के मालिकों द्वारा गठित एक सोसायटी है। गठित हाउसिंग सोसायटी को औपचारिक रूप से सहकारी समितियों के रजिस्ट्रार के साथ पंजीकृत होना चाहिए।

29) **केएलडी** - प्रतिदिन कि.मी

30) **ईसीजीडब्ल्यू** - अवैध भूजल निकासी के लिए पर्यावरण क्षतिपूर्ति।

31) **ईसीजीडबल्यूआर** – अवैध भूजल निकासी के लिए पर्यावरण क्षतिपूर्ति दर।

अनुलग्नक-X

उद्योगों द्वारा वार्षिक वाटर ऑडिट (स्रोत-(11)

वाटर ऑडिट उद्देश्यपूर्ण तरीके से वितरण प्रणाली के माध्यम से जल की निकासी या उपचार के स्थल से जल के प्रवाह को मापकर और इसका उपयोग किये जाने वाले क्षेत्रों में और अंतत: छोड दिया जाता है। वॉटर ऑडिट आयोजित करने में जलके संतुलन की गणना, जल का उपयोग और जल का बचत के तरीकों की पहचान करना शामिल है।

वाटर ऑडिट में प्रारंभिक जल सर्वेक्षण और विस्तृत जल लेखा शामिल है। प्रारंभिक जल सर्वेक्षण संयंत्र गतिविधियों, जल की खपत और जल निर्वहन पैटर्न और जल बिलिंग, दरों और जल उपकर के बोर में पृष्ठभूमि की जानकारी एकत्र करने के लिए किया जाता है। उद्योग से एकत्र किए गए माध्यमिक आंकडों के विश्लेषण के बाद, विस्तृत जल ऑडिट आयोजित की जाती है, जिसमें निम्नलिखित चरण शामिल है:-

- साइट पर प्रशिक्षण और सुविधा प्रबंधक और कर्मियों के साथ चर्चा
- जल प्रणाली विश्लेषण
- आधारभूत जल मानचित्र का परिमाप
- दबाव और प्रवाह मीटर और विभिन्न अन्य उपकरणों का उपयोग करके निगरानी और माप
- अक्षमताओं और लीक की मात्रा
- पानी की गुणवत्ता लोड और निर्वहन की मात्रा

- प्रवाह और गुणवत्ता मानकों में परिवर्तनशीलत की मात्रा
- जल उपचार और पुन: उपयोग का प्रत्यक्ष उपयोग के लिए रणनीतियां।

एक विस्तृत जल संतुलन आखिरकर विकसित होता है। विभिन्न विभिन्न उपयोगकर्त्ता क्षेत्रों में पानी की गुणवत्ता की आवश्यकता गैप की गई है, जो रीसाइकल और पुन: उपयोग के अवसरों को विकसित करने में मदद करता है।

विस्तृत वाटर ऑडिट रिपोर्ट में निम्नलिखित शामिल हैं:

- पानी की खपत और अपशिष्ट जल उत्पादन पैटर्न
- विशिष्ट जल का उपयोग संरक्षण
- सुविधाका पूर्ण जल संतुलन
- जल के बचत के अवसर
- प्रस्तावों को लागू करने की विधि
- पूर्ण विवरण और आंकडें
- निवेश की आवश्यकता

जल संरक्षण के लिए उद्योग निम्नलिखित उपाय कर सकते हैं:-

- जल बजट के लिए मानदंड स्थापित करना
- जल के खपत को कम करने के लिए औद्योगिक प्रक्रिया का आधुनिकीकरण
- पुन: परिसंचारी शीतलन प्रणाली के साथ पुनर्चक्रित जल
- ओजोनेशन कूलिंग वाटर एप्रोच जिसके परिणाम स्वरूप पारंपरिक रासायनिक उपचार की तुलना में पांच गुना कमी हो सकती है।
- कुल प्लेनम फ्लश को समाप्त करके डी आयोनाइज्ड जल के पुन: उपयोग में कभी, निरंतर प्रवाह से एक आरंतरिक प्रवाह प्रणाली में परिवर्तन करना और उपयोग पर नियंत्रण में सुधार करना
- बागवानी के लिए अपशिष्ट जल का उपयोग
- निपटान के मानदंडो का पालन करने के लिए अपशिष्टों का उचित प्रसंस्करण।

MINISTRY OF JAL SHAKTI

(Department Of Water Resources, River Development And Ganga Rejuvenation)

(CENTRAL GROUND WATER AUTHORITY)

NOTIFICATION

New Delhi, the 24th September, 2020

S.O. 3289(E).—WHEREAS, on the directions of Hon'ble Supreme Court vide its order dated the10th December, 1996 passed in Civil writ Petition No 4677 of 1985, MC Mehta Vs Union of India, the Central Government constituted the Central Ground Water Authority (hereafter referred to as the 'Authority') vide notification number S.O. 38 (E), dated the 14th January, 1997 to exercise powers under Section 5 of the Environment (Protection) act, 1986 (29 of 1986) for the purposes of regulation and control of Ground Water management and development and to exercise certain powers and perform certain functions relating thereto;

AND WHEREAS, the Authority has been regulating ground water development and management by way of issuing 'No Objection Certificates' for ground water extraction to industries or infrastructure projects or Mining Projects etc., and framed guidelines in this connection from time to time in twenty two States and two Union territories, where ground water development is not being regulated by the State Government Union Territory administration concerned;

AND WHEREAS, some of the State Governments or, Union territories enacted legislations and issued regulatory directions or orders for regulating ground water development and management;

AND WHEREAS, the Hon'ble National Green Tribunal, New Delhi vide order dated the 15th April 2015 in OA Nos. 204/205/206 of 2014 has issued directions to the Authority to ensure that any person operating tube-well, or any means to extract ground water shall obtain permission from the Authority and shall operate the same subject to the law in force, even if such unit is existing unit or the unit is yet to be established;

AND WHEREAS, the said Hon'ble Tribunal vide its order dated the 09th July, 2015 in OA Nos. 34 and 37 of 2014 directed all industrial units which are members of the Common Effluent Treatment Plants (CETPs) to approach the Authority through State Pollution Control Board for obtaining 'No Objection Certificate' in accordance with the law;

AND WHEREAS, the aforesaid Hon'ble Tribunal vide order dated the 13th July, 2017 in OA No 200- of 2014 directed that every industry should be directed to pay for extraction of such water, that too, subject to the conditions stated in the order permitting such extraction;

AND WHEREAS, the said Hon'ble Tribunal vide its order dated the 28th August, 2018 in O.A. Nos. 176 of 2015 and 59 of 2012 respectively directed the Ministry of Water Resources, River Development and Ganga Rejuvenation to forthwith review the existing mechanism so as to ensure effective steps for conserving the groundwater resources;

AND WHEREAS, in pursuance of the directions of the Hon'ble National Green Tribunal and powers conferred by sub-section (3) of section 3 and section 5 of the Environment (Protection) Act, 1986 the Authority, with a view to protect the ground water resources had circulated the draft guidelines for grant of 'No Objection Certificate' on the 11th October, 2017 inviting comments and suggestions from all the stakeholders;

AND WHEREAS, all objections and suggestions received in response to the said draft guideline have been duly considered by the Central Government, the Authority notified the guidelines to regulate groundwater over-exploitation and to conserve the groundwater resources in the country vide notification number S.O. 6140 (E), dated the 12th December, 2018;

AND WHEREAS, the aforesaid Hon'ble Tribunal vide order dated the 03rd January 2019 in the OA No. 176 of 2015 directed that the above mentioned notification dated the 12th December, 2018 may not be given effect to as it is unsustainable if tested on 'Precautionary Principle, Sustainable development as well as Inter-generational Equity Principles' and if implemented, will result in fast depletion of groundwater and damage to water bodies and will be destructive of the fundamental right to life under Article 21 of the Constitution of India;

AND WHEREAS, the said Hon'ble Tribunal vide order dated the 11th September, 2019 constituted a committee to deliberate on steps for preventing depletion of groundwater, robust monitoring mechanism

against unauthorised extractions and fulfillment of 'No Objection Certificate' conditions, environment compensation etc and to submit a report;

AND WHEREAS, the aforesaid committee submitted the report along-with draft guidelines to regulate groundwater extraction and groundwater conservation in Hon'ble Tribunal on the 16th March, 2020;

AND WHEREAS, the above said Hon'ble Tribunal vide order dated the 20th July, 2020 directed to comply with certain points for sustainable groundwater management while issuing 'No Objection Certificates' to commercial establishments by the Authority;

Now therefore, in pursuance of the directions of Hon'ble National Green Tribunal and the powers conferred by sub-section (3) of Section 3 read with Section 5 of the Environment (Protection) Act, 1986 (29 of 1986), the Department of Water Resources, River Development & Ganga Rejuvenation, hereby notifies the guidelines to regulate and control groundwater extraction in the country in supersession to this Ministry notification vide S.O. 6140 (E), dated the 12th December, 2018 as per the Schedule below:

SCHEDULE

Guidelines to regulate and control ground water extraction in India

(with immediate effect)

INDEX

ITEM **Page No.**

Preamble and Background

1.0 Exemptions from seeking No Objection Certificate.....35

2.0 Drinking & Domestic use for Residential apartments/ Group Housing Societies/ Government water supply agencies in urban areas 35

3.0 Agriculture Sector 36

4.0 Commercial Use 36

4.1 Industrial Use.....36

4.2 Mining Projects 37

4.3 Infrastructure projects.....38

5.0 Ground water abstraction/ restoration charges 39

5.1 Rates of Ground water abstraction /restoration charges 40

6.0 Bulk Water Supply 42

7.0 Abstraction of Saline ground water 42

8.0 Protection of Wetland Areas.....42

9.0 General compliance conditions in No Objection Certificate 43

10.0 Monitoring of compliance of No Objection Certificate Conditions.....43

11.0 Renewal of No Objection Certificate 44

12.0 Extension of No Objection Certificate 44

13.0 Delegation of powers against illegal groundwater withdrawal 44

14.0 Ground Water Level Monitoring.....45

15.0 Environmental Compensation 45

15.1 Rates of Environmental Compensation: 45

15.2 Deterrent Factors to compensate losses and environmental damage (for packaged drinking water units, mining, industries and infrastructural dewatering projects).....46

16.0 Provision of Penalty 46

17.0 Other important Conditions (Applicable to all): 48

[F. No. CGWA-21/4/2020-CGWA]

ASHISH KUMAR, Director

ANNEXURES

Annexure I: Estimation of water requirements for drinking and domestic use.

Annexure II: Guidelines for construction of piezometers and monitoring of groundwater levels and quality.

Annexure III: Measures to be adopted to ensure prevention from pollution in the plant premises of polluting industries/ projects.

Annexure IV: Outline of hydro-geological report for obtaining No Objection Certificate for industries.

Annexure V: Format of the Report on ground water conditions (for mining projects).

Annexure VI: Indicative list of Infrastructure projects.

Annexure VII: Supreme Court Order in Civil Writ petition 36 of 2009 regarding measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells.

Annexure VIII: List of States/ Union territories where ground water extraction is being regulated by Central Ground Water Authority (CGWA)

Annexure IX: Glossary of technical terms used

Annexure X : Annual water audits by the industries

Guidelines to regulate and control groundwater extraction in India

Preamble and Background:

On the directions of Hon'ble Supreme Court vide its order dated 10th December, 1996 passed in Civil writ Petition No 4677 of 1985, MC Mehta Vs Union of India, the Central Government had constituted the Central Ground Water Board as Authority vide notification number S.O. 38 (E), dated the 14th January, 1997 to exercise powers under sub section (3) of section 3 of the Environment (Protection) act, 1986 (29 of 1986) for the purposes of regulation and control of Ground Water Management and Development and to exercise certain powers and perform certain functions as per the said Act.

The Authority has been regulating ground water development and management by way of issuing 'No Objection Certificates' for ground water extraction to industries or infrastructure projects or Mining Projects etc., and framed guidelines in this connection from time to time applicable in twenty two States and two Union territories, where ground water development is not being regulated by the State Government and Union territory administration concerned.

To have sustainable management of water resources in the country groundwater abstraction guidelines have been prepared to regulate groundwater extraction and conserve the scarce groundwater resources in the country.

These guidelines will come into force with immediate effect from the date of Gazette Notification and will supersede all earlier guidelines issued by the Central Ground Water Authority (CGWA).

These guidelines will have pan India applicability. Ground water abstraction in States/ Uts (which are not regulating ground water abstraction) shall continue to be regulated by Central Ground Water Authority.

Further, wherever States/ Uts have come out with their own groundwater abstraction guidelines, which are inconsistent with the CGWA guidelines, the provisions of CGWA guidelines will prevail. However, in case the guidelines followed by such States/ Uts contain some more stringent provisions than CGWA guidelines, such provisions may also be given effect to by the States/ Uts Authorities in addition to those contained in the CGWA guidelines. States may be at liberty to suggest additional conditions/ criteria based on the local hydro-geological situations which shall be reviewed by CGWA/Ministry of Jal Shakti, Government of India before acceptance.

All new/existing industries, industries seeking expansion, infrastructure projects and mining projects abstracting ground water, unless specifically exempted under Para 1.0 below, will be required to seek No Objection Certificate from Central Ground Water Authority or, the concerned State/ UT Ground Water

Authority as the case may be. The entire process of grant of No Objection Certificate shall be online through a web based application system.

Water management plans shall be prepared by all the State Ground Water Authorities/ Organizations for all Over-exploited, Critical and Semi-critical assessment units starting with Over-exploited units. Water management plans shall be reviewed and updated periodically. Water management plans, data on water availability and scarcity and policy framed in this regard shall be placed on the websites of Central Ground Water Authority/ State Ground Water Authority.

1.0 Exemptions from seeking No Objection Certificate:

Following categories of consumers shall be exempted from seeking No Objection Certificate for ground water extraction:

(i) Individual domestic consumers in both rural and urban areas for drinking water and domestic uses.

(ii) Rural drinking water supply schemes.

(iii) Armed Forces Establishments and Central Armed Police Forces establishments in both rural and urban areas.

(iv) Agricultural activities.

(v) Micro and small Enterprises drawing ground water less than 10 cum/day.

1.1 Registration of Drilling Rigs

State / Ut Governments shall be responsible for registering drilling rigs operating within their jurisdiction and for maintaining the database of wells drilled by them. Appropriate link shall be provided in CGWA portal for making the data available to CGWA.

2.0 Drinking & Domestic use for Residential apartments/ Group Housing Societies/ Government water supply agencies in urban areas

For grant of No Objection Certificate for ground water extraction, the project proponent has to furnish the details as per the guidelines issued by the CGWA in proper format as available in CGWA website. No Objection Certificate for new /existing wells shall be granted only in such cases where the local Government water supply agency is unable to supply requisite amount of water in the area.

No Objection Certificate shall be granted subject to the following specific conditions:

i) Installation of Sewage Treatment Plants shall be mandatory for all residential apartments/ Group Housing Societies where ground water requirement is more than 20 m^3/day. The water from Sewage Treatment Plants shall be utilized for toilet flushing, car washing, gardening etc.

ii) The No Objection Certificate shall be valid for a period of five years from the date of issue or till such time local Government water supply is provided to the project area, whichever is earlier. In case the project proponent receives water supply from the concerned local Government Water Supply Agency during the validity of the No Objection Certificate, intimation regarding availability of public water supply shall be sent by the project proponent to CGWA and No Objection Certificate will be cancelled by the Authority. In other cases, the project proponent will apply for renewal of No Objection Certificate, ninety days before the expiry of No Objection Certificate.

iii) Proponents shall be liable to pay ground water abstraction charges for the quantum of ground water proposed to be extracted, as per rates mentioned in Table 5.1.

Documents to be submitted with the application

a) Details of water requirement computed as per National Building Code, 2016 **(Annexure I)**, taking into account recycling/ reuse of treated water for flushing etc.

b) Affidavit on non-judicial stamp paper of Rs. 10/- by the applicant, confirming non/ inadequate availability of public water supply in case of users requiring ground water up to 10 m^3/ day for drinking/ domestic use.

c) Certificate of non-availability of water from local government water supply agency in cases requiring ground water in excess of 10 m^3/ day for drinking/ domestic use. Government water supply agencies

applying for No Objection Certificate shall submit copy of government approval of the scheme/ project proposed to be implemented.

d) Ground water quality data of existing bore well/ tube well/ dug well from any National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory or Govt. approved laboratory (in case of existing projects applying for no objection certificate)

e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

3.0 Agriculture Sector

Agriculture sector is the backbone of the Indian economy. As per Minor Irrigation Census 2013-14, 87.86% of wells are owned by marginal, small and semi-medium farmers having land holding up to 4 hectares (ha). Around 9.18 % of wells are owned by medium farmers having land holding 4 – 10 ha and 2.96% of the wells are owned by big farmers having land holding more than 10 ha.

Considering the number of ground water abstraction structures, regulation of ground water in agriculture sector through a 'command and control' strategy will prove to be an arduous task. Therefore, a participatory approach for sustainable ground water management would be more productive.

States/Uts are advised to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater.

Agriculture sector shall be exempted from obtaining No Objection Certificate for ground water extraction.

4.0 Commercial Use

No new major industries shall be granted No Objection Certificate in over-exploited assessment areas except as per the policy guidelines.

Availability of ground water resources shall be given due regard while considering applications for grant of No Objection Certificate for commercial use.

Commercial entities extracting ground water shall be required to submit online annual water audit report including an audit of water use as mentioned in the relevant sections. CGWA/ State Ground Water Authority (SGWA) shall publish all such audit reports online.

CGWA/ SGWAs shall engage independent agencies to verify the compliance of No Objection Certificate conditions periodically.

4.1 Industrial Use

In Over-exploited assessment units, No Objection Certificate shall not be granted for ground water abstraction to any new industry except those falling in the category of Micro, Small and Medium Enterprises (MSME). However, No Objection Certificate for drinking/ domestic use for work force, green belt use by these new industries shall be permitted. Expansion of existing industries involving increase in quantum of ground water abstraction in over-exploited assessment units shall not be permitted. No Objection Certificate shall not be granted to new packaged water industries in Overexploited areas, even if they belong to MSME category.

No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:

i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.

ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.

iii) All industries abstracting ground water in excess of 100 m^3/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC) 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 Section 15 shall be mandatory for industries drawing/ proposing to draw more than 10 m^3/day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 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. Detailed guidelines for design and construction of piezometers are given in **Annexure II**. Monthly water level data shall be submitted to the CGWA through the web portal.

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 **(Annexure III).**

viii) All industries drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 5.2 A and 5.3 A.

ix) All existing industries drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as applicable as per Tables 5.2 B and 5.3 B.

Documents to be submitted with the application

(a) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water supply from local government agencies in cases where ground water requirement is up to 10 m^3/day.

(b) Certificate regarding non/ partial availability of fresh water/ treated waste water supply from the local government water supply agency in cases where requirement of ground water is more than 10 m^3/day.

(c) Ground water quality data of existing bore well/ tube well/ dug well from any NABL accredited laboratory or Govt. approved laboratory (in case of existing projects applying for No Objection Certificate)

(d) Water quality data of bore well/ tube well/ dug well in respect of existing industries from NABL accredited laboratories/Government approved laboratories.

(e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

(f) **Impact Assessment report:** All projects extracting/proposing to extract ground water in excess of 100 m^3/day in Over-exploited, Critical and Semi-critical areas shall have to mandatorily submit impact assessment report of existing/ proposed ground water withdrawal on the ground water regime and also socio-economic impacts report prepared by accredited consultants. Pro-forma for the report is given in **Annexure IV.**

4.2 Mining Projects

All existing as well as new mining projects will be required to obtain No Objection Certificate for ground water abstraction. Since mining projects are location specific, there will be no ban on grant of No Objection Certificate for abstraction of ground water for such projects in over-exploited assessment units.

No Objection Certificate for mining projects shall be granted subject to the following specific conditions:

i) It shall be mandatory for all the mining industries to ensure that water available from de-watering operations is properly treated and should be gainfully utilized for supply for irrigation, dust

suppression, mining process, recharge in downstream and for maintaining e-flows in the river system.

ii) Construction of observation well(s) (piezometers) along the periphery in the premises, for monthly ground water level monitoring, shall be mandatory for mines drawing/ proposing to draw more than 10 m^3/day of ground water. Depth and aquifer zone tapped in the piezometer shall be commensurate with that of pumping well/ wells.

iii) In addition, the proponent shall monitor ground water levels by establishing observation wells (piezometers) in the core and buffer zones as specified in the No Objection Certificate.

iv) In case of coal and other base metal mining the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.

v) In addition to this, all mining units shall also monitor the water quality of mine seepage and mine discharge through NABL accredited/ Govt. approved laboratories and the same shall be submitted at the time of self compliance.

vi) All mining projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 5.4 A.

vii) All mining projects drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 5.4 B.

Documents to be submitted with the application

(a) Mining plan approved by the concerned Govt. agency/ department.

(b) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

(c) Comprehensive report prepared by accredited consultant on ground water conditions in both core and buffer zones of the mine, depth wise and year wise mine seepage calculations, impact assessment of mining and dewatering on ground water regime and its socio-economic impact, details of recycling, reuse and recharge, reduction of pumping with use of technology for mining and water management to minimize and mitigate the adverse impact on ground water, based on local conditions. Format for report is given in **Annexure V.**

4.3 **Infrastructure projects:**

Since infrastructure projects are location specific, grant of No Objection Certificate to such projects located in over-exploited assessment units shall not be banned. New infrastructure projects/ residential buildings may require dewatering during construction activity and/ or use ground water for construction. In both cases, applicants shall seek No Objection Certificate from CGWA before commencement of work. However, in over-exploited assessment units, use of ground water for construction activity shall be permitted only if no treated sewage water is available within 10 km radius of the site. New as well as existing Infrastructure projects shall also be required to seek No Objection Certificate for abstraction of ground water.

No 'No Objection Certificate' shall be granted for extraction of groundwater for Water Parks, Theme Parks and Amusement Parks in over-exploited assessment units.

Indicative list of Infrastructure projects is given in Annexure VI.

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 through the web portal to CGWA/SGWA as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by CGWA/ SGWA.

ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m^3/day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc.

iii) For infrastructure dewatering/ construction activity, No Objection Certificate shall be valid for specific period as per the detailed proposal submitted by the project proponent.

iv) All infrastructure projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Table 5.3 A.

v) All infrastructure projects (new/ existing) drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 5.3 B.

Documents to be submitted with the application

(a) In cases where dewatering is involved, submission of impact assessment report prepared by an accredited consultant on the ground water situation in the area giving detailed plan of pumping, proposed usage of pumped water and comprehensive impact assessment of the same on the ground water regime shall be mandatory. The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc.

(b) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water from any other source in case water is required for construction in safe and semi critical areas.

(c) Certificate from a government agency regarding non availability of treated sewage water for construction within 10 km radius of the site in critical and over-exploited areas.

(d) Certificate of non-availability of water from local government water supply agency in respect of all categories of assessments units for commercial use.

(e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

(f) Details of water requirement computed as per National Building Code, 2016 **(Annexure I)**, taking into account recycling/ reuse of treated water for flushing etc. (in case of completed infrastructure projects for commercial use).

(g) Completion certificate from the concerned agency for infrastructure projects requiring water for commercial use.

5.0 Ground water abstraction/ restoration charges

All residential apartments/ group housing societies/ Government water supply agencies in urban areas shall be required to pay ground water abstraction charges.

All industries/mining/ infrastructure projects drawing ground water in safe, semi-critical and critical assessment units will have to pay ground water abstraction charges based on quantum of ground water extraction and category of assessment unit as per details given in this guideline.

All existing mining/ infrastructure projects and existing industries including MSME drawing ground water in over-exploited assessment units will have to pay ground water restoration charges based on quantum of ground water extraction. Further, new MSME, new infrastructure and new Mining projects in over exploited areas shall also be required to pay ground water restoration charges.

Existing industries, infrastructure units and mining projects which have installed/constructed artificial recharge structures in compliance of the conditions prescribed in the groundwater guidelines prevailing at the time of grant of No Objection Certificate or its renewal shall be eligible for a rebate of 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, subject to their satisfactory performance and verification.

The revenue generated from the proposed water abstraction/ restoration charges shall be kept in a separate fund for implementation of site specific suitable demand/ supply side interventions.

5.1 **Rates of Ground water abstraction /restoration charges**

I. **Drinking and domestic use for residential apartments/ group housing societies/ Government water supply agencies in Urban areas**

All residential apartments/ Group Housing Societies requiring water only for drinking/domestic use requiring No Objection Certificate would pay ground water abstraction charges as per rates given below in **Table 5.1.**

Table 5.1 Ground Water Abstraction charges for Drinking & Domestic use.

Quantum of Groundwater withdrawal (m^3/month)	**Rate of ground water abstraction charges (Rs. per m^3)**
0-25	No charge
26-50	1.00
>50	2.00

Government water supply agencies and Government infrastructure projects shall pay Ground water abstraction Charges @ Rs. 0.50 per m^3.

II. **Packaged Drinking Water units**

Rates of ground water abstraction charges for packaged drinking water units in safe, semi-critical and critical assessment units are given in Table 5.2 A and those for ground water restoration charges in over-exploited assessment units are given in Table 5.2 B.

Table 5.2 A: Rates of ground water abstraction charges for packaged drinking water units (Rs per m^3)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal				
		Up to 50m^3/day	51 to <200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Safe	1.00	3.00	5.00	8.00	10.00
2.	Semi-critical	2.00	5.00	10.00	15.00	20.00
3.	Critical	4.00	10.00	20.00	40.00	60.00

Table 5.2 B: Rates of ground water restoration charges for packaged drinking water units (Rs per m^3)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal				
		Up to 50 m^3/day	51 to <200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Over-exploited (existing industries only)	8.00	20.00	40.00	80.00	120.00

III. **Other Industries & infrastructure projects**

Rates of ground water abstraction charges for other industries and infrastructure projects in safe, semi-critical and critical assessment units are given in Table 5.3 A and those for ground water restoration charges in over-exploited assessment units are given in Table 5.3 B.

Table 5.3 A: Rates of Ground Water abstraction charges for other industries & infrastructure projects (Rs per m^3)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Safe	1.00	2.00	3.00	5.00
2.	Semi-critical	2.00	3.00	5.00	8.00
3.	Critical	4.00	6.00	8.00	10.00

Table 5.3 B: Rates of ground water restoration charges for other industries & infrastructure projects (Rs per m^3)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Over-exploited (existing industries / new Industries as per the present Guidelines)	6.00	10.00	16.00	20.00

IV. **Mining projects**

Rates of ground water abstraction charges for mining, which are drawing ground water in safe, semi-critical and critical assessment units are given in Table 5.4 A and those for ground water restoration charges in case of projects drawing ground water in over-exploited assessment units are given in Table 5.4 B.

Table 5.4 A: Rates of ground water abstraction charges for mining (Rs. per m^3)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Safe	1.00	2.00	2.50	3.00
2.	Semi-critical	2.00	2.50	3.00	4.00
3.	Critical	3.00	4.00	5.00	6.00

Table 5.4 B: Rates of ground water restoration charges for mining (Rs. per m^3)

S.No.	Category of area ↓ / Ground water use →	Quantum of ground water withdrawal			
		< 200 m^3/day	200 to <1000 m^3/day	1000 to <5000 m^3/day	5000 m^3/day and above
1.	Over-exploited	4.00	5.00	6.00	7.00

6.0 Bulk Water Supply

All private tankers abstracting ground water and use it for supply as bulk water suppliers will now mandatorily seek No Objection Certificate for ground water abstraction. The bulk water suppliers through tankers drawing ground water in safe, semi-critical and critical assessment units shall pay groundwater abstraction charges as per the **Table-6.1 A.** The bulk water suppliers drawing ground water in over-exploited assessment units shall pay the groundwater restoration charges as per the **Table-6.1 B.** All tankers will have to install GPS based system for their monitoring of movement/area of operation.

Modalities for issue of No Objection Certificate for bulk/tanker water supplies shall be worked out in consultation with States/Uts and suitable guidelines in this regard will be framed and issued separately for the same.

Table-6.1A: Groundwater abstraction charges for Bulk/Tanker water supplies	
Category	Rate per m3 (in Rs.)
Safe	**10**
Semi Critical	**20**
Critical	**25**

Table-6.1B: Groundwater abstraction charges for Bulk/Tanker water supplies	
Category	Rate per m3 (in Rs.)
Over Exploited	**35**

7.0 Abstraction of Saline ground water

Abstraction of saline ground water in areas having either saline ground water at all depths or pockets of saline ground water in an otherwise fresh water area for use by industries/ dewatering by infrastructure/ mining projects including those located in over-exploited areas would be encouraged. Such industries shall be exempted from paying ground water abstraction charges.

The list of such assessment units having saline ground water at all depths as per the latest assessment of dynamic ground water resources will be made available by the CGWA in their website. However, due care shall be taken in respect of disposal of effluents by the units so as to protect the water bodies and the aquifers from pollution.

Detailed guidelines in this regard shall be prepared and issued separately.

8.0 Protection of Wetland Areas

The wet land areas in the country are very crucial as they are direct reflection of the presence of ground water in such areas. The protection of the wetland areas is being separately handled by the Wetland Authorities. Since ground water is very crucial for the survival of the wetland area, any excessive ground water development within the zone of wetland area would affect the volume of water in that wetland.

Projects falling within 500 m. from the periphery of demarcated wetland areas shall mandatorily submit a detailed proposal indicating that any ground water abstraction by the project proponent does not affect the protected wetland areas. Furthermore, before seeking permission from CGWA, the projects shall take consent/approval from the appropriate Wetland Authorities to establish their projects in the area.

9.0 General compliance conditions in No Objection Certificate

i. Installation of digital water flow meter (conforming to BIS/ IS standards) having telemetry system in the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate through the web-portal.

ii. Proponents shall mandatorily get water flow meter calibrated on from an authorized agency once in a year.

iii. Proponents shall install roof top rain water harvesting & recharge systems in the project area.

iv. Proponents shall pay Ground Water Abstraction/ Restoration Charges based on quantum of ground water extraction as applicable as per the rates given in Section 6.

v. Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 15. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in **Annexure-II.**

vi. Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.

vii. If the existing well becomes defunct due to mechanical failure within the validity period of No Objection Certificate, the user can construct a replacement well under intimation to CGWA on web portal. The defunct well shall be properly sealed **(Refer Annexure VII).** The user will be required to submit documentary proof in this regard. However, if the existing abstraction structures fails to yield water and he proponent desires to drill another tubewell in the same premises, prior permission of the Authority shall be required. If the replacement well is to be drilled in some different place, the proponent shall obtain fresh No Objection Certificate.

viii. Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.

ix. In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.

10.0 Monitoring of compliance of No Objection Certificate Conditions

To monitor the compliance of No Objection Certificate conditions, Central Ground Water Authority and State/ UT Ground Water Authorities shall take the following steps:

a. Suitable MIS will be developed for compliance monitoring.

b. District Collectors/Deputy Commissioners (DCs) /District Magistrates (DMs) are authorized to take enforcement measures like sealing of unauthorized ground water abstraction structures, disconnection of electricity, launching of prosecution against those violating the No Objection Certificate conditions and taking action for imposition of Environmental Compensation.

c. Technical officers of CGWB/ CGWA and State groundwater organizations are authorized to take actions with respect to monitoring and periodic inspections with the approval of competent authority.

d. In case of violation of any of the No Objection Certificate conditions, the proponents shall be liable to pay the penalties as per **Section 16.**

11.0 Renewal of No Objection Certificate

No objection certificate shall be renewed periodically, subject to the compliance of the conditions mentioned therein:

i. The applicant shall apply for renewal of No Objection Certificate at least ninety days prior to expiry of its validity.

ii. Application for renewal of No Objection Certificate shall be accompanied by the Compliance Report.

iii. Before granting renewal, Central Ground Water Authority or State/ Ut Authority shall satisfy itself that the conditions of No Objection Certificate have been complied with.

iv. In case of change in category of the assessment unit, renewals would be granted with conditions as laid down for new category.

v. No Objection Certificate will be renewed for the terms specified for various uses as follows:

Category	Use	Term of renewal
Critical, Semi-critical and safe	Infrastructure projects for drinking & domestic use and urban Water Supply Agencies	5 years
	Industries	3 years
	Mines	2 years
Over exploited	All users in 'Over-exploited areas'	2 years

vi. If the application for renewal is submitted in time and the CGWA/ the respective State/ Ut Authority is unable to process the application in time, No Objection Certificate shall be deemed to be extended till the date of renewal of No Objection Certificate.

vii. If the proponent fails to apply for renewal within 3 months from the date of expiry of No Objection Certificate, the proponent shall be liable to pay Environmental Compensation for the period starting from the date of expiry of No Objection Certificate till No Objection Certificate is renewed by the competent authority.

12.0 Extension of No Objection Certificate

If the proponent is unable to construct the well(s) during the validity period of No Objection Certificate for genuine reasons, the proponent will have to apply for extension of No Objection Certificate. Application for extension should be supported by documents justifying the reasons for delay. Other conditions for grant of extension of No Objection Certificate will be the same as that for fresh No Objection Certificate.

Extension of No Objection Certificate will be granted for a maximum period of two years. No further extension will be granted after the expiry of the extended period. In that case, the applicant will have to apply afresh for grant of No Objection Certificate.

13.0 Delegation of powers against illegal groundwater withdrawal

Central Ground Water Authority has appointed the District Magistrate/ District Collector/ Sub Divisional Magistrates of each Revenue District/Sub division as Authorized Officers, who have been delegated the power to seal illegal wells, disconnect electricity supply to the energised well, launch prosecution against offenders etc. including grievance redressal related to ground water in their respective jurisdictions.

In order to further decentralise and strengthen the monitoring and compliance mechanism as per the guidelines, officials of concerned Departments of Revenue and Industries of the States/Uts shall be appointed as Authorised Officers in consultation with the State/Ut Governments.

A copy of the No Objection Certificate issued by the CGWA in the No Objection Certificate Application Portal (NOCAP) will be forwarded to the respective District Magistrate/ District Collector. In case of any violation of the directions of Central Ground Water Authority and non-fulfilment of the conditions laid

down in the No Objection Certificate, the Authorised Officers will file appropriate Petition/Original Application etc under sections 15 to 21 of the Environment (Protection) Act, 1986 in appropriate Courts.

14.0 Ground Water Level Monitoring

All the project proponents (drawing ground water more than 10 cum/d) have to mandatorily construct Piezometers (observation wells) within their premises for monitoring of the ground water levels. Such a mechanism of compliance conditions has been made to ensure that every month the ground water level in the project area can be monitored and observed. In this regard the necessary criteria for monitoring of water levels through piezometers by the project proponents is given in Table 14.1.

Table 14.1 No. of Piezometers to be constructed & Type of Water Level Monitoring Mechanism

S.No.	Quantum of Ground water withdrawal (cum/d)	No. of piezometer required	Monitoring mechanism		
			Manual	DWLR	DWLR with Telemetry
1	<10	0	0	0	0
2	11-50	1	1	0	0
3	51-500	1	0	1	0
4	>500	2	0	1	1

The piezometer shall be suitably located to ensure that zone of aquifer tapped in the piezometer is the same as that of the pumping well.

15.0 Environmental Compensation

Extraction of ground water for commercial use by industries, infrastructure units and mining projects without a valid No Objection Certificate from appropriate authority shall be considered illegal and such entities shall be liable to pay Environmental Compensation for the quantum of ground water so extracted. The norms prescribed by Central Pollution Control Board (CPCB) shall be utilized for calculating the Environmental compensation as mentioned below:

EC_{GW} = Ground water consumption per day x Environmental Compensation rate (ECR_{GW}) x No. of days x Deterrence factor

where ground water consumption is in m3/day and ECR_{GW} in Rs./ cum

15.1 Rates of Environmental Compensation:

Rates of Environmental Compensation (ECR_{GW}) for various types of users in different categories of assessment units are given in Table 15.1 to 15.3.

Table 15.1 : ECR_{GW} for Packaged Drinking Water units

S.No.	Area Category	Water Consumption (cum/day)			
		<200/	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR_{GW}) in Rs./m3			
	Safe	12	18	24	30
2	Semi critical	24	36	48	60
3	Critical	36	48	66	90
4	Over- exploited	48	72	96	120
Note :-Minimum EC_{GW} shall not be less than Rs 1,00,000/-					

Table 15.2: ECR_{GW} for Mining/ infrastructure dewatering projects

S.No.	Area Category	Water Consumption (cum/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR_{GW}) in Rs./m3			
1	Safe	15	21	30	40
2	Semi critical	30	45	60	75
3	Critical	45	60	85	115
4	Over- exploited	60	90	120	150
Note :-Minimum EC_{Gw} shall not be less thanRs 1,00,000/-					

Table 15.3: ECR_{GW} for Industrial units

S.No.	Area Category	Water Consumption (cum/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR_{GW}) in Rs./m3			
1	Safe	20	30	40	50
2	Semi critical	40	60	80	100
3	Critical	60	80	110	150
4	Over- exploited	80	120	160	200
Note :-Minimum EC_{Gw} shall not be less thanRs 1,00,000/-					

15.2 Deterrent Factors to compensate losses and environmental damage (for packaged drinking water units, mining, industries and infrastructural dewatering projects)

The following deterrent factors based on the duration of illegal ground water extraction shall be levied to compensate for the losses and environmental damages as detailed in Table 15.4.

Table 15.4: Deterrent factor based on quantum of ground water withdrawal and number of years of illegal withdrawal

S.No.	Water Consumption	Deterrence Factor		
		< 2 years	2-5 years	>5 years
1	<1000 KLD	1.00	1.00	1.25
2	1000-5000 KLD	1.00	1.00	1.50
3	>5000 KLD	1.00	1.25	2.00

Note: KLD – Kilolitre per day

16.0 Provision of Penalty

Penalty shall be imposed on the proponents for non-compliance of No Objection Certificate conditions issued by the appropriate authority. Rates of penalty proposed for non-compliance of various conditions of No Objection Certificate are given in Table 16.1.The rates of the penalty shall be reviewed periodically with the approval of competent authority in Ministry of Jal Shakti.

Table 16.1: Penalty provision for non Compliance of No Objection Certificate conditions

S. No.	**Items**	Charges in Rs.
1	Non installation/faulty Digital water Flow meter with telemetry system.	200000
2	Non disclosure/ construction of additional groundwater abstraction structures a) Non-functional Structures. b) Defunct/Abandoned Note: Given rates are for unit non-functional/defunct/abandoned structures. This shall be multiplied with total such structures to arrive at consolidated penalty.	 200000 100000
3	Reporting of fresh water zones as Brackish / Saline zones in application.	200000
4	Non Installation of Piezometer.	200000
5	Non Installation/faulty DWLR/Telemetry system	100000
6	Non Construction/Inadequate capacity of Recharge / Water conservation structures.	500000
7	Non maintenance of Recharge structures.	200000
8	Injection of treated/untreated water into the aquifer system. Note: In addition to penalty, the proponent shall bear the cost of aquifer remediation as per the provisions of Environment (Protection) Act, 1986.	1000000
9	Non Submission of Water level/Water quality Data.	50000
10	Non-maintenance of log book of daily withdrawal/non submission of Groundwater abstraction data.	50000
11	Non submission of photograph of recharge structure(s).	50000
12	Non Submission of Self Compliance report.	100000
13	Construction of groundwater abstraction structures by un authorized/unregistered Drilling Rigs (per structures).	100000
14	Non registration of water supply tankers.	500000
15	Submission of false information/ undertaking.	100000

Charges shall also be payable for correction/modification in the existing issued No Objection Certificate letter. The details of such charges are given in Table 16.2.

Table 16.2: Proposed Charges for correction/Modification in the existing issued No Objection Certificate

S. No.	**Items**	Charges in Rs.
1	Change in recharge quantum	10000
2	Change in User ID.	5000
3	Change in firm Name	5000
4	Extension of No Objection Certificate	5000
5	Issuance of duplicate No Objection Certificate	5000
6	Issuance of corrigendum to No Objection Certificate	5000
7	Any other items/corrections etc	5000

17.0 Other important Conditions (Applicable to all):

i. Sale of ground water by a person/ agency not having valid no objection certificatefrom CGWA/State Ground Water Authority is not permitted.

ii. In infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.

iii. In case of Infrastructure projects, the firm/entity shall ensure implementation of dual water supply system in the projects. Compliance of the same shall be submitted through the web portal.

iv. Non-compliance of conditions mentioned in the No Objection Certificate may be taken as sufficient reason for cancellation of no objection certificate accorded/ non-renewal of No Objection Certificate.

v. No application shall be entertained without supporting documents as specified in relevant sections.

vi. Abstraction structure(s) should be located inside the premises of project property.

vii. Self compliance of conditions laid down in the no objection certificate shall be reported by the users online in the web portal of Central Ground Water Authority/state Ground Water Authority.

viii. Processing fee prescribed, if any, from time to time shall be charged for various services.

Note:

1. Guidelines are subject to modification from time to time.

2. In case of any discrepancy between Hindi and English versions of this document including the annexures, the English version shall prevail.

Annexure I

Estimation of Water Requirements for drinking and domestic use

(Source: National Building Code 2016, BIS)

a) Residential Buildings:

Accommodations	Population
1 Bedroom dwelling unit	4
2 Bedroom dwelling unit	5
3 Bedroom dwelling unit	6
4 Bedroom dwelling unit and above	7

Notes:

1) The above figures consider a domestic household including support personnel, wherever applicable.

2) For plotted development, the population may be arrived at after due consideration of the expected number and type of domestic household units.

3) Dwelling unit under EWS category shall have population requirement of 4 and studio apartment shall have population requirement of 2.

As a general rule the following rates per capita per day may be considered for domestic and non-domestic needs:

a) For communities with populations up to 20,000:

1)	Water supply through stand post:	40 lphd (Min)
2)	Water supply through house service: connection	70 to 100 lphd

b) For communities with: 100 to 135 lphd
population 20,000 to 100,00 together with
full flushing system

c) For communities with population: 150 to 200 lphd
above 100,000 together with
full flushing system

Note—The value of water supply given as 150 to 200 litre per head per day may be reduced to 135 litre per head per day for houses for Medium Income Group (MIG) and Low Income Groups (LIG) and Economically Weaker Section of Society (EWS), depending upon prevailing conditions and availability of water.

Out of the 150 to 200 litre per head per day, 45 litre per head per day may be taken for flushing requirements and the remaining quantity for other domestic purposes.

A. **Water Requirements for Buildings Other than Residences**

Sl No.	Type of Building	Domestic litres per head/ day	Flushing Litres per head/ day	Total Consumption Litres per head/ day
1.	Factories including canteen where bath rooms are required to be provided	30	15	45
2.	Factories including canteen where no bath rooms are required to be provided	20	10	30
3.	Hospital (excluding laundry and kitchen): a) Number of beds not exceeding 100	230	110	340
	b) Number of beds exceeding 100	300	150	450
	c) Out Patient Department (OPD)	10	5	15
4.	Nurses' homes and medical quarters	90	45	135
5.	Hostels	90	45	135
6.	Hotels (up to 3 star) excluding laundry, kitchen, staff and water bodies	120	60	180
7.	Hotels (4 star and above) excluding laundry, kitchen, staff and water bodies	260	60	320
8.	Offices (including canteen)	25	20	45
9.	Restaurants and food court including water requirement for kitchen: a) Restaurants	55 per seat	15 per seat	70 per seat
	b) Food Court	25 per seat	10 per seat	35 per seat
10.	Clubhouse	25	20	45
11.	Stadiums	4	6	10

12.	Cinemas, concert halls and theatres and multiplex	5 per seat	10 per seat	15 per seat
13.	Schools/Educational institutions: a) Without boarding facilities b) With boarding facilities	25	20	45
		90	45	135
14.	Shopping and retail (mall) a) Staff	25	20	45
	b) Visitors	5	10	15
15.	Traffic Terminal stations a) Airports	40	30	70
	b) Railway stations (Junction) with bathing facility	40	30	70
	c) Railway stations (Junction) without bathing facility	30	15	45
	d) Railway stations (Intermediate) with bathing facility	25	20	45
	e) Railway stations (Intermediate) without bathing facility	15	10	25
	f) Interstate bus terminals	25	20	45
	g) Intrastate Bus Terminals/Metro Stations	10	5	15

Notes:

1. For calculating water demand for visitors, consumption of 15 litre per head per day may be taken.

2. The water demand includes requirement of patients, attendants, visitors and staff. Additional water demand for kitchen, laundry and clinical water shall be computed as per actual requirements.

3. The number of persons shall be determined by average number of passengers handled by stations, with due considerations given to the staff and vendors who are using these facilities.

4. Consideration should be given for seasonal average peak requirements.

5. The hospitals may be categorized as Category A (25 to 50 beds), Category B(51 to 100 beds), Category C (101 to 300 beds), Category D (301 to 500) and Category E (501 to 750 beds).

Annexure II

Guidelines for construction of Piezometers and monitoring of Ground Water Levels and Quality

Piezometer is a borewell/tubewell used only for measuring the water level by lowering a tape/sounder or automatic / digital 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:

- The piezometer is to be installed/constructed at the minimum distance of 50 m from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about four inches to six inches.

- The depth of the piezometer should be the same as that of the pumping well from which ground water is being abstracted. If, more than one pumping wells are constructed tapping aquifers at different depths, more than one piezometers shall be required to be constructed tapping different aquifers as in the pumping wells.

- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tubewells has been stopped for about four to six hours.

- The ground water quality has to be monitored once in a year during pre-monsoon (April/ May) period by industries and mines drawing ground water. Samples of ground water should be analyzed from NABL accredited laboratory.

- A permanent display board should be installed at Piezometer/ Tubewell site for providing the location, piezometer/ tubewell number, depth and zone tapped of piezometer/tubewell for standard referencing and identification.

- Any other site specific requirement regarding safety and access for measurement may be taken care off.

Annexure III

Measures to be adopted to ensure prevention from pollution in the plant premises of polluting industries/ projects

It has been observed that ground water in and around polluting industries like Tannery, Slaughter Houses, Dye, Chemical, Coalwashery, other hazardous units, etc., is polluted. In order to prevent further deterioration of ground water quality, it is essential to take all necessary measures for well head protection. All industries/ projects falling under this category are hereby directed to follow the under mentioned procedure both for existing and new category.

1. No tube well/ bore well / dug well should be constructed in the vicinity of the processing unit. Tube well/ bore well should be constructed at the place which is hygienically maintained.

2. Only Mild Steel pipe should be used for assembly/ casing and PVC (Poly Vinyl Chloride) or similar pipes should not be used. The tube well/ bore well having PVC or similar pipes should be abandoned and filled back.

3. Around the tube well/ bore well, RCC (Reinforced Concrete Cement) grouting of 3 meters (length) x 3 meters (width) x 2 meters (depth) must be provided. The pipe of the tube well/ bore well must be raised 1 meter above ground level (1 magl). The tube well/ bore well must be surrounded by RCC wall of 0.5 meter height and 1.5 meter depth to prevent any surface contamination to enter the constructed tube well/ bore well. Plan/Sectional diagram is enclosed for reference (Appendix 1 and 2).

3. The tube well/ bore well must be fitted with NRV (Non Return Valve) in order to ensure that the constructed tube well/ bore well is exclusively used for abstraction of ground water only.

4. At no point of time there should be any injection of any water or fluid into the constructed tube well/ bore well/ Piezometer.

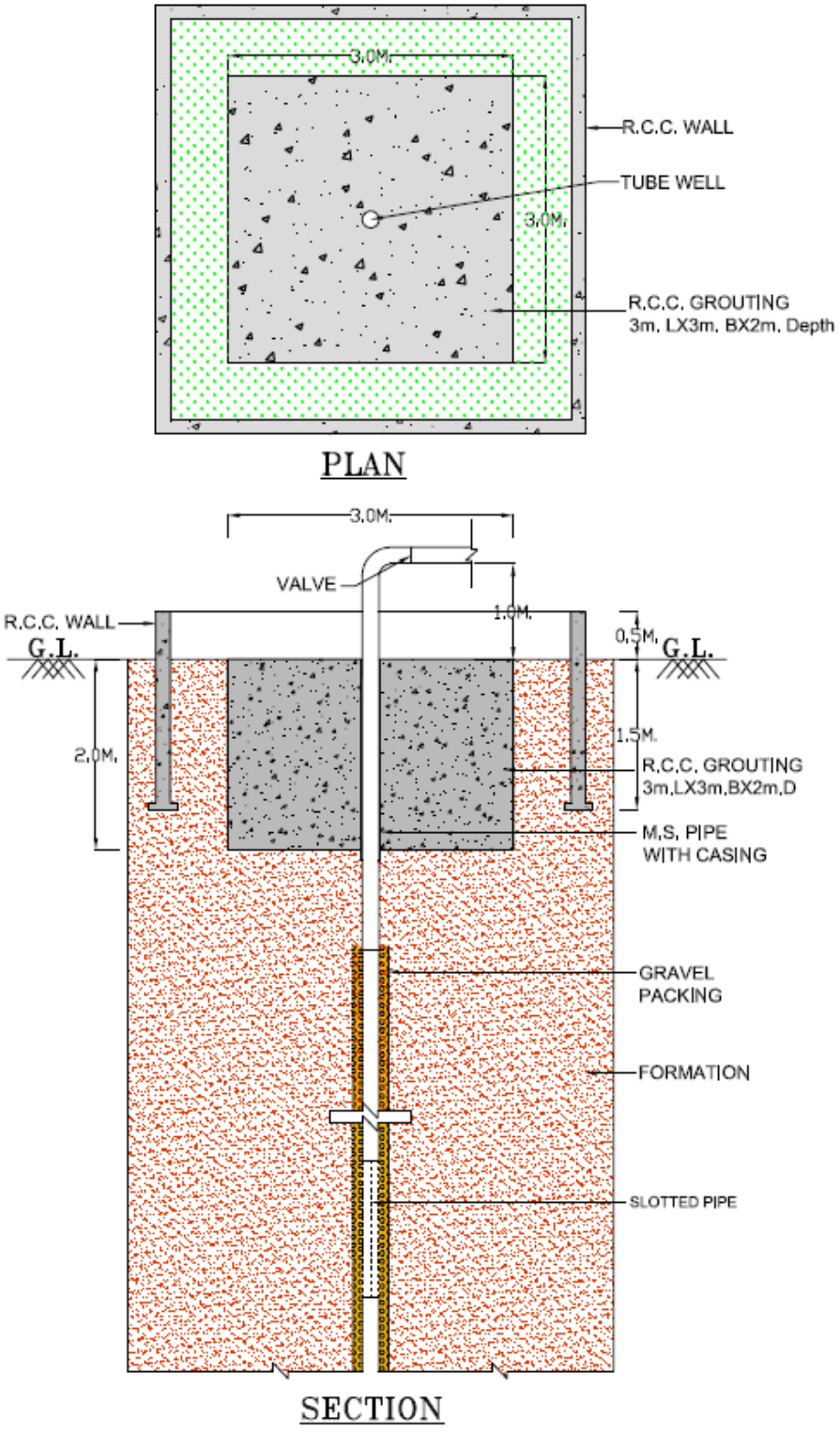
5. The industries/ projects under this category should not implement any recharge measures within the plant premises.

6. Any tube well/ bore well located/ constructed in the vicinity of STP (Sewage Treatment Plant) or ETP (Effluent Treatment Plant) should be abandoned and filled back.

7. The piezometer to be constructed for monitoring purpose should follow the same procedure as that for tube well/ bore well for such industries/ projects.

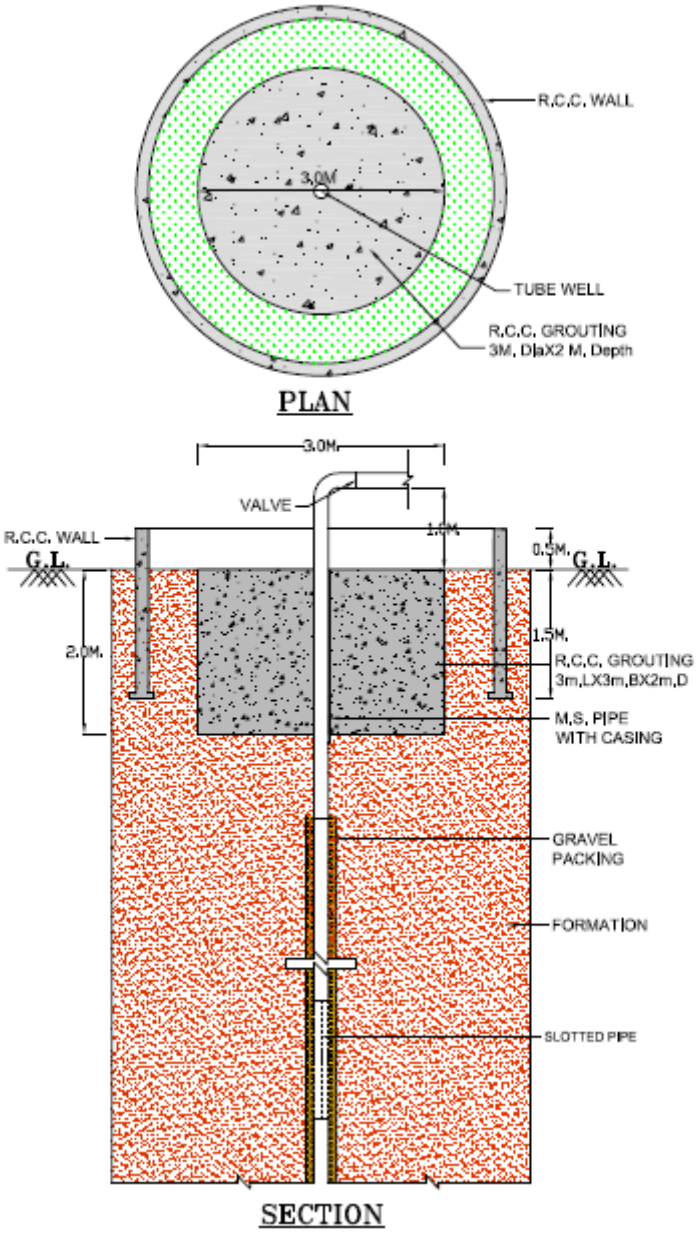
Appendix 1

Plan/ Sectional diagram showing well head protection



Appendix 2

Plan/ Sectional diagram showing well head protection



Annexure-IV

Outline of hydro-geological Report for obtaining No Objection Certificate for industries

1. Brief about the proposed project giving location details, coordinates, google/ toposheet maps, etc. demarcating the project area.

2. Ground water situation in and around the project area including water level and quality data and maps along with quality issues, if any. In case of mines, ground water conditions in both core and buffer zone should be described.

3. Details of the tubewells/ borewells proposed to be constructed. This includes the drilling depth, diameter, tentative lithological log, details of pump to be lowered, H.P. of pump, tentative discharge of tubewells/ borewells, etc. Locations to be marked on the site plan/ map. Location of proposed piezometers.

4. Details of Geophysical studies carried out in and around the project area. Ground water resources computation of the block in which the project falls.

5. Approved Mine plan in case of mines and detailed dewatering plan in case of mine/ infrastructure dewatering projects.

6. Proposed usage of pumped water in case of mining/ infrastructure dewatering projects.

7. Comprehensive assessment of the impact on the ground water regime in and around the project area highlighting the risks and proposed management strategies proposed to overcome any significant environmental issues.

8. Proposed measures for disposal of waste water by industries drawing saline water.

9. Measures to be adopted for water conservation which include recycling, reuse, treatment, etc. This includes the water balance chart being adopted by the firm along with details of water conservation methods to be adopted.

- Brief write up along with capacity and flow chart of Sewage Treatment Plants / Effluent Treatment Plants / Combined Effluent Treatment Plants existing/ proposed within the project.
- Details of water conservation measures to be adopted to reduce/ save the ground water.
- Total water balance chart showing the usage of water for various processes.

10. Any other details pertaining to the project.

Annexure V

Format of the Report on ground water conditions (for mining projects)

Introduction

Project description

Background

Objectives and scope

Regional setting

Location

Landuse

Climate

Topography and drainage

Geology –Regional and Local

General Hydrogeology (aquifer types, aquifer depth, zone tapped etc.)

Groundwater condition (In core and buffer zones)

Spatial and temporal variations in water levels Groundwater quality (Shallow and deep aquifer)

Impact of groundwater extraction on local groundwater

Hydrograph of water level/piezometer in monitoring wells

Trend analysis of historical water levels Flow net analysis (groundwater flow direction)

Year wise/ bench wise mine dewatering computation as per approved mine plan

Conclusions

Annexure VI

Indicative list of Infrastructure projects

Residential townships including commercial buildings
Office building
School
College
University
Special Economic Zone
Metro Station
Railway Station
Bus Depot
Airport
Seaport
Highway infrastructure
Fire station
Warehouse
Business Plaza
Malls & Multiplex
Hospitals
Nursing Homes
Resort
Hotel/ Restaurant/ Food Plaza
Holiday home/Guest house/ Hostels
Banquet Hall/ Marriage Gardens
IT Complex
Logistics & Cargo
Clubs
Trade Centre

Annexure -VII

Supreme Court Order in Civil Writ petition 36 of 2009 regarding measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

In Re: Measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

Union of India and Ors. Respondents(s)

ORDER

With this Court issuing requisite guidelines vide order dated 11th February, 2010, subject to slight modifications, nothing survives in the present writ petition.

That modification is as follows:

(i) The owner of the land/ premises, before taking any steps for constructing bore well/ tube well must inform in writing to the concerned authorities in the area, i.e., District Collector/ District Magistrate/ Sarpanch of the Gram Panchayat/ any other Statutory Authority/ concerned officers of the Department of Ground Water/ Public Health/ Municipal Corporation, as the case may be, about the construction of bore well/ tube well.

(ii) Registration of all the drilling agencies, namely, Government/ Semi Government, Private etc. should be mandatory with the district administration/ Statutory Authority wherever applicable.

(iii) Erection of signboard at the time of construction near the well with the following details:-

(a) Complete address of the drilling agency at the time of construction/ rehabilitation of well.

(b) Complete address of the user agency/owner of the well.

(iv) Erection of barbed wire fencing or any other suitable barrier around the well during construction.

(v) Construction of cement/ concrete platform measuring 0.50x0.50x0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.

(vi) Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.

(vii) In case of pump repair, the tube well should not be left uncovered.

(viii) Filling of mud pits and channels after completion of works.

(ix) Filling up abandoned bore wells by clay/sand/boulders/pebbles/drill cuttings etc. from bottom to ground level.

(x) On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.

(xi) District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of bore holes/ tube wells are being taken care through the concerned state/ Central Government agencies.

(xii) District/ Block/ Village wise status of bore wells/tube wells drilled viz. No. of wells in use, No. of abandoned bore wells/ tube wells found open, No. of abandoned bore wells/ tube wells properly filled up to ground level and balance number of abandoned bore wells/ tube wells to be filled up to ground level is to be maintained at District Level.

In rural areas, the monitoring of the above is to be done through Village Sarpanch and the Executive from the Agriculture Department.

In case of urban areas, the monitoring of the above is to be done through Junior Engineer and the Executive from the concerned Department of Ground Water/Public Health/ Municipal Corporation etc.

(xiii) If a bore well/ tube well is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water/ Public Health/ Municipal Corporation/ Private Contractor etc. must be obtained by the aforesaid agencies that the 'Abandoned' bore well/tube well is properly filled upto the ground level. Random inspection of the abandoned wells is also to be done by the Executive of the concerned agency/ department. Information on all such data on the above are to b maintained in the District Collector/ Block Development Office of the State.

We are informed that the last paragraph of the earlier order dated 11th February, 2010, concerning publicity has been duly complied with.

Subject to the above, the writ petition is disposed of.

……..CJI.
[S.H. KAPADIA]

……..….J.
[K.S. RADHAKRISHNANA]

……..…….J.
[SWATANTER KUMAR]

New Delhi,
August 6, 2010

ANNEXURE VIII

List of States/Union territories where ground water extraction is being regulated by Central Ground Water Authority

1. Andaman and Nicobar Islands
2. Assam
3. Arunachal Pradesh
4. Bihar
5. Chhattisgarh
6. Dadra and Nagar Haveli and Daman and Diu
7. Gujarat
8. Haryana
9. Jharkhand
10. Madhya Pradesh
11. Maharashtra
12. Manipur
13. Meghalaya
14. Mizoram
15. Nagaland
16. Odisha
17. Punjab
18. Rajasthan
19. Sikkim
20. Tripura
21. Uttar Pradesh
22. Uttarakhand
23. Andhra Pradesh (only mining projects)
24. Telangana (only mining projects)

Annexure IX

Glossary of technical terms used

1. **Safe area**: Area categorized as SAFE from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
2. **Semi-critical area**: Area categorized as SEMI-CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
3. **Critical area**: Area categorized as CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organisations. Details available on the websites of NOCAP and CGWB.
4. **Over-exploited area**: Area categorized as OVER-EXPLOITED from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organisations. Details available on the websites of NOCAP and CGWB.
5. **Aquifer**: Geological formation capable of storing and transmitting ground water.
6. **Deeper Aquifer**: In areas having multiple aquifer system, the aquifer(s) occurring below the uppermost aquifer.
7. **Well**: Any structure used for the extraction of groundwater, including open wells, dug wells, bore wells, dug-cum-bore wells, tube wells, filter points, collector wells, infiltration galleries, recharge wells, or any of their combinations or variations.
8. **Government Agency**: May be Central or State Government body.
9. **Supplier**: Government/ Government approved Water Supply Agency.
10. **Mine**: Area where mining activity is taking place, or area abandoned after mining.
11. **Illegal Ground Water abstraction Structure**: Any energized abstraction structure viz. dugwell, tubewell, borewell which is being used to withdraw ground water without valid No Objection Certificate from Central Ground Water Authority.
12. **Rainwater Harvesting**: The technique or system of collection and storage of rainwater, at micro watershed scale, including roof-top harvesting, for future use or for recharge of groundwater.
13. **Mining Project**: Project which involves mining activity either open cast or underground or both.
14. **Ground Water Draft**: Quantum of ground water withdrawal.
15. **Saline Water**: Water having salinity in excess of 2500 µsiemens/cm at 25^0C.
16. **Water Table Intersection**: Intersection of the water table on excavation of the overlying material due to mining or other activities.
17. **Drinking and domestic use**: Besides drinking & domestic use of households, this category will cover drinking requirement of industries not requiring water for industrial process; drinking, washing, cleaning use etc. in case of hospitals, hotels, malls & multiplexes, institutions, offices, banquet halls, fire stations, metro stations, railway stations, airports, sea ports, stadia etc.
18. **Recycle/Reuse**: Using treated waste water for various purposes/ putting water to multiple uses.
19. **Government Department:** Either Central Government or State Government.
20. **Municipality:** Municipality, a Municipal Corporation or similar body of local urban governance by any other name.
21. **Groundwater:** Water, which exists below the surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers;
22. **Bgl :** Below Ground Level.
23. **BCM :** Billion cubic metres.

24. **Groundwater Abstraction structure:** Structure used to withdraw groundwater like bore well / tube well / dug well/dug cum bore well/tunnel well.

25. **Observation well or Piezometer:** A bore well/tube well used only for measuring the water level/piezometric head and to take water sample periodically but not used for groundwater abstraction.

26. **Water Audit:** A method of quantifying water use in simple or complex systems, with a view to reducing water usage and often saving money on otherwise unnecessary water use.

27. **Ground water pollution:** If concentration of any parameter in ground water exceeds the maximum permissible limit for drinking water prescribed by the Bureau of Indian Standards.

28. **Cooperative Group Housing Societies/ Builder flats**: A Housing Society is a society formed by house owners within a residential complex. The housing society formed must be formally registered with registrar of co-operatives.

29. **KLD –** Kilo Litre per day

30. $\mathbf{EC_{GW}}$ - Environmental compensation for drawing illegal ground water.

31. $\mathbf{EC_{GWR}}$ - Environmental compensation rates for drawing illegal ground water.

ANNEXURE X

Annual water audits by the industries (Source – CII)

Water audit is a systematic process of objectively obtaining a water balance by measuring flow of water from the site of water withdrawal or treatment, through the distribution system, and into areas where it is used and finally discharged. Conducting a water audit involves calculating water balance, water use and identifying ways for saving water.

Water audit involves preliminary water survey and detailed water audit. Preliminary water survey is conducted to collect background information regarding plant activities, water consumption and water discharge pattern and water billing, rates and water cess. After the analysis of the secondary data collected from the industry, detailed water audit is conducted, which involves the following steps:

- On site training and discussion with facility manager and personnel
- Water system analysis
- Quantification of baseline water map
- Monitoring and measurements using pressure and flow meters and various other devices
- Quantification of inefficiencies and leaks
- Quantification of water quality loads and discharges
- Quantification of variability in flows and quality parameters
- Strategies for water treatment and reuse or direct use

A detailed water balance is finally developed. Water quality requirement at various user areas is mapped, which helps in developing ‘recycle’ and ‘reuse’ opportunities.

The detailed water audit report contains the following:

- Water consumption and wastewater generation pattern
- Specific water use and conservation
- Complete water balance of the facility
- Water saving opportunities
- Method of implementing the proposals
- Full description and figures
- Investment required

Industries can undertake following measures for water conservation:

- Setting up of norms for water budgeting
- Modernization of industrial process to reduce water consumption
- Recycling water with a re-circulating cooling system
- Ozonation cooling water approach which can result in five fold reduction in blow down when compared to traditional chemical treatment
- Reduction in reuse of de-ionized water by eliminating some plenum flushes, converting from a continuous flow to an intermittent flow system and improving control on the use
- Use of waste water for gardening
- Proper processing of effluents to adhere to the norms of disposal.

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Borewell No. 1

Borewell No. 2

Borewell No. 3

Borewell No. 4

Borewell No. 5

Borewell No. 6

Borewell No. 7

Borewell No. 8

Questionnaire regarding OA No. 107/2019 for Industry:

1. What is the total water consumption of all the units? Provide the details industry-wise.

Response: The total water consumption of the Unit along with Unit wise bifurcation for the Period Jan'20 to Sept'20 is as follows:

Unit wise Water consumption (Jan'20 to Sept'20)

Jan'20 to Sept'20	Unit Name : Water consumption (KL)						Total (KL)
	Chemical unit-1	Chemical Unit-2	Distillery Unit	Power plant Unit	Polymer Unit	Fertilizer Unit	
Jan-20	51128	25508	77699	64501	8538	2469	**229843**
Feb-20	46385	14783	62598	68114	3037	2305	**197222**
Mar-20	51620	17816	54691	65299	5423	3632	**198481**
Apr-20	48846	16196	60797	72546	8438	3351	**210174**
May-20	55487	28725	79432	83813	4593	3947	**255997**
Jun-20	52301	29521	65279	59118	5402	5044	**216665**
Jul-20	51787	18590	59028	53852	4643	6765	**194665**
Aug-20	41018	23158	64510	57740	5978	4068	**196472**
Sep-20	33420	20042	59851	75353	5578	3000	**197244**
Total (KL)	**431992**	**194339**	**583885**	**600336**	**51630**	**34581**	**1896763**

2. Total production at each unit?

Response: The total production from Jan-Sept. 2020 at each unit is as per following table:

Unit Name	**Total production Jan'20 to Sept'20**	**Unit of Production**
Jubilant Life Sciences Limited		
Chemical Unit-1	1,13,588.99	MT
Chemical Unit-2	26,422.070	MT
Distillery Unit	21,011.73	KL

Power Plant	1,13,161	MWH
Jubilant Agro Consumer Products Limited		
Polymer Unit	8,265.67	MT
Fertilizer Unit	1,76,035.29	MT

3. What is the water utilisation break from different sources i.e. Surface water, Groundwater, and Reuse of treated water?

   Response: The fresh source of water is **Groundwater.** Details of fresh water consumption and recycle/reuse is given below:

Unit Name	**Jan-Sept 2020**			
	Total Water Consumption KL	**Fresh Water Consumption KL**	**Recycling /Reuse water KL**	**% Recycle /Reuse water**
Jan-20	329132	229843	99289	30.2%
Feb-20	309560	197222	112338	36.3%
Mar-20	318198	198481	119717	37.6%
Apr-20	319090	210174	108916	34.1%
May-20	373598	255997	117601	31.5%
Jun-20	311411	216665	94746	30.4%
Jul-20	276690	194665	82025	29.6%
Aug-20	287405	196472	90933	31.6%
Sept-20	298516	197244	101272	33.9%

4. Are they using water from nearby drains? If yes, how much and how?

Response: No.

5. What is the current status of rain water harvesting? Had any inspection being done for the rain water harvesting system? What is the efficiency of the rain water harvesting system? Whether it is fully functional?

   Response: Rainwater harvesting for ground water recharge is constructed inside the company property as well in village ponds adopted from the local government. The details of the RWH structures are as below:

Details	**Total number of RWH structures.**	**Remarks**
Within Premises	5	Photographs are attached below.
Chemical Unit-1	45	Unit wise List of RWH

Chemical Unit-2	42	structure is attached below.
Distillery Unit	56	
Power Plant	52	
Polymer Unit	9	
Fertilizer Unit	50	
Total	259	

Jubilant Life Sciences Limited, Gajraula

RWH Structures within Premises

Near Time Office Gate

Back side of Director bungalow – Colony

Outside Canteen

Back Side of Guest House

Near B-13 and B-14 Block Colony

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Chemical Unit - 1)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	9	Koural	28°59'08.27"	78°20'46.73"	4050	19190.9	Chemical Unit-1
2	18	Afjalpur Loot	28°53'16.8"	78°18'17.8"	5790	28226.3	Chemical Unit-1
3	19	Lambia	28°54'19.8"	78°16'55.8"	7890	30771.0	Chemical Unit-1
4	22	Kumrala	28°50'19.4"	78°12'24.7"	5140	30069.0	Chemical Unit-1
5	28	Kirwakhera	28°55'28.5"	78°18'03.7"	40720	238212.0	Chemical Unit-1
6	34	Chuchela Kala	28°59'57.70"	78°15'41.98"	11040	64584.0	Chemical Unit-1
7	75	Sultan Thar	28°47'15.91"	78°13'04.81"	4500	13338.0	Chemical Unit-1
8	86	Jalalpur Kalan	28°50'41.29"	78°19'27.14"	5880	34398.0	Chemical Unit-1
9	105	Dhakiya Bhoor	28 53 13.01	78 15 13.07	11490	36969.1	Chemical Unit-1
10	106	Chandarpur Khadar	28 33 39.87	78 16 43.79	4250	10773.8	Chemical Unit-1
11	115	Chchadpur/Salarpur	78°1703.24"	28°49'47.92"	2350	12418.6	Chemical Unit-1
12	117	Dhanori Mafi I	78°33'40.91"	28°81'44.93"	4780	27963.0	Chemical Unit-1
13	2	Moharka	28°48'19.21"	78°11'08.23"	2080	12168.0	Chemical Unit-1
14	3	Moharka	28°48'19.33"	78°11'05.12"	1880	10998.0	Chemical Unit-1
15	178	Mohraka	28°49'18.48"	78°11'16.7892"	1380	8073.0	Chemical Unit-1
16	180	Mohraka	28°48'52.56"	78°11'25.7244"	1040	6084.0	Chemical Unit-1
17	12	Shahpur Farrashpura	28°50'45.09"	78°29'08.79"	13190	77161.5	Chemical Unit-1
18	34	Patni Kalsa	28°48'26.31"	78°33'41.11"	17250	100912.5	Chemical Unit-1
19	234	Haiwatpur Banjara	28°42'47.52"	78°20'1.44"	3600	21060.0	Chemical Unit-1
20	233	Haiwatpur Banjara	28°42'57.24"	78°19'26.23"	2430	14215.5	Chemical Unit-1
21	185	Daudpur Jageer	28°42'42.12"	78°20'1.38"	2630	15385.5	Chemical Unit-1
22	184	Daudpur Jageer	28°40'36.12"	78°21'8.65"	1650	9652.5	Chemical Unit-1
23	186	Daudpur Jageer	28°42'40.68"	78°19'41.5128"	14200	83070.0	Chemical Unit-1
24	187	Telipura Khalsa	28°46'7.32"	78°23'12.63"	7710	45103.5	Chemical Unit-1
25	188	Telipura Khalsa	28°46'10.56"	78°22'57.44"	10400	60840.0	Chemical Unit-1
26	189	Ghozipura	28°46'58.44"	78°22'31.84"	1900	11115.0	Chemical Unit-1
27	198	Sevda	28°39'20.16"	78°27'59.37"	6080	35568.0	Chemical Unit-1
28	203	Rajha	28°41'44.88"	78°29'10.31"	13590	79501.5	Chemical Unit-1
29	205	Ainchora Kamboh	28°41'58.20"	78°28'08.82"	4080	23868.0	Chemical Unit-1
30	206	Ainchora Kamboh	28°41'52.44"	78°28'32.88"	4330	25330.5	Chemical Unit-1
31	207	Ainchora Kamboh	28°42'22.68"	78°28'17.77"	2350	13747.5	Chemical Unit-1
32	208	Ainchora Kamboh	28°42'31.68"	78°28'28.02"	3040	17784.0	Chemical Unit-1
33	210	Nekroli	28°43'12.72"	78°28'32.99"	6070	35509.5	Chemical Unit-1
34	211	Nekroli	28°43'12.36"	78°28'32.08"	5140	30069.0	Chemical Unit-1
35	209	Nekroli	28°43'28.92"	78°28'29.7228"	10190	59611.5	Chemical Unit-1
36	213	Aitmadpur Bhatpura	28°43'18.84"	78°29'44.26"	3120	18252.0	Chemical Unit-1
37	214	Ekrotiya	28°42'12.24"	78°30'46.86"	5470	31999.5	Chemical Unit-1
38	219	Kurkawali	28°37'21.00"	78°30'15.33"	5260	30771.0	Chemical Unit-1
39	220	Kurkawali	28°37'26.76"	78°30'15.96"	4500	26325.0	Chemical Unit-1
40	221	Kurkawali	28°38'04.92"	78°30'58.89"	2750	16087.5	Chemical Unit-1
41	166	Basaratpa	29°02'40.32"	78°28'18.20"	12590	73651.5	Chemical Unit-1
42	181	Tokra	28°51'48.6"	78°10'48.6588"	3400	19890.0	Chemical Unit-1
43	182	Tokra	28°51'46.8"	78°10'47.4096"	1780	10413.0	Chemical Unit-1
44	215	Manni Khera	28°38'35.16"	78°25'33.78"	5470	31999.5	Chemical Unit-1
45	217	Manni Khera	28°38'27.24"	78°26'35.60"	8370	48964.5	Chemical Unit-1
					Total	1652095.6	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Chemical Unit - 2)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	3	Koural	28°58'41.67"	78°20'37.65"	8410	49198.5	Chemical Unit-2
2	8	Koural	28°59'19.17"	78°20'49.68"	7450	39079.0	Chemical Unit-2
3	534	Rajehda Bahadurpur	28° 43' 42.096" N	78° 21' 30.024" E	12750	57183.8	Chemical Unit-2
4	53	Dhakka	28°41'51.13"	78°22'54.13"	6340	37089.0	Chemical Unit-2
5	64	Katai	28°48'42.87"	78°17'29.60"	8900	49114.7	Chemical Unit-2
6	83	Kuda Mafi	28°57'10.13"	78°20'47.28"	24890	117941.3	Chemical Unit-2
7	72	Agrola Kala	28°45'58.55"	78°14'10.61"	15000	87750.0	Chemical Unit-2
8	116	Aalampur	78°28'12.21"	28°79'53.11"	4080	23868.0	Chemical Unit-2
9	117d	Dhanori Mafi IV	78°33'36.93"	28°81'76.02"	400	2340.0	Chemical Unit-2
10	119	Fhattepur sumali/ Chitra I	78°24'04.94"	28°89'82.10"	3760	21996.0	Chemical Unit-2
11	120	Salempur	78°24'73.15"	28°87'28.41"	3360	13979.3	Chemical Unit-2
12	222	Bhartal Sirsi	28°36'07.56"	78°30'24.55"	4250	24862.5	Chemical Unit-2
13	223	Bhartal Sirsi	28°36'01.44"	78°30'32.14"	4780	27963.0	Chemical Unit-2
14	224	Bhartal Sirsi	28°36'06.12"	78°29'33.61"	4620	27027.0	Chemical Unit-2
15	225	Khagupura	28°36'23.40"	78°31'43.27"	6920	40482.0	Chemical Unit-2
16	236	Dahpa	28°38'30.60"	78°27'24.43"	8090	47326.5	Chemical Unit-2
17	237	Dahpa	28°38'28.14"	78°26'59.27"	6920	40482.0	Chemical Unit-2
18	238	Dahpa	28°38'34.80"	78°26'49.20"	3930	22990.5	Chemical Unit-2
19	239	Dahpa	28°38'48.66"	78°27'12.40"	3760	21996.0	Chemical Unit-2
20	240	Dahpa	28°38'54.44"	78°27'02.43"	2550	14917.5	Chemical Unit-2
21	241	Dahpa	28°38'48.14"	78°26'56.78"	1240	7254.0	Chemical Unit-2
22	90	Rudayan	28°30'02.90"	78°29'37.15"	7710	45103.5	Chemical Unit-2
23	227	Mehrana	28°34'44.76"N	78°27'3.09"E	3280	19188.0	Chemical Unit-2
24	228	Mehrana	28°34'9.84"N	78°28'0.11"E	1090	6376.5	Chemical Unit-2
25	229	Sujadpur	28°34'45.59"N	78°28'4.37"E	1300	7605.0	Chemical Unit-2
26	230	Sujadpur	28°34'36.12"N	78°28'9.70"E	2900	16965.0	Chemical Unit-2
27	231	Sujadpur	28°34'9.84"N	78°28'0.36"E	2830	16555.5	Chemical Unit-2
28	104	Sirsa Kunar	28°54'38.91"	78°31'50.26"	7570	44284.5	Chemical Unit-2
29	149	Imaliya	29°03'53.14"	78°17'55.95"	11630	68035.5	Chemical Unit-2
30	162	Adalpur Samdoo	29°02'26.30"	78°26'03.91"	7200	42120.0	Chemical Unit-2
31	317	Sakatpur	28°44'14.8554"	78°30'25.2354"	20420	119457.0	Chemical Unit-2
32	319	Isapur Shumali/ Musslepur	28°56'54.24"	78°16'42.456"	5300	31005.0	Chemical Unit-2
33	320	Isapur Shumali/ Musslepur	28°56'27.6"	78°15'44.5572"	9260	54171.0	Chemical Unit-2
34	322	Halpura	28°55'44.04"	78°19'52.9176"	6190	36211.5	Chemical Unit-2
35	326	Pheena	29°4'12"	78°21'15.3072"	4810	28138.5	Chemical Unit-2
36	327	Pheena	29°4'1.92"	78°21'19.1772"	6830	39955.5	Chemical Unit-2
37	334	Pali ki Mandaiya	28°38'54.6432"	78°29'54.9996"	9200	53820.0	Chemical Unit-2
38	335	Pali ki Mandaiya	28°38'21.9732"	78°29'38.3604"	6770	39604.5	Chemical Unit-2
39	336	Daudpur Jageer	28°42'47.52"	78°20'1.4316"	2630	15385.5	Chemical Unit-2
40	337	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0	Chemical Unit-2
41	360	Itala mafi	28°47'56.50"	78°38'22.15"	26400	154440.0	Chemical Unit-2
42	398	Barahi/Mohammadpur	28°40'12.85"	78°38'39.35"	45200	264420.0	Chemical Unit-2
					Total	**1915590.5**	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Distillery Unit)

S. No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	1	Koural	28°58'12.56"	78°20'19.28"	9060	53001.0	Distillery
2	4	Koural	28°58'41.55"	78°20'37.60"	17890	104656.5	Distillery
3	6	Koural	28°58'37.33"	78°21'08.52"	9630	56335.5	Distillery
4	10	Rahamapur Khasla	28°48'21.84"	78°18'56.55"	12830	75055.5	Distillery
5	11	Sadarpur	28°48'16.51"	78°19'48.62"	13310	77863.5	Distillery
6	24	Scharka	28°44'33.9"	78°14'54.5"	4700	27495.0	Distillery
7	26	Gangeshwari	28°33'14.2"	78°16'51.4"	5950	34807.5	Distillery
8	33	Mohammadabad	28°46'31.98"	78°09'55.62"	11700	45630.0	Distillery
9	36	Chuchela Kala	29°00'01.03"	78°16'09.54"	6280	29757.8	Distillery
10	39	Chuchela Kala	29°00'21.89"	78°16'41.45"	5100	29835.0	Distillery
11	42	Neeli Kheri	29°01'44.44"	78°13'50.48"	4660	19355.3	Distillery
12	43	Neeli Kheri	29°01'35.99"	78°13'41.66"	4050	16979.6	Distillery
13	56	Faiyaj Nagar	28°49'33.48"	78°23'29.96"	6070	35509.5	Distillery
14	57	Faiyaj Nagar	28°49'36.52"	78°23'42.57"	5060	23976.8	Distillery
15	65	Katai	28°48'45.93"	78°17'27.85"	12460	59041.7	Distillery
16	68	Katai	28°48'26.68"	78°17'12.41"	10520	61542.0	Distillery
17	87	Jihal	28°44'35.25"	78°24'14.65"	8220	48087.0	Distillery
18	489	Nagalia	28°52'0.87"	78°10'47.47"	10040	58734.0	Distillery
19	97	Chandarpur Khadar	28°33'47.30"	78°17'32.86"	28530	158555.5	Distillery
20	114	Nawada	78°15'42.13"	28°49'20.38"	4010	19001.4	Distillery
21	117b	Dhanori Mafi II	78°32'81.26"	28°81'03.53"	1170	6844.5	Distillery
22	117c	Dhanori Mafi III	78°33'34.39"	28°81'84.77"	490	2866.5	Distillery
23	118	Fhattepur sumali/ Chitra I	78°24'66.90"	28°90'88.02"	9390	54931.5	Distillery
24	216	Manni Khera	28°38'6.72"	78°25'55.9668"	7350	42997.5	Distillery
25	232	Rajpura	28°41'48.48"	78°21'25.6788"	2060	12051.0	Distillery
26	235	Tuklabad	28°45'31.68"	78°24'50.2524"	1980	11583.0	Distillery
27	242	Asmoli	28°42'2.16"	78°31'44.8716"	4860	28431.0	Distillery
28	251	Hasanpur	28°48'4.9968"	78°35'29.8104"	9160	53586.0	Distillery
29	253	Hatwa	28°49'11.28"	78°30'15.0624"	1460	8541.0	Distillery
30	254	Hatwa	28°49'14.16"	78°30'12.096"	1340	7839.0	Distillery
31	255	Fasgari (Hatwa)	28°49'14.16"	78°30'12.1104"	1250	7312.5	Distillery
32	258	Bhikanpur Mundha	28°47'29.76"	78°31'9.84"	3360	19656.0	Distillery
33	259	Bhikanpur Mundha	28°47'7.8"	78°30'58.5324"	7290	42646.5	Distillery
34	260	Bhikanpur Mundha	28°47'13.2"	78°30'58.0716"	2020	11817.0	Distillery
35	261	Bhikanpur Mundha	28°47'13.56"	78°30'57.2364"	1300	7605.0	Distillery
36	262	Bhikanpur Mundha	28°46'58.08"	78°30'59.472"	1630	9535.5	Distillery
37	263	Bhikanpur Mundha	28°47'4.56"	78°30'58.3128"	6720	39312.0	Distillery
38	264	Tikiya	28°48'30.96"	78°30'5.6376"	4050	23692.5	Distillery
39	266	Dulepur band urf Darapur	28°45'5.2056"	78°30'21.1752"	8250	48262.5	Distillery
40	280	Emliya	29°3'55.08"	78°17'54.5928"	10120	59202.0	Distillery
41	281	Emliya	29°4'13.44"	78°17'42.198"	12650	74002.5	Distillery
42	282	Sarakthal	29°3'24.12"	78°20'1.0824"	5310	31063.5	Distillery
43	288	Bhudan pur Bilayat Nagar	28°49'5.16"	78°34'10.6824"	4290	25096.5	Distillery
44	290	Dhaki	28°59'30.48"	78°36'1.6488"	12990	75991.5	Distillery
45	292	Jamuna Khas	29°2'11.4"	78°29'20.1408"	6680	39078.0	Distillery
46	298	Adalpur Samdoo	29°2'48.48"	78°26'20.76"	7210	42178.5	Distillery
47	303	Haripur Milak	28°43'58.5078"	78°27'56.5344"	6960	40716.0	Distillery
48	306	Gyanpur Sisona	28°54'52.9194"	78°19'6.7902"	16680	97578.0	Distillery
49	307	Gyanpur Sisona	28°55'37.1994"	78°19'26.8356"	4700	27495.0	Distillery
50	308	Gyanpur Sisona	28°55'38.2794"	78°19'54.159"	6520	38142.0	Distillery
51	309	Gyanpur Sisona	28°55'44.0394"	78°19'52.9176"	4130	24160.5	Distillery
52	310	Gyanpur Sisona	28°55'16.6794"	78°37'4.4538"	4500	26325.0	Distillery
53	311	Gyanpur Sisona	28°58'50.1594"	78°24'57.7296"	6230	36445.5	Distillery
54	312	Kathna	28°40'57.9354"	78°26'19.734"	4520	26442.0	Distillery
55	313	Chittawali	28°42'20.0772"	77°46'15.7686"	8740	51129.0	Distillery
56	314	Chittawali	28°41'40.5378"	77°46'3.8676"	3720	21762.0	Distillery
					Total	2211538.1	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Power Plant)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	16	Hoshangpur	28°51'47.7"	78°17'52.8"	4820	28197.0	Power Plant
2	17	Nagalia	28°52'10.9"	78°18'01.7"	5180	30303.0	Power Plant
3	25	Karanpur Mafi	28°44'23.1"	78°18'41.1"	19790	115771.5	Power Plant
4	501	Shekhpur Jakri	28° 43' 56.712" N	78° 19' 3.936" E	33570	196384.5	Power Plant
5	30	Berkhera	29°00'02.3"	78°11'49.5"	5790	33871.5	Power Plant
6	31	Sujmana	28°56'53.0"	78°10'04.0"	10800	63180.0	Power Plant
7	38	Chuchela Kala	29°00'35.55"	78°16'36.58"	5300	31005.0	Power Plant
8	54	Gulsua	28°41'13.32"	78°21'53.46"	22780	133263.0	Power Plant
9	88	Bartora	28°34'16.13"	78°14'31.88"	4170	11384.1	Power Plant
10	71	Agrola Kala	28°46'10.82"	78°14'07.96"	38500	225225.0	Power Plant
11	503	Rajheda Bahadurpur	28° 45' 28.332" N	78° 20' 23.964" E	12340	72189.0	Power Plant
12	535	Rajheda Bahadurpur	28° 45' 36.216" N	78° 20' 48.66" E	17000	99450.0	Power Plant
13	323	Patni Kalsa	28°48'5.04"	78°34'28.7256"	4500	26325.0	Power Plant
14	325	Kailsa	28°52'4.44"	78°33'32.7564"	7980	46683.0	Power Plant
15	478	Kadurpur Masti	28°40'29.7624"	78°44'45.564"	6360	37206.0	Power Plant
16	479	Kadurpur Masti	28°40'48.5364"	78°44'35.7"	27680	161928.0	Power Plant
17	480	Harthala	28°42'41.04"	78°35'26.1996"	11520	67392.0	Power Plant
18	481	Harthala	28°42'20.52"	78°36'4.0032"	13470	78799.5	Power Plant
19	482	Harthala	28°42'17.64"	78°36'9.6228"	11640	68094.0	Power Plant
20	483	Harthala	28°41'1.68"	78°36'39.9996"	14410	84298.5	Power Plant
21	481	Sisota Milak	28°42'20.52"	78°36'4.0032"	8740	51129.0	Power Plant
22	482	Tanda	28°48'8.73"	78°18'8.064"	8740	51129.0	Power Plant
23	483	Karanpurmafi	28°44'23.7192"	78°18'40.932"	19790	115771.5	Power Plant
24	492	Siali Jagir	28°48'1.7352"	78°16'32.736"	7330	42880.5	Power Plant
25	497	Chakori	28°44'7.2312"	78°20'31.65"	9790	57271.5	Power Plant
26	499	Seikhpur Jhakri	28°43'58.9656"	78°19'2.82"	6640	38844.0	Power Plant
27	504	Rajheda	28°45'35.0388"	78°20'47.9904"	17000	99450.0	Power Plant
28	505	Rajheda	28°45'42.5916"	78°21'29.844"	12750	74587.5	Power Plant
29	506	Brahmawaad	28°42'14.4432"	78°21'26.928"	14000	81900.0	Power Plant
30	508	Badhamla	28°35'34.0872"	78°28'0.084"	6150	35977.5	Power Plant
31	509	Badhamla	28°35'31.8228"	78°28'0.5772"	6720	39312.0	Power Plant
32	27	Rahra	28°32'04.09"	78°18'51.1"	4290	25096.5	Power Plant
33	32	Rahra	28°31'44.41"	78°19'01.08"	11970	70024.5	Power Plant
34	510	Lakhori Jalalpur	28°35'27.9888"	78°29'37.2588"	20920	122382.0	Power Plant
35	511	Lakhori Jalalpur	28°35'7.7532"	78°30'11.7"	12750	74587.5	Power Plant
36	512	Lakhori Jalalpur	28°34'58.3896"	78°29'31.7652"	13960	81666.0	Power Plant
37	513	Lakhori Jalalpur	28°35'39.1128"	78°29'39.8112"	10800	63180.0	Power Plant
38	514	Bhatola	28°33'36.3276"	78°29'4.0524"	8090	47326.5	Power Plant
39	515	Bhatola	28°32'54.8808"	78°28'10.3296"	6560	38376.0	Power Plant
40	516	Jujhalachak	28°59'14.3376"	78°12'2.844"	10720	62712.0	Power Plant
41	517	Chandnagar	28°52'24.4596"	78°22'20.0568"	7090	41476.5	Power Plant
42	518	Chandnagar	28°52'28.29"	78°22'35.22"	7050	41242.5	Power Plant
43	519	Chandnagar	28°52'34.2984"	78°22'58.6452"	7170	41944.5	Power Plant
44	520	Chandnagar	28°52'16.8312"	78°22'44.0076"	6760	39546.0	Power Plant
45	521	Meleuiya	28°57'9.3132"	78°17'19.3884"	9000	52650.0	Power Plant
46	523	Sirsa Kunar	28°54'38.91"	78°31'50.26"	7570	44284.5	Power Plant
47	524	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0	Power Plant
48	525	Hakampur	28°38'7.4292"	78°16'11.676"	9380	54873.0	Power Plant
49	526	Ambera	29°15'49.179"	78°17'15.1182"	6410	37498.5	Power Plant
50	527	Ambera	29°15'20.6886"	78°16'58.8102"	6450	37732.5	Power Plant
51	494	Bhadora	29°40'20.6886"	78°16'56.82"	5470	31999.5	Power Plant
52	495	Bhadora	29°41'18.6886"	78°18'50.46"	4660	27261	Power Plant
					Total	3372969.6	

Jubilant Agri & Consumer Products,Gajraula

Details of Recharge Structure Constructed for Over- Exploited Condition (Polymer Unit)						
S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	Sarkari Azeez	28.8264030	78.4509320	5870.0	35220.0	Polymer Unit
2	Mirpur	28.8258880	78.3128810	4490.0	26940.0	Polymer Unit
3	Karmallipur	28.8638190	78.1978600	5630.0	28177.6	Polymer Unit
4	Karmallipur	28.8647170	78.2001200	2470.0	12362.1	Polymer Unit
5	Redra	28.8699870	78.1893600	5350.0	26776.2	Polymer Unit
6	Redra	28.8674470	78.1928300	5550.0	27777.2	Polymer Unit
7	Nangalia	28.8659340	78.1803360	4980.0	24924.4	Polymer Unit
8	Bhadora	28.7211800	78.3702850	4660.0	23322.8	Polymer Unit
9	Bhadora	28.7077710	78.3761440	4290.0	21471.0	Polymer Unit
10	Bhadora	28.7211800	78.3702850	4660.0	23322.8	Polymer Unit
11	Bhadora	28.7077710	78.3761440	4290.0	21471.0	Polymer Unit
12	Bhadora	28.7152800	78.3604900	5470.0	27376.8	Polymer Unit

Jubilant Agri & Consumer Products,Gajraula

Details of Recharge Structure Constructed for Over- Exploited Condition (Fertilizer Unit)

S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	Sahvajpur Door	28.8053680	78.2085250	15300.0	91800.0	Fertilizer Unit
2	Atali Muridpur	28.8238320	78.2976330	14780.0	88680.0	Fertilizer Unit
3	Faundapur	28.8464250	78.2639570	7120.0	42720.0	Fertilizer Unit
4	Khalakpur Khurd	28.8801960	78.4337450	7140.0	42840.0	Fertilizer Unit
5	Dhera Nikat	28.735.984	78.3931550	5050.0	30300.0	Fertilizer Unit
6	Seetala sarai	28.5326710	78.3963330	2750.0	16500.0	Fertilizer Unit
7	Dhawarsi	28.5791450	78.3861910	8300.0	49800.0	Fertilizer Unit
8	Nanhera	28.5140480	78.3431080	2790.0	13963.7	Fertilizer Unit
9	Maleshiya	29.0259090	78.1814390	5790.0	28978.4	Fertilizer Unit
10	Maleshiya	29.0259110	78.1814320	3040.0	15214.9	Fertilizer Unit
11	Dhaki	28.5930.48	78.36'1.6488	2910.0	14564.3	Fertilizer Unit
12	Sarakthal	29.324.12	78.20'1.0824"	3670.0	18368.0	Fertilizer Unit
13	Gajasthal	28.9806	78.4160364	5060	25324.794	Fertilizer Unit
14	Baserataga	29.02.40.32	78.28.18.20	7460	37336.554	Fertilizer Unit
15	Baserataga	29.02.40.39	78.28.18.36	6400	32031.36	Fertilizer Unit
16	Baserataga	29.02.40.28	78.28.18.39	13280	66465.072	Fertilizer Unit
17	Baserataga	29.02.40.48	78.28.18.35	7460	37336.554	Fertilizer Unit
18	Daurala	28.9147	78.31855271	3680	18418.032	Fertilizer Unit
19	Arola mafi / petiyamafi	28.8061	78.61368957	5020	25124.598	Fertilizer Unit
20	Arola mafi / petiyamafi	28.8037	78.61097037	2500	12512.25	Fertilizer Unit
21	Shiwala	29.0428	78.37020472	3950	19769.355	Fertilizer Unit
22	Brahmawaad	28.710979	78.339912	5710	28577.979	Fertilizer Unit
23	Akbarpur Sihali	28.9995	78.5792	3320	16616.268	Fertilizer Unit
24	Rudayan	28.3002.70	78.2937.30	4170	20870.433	Fertilizer Unit
25	Rudayan	28.3002.85	78.2937.45	3720	18618.228	Fertilizer Unit
26	Bhudan pur Bilayat Naga	28.4953	78.3410.68	3680	18418.032	Fertilizer Unit
27	Sondhan Mohmmadpur	28.5259	78.4427736	4160	20820.384	Fertilizer Unit
28	Sondhan Mohmmadpur	28.5305	78.43788376	2790	13963.671	Fertilizer Unit
29	Bakaina	29.0433	78.49610127	5470	27376.803	Fertilizer Unit
30	Haripur Milak	28.4358.5078	78.2756.5344	4160	20820.384	Fertilizer Unit
31	Haripur Milak	28.4358.5029	78.2756.5370	2790	13963.671	Fertilizer Unit
32	Qutibpur Sakta	28.7292	78.4965	4240	21220.776	Fertilizer Unit
33	Pali ki Mandaiya	28.3854.6460	78.2954.9955	4880	24423.912	Fertilizer Unit
34	Karmallipur	28.863819	78.19786	5630	28177.587	Fertilizer Unit
35	Karmallipur	28.864717	78.20012	2470	12362.103	Fertilizer Unit
36	Redra	28.869987	78.18936	5350	26776.215	Fertilizer Unit
37	Redra	28.867447	78.19283	5550	27777.195	Fertilizer Unit
38	Sehra	28.902397	78.465042	2630	13162.887	Fertilizer Unit
39	Seikhpur Jhakri	28.720451	78.32558	4330	21671.217	Fertilizer Unit
40	Seikhpur Jhakri	28.72416	78.31943	4050	20269.845	Fertilizer Unit
41	Nangalia	28.865934	78.180336	4980	24924.402	Fertilizer Unit
42	Jujhela	29.0471	78.356694	3160	15815.484	Fertilizer Unit
43	Shawabaaz Pur	29.0473	78.304939	3200	16015.68	Fertilizer Unit
44	Burawali	28.6135	78.2811	5630	28177.587	Fertilizer Unit
45	Seikhpur Jhakri	28.435668	78.19398	3200	16015.68	Fertilizer Unit
46	Nangalia	28.5204	78.10479	2510	12562.299	Fertilizer Unit
47	Gajasthal	28.9806002	78.4160364	3640	18217.836	Fertilizer Unit

Each rainwater harvesting structure is designed for a recharge capacity of about 500 CuM/day. The recharge structures are inspected and cleaned to remove silt and/or replace with fresh filter media if required, every year prior to monsoon.

The rain water Harvesting Structures were inspected by the office of the Regional Director, CGWB, Lucknow in May 2019 during the NOC renewal and the NoC renewal was recommended to CGWA New Delhi.

6. Is there any agency providing water to the unit?
   Response: No

7. Is there any development or planning to reduce the overall water consumption in the Industry? If any, please elaborate.

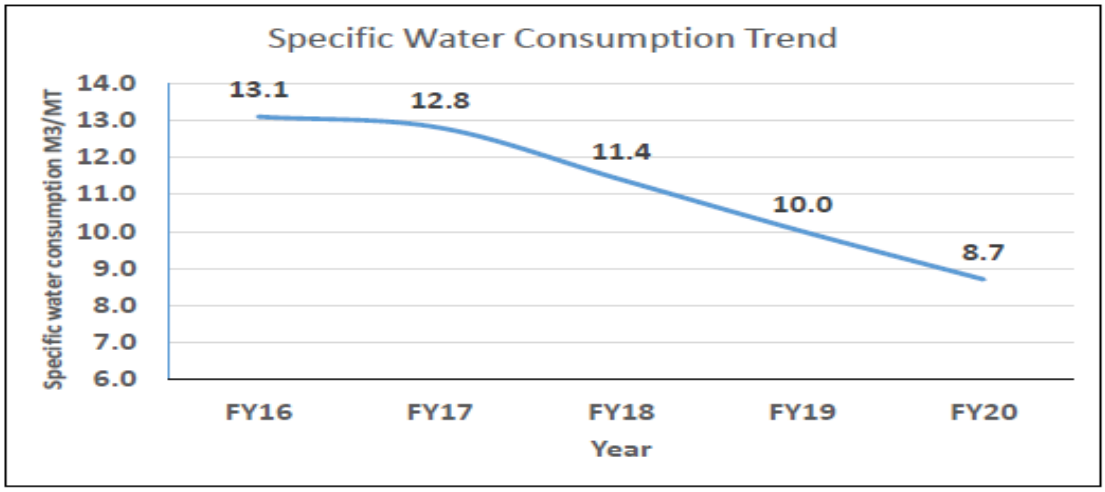
   Response: Yes, reduction of water consumption has always been our top most priority. Our specific water consumption trend is attached as figure below that shows decreasing trend in terms of year wise specific water consumption.

   Further, additional initiatives are being implemented for reduction in fresh ground water extraction through:

   1. Collection of rainwater runoff from manufacturing plant area and reuse during monsoon season.
   2. Sourcing treated sewage from Gajraula municipality as and when STP is installed for sewage treatment, which is presently discharged to Bagad or Oxidation ponds.

Specific Water Consumption trend (FY16-FY20)

For the integrated Captive coal power, Molasses Distillery and Chemical manufacturing complex of M/s Jubilant Life Sciences Limited, Gajraula.



8. Has the water meters being installed in the Industry? If yes, what is the monitoring mechanism and standardisation process being followed?

Response: Yes. Water meters are installed for every ground water extraction well and supply to major consumption points in every unit. The water consumption is metered and records are maintained through daily logbooks/Registers.

The major points of water meter installed are,

1. Water Extraction at each Bore wells,
2. Water consumption points,
3. Water recycling/reuse,
   a) RO permeates,
   b) Evaporator Condensate
   c) Treated Sewage Water

Periodic calibration of each meter is carried out by instrumentation department through a Calibration bench setup in-house with tractability from National Physical Laboratory.

9. Had any EIA being conducted for the industry? If any, please provide the details.

Response: Yes. Environment Impact Assessment studies was conducted through MoEF & CC accredited consultants in 2013 for Expansion project for our industry (Synthetic organic chemical) carried by M/s EQMS Consultants, New Delhi for seeking Environment Clearance.

Further, ground water extraction impact assessment study was carried out by M/s NEER, Ghaziabad in June'2020, for all our units for assessing the impact of Ground Water Extraction and was submitted to CGWA in June 2020.

10. What is the future plan of industry to work as per the NGT orders? Has any planning and progress being done to run industry as per the standards laid down by different applicable statutes and also the directions given by Hon'ble NGT:

Response: All observations and recommendations made by the Joint Inspection team of the NGT in the OA No. 107 of 2019 have been implemented and duly verified by the Joint Inspection team in Sept 2020 Re-inspection.

All units are operating in compliance to the standards laid down by different applicable statutes and the directions given by the Hon'ble NGT.

11. Please also attach the photographs wherever it is helpful with the compliance report?

Response: The pointwise compliance to the JIT recommendations along with Photographs showing implementation of the actions recommended by the JIT is attached in **Annexure-1.1**

Annexure-5

Gmail

Deepak Jain <neer.gzb@gmail.com>

Application for Accreditation-A request

Deepak Jain <neer.gzb@gmail.com> Tue, Nov 3, 2020 at 12:03 PM
To: rgi-cgwb@nic.in

Please Find enclosed

Dated 3rd Nov2020

To,

The Regional Director
Rajiv Gandhi National Ground Water Training and Research Institute,
Department of Water Resources, River Development and Ganga Rejuvenation,
Ministry of Jal Shakti Government of India
Sector-23 Atal Nagar, Naya Raipur Chhattisgarh

Reg.: Request to empanel as listed consultant for preparation of Impact Assessment report as desired vide Gazette Notification No SO 3289 E date dt.24thSep 2020

Respected Sir,

Kindly refer to issuance of **"Accreditation Policy of Ground Water Professionals"** on CGWA portal viz "NOCAP" regarding submission of application for Accreditation of the consultant for preparation of Impact Assessment report as desired vide Gazette Notification No SO 3289 E date dt. 24thSep 2020 with the following documents and FEE:

S. No.	Name of Document	Page No
1	DD No 463321dt 31.10.2020 amounting Rs 50,000.00 in favor of DDO, CGWB, SUO, RAIPUR issued by Corporation Bank, Sector 31 NOIDA, U.P. `	1
2	Duly filled and signed Application form on prescribed format	2-10
3	Brief profile of organization	11-13
4	CVs of Inhouse Project Coordinators and other technical human resource with consent letters	14-56
5	Letter of association of NABL lab	57-58
6	Compliance Certificates of the clients	59-71
7	Copy of Service Tax Registration dated 28.8.2006	72-73
8	Copy of GST registration dated 27.6.2017 (when GST was Introduced)	74-79
9	Copy of one Hydrogeological Report (Enclosed PDF separate file)	80-119
10	Copy of one report of Impact assessment (Enclosed PDF separate file)	120-onwards

Please find enclosed the above details for your perusal and approval.
It is therefore requested to empanel our name in your approved list of consultants.

Thanking you
With best regards
For **NEER**

(Er DEEPAK JAIN)

Enclosed: As above

--

Regd Office: 611, I-Thum Tower, Plot No.-A-40, Sector-62, Noida,

Gautam Budh Nagar, Uttar Pradesh.-201301

Branch office's:

Jaipur C-123, Dayanand Marg, 203 Gulab Enclave,

Tilak Nagar, Jaipur, Rajasthan-302004

Phone : 0120-4107278

website :www.neer.co.in
https://www.youtube.com/watch?v=4IVcPp6zUPE

6 attachments

Copy of Hydrogeological Report.pdf
1226K

Copy of Impact Assessment Report.pdf
4250K

CV & Consents of Project Coordinators & other.pdf
1269K

Completion certificates of Clients.pdf
635K

Request letter & Application Form.pdf
650K

Govt Registraions of NEER.pdf
558K

REPORT ON

IMPACT ASSESSMENT OF GROUND WATER WITHDRAWAL OF 14250 M^3/DAY

AT

BHARTIYAGRAM, GAJRAULA, DISTRICT AMROHA, UTTAR PRADESH

June 2020

Prepared by **NEER**

611 Ithum, Plot No A-40

Sector 62 NOIDA,

Uttar Pradesh-201301

www.neer.co.in

Phone 0120-4107278

CONTENTS

1 INTRODUCTION 3

1.1 BACKGROUND 4

1.2 DETAILS OF NOC'S ISSUED 4

2 OBJECTIVES AND SCOPE 4

3 REGIONAL SETTING 5

3.1 LOCATION 5

3.2 LAND USE 7

3.3 CLIMATE 8

3.4 TOPOGRAPHY AND DRAINAGE 8

4 GEOLOGY- REGIONAL AND LOCAL 11

4.1 REGIONAL GEOLOGY 11

4.2 GENERAL HYDROGEOLOGY 12

4.3 GROUND WATER CONDITION AROUND INDUSTRY 15

4.4 GROUND WATER WITHDRAWAL FROM SURROUNDING AREA 16

4.5 GROUND WATER WITHDRAWAL IN PLANT AREA 17

4.5.1 ZERO Discharge Plant 20

4.6 SPATIAL AND TEMPORAL VARIATION IN SINCE GRANT OF NOC 24

4.7 GROUND WATER QUALITY 29

5 IMPACT OF GROUND WATER EXTRACTION ON LOCAL GROUND WATER REGIME 30

5.1 HYDROGRAPH OF WATER LEVEL & TREND ANALYSIS OF HISTORIC WATER LEVEL 32

5.2 FLOW NET ANALYSIS 35

5.3 IMPACT ASSESSMENT OF RECHARGE STRUCTURE 48

6 CONCLUSION 51

1 INTRODUCTION

Jubilant Bhartia Group is an Indian MNC operating its largest Fertilizer and Synthetic Organic Chemical Manufacturing complex at Gajraula, UP since the early 1980's. The Group company M/s. Jubilant Life Sciences Limited (JLL) has 4 units as Captive Coal based Power plant, Molasses Based Distillery, Advance Intermediates and Fine Chemical Ingredients manufacturing units that manufactures high value-added Chemicals for Active Pharmaceutical ingredients and Life Sciences Chemicals for Domestic and Export to about 70 countries globally. The Group Company M/s Jubilant Agro Consumer Products Limited (JACPL) has two units for manufacturing Chemical Fertilizer and Polymers... Over the last three decades, Jubilant Life Sciences Limited has emerged as an integrated Pharmaceutical and Life Sciences Solution Provider offering products & services to its customers across the globe. All the above manufacturing units are located at Gajraula situated on the Delhi – Lucknow National Highway No 24, Gajraula Block, Amroha district of Uttar Pradesh and provides employment to about 4800 people.

Corporate Social Responsibility is an integral part of how the JLL and JACPL conducts business and how the efforts are directed towards community development through focus on primary education, basic healthcare service, drinking water, and livelihood generation programs focused on improving the employability of women and local youth. The companies have been recognized with several awards and recognitions, which bear testimony to the commitment towards operational excellence, innovation, corporate governance and social responsibility. JLL and JACPLL is committed to leverage innovation and scale of operations at every step of the pharmaceutical value chain to deliver value to our stakeholders.

Establishing such a huge infrastructure as part of its ongoing operations would essentially require the basic amenities such as power, water and manpower. Water being one of the most important commodities required for its entire manufacturing process and domestic requirement of its employees and their families, ground water is the only source of water in the area and its sustainability is one of the major concerns of the firm.

1.1 BACKGROUND

The average water requirement of all the 6 manufacturing units put together is around 15,200 m^3/day, against which the firm had applied for NOC to CGWA. CGWA had issued NOC for 14,250 m^3/day for all the 6 units functioning in the project area.

1.2 DETAILS OF NOC'S ISSUED

There are six units within the premises of M/s. JLL and JACPL, Gajraula. Each unit had independently obtained NOC from CGWA for withdrawal of ground water with specified number of tube wells, mandatory recharge and establishment of specific number of piezometers for monitoring of ground water levels. Details of each NOC is given in the table below:

S. No	Unit Name	Date of NOC	Nos of Wells	With-drawal permitted (m^3/ day)	Mandatory Recharge (m^3year)	Monitor-ing wells (PZ)	Remarks
	Jubilant Life Sciences Limited (JLL)						
1	Power Plant	18.04.2017	2	4700	834250	1	complied
2	Distillery Unit	19.04.2017	2	3000	1000000	1	complied
3	Chemical Unit 1	07.04.2017	2	2300	1060000	1	complied
4	Chemical Unit 2	07.04.2017	1	2600	460000	1	complied
	Jubilant Agri Consumer Products Limited (JACPL)						
5	Fertilizer Unit	07.04.2017	2	1400	364610	1	complied
6	Polymer Unit	07.04.2017	1	250	59000	1	complied
			10	**14250**	**3777860**	**6**	

All the above NOCs were valid for **two years** from the date of their issuance.

As per the conditions of NOC of CGWA for all the units compliance has been submitted to CGWA. An inspection by assigned officers from CGWA has also been carried out and inspection report has also been submitted to CGWA.

2 OBJECTIVES AND SCOPE

The objective of the study is to carry out impact assessment of ground water withdrawal and recharge on ground water regime in and around the plant area. The ground water withdrawal is being made by JLL & JACPL within the plant premises to the tune of 13,200 m^3/day as per the permission granted by Central Ground Water Authority vide NOCs issued and mentioned above. However, there are many

industrial units within the 2 Sq. Kms are of the JLL & JACPL units which are extracting ground water along with withdrawal that is being made by local population around the plant area for their drinking and domestic needs.

In order to achieve the objective, scope of study has been defined includes analysis of all the ground water withdrawal within 2 sq. km area and ground water recharge taking place within 2 sq. km area to conclude the impact of ground water withdrawal and recharge on ground water regime. Study of climate, land use, topography, drainage, geomorphology, geology, hydrogeology, ground water withdrawal and recharge to ground water has been carried out for comprehensive understanding of ground water regime in 2 sq. km area. It has been proposed to carry out following investigations and studies in and around the Project site: -

1. Detailed hydro-geological investigation in and around the project site to assess the ground water potential for development, yield prospects and design of the production wells in the area through application of advanced analytical tools.
2. Physiographic and Geo-morphological studies along with Remote Sensing data analysis to support the hydro-geological investigations and to determine the ground water conditions.
3. Compilation and collation of primary and secondary data in and around the project site to decipher subsurface lithology and disposition of the aquifer, ground water levels and areas suitable for ground water recharge.
4. Assessment of recharge potential and availability of monsoon runoff for "Rainwater harvesting and Artificial Recharge to Ground Water" for its augmentation.

3 REGIONAL SETTING

3.1 LOCATION

Project site is located in the Bhartia gram village of Gajraula block district Amroha. The project site is situated on northern side National Highway no 24 connecting Moradabad with Delhi. The administrative map of the district showing the location of proposed project site is given in **Fig. 3.1.** The location of the project site as demarcated on the satellite map is shown in **Fig. 3.2.** For the purpose of detailed investigation, 2 sq. km area around the site has been selected and being referred as study area throughout the text. For all practical considerations Gajraula block has

been considered as assessment unit for all the six units of JLL and JACPL, which is 'Over Exploited' assessment unit, as per Ground Water Resources Assessment (2017) carried out by CGWB. The map of Study area is given at **Fig. 3.3.**

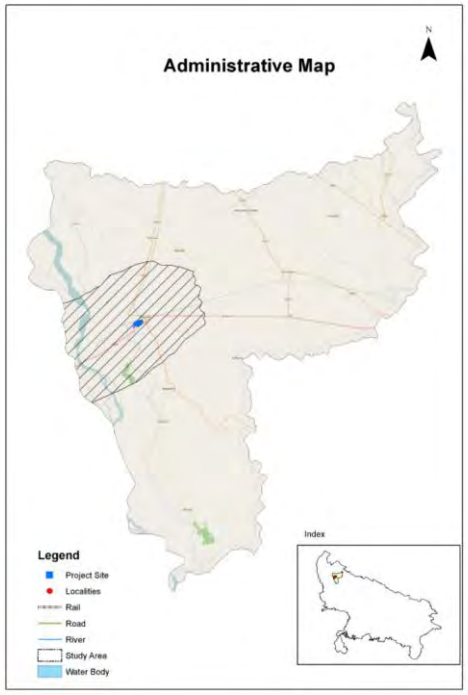


Fig. 3.1: Administrative Map of district Amroha with Gajraula block

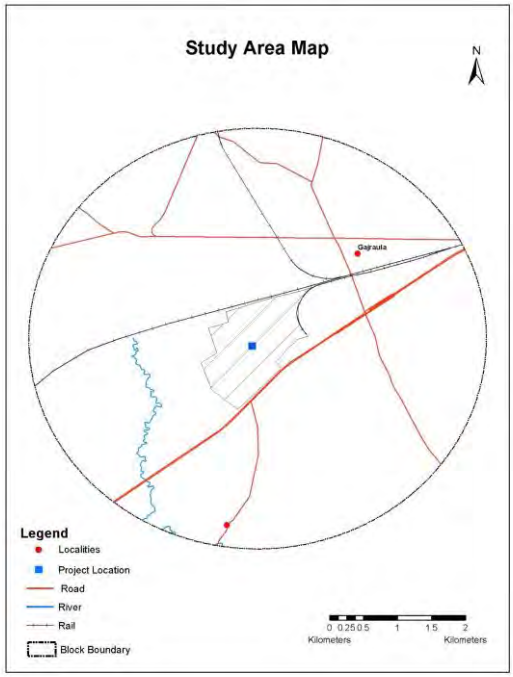


Fig. 3.3 : Study Area Map (2 sq. km area around plant boundary)

Fig. 3.2 : Google Map of the Project site

3.2 LAND USE

The study area enveloping 2 km radius area around the periphery of plant boundary comprises mainly Agriculture land, Industrial area and local settlements (habitation). Land use has been worked out from Satellite Image and found that around 16% area is covered by human settlements/ houses etc., Industrial area is around 19% and around 65% is covered by Agricultural land, villages, agro-forest, etc. All these land use zones are consuming ground water from their own sources. The land use maps are given at **Fig.3.4.** Table given below gives different land use falling within the study area. From the map it is apparent that the study area is not limited to Municipal limits but extends out of it, in surrounding rural areas also.

Table : Land Use of study area

S.No	Type of Land Use	Area (in Sq.km)
1	Habitation	4.55 (16%)
2	Industrial Area	5.43 (19%)
3	Agricultural Fields and others	18.56 (65%)

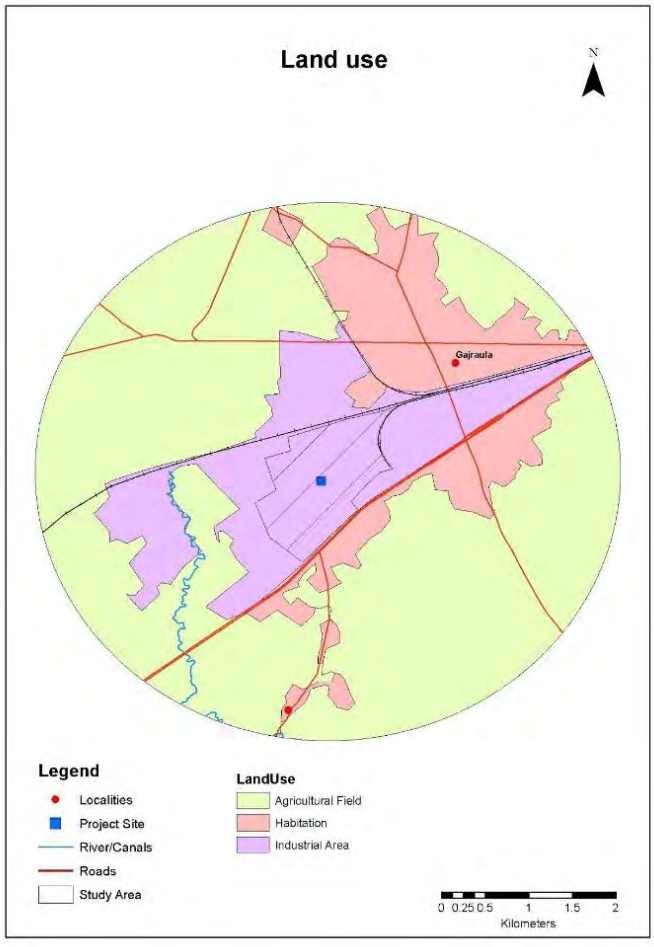


Fig.3.4 : Land use map of the study area

3.3 CLIMATE

Based on Koppen classification of climatic pattern, the area may be classified as moderate to sub-tropical and humid. The year is divided into four seasons. The period from December to February is the dry, comparatively cool season. The summer season is from March to Mid-July which is followed by the southwest monsoon season from July to September. October and November constitute the post monsoon or the retreating monsoon season.

Rainfall has been recorded at JLSL plant, Gajraula, and during the period from 2010 to 2019 has indicated average annual rainfall of 976 mm. However, normal annual rainfall at Amroha for 100-year period is 861.40 mm as reported by IMD. The following table gives the annual rainfall values as recorded at JLSL plant, Gajraula. There is no IMD meteorological station near the plant and the nearest station is at Moradabad, about 52 km in the east. The climatic conditions, except rainfall, are quite similar in plant area than recorded at Moradabad. The year is divided into four seasons. The period from December to February is the dry, comparatively cool season. The summer season is from March to Mid-July which is followed by the southwest monsoon season from July to September. October and November constitute the post monsoon or the retreating monsoon season. The period from April to June is marked by continuous increase in the temperatures. May is the hottest month of the year with a mean daily maximum and minimum temperature (in May) of 39.7°C and 23.8°C, respectively. With the onset of south west monsoon by about mid-July, the temperatures go down considerably. From November onwards, both the day and night temperatures decrease, January being the coldest month with daily maximum and minimum temperatures of 21.2°C and 7.4°C

3.4 TOPOGRAPHY AND DRAINAGE

Topographically the area is in general flat alluvium which is in downward side of the famous *Tarai* region of Uttar Pradesh. general slops are towards Ganga river the major drainage in the study area. A Digital Elevation Map (DEM) of the area has been prepared using available satellite data in public domain and analyzing through Image processing tools to better understand the topographical features, elevations and slopes of the area. The DEM map of the area is given in **Fig. 3.5.** From the DEM map it may be observed that in general the North Eastern parts of the study are at

relatively higher elevation as compared to southern western parts. The maximum elevation is 181 and Minimum is 134 m amsl.

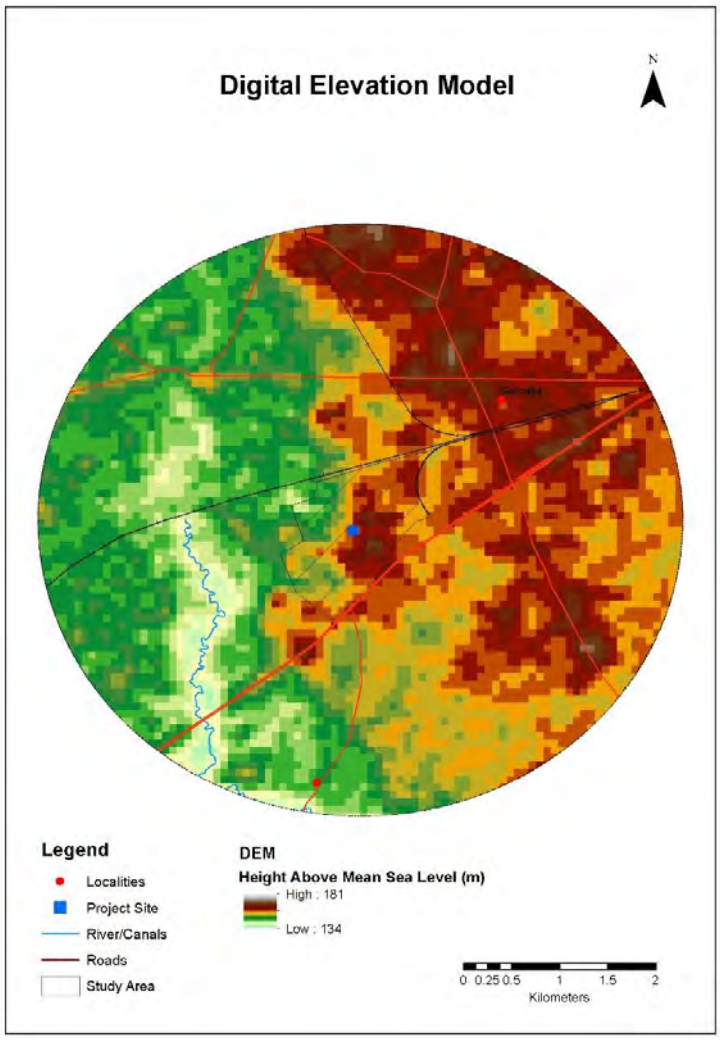


Fig. 3.5: Digital Elevation Model (DEM) of Study Area.

The study area falls in Ganga river basin. Ganga basin is a part of the composite Ganga-Brahmputra-Meghna basin. The basin lies in China, Nepal, India and Bangladesh and drains an area of 10,86,000 km^2. It is bounded on the north by the Himalayas, on the west by the Aravallis as well as the ridge separating it from Indus basin, on the south by the Vindhyan and Chhota nagpur plateau and on the east by the Brahmaputra ridge.

The area is drained by river Ganga in the west parts. The general flow direction in this part is from N to S. Other than River Ganga, Bagad River which is ephemeral in nature flow in the west of the project site towards south. The drainage map of the area depicting streams and canal network is shown in **Fig. 3.6.**

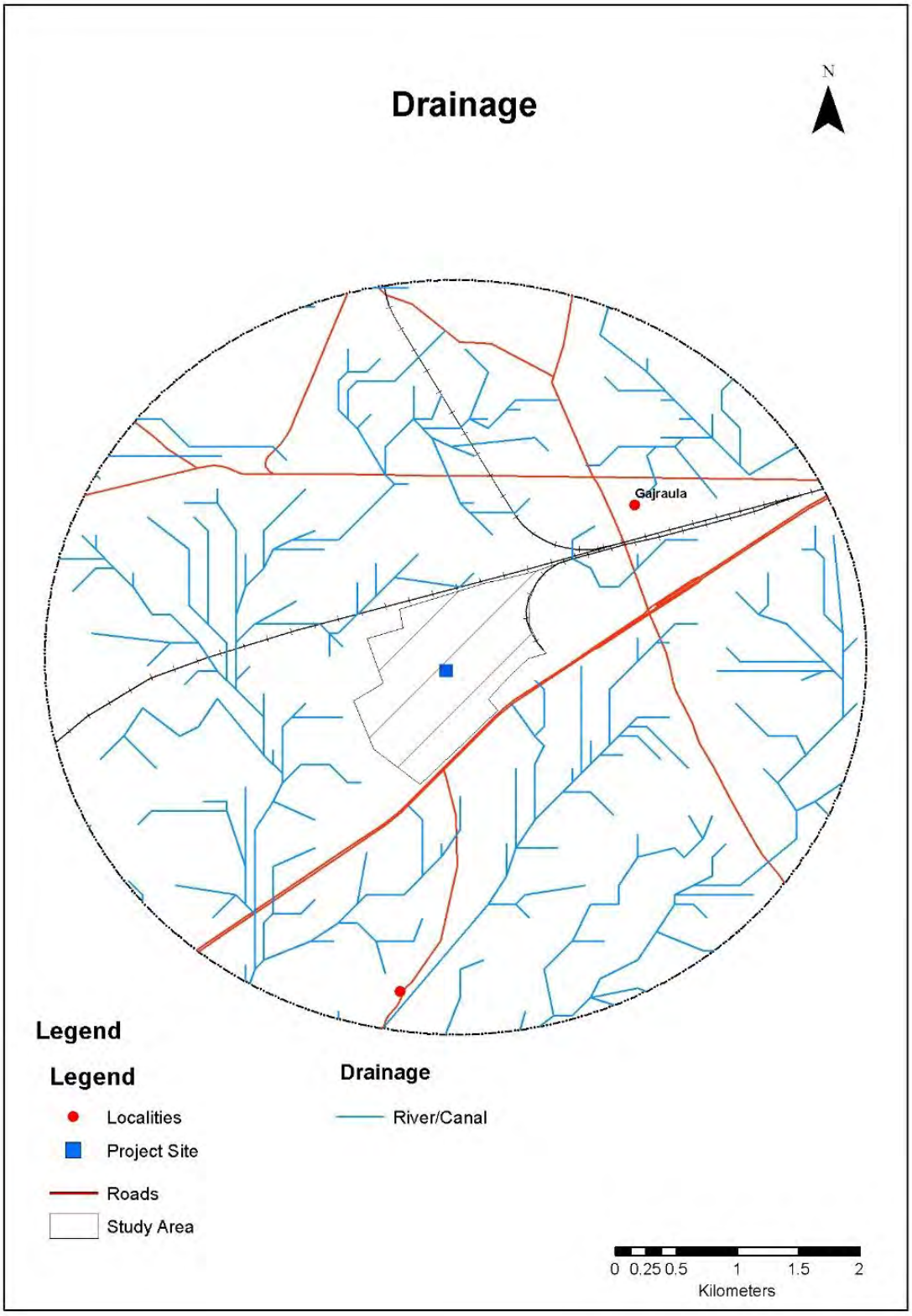


Fig. 3.6: Drainage Map of Study Area.

4 GEOLOGY- REGIONAL AND LOCAL

4.1 REGIONAL GEOLOGY

Regionally the study area lies in the Gangetic plains and is underlain by sedimentary formations of considerable thickness. Towards the north, these plains are bounded by a narrow belt of Siwalik sediments **(Table 4.1).** The rocks of Eocene to Lower Miocene age are present in the narrow faulted zones between the Siwaliks on the south and Tals, Krols and older rocks on the north. Towards the south of the plains lie on the rocks of Archeans, Proterozoic, Vindhyan, Gondwana and Rajmahal areas. Information on the geology and stratigraphy of the rocks underlying the Agnatic plains has been obtained from deep drilling at Ujhani, Kasganj & Tilhar which are around the buffer zone. The Gangetic plains have shown considerable amount of flexure and dislocation at the northern end bounded by the Himalayan Frontal Thrust.

Table 4.1 : Regional geological succession of the area

Age	Group/Formation	Lithology
Quaternary	Indo-Gangetic Plain	Sand, Silt, Clay, Kankar
	Tarai	Coarse sand, Clay, kankar
	Bhabhar	Coarse sand, Pebbles, Gravel
	Doon Gravel	Coarse sand, Pebbles, Gravel
Tertiary	Siwalik Group	Sandstone, Conglomerate

The study area is a part of the Gangetic plain. The Gangetic plain is a fore-deep, a down wrap of the Himalayan foreland. It is of variable depth and has been converted in to flat plains by long–vigorous sedimentation. This is known as a geosyncline and the Gangetic plain is the Indo-Gangetic Geosyncline. It is also known as the Ganga basin. The Ganga basin has the same strike as that of Himalayas (ESE-WNW). On the basis of the thickness of the sediments deposited in this basin, it can be divided in to two main parts: the frontal deep area (sediments more than 6,000 m thick), and the platform area

(sediments less than 6,000 m thick). Buffer zone falls in the frontal deep area. The lithology of the area is shown in **Table 4.2.**

The study area, as per the stratigraphy is composed of Formation I of the Quaternary Period, i.e. loose sand, kankar, gravel and pebbles with little silty and sandy clays and in general are referred as unconsolidated alluvial deposits.

Table 4.2-. Lithology of the buffer zone

Layer	Lithology	Thickness (m)
Formation I	Loose sand, Kankar, gravel and pebbles with little silty and sandy clays	189
Formation II	Soft sandstones and clay stones with sandstones predominating over clay stones	350
Formation III	Soft to moderately hard sandstones and clay stones almost in equal proportions	160
Formation IV	Mainly shales and limestones with subordinate sandstones	100
Formation V	Thick limestones with occasional thin bands of shales and sandstones.	50-140
Formation VI	Thick sandstones, shales and lava flows with thin layers of chlorite and tuffaceous materials. Sandstones are quarzitic and limestones are dolomitic.	311
Formation VII	Mainly sandstones with few thin bands of shales	300
Formation VIII	Mainly quartzites with intercalations and thin bands of phyllites and schists	> 100

(Source: SRTEE, 1971)

4.2 GENERAL HYDROGEOLOGY

Ground water occurs in the Pleistocene to Recent formations, under water table conditions in shallow aquifer while there are deeper aquifer zones having water under

sub-confined and confined conditions. In alluvium, the ground water is transmitted through the voids and interstitial openings. The alluvium is unconsolidated in shallow water table aquifer while it is poorly to poorly consolidated and is pervious in nature and has primary porosity. The hydrogeological map of the study area is given at **Fig. 4.1.**

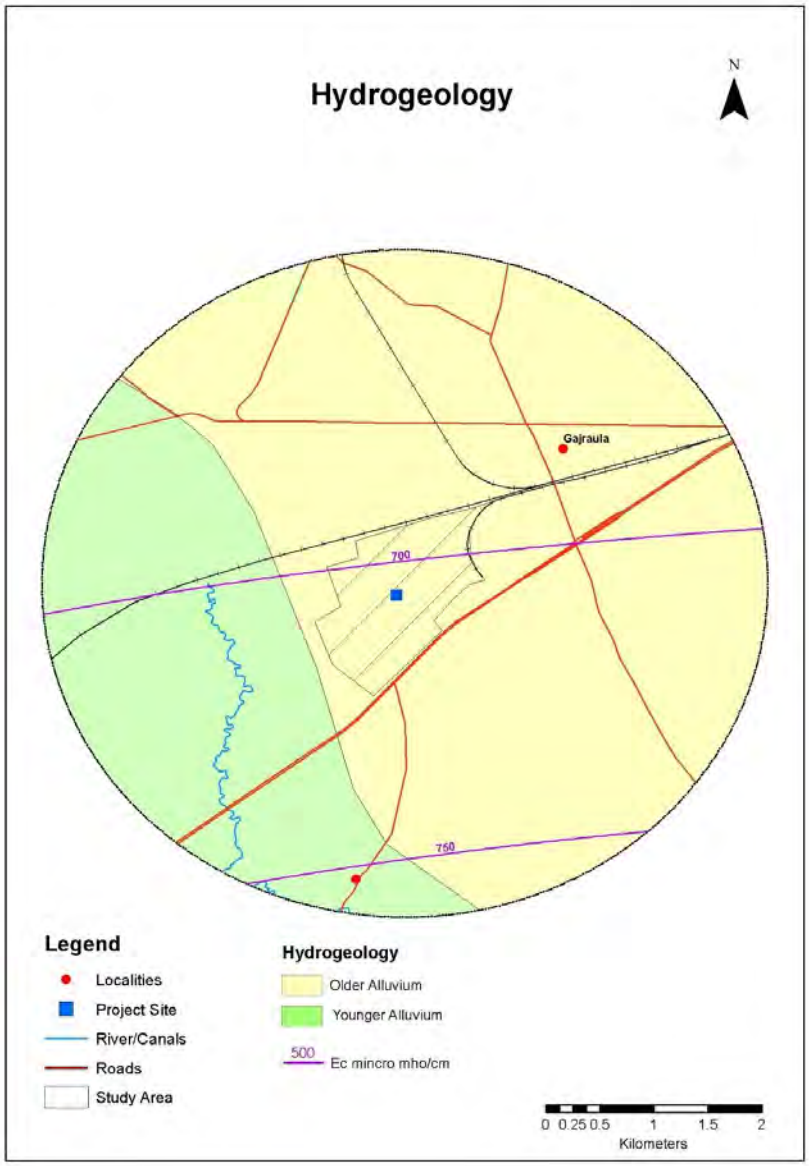


Fig. 4.1 : Hydrogeological Map of the study area

There are few prominent saturated granular horizons at depth in the area. Irrigations tube wells and hand pumps are tapping the 1st shallow aquifer zone up to depth of 20 meters from the land surface while industrial tube wells tap 1st sub-confined aquifer

zone occurring between 80 to 120 meters from the land surface for getting higher discharge.

As indicated, ground water movement is controlled mainly by the hydraulic conductivity of aquifer. A review of the topography and drainage pattern reveals that the general slope of the area is towards southwest, and ranges from 1 m/km to about 1.5 m/km. The ground water also follows the topography and surface water flow direction and moves in southwest direction. However, the hydraulic gradient is not so high and has been observed as hardly 0.5 m/km to 0.75 m/km as calculated from the monitoring of wells of the area.

The principal aquifer of the area is mainly alluvium have high hydraulic conductivity which is mainly developed due to interstitial openings of granular material. The hydraulic conductivity of granular horizons, mostly sand, with boulder and gravel is high. There are large number of irrigation wells mostly tube wells driven by centrifugal pumps. Pump tests carried by out in nearby areas on a tube well tapping alluvium has indicated hydraulic conductivity (K) of 30 to 50 m/day which can be classified as high.

The Central Ground Water Board had drilled an exploratory tube well (District Brochure, Moradabad, 2008-09) near Gajraula as Gajraula - I (28 49’ 40’’ N and 78 15’ 20” E) up to depth of 254.73 meters and had recorded the four aquifer zones from 160 to 172 m, 188 m to 200 m, 206 to 218 m and 227 to 233 meters. All these four zones encountered at depth below 120 meters shows that these four zones belong to 2nd confined aquifer. Wells operational around JLL and JACPL are of shallow depth and tapping shallow phreatic aquifer. Irrigation wells, in general are down to the depth of 20 to 30 m bgl and are pumped by centrifugal pumps by lowering suction pipe of 6 to 7 meters. The tube wells constructed by industries, for getting higher yield, tap next aquifer which is generally at depth from 50 m to 70 meters bgl. There are horizons of clays and silty clays between shallow phreatic aquifer and 1st sub-confined aquifer within depth range of 20 m to 80 meters. Such tube wells yield 100 to 150 m3/hour and submersible pumps of 60 H.P have been installed.

Based on the existing industries tube wells, CGWB exploratory tube well, findings of deep resistivity soundings and regional hydrogeology, a schematic hydrogeological

section has been prepared from Gajraula to the base of Shiwaliks (Haldwani) showing the disposition of different aquifers.

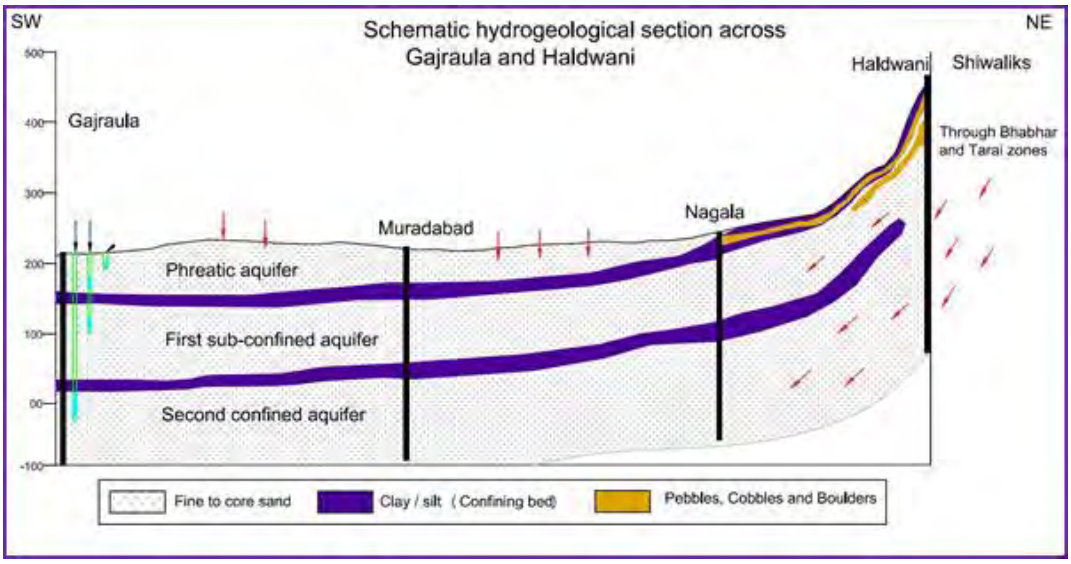


Fig. 4.2 : Schematic hydrogeological Cross Section Gajraula to Haldwani

4.3 GROUND WATER CONDITION AROUND INDUSTRY

The principal water bearing formations in the plant area and 2 km radius area from plant are mostly composed of sand, silty sand and sand with gravel with thin intercalations of clays which behave as confining bed. The depth to water table in plant area ranges from 12.0 to 13.14 meters below land surface during February 2020. The depth to water in surrounding study area ranges from 3.48 to 18.86 m bgl during February 2020. Shallow water levels are observed near streams, ponds and low-lying areas in buffer zone where it ranges from 0.2 to 0.50 meter.

There are large number of tube wells for irrigation. Generally, cultivators construct tube wells of 200 mm dia up to average depth of 15-20 meters by boring till granular horizon is encountered. A centrifugal pump is installed in the tube well with a suction pipe of 7 to 8 meters in length in the bore. Each such tube well yields about 30 to 50 m^3/hour. The pumps are mostly operated by electric motors of 7.5 to 10 H.P. There are large number of hand pumps mostly used for drinking purpose in villages. The yield of such hand pumps is not much and is just sufficient to meet the drinking water requirement. The yield of such hand pumps ranges from 500-1,000 litres per hour of potable quality of water.

4.4 GROUND WATER WITHDRAWAL FROM SURROUNDING AREA

Considering the land use of the study area and the data collected from the Municipal corporation and industries located in study area it has been found that large amount of ground water is being used in surrounding area. An attempt has been made to quantify the ground water withdrawal in surrounding areas. Sectoral Ground water withdrawal in study area other than JLL and JACPL plant is given below:

Table 4.3: Sectoral Ground Water Withdrawal in study area

S. No	Unit Name	Withdrawal permitted (m^3/ day)
	Other Industries	
1	INSILCO	4900
2	Umang Dairy	1700
3	TEVA	1455
4	Best Crop Science	97
5	Other small industries (more than 60 units)	8000
	Sub Total	**16152**
	Drinking & Domestic	
1	Nagar Palika	930
2	Self-Sourced person @135 lpcd for 60020	8102
	Sub Total	**9050**
1	Agriculture @ delta as 1.2 (around 1800 ha- based on land use data)	21600
	Total	**46802**

Ground Water withdrawal industrial (other than JLL and JACPL), domestic and agriculture purpose is around 46802 m^3 per day., The study area is concentrated mainly by industrial and urban settlements area with some peripheral agricultural activities. Ground water withdrawal indicates that industrial and urban share together is more than agriculture consumption of ground water. Whereas for the entire assessment unit, as per GWR Estimation 2017, ground water withdrawal for irrigation is around 10 times more than industries.

4.5 GROUND WATER WITHDRAWAL IN PLANT AREA

Ground water withdrawal in JLL & JACPL is through 8 tube wells withdrawing around 14,250 m^3 per day of ground water. Unit-wise details of withdrawal of ground water is given in table 4.4.

Table 4.4: Ground Water Withdrawal from JLL & JACPL

S.No	Unit Name	Withdrawal permitted (m^3/ day)
	Jubilant Life Science Limited (JLL)	
1	Power Plant	4700
2	Distillery Unit	3000
3	Chemical Unit 1	2300
4	Chemical Unit 2	2600
	Jubilant Agro Products Consumer Limited (JACPL)	
5	Fertilizer Unit	1400
6	Polymer Unit	250
	Sub Total	**14250**

All tube wells pump water from deeper aquifer at depth of 97-120 m bgl. The lithological log and well assembly of one existing tube well is shown in **Fig. 4.3.** Like this tube well, all the plant's tube wells tap water from mainly deeper aquifer at depth

of 97-120 m bgl. The location of existing 8 tube wells along with 4 piezometers is shown in the **Fig. 4.4.** Initially, when the tube wells were constructed, the discharge of each tube well was around 150 m3/hour but after long regular use, the discharge now reduced to 60 m^3/hour to 123 m^3/hour, may be due to encrustation of gravel pack and clogging of slots. So, to get the required quantity of water of 14,250 m^3/day, these areas operated for longer duration.

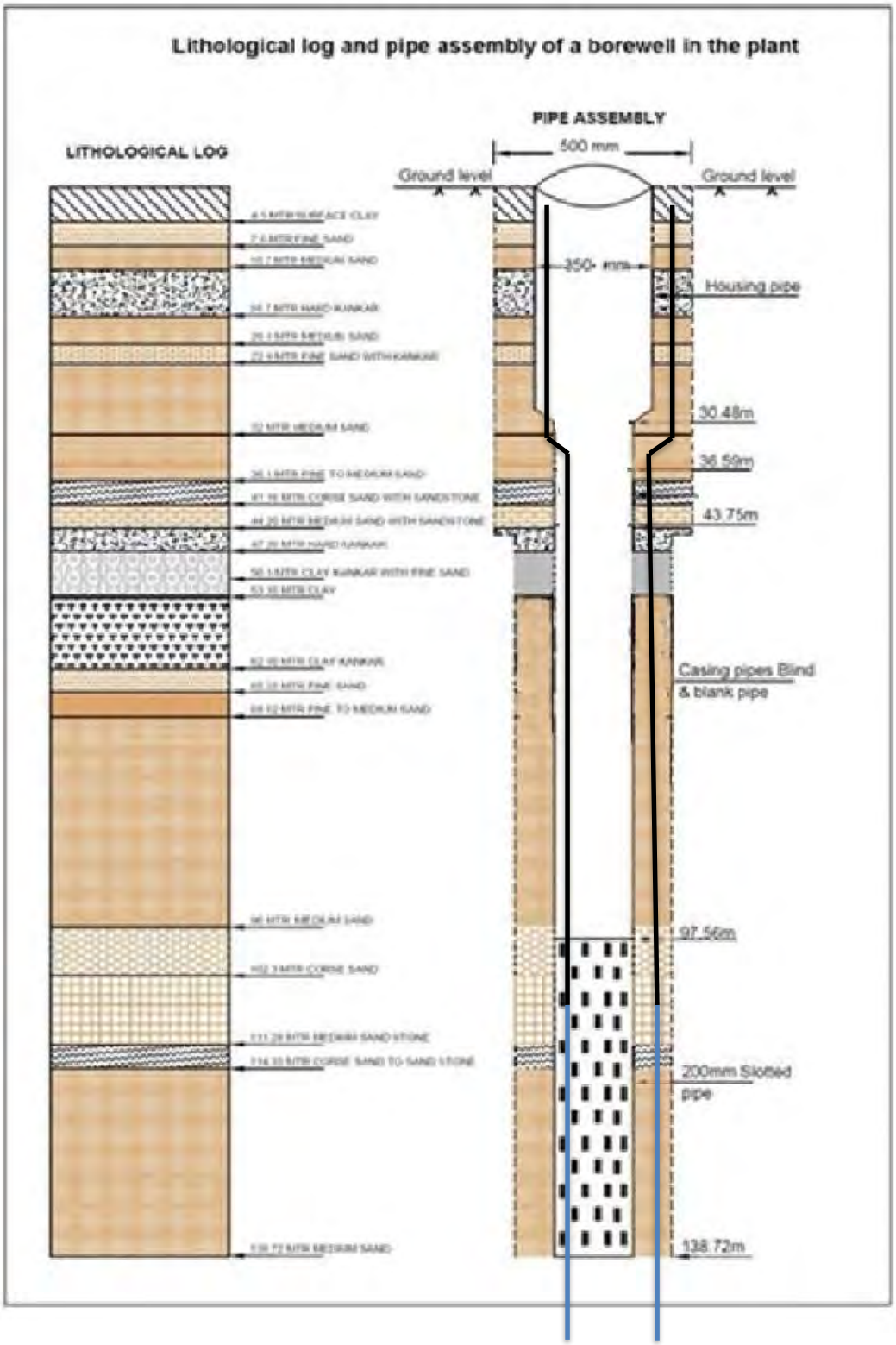


Fig. 4.3 : Lithological log and well assembly of one existing tube well

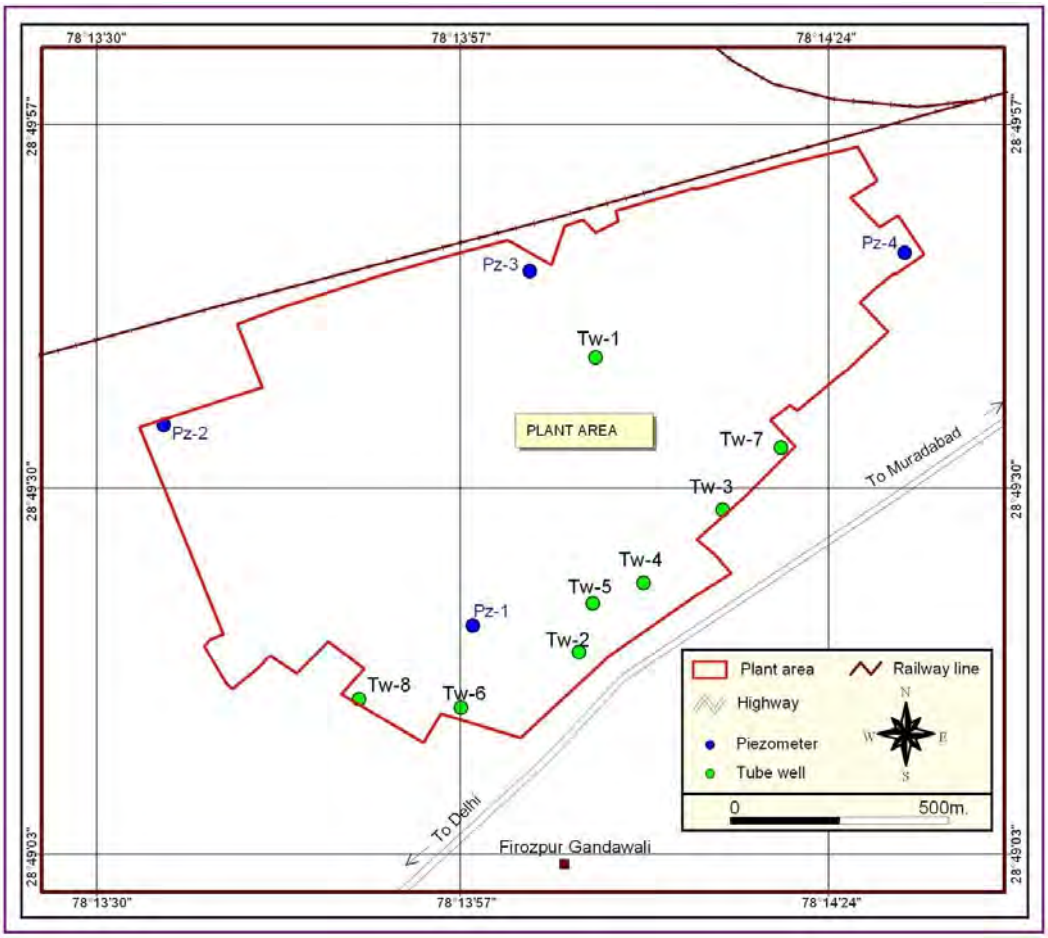


Fig. 4.4. Map of plant area showing the location of tube wells and piezometers

Total ground water withdrawal is 14250 m^3 per day from 8 wells constructed within the plant premises comprising 6 units.

4.5.1 ZERO DISCHARGE PLANT

Ground Water withdrawal in the JLL and JACPL Plants has been accorded by Central Ground Water Authority, wherein a water balance of the plant was elucidated, indicating a zero-discharge plant. The water consumption to achieve Zero Discharge Plant has been achieved by evolving consumptive use of ground water in such a way that there is exchange of excess water among the units based on the type of application and treatment required to make them suitable for reuse. So overall, optimal utilization of ground water withdrawal is being adopted in each units of the Plant. Detailed Water Balance of each unit is given below:

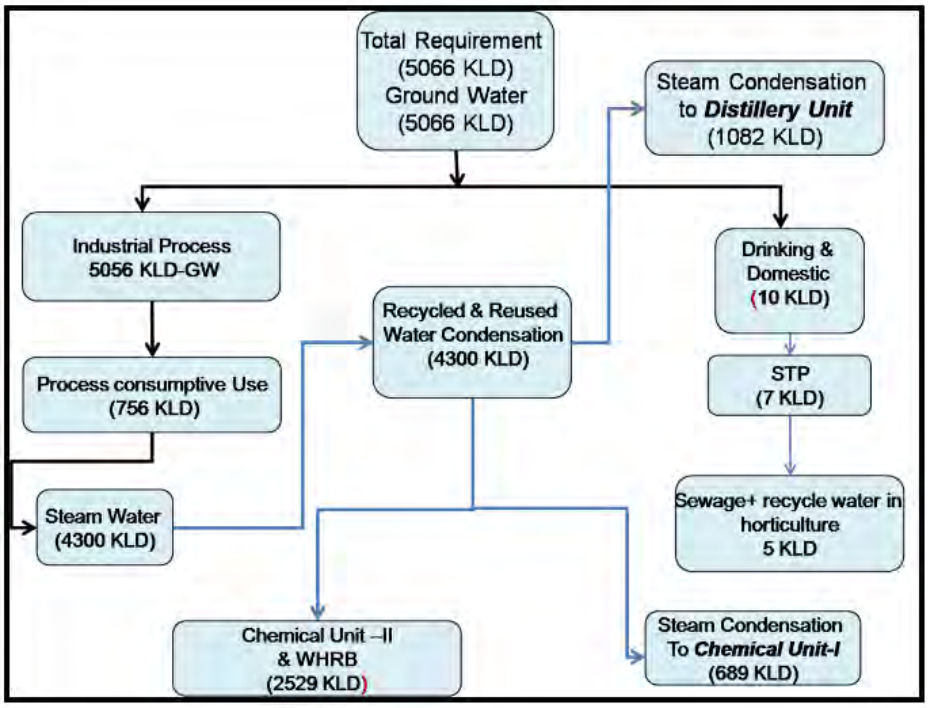


Figure 4.5: Water utilisation flow diagram in Power Plant

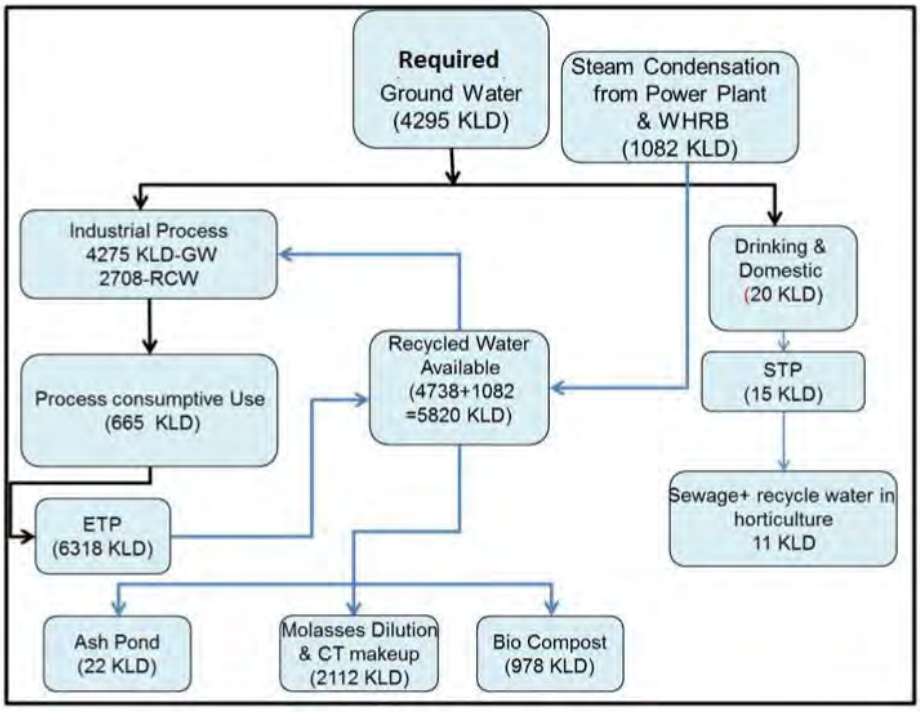


Figure 4.6: Water utilisation flow diagram in Distillery Unit

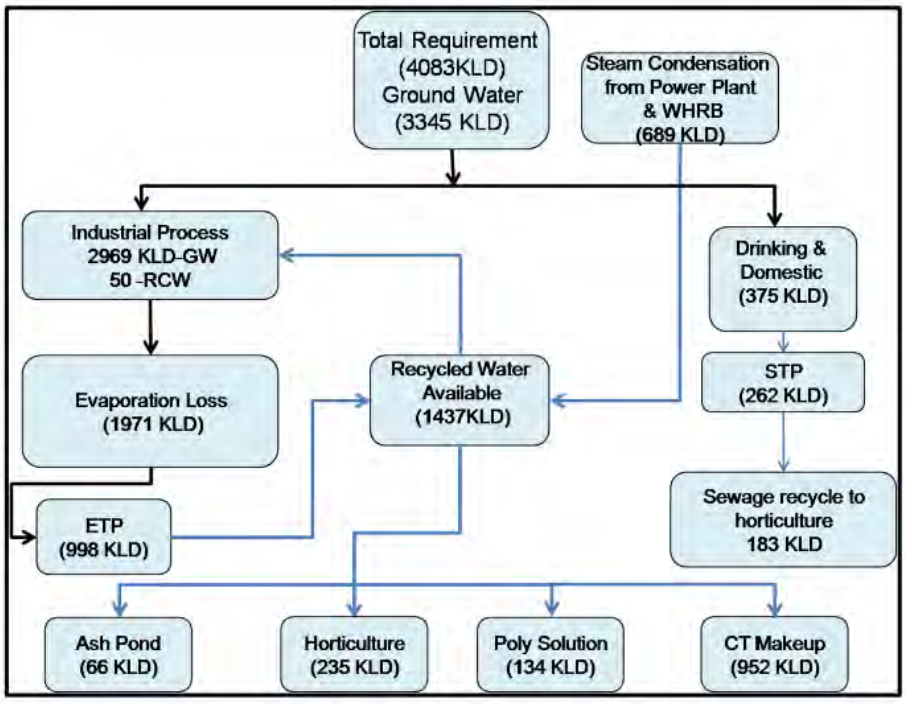


Figure 4.7: Water utilisation flow diagram in Chemical Unit-1

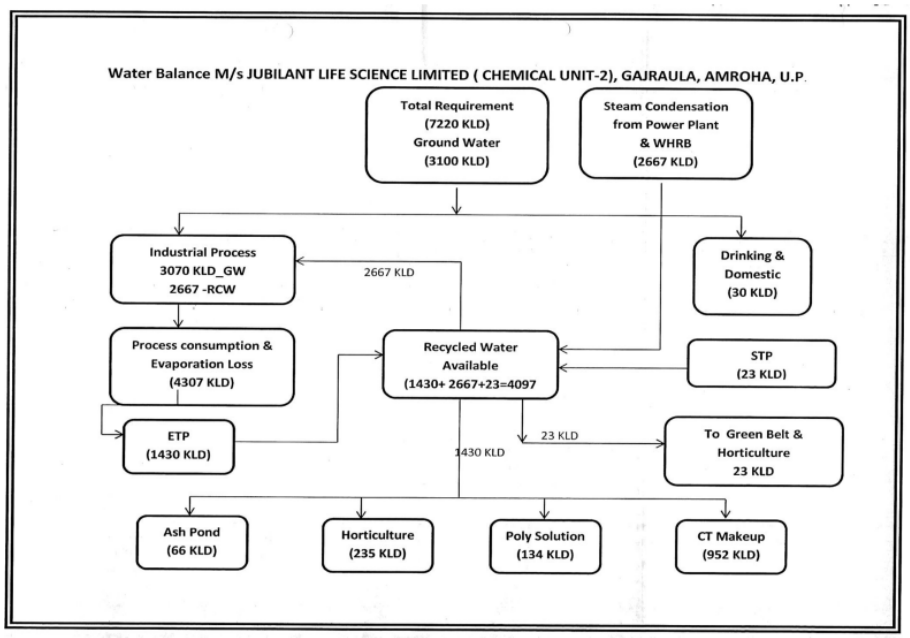


Figure 4.8: Water utilisation flow diagram in Chemical Unit-2

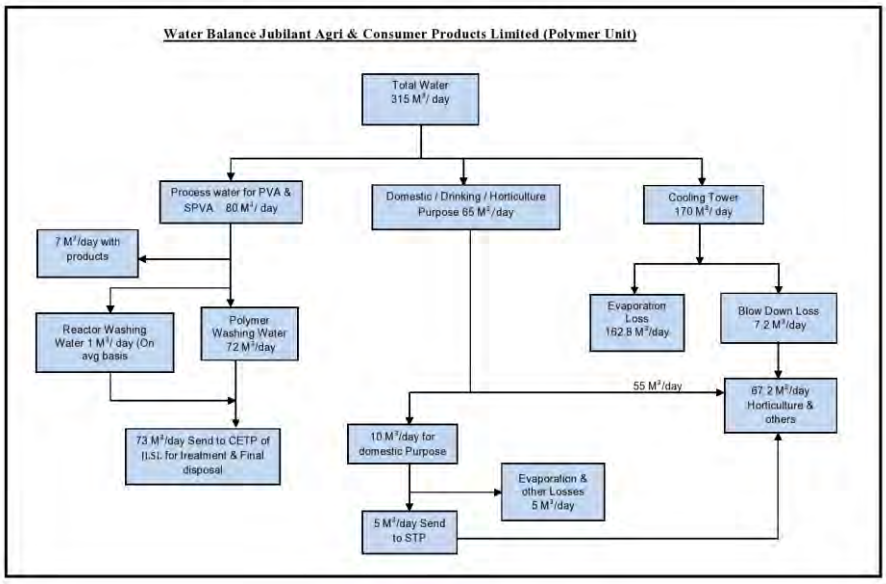


Figure 4.9: Water utilisation flow diagram in Polymer Unit

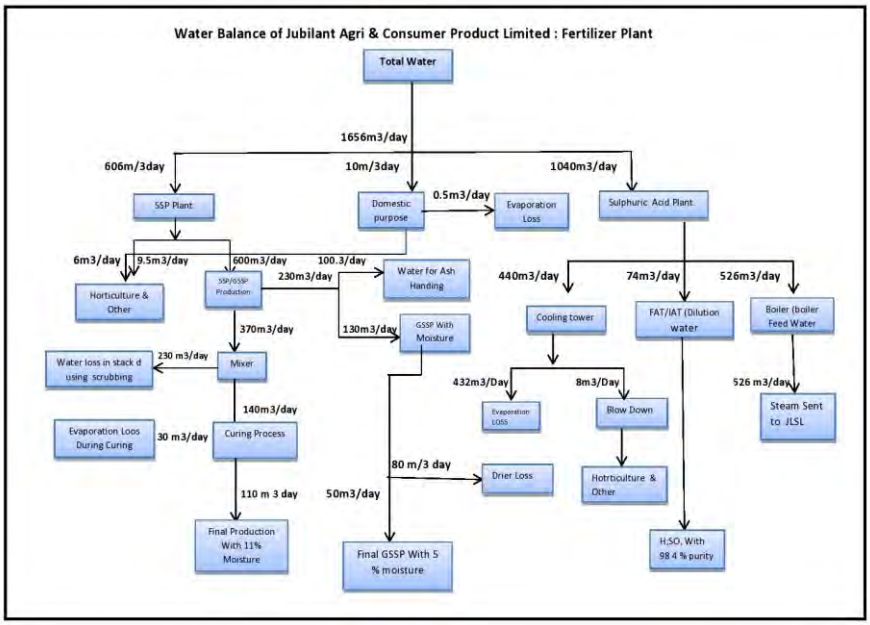


Figure 4.10: Water utilisation flow diagram in Fertilizer Unit

From the above Water Balance charts it is apparent that the plant is zero discharge and every drop of ground water being withdrawn is being optimally utilized for specific purpose.

4.6 SPATIAL AND TEMPORAL VARIATION IN SINCE GRANT OF NOC

In order to assess the spatial and temporal variation in ground water levels data of ground water levels of past and present has been analyzed. The data of wells falling within 2 km radius of the plant has been considered for this exercise and ground water levels has been used for generating ground water scenario during pre-monsoon of 2014 and pre-monsoon of 2019. This gives a fair idea of spatial and temporal variation in ground water levels since 2014 to 2019 in study area. However, the time series data for entire study area is not available.

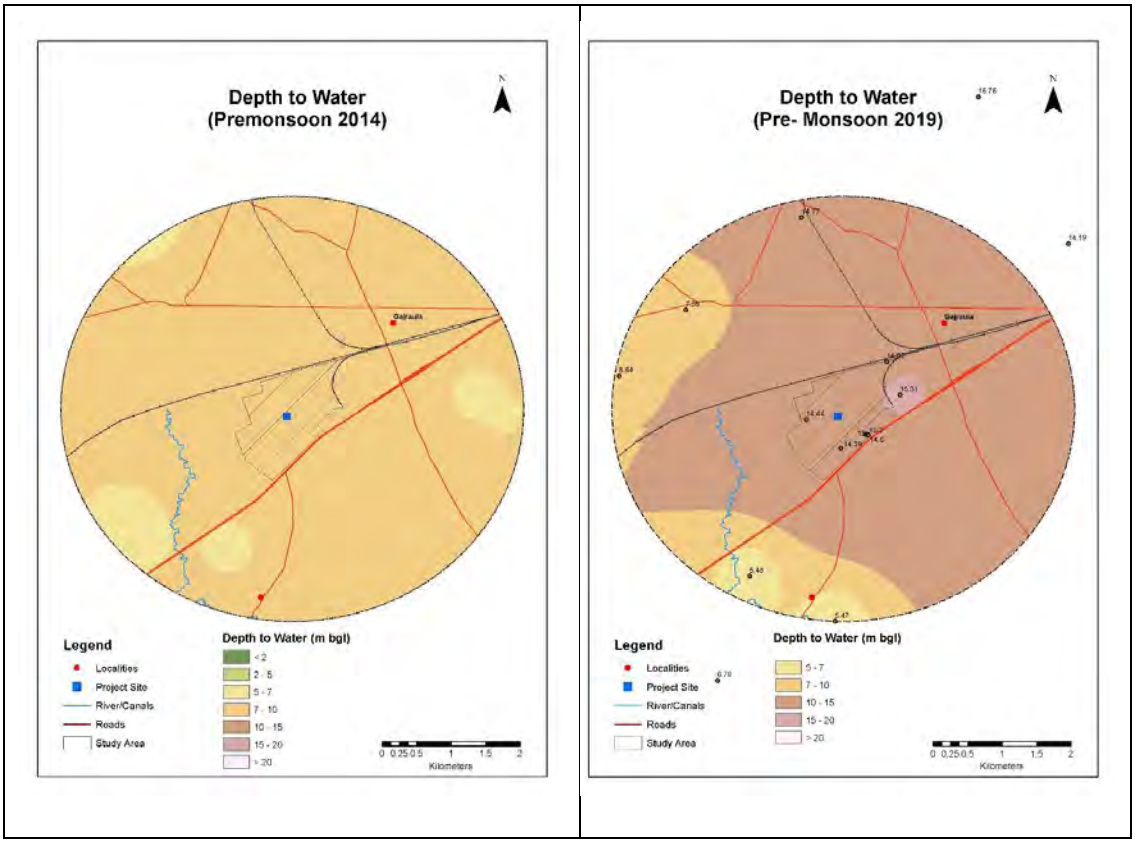


Fig. 4.9: Depth to ground water level Pre- Monsoon 2014 and 2019

From the **Fig. 4.9,** comparison of depth to ground water levels of pre-monsoon 2014 with pre-monsoon 2019 indicates that ground water levels of unconfined aquifers (Shallow Aquifer) in major part of the study area is ranging in 10 to 15 m bgl which otherwise during 2014 was in the range of 7 to 10 m bgl. The study area does not have any data of 2014 for deeper aquifers (confined aquifers) which is actually been developed by the JLL and JACPL, Gajraula.

The decline in depth to ground water levels in the study area can be attributed to development of ground water for irrigation and drinking and domestic purpose which, in general, is being developed though shallow wells tapping unconfined aquifer. Further, some of the industries tapping shallow aquifer also attributes decline of ground water levels in last 5 years. However, data of such industries are not available in public domain.

A detailed study has also been conducted in the 10 Km radius of the plant establishing 46 monitoring wells for considering the ground water levels of 2018 and 2019 to assess the spatial and temporal variation in ground water regime. All these identified monitoring wells are tapping shallow aquifer (Unconfined aquifer) and reflecting ground water levels resultant of withdrawal being made by irrigation, drinking and domestic purpose and by all those industries, tapping (shallow) unconfined aquifer in 10 km radius area. Details of 46 monitoring wells are given in table 4.5.

Table 4.5: Location of monitoring wells with season wise depth to water table below the ground and elevation of water table above msl with net change

BH No.	Village	May-2018		May-2019		Net Change (m bgl)
		SWL (m bgl)	SWL (amsl)	SWL ()	SWL (amsl)	
1	Tigriya Khadar	5.10	197.90	5.48	197.52	-0.38
2	Ferozpur	6.11	195.89	5.47	196.53	+0.64
3	Fattahpur	7.34	193.66	7.41	193.59	-0.07
4	Sheshsoli	12.4	194.60	12.75	194.25	-0.35
5	Sultan Ther	6.00	195.00	6.79	194.21	-0.79
6	Agrola Kalam	7.70	193.3	8.74	192.26	-1.04
7	Faundapur	14.00	197.00	14.19	196.81	-0.19
8	Shihali Gosai	7.64	201.36	7.66	201.34	-0.02
9	Kumarala	7.00	200.00	7.39	199.61	-0.39
10	Mohamadpur	6.40	194.60	6.78	194.22	-0.38
11	Khiyalipur ka Dhal	5.44	197.56	5.43	197.57	+0.01
12	Kakather	6.44	197.56	Well Defunct		
13	Aehraula Tejwan	14.44	196.56	14.77	196.23	-0.33
14	Pal	17.29	194.71	16.76	195.24	+0.53
15	Batupura	4.00	196.00	4.12	195.88	-0.12
16	Jhanakpuri	18.70	195.3	19.32	194.68	-0.62
17	Katai	14.00	197.00	13.87	197.13	+0.13
18	Moharkapatti	5.70	197.30	5.19	197.81	+0.51
19	Tigri	5.30	194.55	3.59	196.26	+1.71
20	Pipli Dauad	17.90	194.10	17.85	194.15	+0.05
21	Chobara	15.18	196.82	14.96	197.04	+0.22
22	Chowkpuri	16.40	198.60	17.11	197.89	-0.71
23	Sahapur	6.40	198.60	6.06	198.94	+0.34
24	Rahrdra	8.00	199.00	7.24	199.76	+0.76
25	Mohammadabad	5.23	195.77	4.09	196.91	+1.14
26	Khai Khera	8.25	198.75	7.78	199.22	+0.47

BH No.	Village	May-2018		May-2019		Net Change (m bgl)
		SWL (m bgl)	SWL (amsl)	SWL ()	SWL (amsl)	
27	Baseli	8.64	197.36	8.64	197.36	0.00
28	Khad Gujar	17.00	197.00	17.44	196.56	-0.44
29	Yakhbagdi	18.00	195.00	18.46	194.54	-0.46
30	Chohadpur Mafi	14.40	197.60	14.32	197.68	+0.08
31	Saergarh	18.50	192.50	17.84	193.16	+0.66
32	Tookra Patti	7.64	199.36	7.22	199.78	+0.42
33	Lakhamiya	15.70	200.30	16.14	199.86	-0.44
34	Dariyapur	18.00	195.00	18.36	194.64	-0.36
35	Nagla Mafi	15.70	199.30	15.94	199.06	-0.24
36	Dakiya Bhood	15.70	198.30	15.24	198.76	+0.46
37	Hira Singh Baldana	18.00	197.00	18.62	196.38	-0.62
38	Ferozpur Bagad	12.80	198.20	12.27	198.73	+0.53
39	Sakarthali	13.97	198.03	14.13	197.87	-0.16
40	Manota	15.20	193.80	15.64	193.36	-0.44
41	Bachchraiyu	12.10	202.90	12.26	202.74	-0.16
42	Deepur	13.50	191.50	14.52	190.48	-1.02
43	Sadarpur	18.87	193.13	19.57	192.43	-0.7
44	Taharpur	17.60	192.40	18.03	191.97	-0.43
45	Rampur Bhoor	16.46	190.54	17.12	189.88	-0.66
46	Machrai	17.00	193.00	17.57	192.43	-0.57

The location of 46 Monitoring wells in the buffer zone and 4 piezo-meters in the plant area monitored along with ground water contours showing elevation of water table above mean sea level is shown in **Fig. 4.10. & 4.11.** The monitoring wells were monitored for ground water level in the month of May, 2018 and a year later in May, 2019 (Pre-Monsoon). The Ground Water contour maps for these two monitoring periods are as shown in **Fig. 4.10 and 4.11.**

The ground water contours have been drawn at 0.5 m interval, the wide spacing of contours shows that area has permeable alluvial formations and there is substantial flow of ground water towards the area of ground water abstraction. A hydrogeological analysis of the contour map substantiates a similar trend as reported in earlier reports and also that of the CGWA that the area has intensive ground water exploitation. Further, that one prominent ground water depression has been formed around the Gajraula Industrial Estate where there are many industries (about 80 Nos.) drawing ground water for their operations. Further, beyond the study area, the ground water level drops as may be seen on the East, South East and Southern periphery of the study area. There is, in general, ground water flow towards left Bank of the Ganga river during the entire year in all four seasons and Ganga river behaves a gaining river getting inflow of

ground water occurring along its course. The hydraulic gradient of ground water flow is 0.232m/km from the east to west i.e. towards Left Bank of Ganga river.

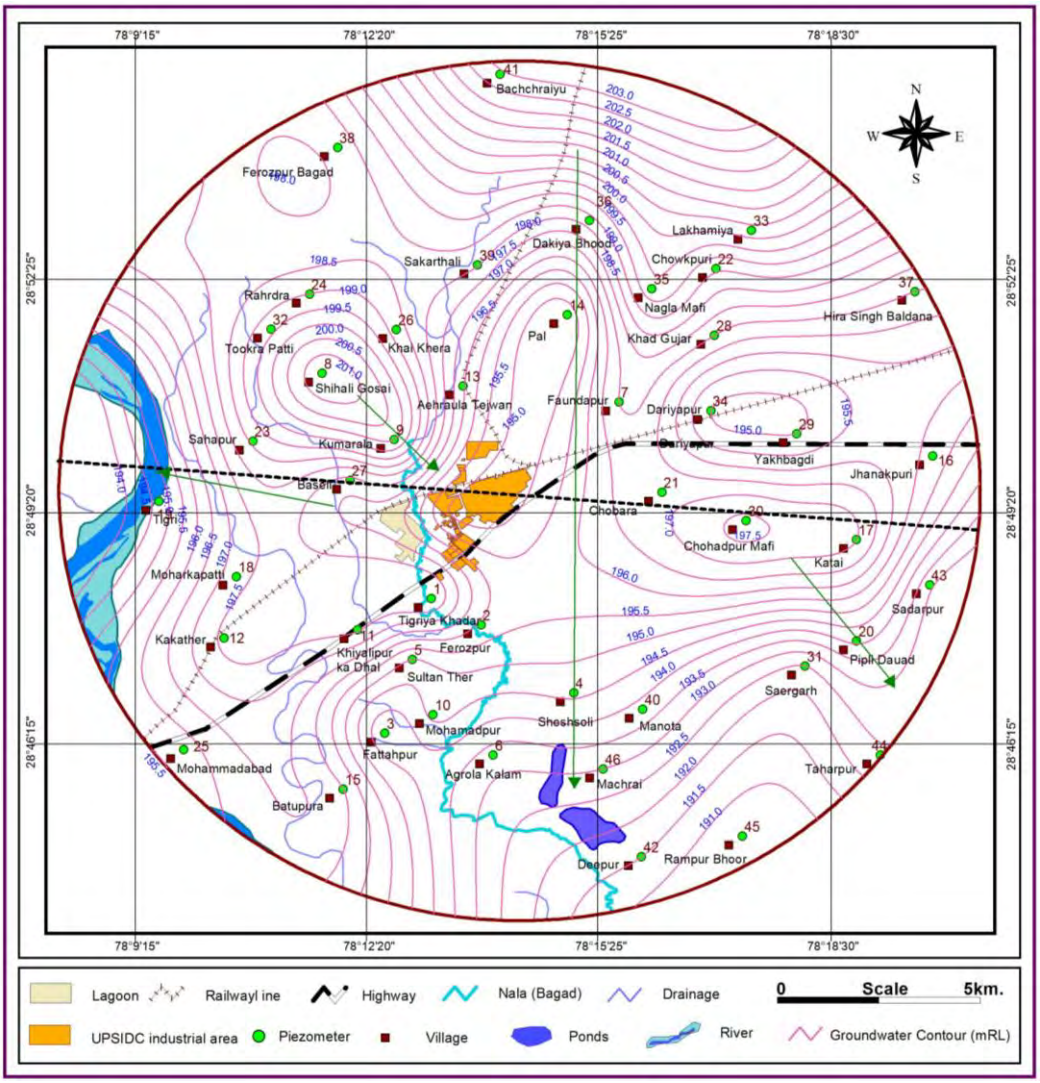


Fig. 4.10: In 10 km radius area Ground water table contours and Flow direction during May, 2018 (Pre-Monsoon)

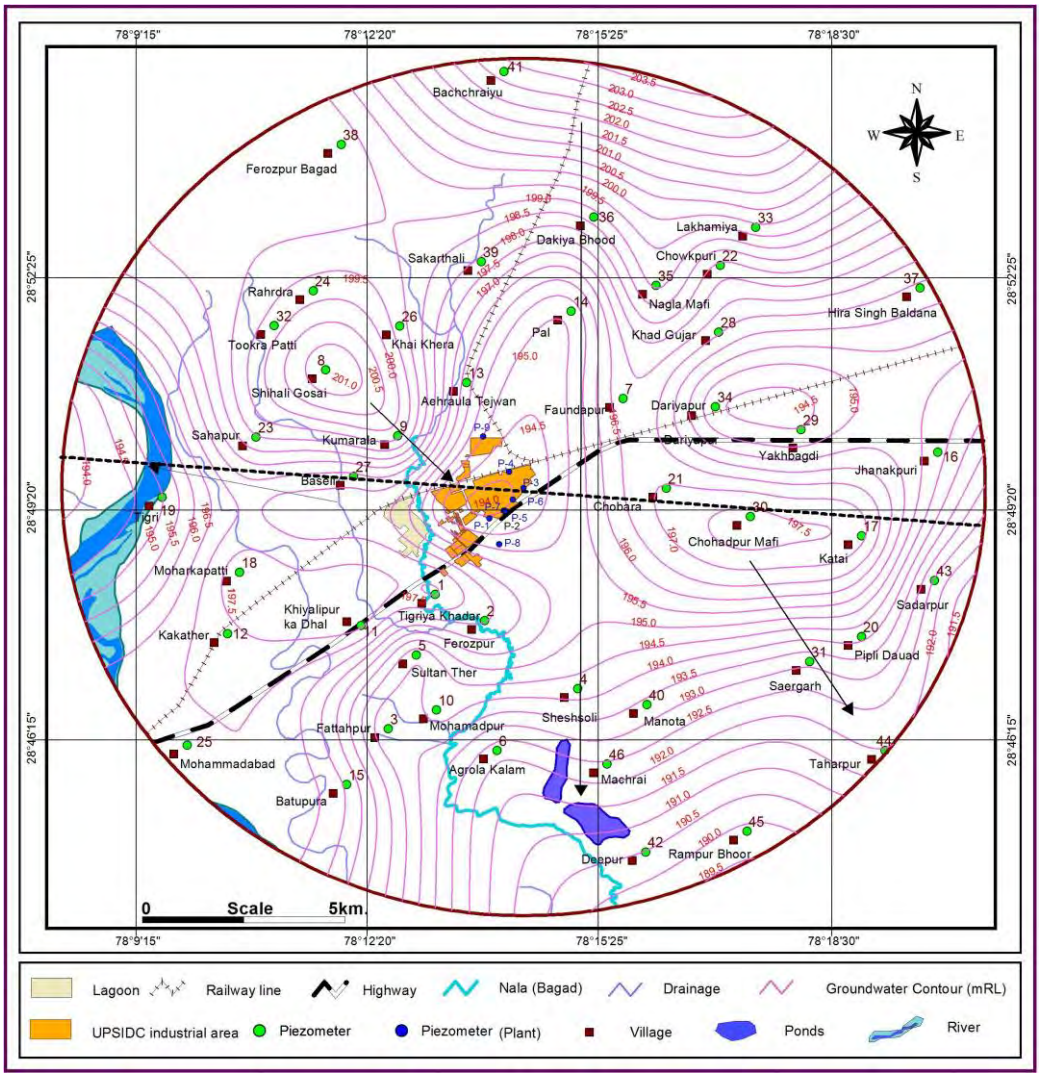


Fig. 4.11: In 10 km radius area Ground water table contours and Flow direction during May, 2019 (Pre-Monsoon)

The quantum of ground water inflow to the River Ganga would have been higher, but for the depression caused due to extraction in Gajraula township and the Industrial estate, as a large part of the ground water replenishes the ground water depressions formed, as may be seen in the contour map.

While observing the ground water contour map, it is observed that the ground water depression formed around the Gajraula Industrial Estate area is being replenished from north west, an area around village Shihali Gosai and also from north around villages of Bachchayiu and Sakarthali which also happens to be the direction of surface drainage as a stream (Bagad Nala) passes from north to south, just on the western boundary of Gajraula Industrial Estate. The maximum water table in the area is at 202.90 msl in the

extreme north near village Bachchraiyu and lowest elevation is 189.88 in the extreme south near village Rampur Bhoor. The ground water contour of both seasons monitored though out the year indicate that the direction of the ground water movement in the same direction as the surface flow in the River Ganga as well as of Bagad Nala and also that the River Ganga is gaining river at its left Bank near Brajghat.

A better interpretation can be done by preparing a hydrogeological section of the area taking the cross section from west to east (from River Ganga towards Gajraula industrial area) as shown in **Fig. 4.12** below **with** the elevation of Ganga river bed at 196 m above mean sea level (amsl).

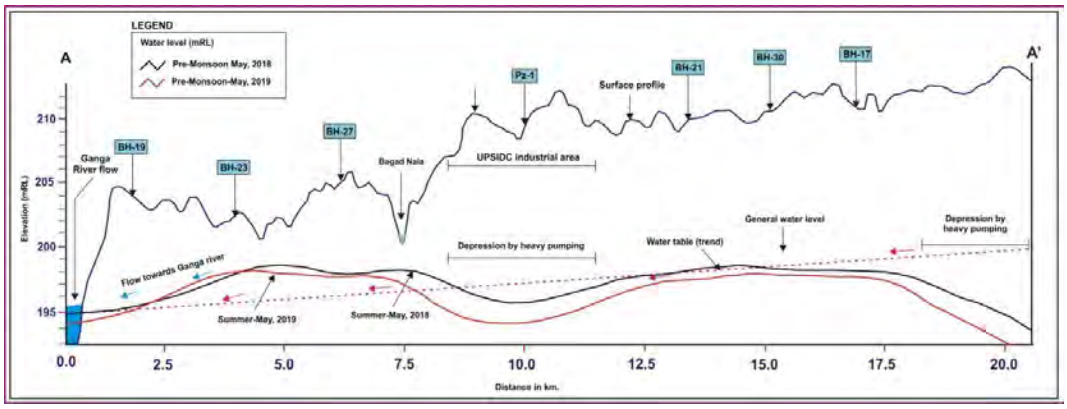


Fig. 4.12: Variation in water levels pre-monsoon, 2018 and pre-monsoon, 2019

The maximum fluctuation is observed as -1.71 m bgl (which can be due to pumping in the vicinity) and the minimum as +1.04 m bgl for the period 2018-2019. The average fluctuation being -0.033 m which means a depletion of water table but very marginal.

The ground water depression formed due to intensive ground water extraction is also seen from this hydrogeological section. Further, two ground water mounds are also seen, where water table is relatively higher elevation, one at Bagadnala, west of Gajraula Industrial Estate area and another near Chohadpur Mafi, east of JLSL.

4.7 GROUND WATER QUALITY

Based on the available data on ground water quality, it is inferred that in general the ground water quality in the project area is fresh and potable. The Electrical conductivity value are much less than 750 micro mhos per cm and suitable for irrigation as well as drinking purposes. The distribution of the EC in the area of study is shown in **Fig 4.1.** As such there is no report of contamination of ground water causing problem for the

human health in and around the project area. Quality of ground water of shallow and deep aquifer are generally fresh and electrical conductivity is less than 1,000 micromhos/cm. and total dissolved salts do not exceed 500 mg/l. All the constituents remain within allowable limits of drinking water standards.

Water quality samples of all eight bore wells present in the plant premises are being analyzed periodically. The parameters are found to be within permissible limits. Reports of water quality analysis of each tube wells are given in Appendix-I.

5 IMPACT OF GROUND WATER EXTRACTION ON LOCAL GROUND WATER REGIME

Impact of ground water extraction by JLL and JACPL Plants on local ground water regime cannot be corroborated, as the withdrawal are from the confined aquifers, Whereas in case of local ground water regime, being monitored by Government/ private agencies, are that of unconfined aquifer (shallow aquifer). In absence of long-term time series data of deeper aquifers on regional as well as local scale, the data shown in previous chapter are mainly focusing on ground water levels of unconfined aquifers. But there can always be vertical leakage from unconfined aquifer to confined aquifer when there is heavy over exploitation of ground water from deeper aquifers. But the contribution by shallow aquifer to deeper aquifer can only take place when the Piezometric head of confined aquifer depletes below the top of confined aquifer. However, here, that is not the case.

The data collected from the piezometers installed in the Plant area are tapping the same aquifers, which are being developed by the JLL & JACPL. Seven piezometers were drilled in the premises of JLL & JACPL in the year 2017-2018 and installed with DWLR. The details of the piezometers are given in the table below.

Table 5.1: Location and details of the piezometers

Pz. No.	Location	Date of Installation	Co-ordinates		Date	Water level in m (May 2019)	Dedicated to
			Northing (Latitude)	Easting (Longitude)			
1	Behind SBI Bank	17.02.2018	28°49'24.59"	78°13'38.16"	30.05.2019	14.44	Chemical Unit-2
2	Near colony	17.11.2017	28°49'11.26"	78°13'54.32"	30.05.2019	14.39	Chemical Unit-1
3	Near Railway Yard	12.06.2018	28°49'51.96"	78°14'15.91"	30.05.2019	14.82	Power Plant
4	Behind Noble School	08.02.2018	28°49'36.27"	78°14'22.08"	30.05.2019	15.31	Distillery Unit
5	Near Medical Center	19.01.2018	28°49'17.81"	78°14'6.04"	30.05.2019	15.20	Fertilizer
6	Inside JLSL Near Medical	24.01.2018	28°49'17.59"	78°14'6.90"	30.05.2019	14.60	Polymer
7	Inside JLSL Near Medical	1.02.2018	28°49'17.31"	78°14'7.27"	30.05.2019	15.00	

Map of plant area showing the location of tube wells and piezometers are given at **Fig. 4.4.** The data of ground water monitoring of four of these wells since April 2019 to February 2020 are given in the table 5.2 below.

Table 5.2 : Piezometric Heads of Piezometers Installed in JLL & JACPL Plant

Date	Piezometric Head (in mbgl)			
	PZ 1 Chemical Unit-2	PZ 2 Chemical Unit-1	PZ 3 Power Plant	PZ 4 Distillery Unit
29-02-2020	13.6	12.8	11	14.54
01-02-2020	13.8	12.78	11.17	13.29
31-01-2020	13.78	12.913	13.13	13.21
01-01-2020	13.76	12.832	12.27	13.46
31-12-2019	13.94	12.61	13.83	13.78
01-12-2019	13.78	13.91	12.64	14.02
30-11-2019	14.11	13.47	12.49	13.51
01-11-2019	13.93	13.07	13.44	14.08
31-10-2019	14.14	13.32	13.77	14.17
01-10-2019	14.01	13.07	12.94	13.94
30-09-2019	13.8	13.05	12.43	13.95
01-09-2019	13.96	13.63	13.87	14.36
31-08-2019	14.54	13.7	14.24	14.55
01-08-2019	15.19	14.12	13.85	15.18
31-07-2019	14.67	14.15	14.89	15.1

Date	Piezometric Head (in mbgl)			
	PZ 1 Chemical Unit-2	PZ 2 Chemical Unit-1	PZ 3 Power Plant	PZ 4 Distillery Unit
01-07-2019	14.36	14.58	14.32	15.75
30-06-2019	14.74	14.29	14.18	15.81
01-06-2019	13.63	14.06	15	15.33
31-05-2019	14.82	14.31	14.82	15.62
01-05-2019	12.71	13.86	12.71	14.33
30-04-2019	13.89	13.83	13.59	13.67
01-04-2019	14.05	13.56	14.27	14.56

5.1 HYDROGRAPH OF WATER LEVEL & TREND ANALYSIS OF HISTORIC WATER LEVEL

In absence of long-term time series data of the plant area and surrounding area only two monitoring wells of CGWB have been found in 2 km radius area around the plan. One is deep piezometer and other is shallow piezometer tapping unconfined aquifer. The data of these piezometers are also not continuous and has been taken from the website of CGWB. The hydrographs of these piezometers are given below:

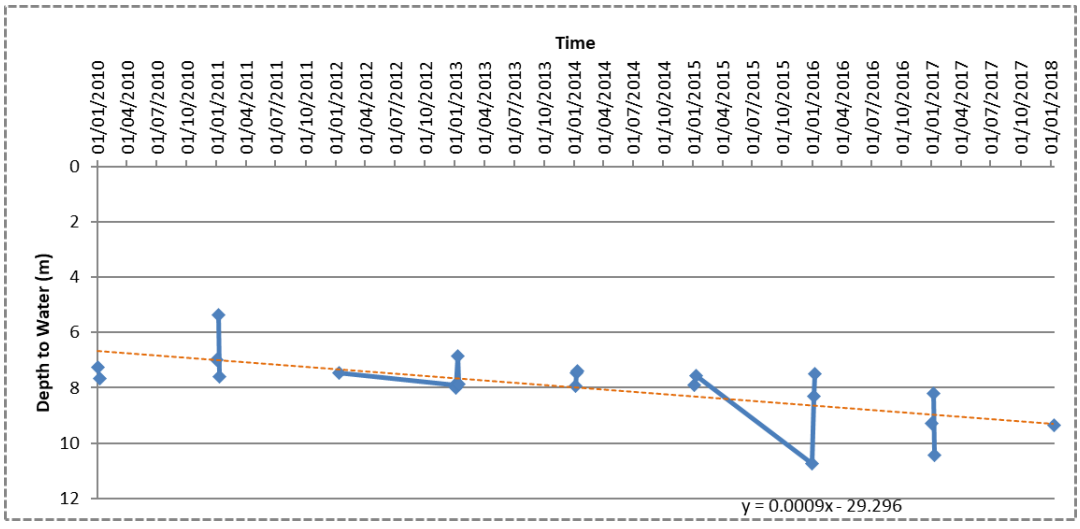


Fig. 5.1: Deep Pz, Gajraula Town (Source: CGWB)

The data of the Deep Piezometer of CGWB is not continuous however, with the available data it is apparent that since 2010 there is a decline to the tune of around 3 m in last 18 years.

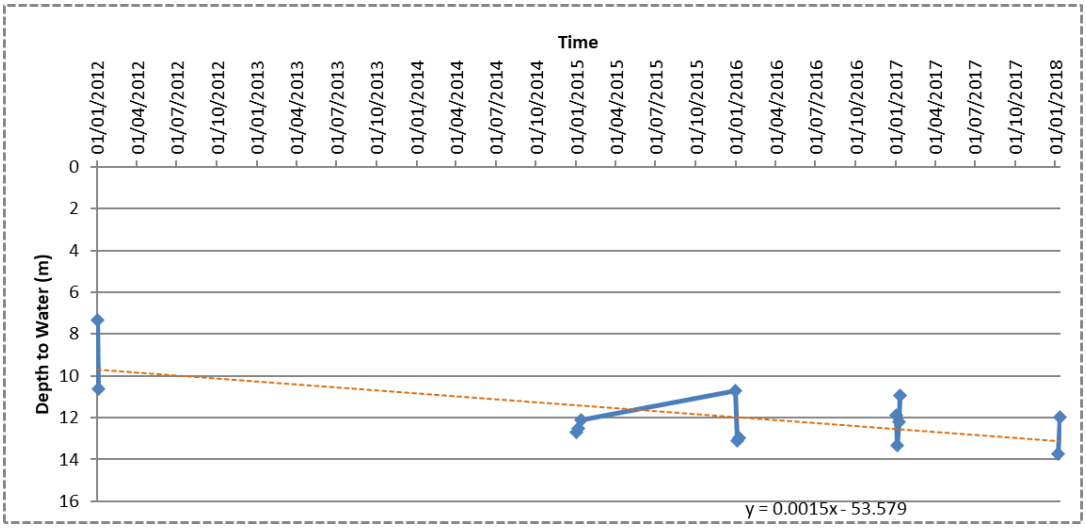
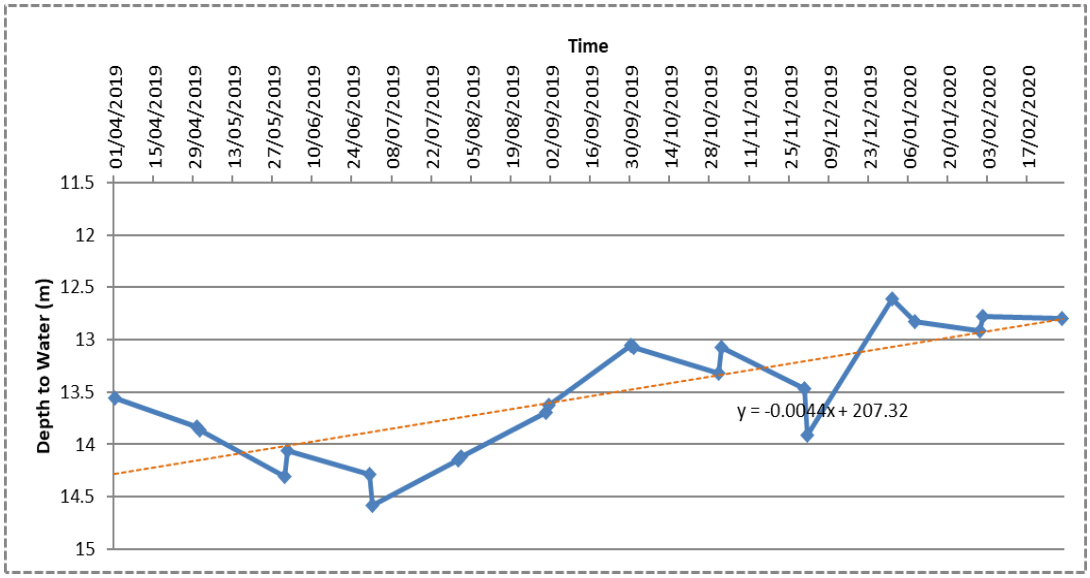


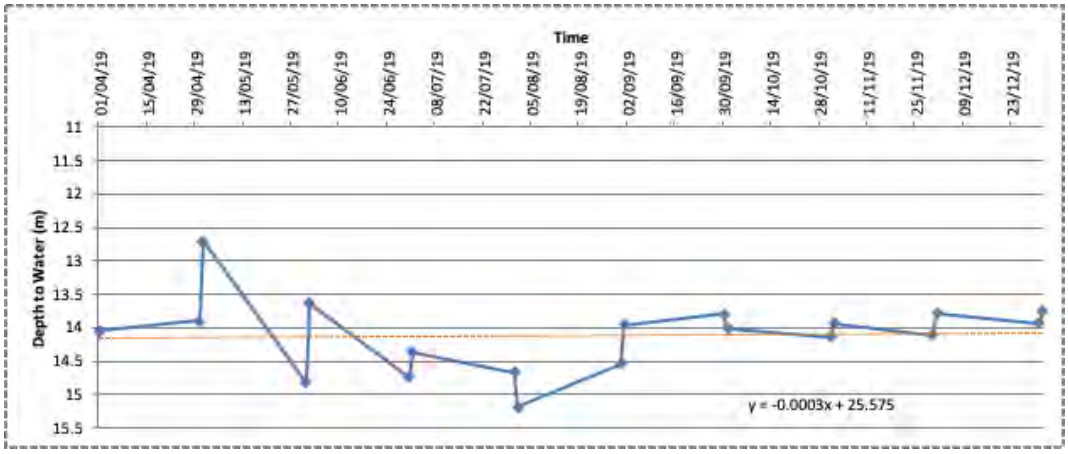
Fig. 5.2: Shallow Pz, Gajraula Town (Source: CGWB)

Similarly, the Piezometer tapping shallow aquifer is also showing decline in ground water levels in last 6 years. The hydrographs of the Piezometers located in the JLL & JACPL are also given below:



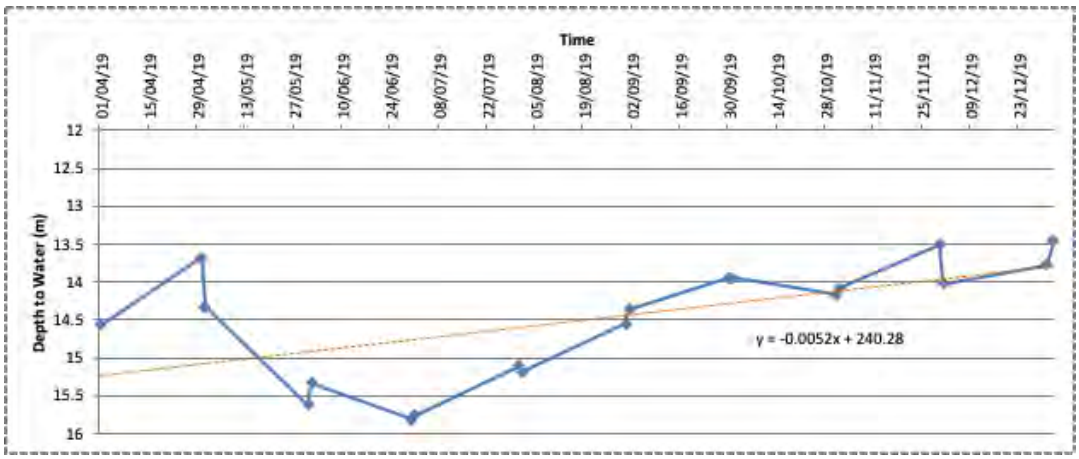
Chemical Plan Unit 1 (PZ 2)

The piezometer (PZ 2) tapping the deeper aquifer, (which is the same aquifer from which ground water is being withdrawn for JLL Plant) located in Chemical unit 1 is showing rising trend since Jan 2019 to February 2020 in ground water levels.



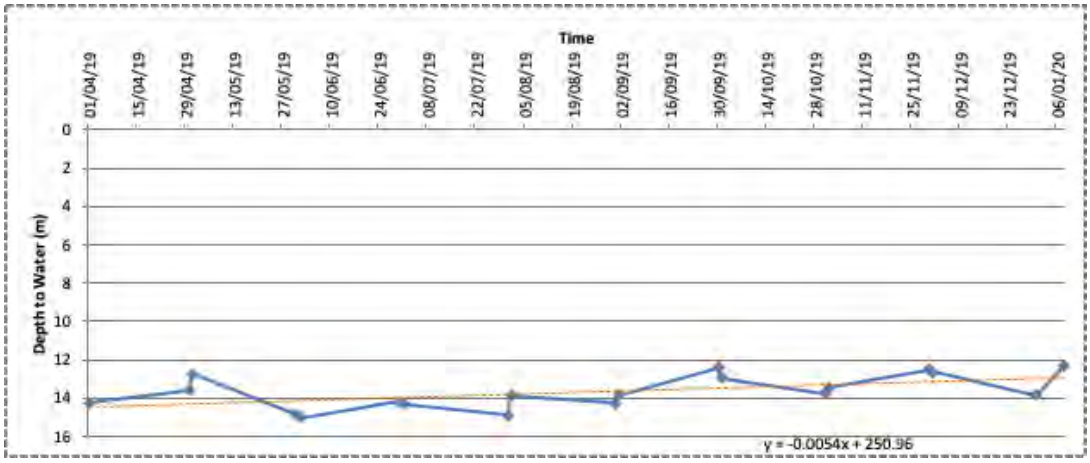
Chemical Plan Unit 2 (PZ 1)

The piezometer (PZ 1) tapping the deeper aquifer, (which is the same aquifer from which ground water is being withdrawn for JLL Plant) located in Chemical unit 2 is showing insignificant rising trend in ground water levels since April 2019 to Jan 2020.



Distillery Unit (PZ 4)

The piezometer (PZ 4) tapping the deeper aquifer, (which is the same aquifer from which ground water is being withdrawn for JLL Plant) located in Distillery unit is showing very significant rising trends in ground water levels since April 2019 to January 2020.



Power Plant (PZ 3)

The piezometer (PZ 3) tapping the deeper aquifer, (which is the same aquifer from which ground water is being withdrawn for JLL Plant) located in Power Plant unit is showing significant rising trends in ground water levels since April 2019 to January 2020.

Therefore, all the Piezometers tapping deeper aquifers and being used for monitoring of piezometric head of deeper aquifers are showing rising trends and there is no significant impact on ground water regime due to ground water withdrawal by JLL and JACPL units.

5.2 FLOW NET ANALYSIS

A flow net is a graphical solution to the equations of steady groundwater flow. A flow net consists of two sets of lines which must always be orthogonal (perpendicular to each other): flow lines, which show the direction of groundwater flow, and equipotential (lines of constant head), which show the distribution of potential energy. In order to carry out flow net analysis, based on the available ground water head data of the study area equipotential flow lines have been drawn. In **Fig 5.3** equipotential lines of ground water heads and perpendicular to it flow lines have been indicated for the period of Pre-monsoon 2019.

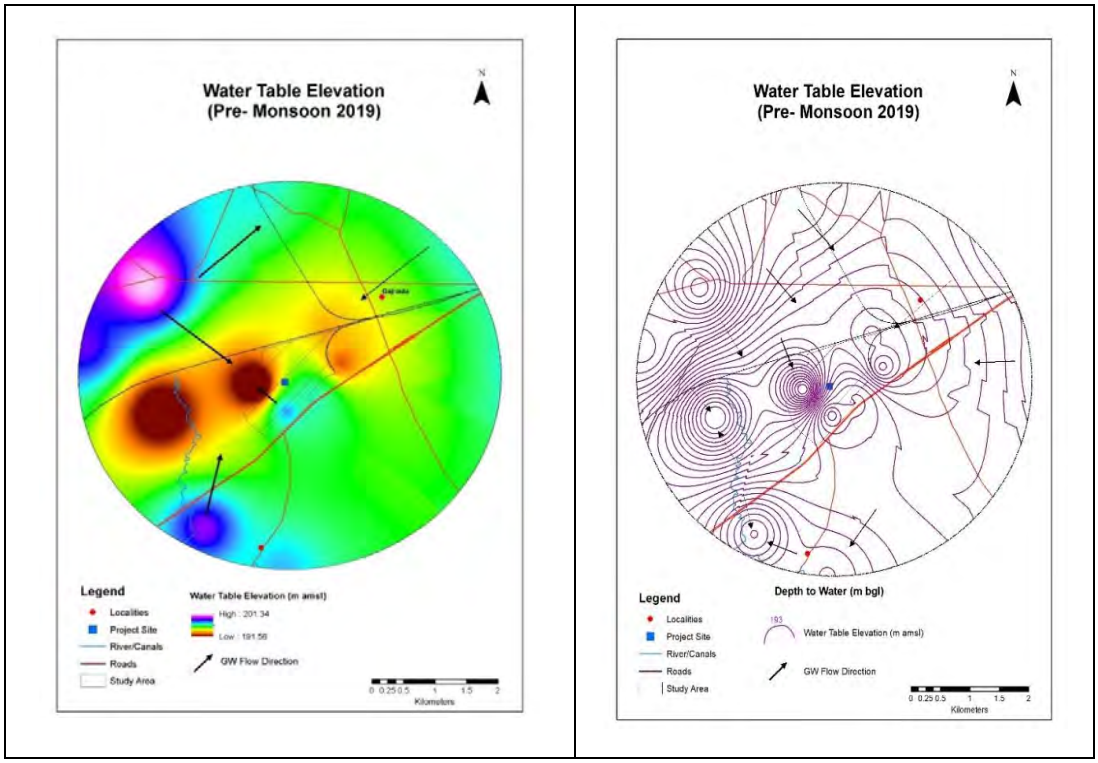


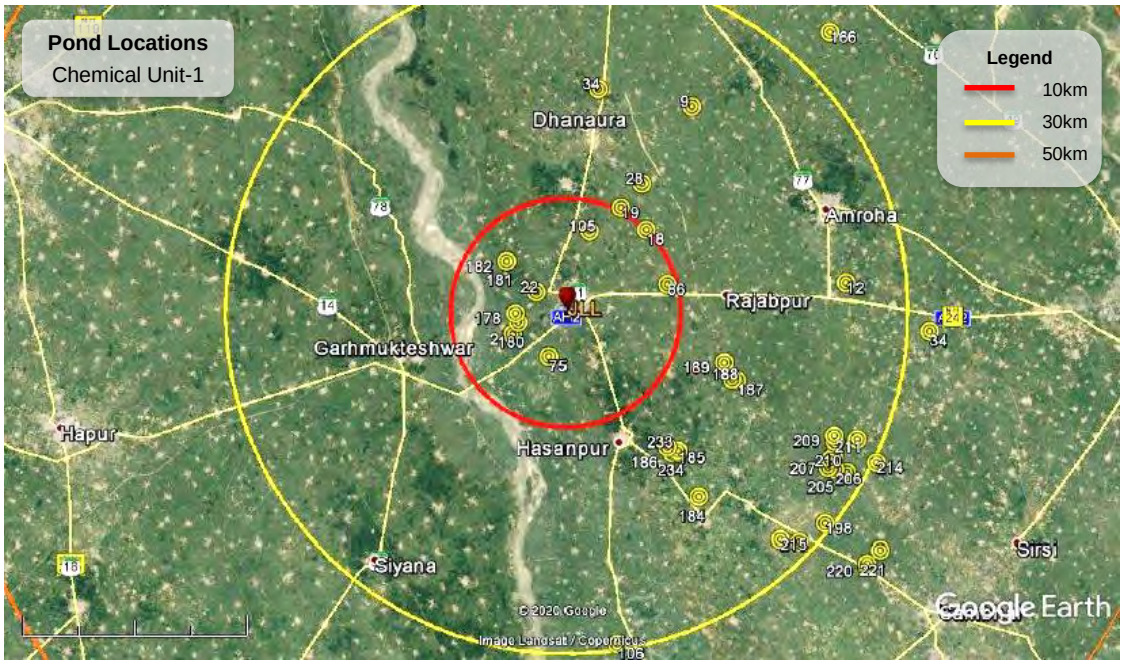
Fig. 5.3 : Ground Water flow in study area during 2019 (Pre-monsoon)

On perusal of the above flow net it is apparent that in general ground water flow is from North Western as well as eastern part of the study area towards Gajraula town. General ground water flow is towards West. In this area Ganga is major river draining the area and gaining from ground water. Transposing the entire ground water flow on regional scale indicates that the ground water is being recharged from the foothills of Himalayas which is characterized as recharge area of Ganga Basin. Shallow aquifers are getting rainfall recharge whereas, deeper aquifers are being augmented from Bhabhar and Tarai region.

A cusp is seen on the North Western boundary of the JLL and JACPL Plants, which cannot be attributed to withdrawal of ground water from JLL & JACPL Plants as all the ground water withdrawal wells are located on South Eastern boundary of the Plant. This cusp can be result of withdrawal of ground water from some of the adjacent industry for which the data is not accessible. The ground water monitoring network, as established by JLL & JACPL Plants, on directions of CGWA are also showing rising trends in ground water levels in the Plant area.

Table 6.1: Details of Recharge structure constructed for Chemical Unit - 1

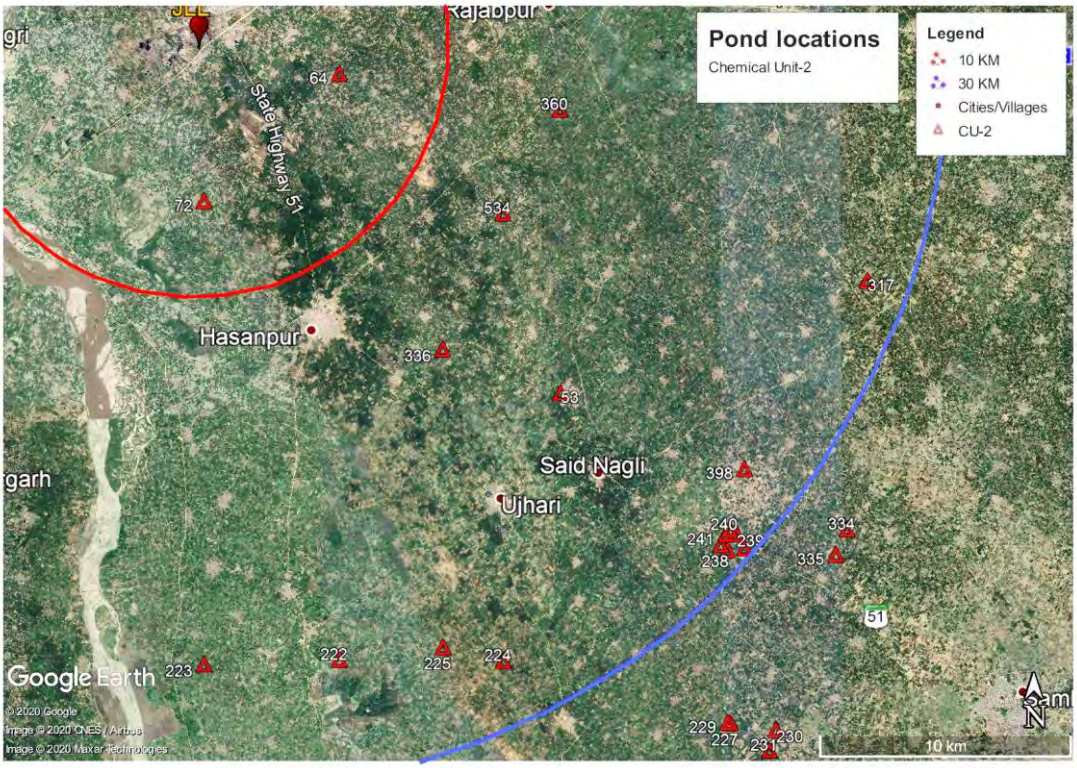
S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m^2	Recharge Potential ($m^{3)}$
1	9	Koural	28°59'08.2	78°20'46.73	4050	19190.9
2	18	Afjalpur Loot	28°53'16.8	78°18'17.8"	5790	28226.3
3	19	Lambia	28°54'19.8	78°16'55.8"	7890	30771.0
4	22	Kumrala	28°50'19.4	78°12'24.7"	5140	30069.0
5	28	Kuwakhera	28°55'28.5	78°18'03.7"	40720	238212.
6	34	Chuchela Kala	28°59'57.7	78°15'41.98	11040	64584.0
7	75	Sultan Ther	28°47'15.9	78°13'04.81	4500	13338.0
8	86	Jalalpur Kalan	28°50'41.2	78°19'27.14	5880	34398.0
9	10	Dhakiya Bhoor	28°53'13.0	78°15'	11490	36969.1
10	10	Chandarpur	28°33'39.8	78°16'	4250	10773.8
11	11	Chohadpur/Salar	78°17'03.2	28°49'47.92	2350	12418.6
12	11	Dhanori Mafi I	78°33'40.9	28°81'44.93	4780	27963.0
13	2	Moharka	28°48'19.2	78°11'08.23	2080	12168.0
14	3	Moharka	28°48'19.3	78°11'05.12	1880	10998.0
15	17	Mohraka	28°49'18.4	78°11'16.789	1380	8073.0
16	18	Mohraka	28°48'52.5	78°11'25.724	1040	6084.0
17	12	Shahpur	28°50'45.0	78°29'08.79	13190	77161.5
18	34	Patai Kalsa	28°48'26.3	78°33'41.11	17250	100912.
19	23	Haiwatpur	28°42'47.5	78°20'1.44	3600	21060.0
20	23	Haiwatpur	28°42'57.2	78°19'26.23	2430	14215.5
21	18	Daudpur Jageer	28°42'42.1	78°20'1.38"	2630	15385.5
22	18	Daudpur Jageer	28°40'36.1	78°21'8.65"	1650	9652.5
23	18	Daudpur Jageer	28°42'40.6	78°19'41.51	14200	83070.0
24	18	Telipura Khalsa	28°46'7.32	78°23'12.63	7710	45103.5
25	18	Telipura Khalsa	28°46'10.5	78°22'57.44	10400	60840.0
26	18	Ghosipura	28°46'58.4	78°22'31.84	1900	11115.0
27	19	Sevda	28°39'20.1	78°27'59.37	6080	35568.0
28	20	Rajha	28°41'44.8	78°29'10.31	13590	79501.5
29	20	Ainchora	28°41'58.2	78°28'08.82	4080	23868.0
30	20	Ainchora	28°41'52.4	78°28'32.88	4330	25330.5
31	20	Ainchora	28°42'22.6	78°28'17.77	2350	13747.5
32	20	Ainchora	28°42'31.6	78°28'28.02	3040	17784.0
33	21	Nehroli	28°43'12.7	78°28'32.99	6070	35509.5
34	21	Nehroli	28°43'12.3	78°28'32.08	5140	30069.0
35	20	Nehroli	28°43'28.9	78°28'29.72	10190	59611.5
36	21	Aitmadpur	28°43'18.8	78°29'44.26	3120	18252.0
37	21	Ekrotiya	28°42'12.2	78°30'46.86	5470	31999.5
38	21	Kurkawali	28°37'21.0	78°30'15.33	5260	30771.0
39	22	Kurkawali	28°37'26.7	78°30'15.96	4500	26325.0
40	22	Kurkawali	28°38'04.9	78°30'58.89	2750	16087.5
41	16	Baserataga	29°02'40.3	78°28'18.20	12590	73651.5
42	18	Tokra	28°51'48.6'	78°10'48.658	3400	19890.0
43	18	Tokra	28°51'46.8'	78°10'47.40	1780	10413.0
44	21	Manni Khera	28°38'35.1	78°25'33.78	5470	31999.5
45	21	Manni Khera	28°38'27.2	78°26'35.60	8370	48964.5
						165209.



Locations of Recharge structure constructed for Chemical Unit - 1

Table 6.2: Details of Recharge structure constructed for Chemical Unit - 2

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential (m3/year)
1	3	Koural	28°58'41.6	78°20'37.	8410	49198.5
2	8	Koural	28°59'19.1	78°20'49.	7450	39079.0
3	534	Rajehda	28° 45'	78° 21'	12750	57183.8
4	53	Dhakka	28°41'51.1	78°22'54.	6340	37089.0
5	64	Katai	28°48'42.8	78°17'29.	8900	49114.7
6	83	Kuda Mafi	28°57'10.1	78°20'47.	24890	117941.3
7	72	Agrola Kala	28°45'58.5	78°14'10.	15000	87750.0
8	116	Aalampur	78°28'12.2	28°79'53.	4080	23868.0
9	117d	Dhanori Mafi IV	78°33'36.9	28°81'76.	400	2340.0
10	119	Fhattepur	78°24'04.9	28°89'82.	3760	21996.0
11	120	Salempur	78°24'73.1	28°87'28.	3360	13979.3
12	222	Bhartal Sirsi	28°36'07.5	78°30'24.	4250	24862.5
13	223	Bhartal Sirsi	28°36'01.4	78°30'32.	4780	27963.0
14	224	Bhartal Sirsi	28°36'06.1	78°29'33.	4620	27027.0
15	225	Khagupura	28°36'23.4	78°31'43.	6920	40482.0
16	236	Dahpa	28°38'30.6	78°27'24.	8090	47326.5
17	237	Dahpa	28°38'28.1	78°26'59.	6920	40482.0
18	238	Dahpa	28°38'34.8	78°26'49.	3930	22990.5
19	239	Dahpa	28°38'48.6	78°27'12.	3760	21996.0
20	240	Dahpa	28°38'54.4	78°27'02.	2550	14917.5
21	241	Dahpa	28°38'48.1	78°26'56.	1240	7254.0
22	90	Rudayan	28°30'02.9	78°29'37.	7710	45103.5
23	227	Mehrana	28°34'44.76	78°27'3.0	3280	19188.0
24	228	Mehrana	28°34'9.84"	78°28'0.1	1090	6376.5
25	229	Sujadpur	28°34'45.59	78°28'4.3	1300	7605.0
26	230	Sujadpur	28°34'36.12	78°28'9.7	2900	16965.0
27	231	Sujadpur	28°34'9.84"	78°28'0.3	2830	16555.5
28	104	Sirsa Kumar	28°54'38.9	78°31'50.	7570	44284.5
29	149	Imaliya	29°03'53.1	78°17'55.	11630	68035.5
30	162	Adalpur Samdoo	29°02'26.3	78°26'03.	7200	42120.0
31	317	Sakatpur	28°44'14.85	78°30'25.2	20240	118404.0
32	319	Isapur Shumali/	28°56'54.2	78°16'42.4	5300	31005.0
33	320	Isapur Shumali/	28°56'27.6'	78°15'44.5	9260	54171.0
34	322	Halpura	28°55'44.0	78°19'52.9	6190	36211.5
35	326	Pheena	29°4'12"	78°21'15.3	4810	28138.5
36	327	Pheena	29°4'1.92"	78°21'19.1	6830	39955.5
37	334	Pali ki Mandaiya	28°38'54.64	78°29'54.9	9200	53820.0
38	335	Pali ki Mandaiya	28°38'21.97	78°29'38.3	6770	39604.5
39	336	Daudpur Jageer	28°42'47.5	78°20'1.43	2630	15385.5
40	337	Jiwai	28°48'42.8	78°35'49.8	6480	37908.0
41	360	Itala mafi	28°47'56.5	78°38'22.	26400	154440.0
42	398	Barahi/Moham	28°40'12.8	78°38'39.	45200	264420.0
						1914537.5

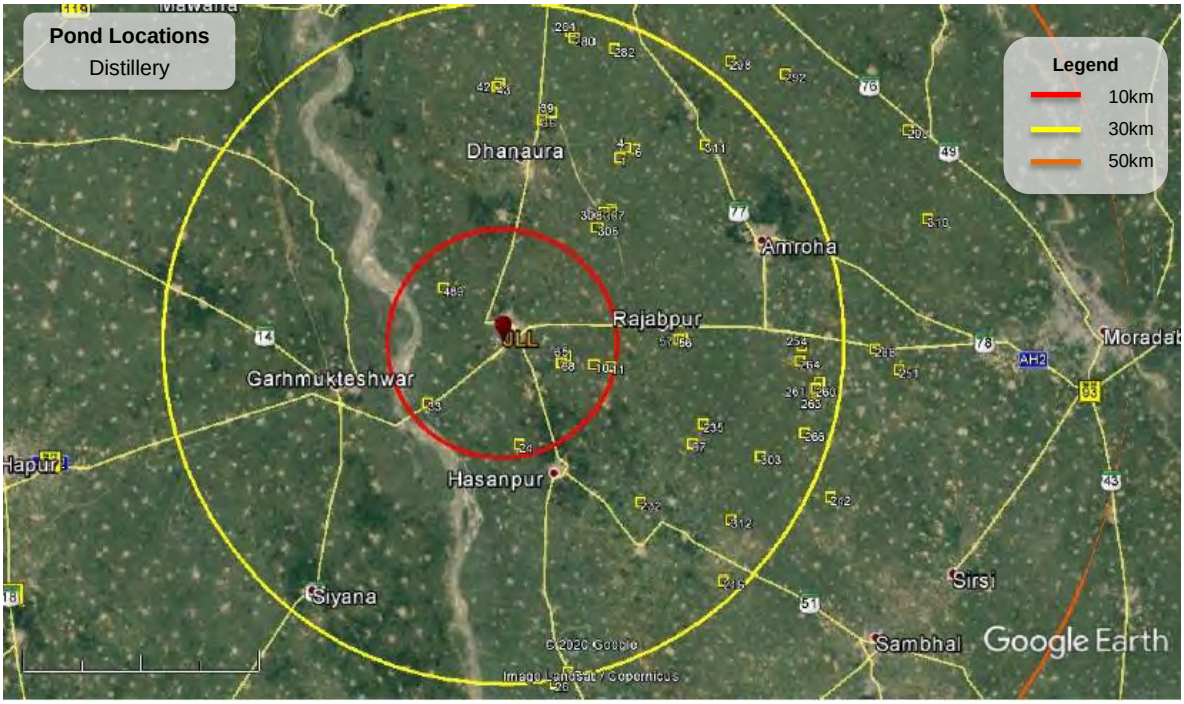


Locations of Recharge structure constructed for Chemical Unit - 2

Table 6.3: Details of Recharge structure constructed for Distillery Unit

S. No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m^2	Recharge Potential m^3
1	1	Koural	28°58'12.5	78°20'19.28	9060	53001.0
2	4	Koural	28°58'41.5	78°20'37.60	17890	104656.5
3	6	Koural	28°58'37.3	78°21'08.52	9630	56335.5
4	10	Rahamapur	28°48'21.8	78°18'56.55	12830	75055.5
5	11	Sadarpur	28°48'16.5	78°19'48.62	13310	77863.5
6	24	Soharka	28°44'33.	78°14'54.5"	4700	27495.0
7	26	Gangeshwari	28°33'14.	78°16'51.4"	5950	34807.5
8	33	Mohammadab	28°46'31.9	78°09'55.62	11700	45630.0
9	36	Chuchela Kala	29°00'01.0	78°16'09.54	6280	29757.8
10	39	Chuchela Kala	29°00'21.8	78°16'41.45	5100	29835.0
11	42	Neeli Kheri	29°01'44.4	78°13'50.48	4660	19355.3
12	43	Neeli Kheri	29°01'35.9	78°13'41.66	4050	16979.6
13	56	Faiyaj Nagar	28°49'33.4	78°23'29.96	6070	35509.5
14	57	Faiyaj Nagar	28°49'36.5	78°23'42.57	5060	23976.8
15	65	Katai	28°48'45.9	78°17'27.85	12460	59041.7
16	68	Katai	28°48'26.6	78°17'12.41	10520	61542.0
17	87	Jihal	28°44'35.2	78°24'14.65	8220	48087.0
18	48	Nagalia	28°52'0.8	78°10'47.47	10040	58734.0
19	97	Chandarpur	28°33'47.3	78°17'32.86	28530	158555.5
20	11	Nawada	78°15'42.1	28°49'20.38	4010	19001.4
21	117	Dhanori Mafi	78°32'81.2	28°81'03.53	1170	6844.5
22	117	Dhanori Mafi	78°33'34.3	28°81'84.77'	490	2866.5
23	11	Fhattepur	78°24'66.9	28°90'88.02'	9390	54931.5
24	21	Manni Khera	28°38'6.7	78°25'55.966	7350	42997.5
25	23	Rajpura	28°41'48.4	78°21'25.678	2060	12051.0
26	23	Tuklabad	28°45'31.6	78°24'50.252	1980	11583.0
27	24	Asmoli	28°42'2.1	78°31'44.871	4860	28431.0
28	25	Hasanpur	28°48'4.99	78°35'29.810	9160	53586.0
29	25	Hatwa	28°49'11.2	78°30'15.062	1460	8541.0
30	25	Hatwa	28°49'14.1	78°30'12.09	1340	7839.0
31	25	Fasgari	28°49'14.1	78°30'12.110	1250	7312.5
32	25	Bhikanpur	28°47'29.7	78°31'9.84"	3360	19656.0
33	25	Bhikanpur	28°47'7.8'	78°30'58.532	7290	42646.5
34	26	Bhikanpur	28°47'13.	78°30'58.071	2020	11817.0
35	26	Bhikanpur	28°47'13.5	78°30'57.236	1300	7605.0
36	26	Bhikanpur	28°46'58.0	78°30'59.47	1630	9535.5
37	26	Bhikanpur	28°47'4.5	78°30'58.312	6720	39312.0
38	26	Tikiya	28°48'30.9	78°30'5.637	4050	23692.5
39	26	Dulepur band	28°45'5.20	78°30'21.175	8250	48262.5
40	28	Emliya	29°3'55.0	78°17'54.592	10120	59202.0
41	28	Emliya	29°4'13.4	78°17'42.19	12650	74002.5
42	28	Sarakthal	29°3'24.1	78°20'1.082	5310	31063.5
43	28	Bhudan pur	28°49'5.1	78°34'10.682	4290	25096.5
44	29	Dhaki	28°59'30.4	78°36'1.648	12990	75991.5
45	29	Jamuna Khas	29°2'11.4'	78°29'20.140	6680	39078.0
46	29	Adalpur	29°2'48.4	78°26'20.76'	7210	42178.5
47	30	Haripur Milak	28°43'58.50	78°27'56.534	6960	40716.0
48	30	Gyanpur	28°54'52.91	78°19'6.790	16680	97578.0
49	30	Gyanpur	28°55'37.19	78°19'26.835	4700	27495.0
50	30	Gyanpur	28°55'38.27	78°19'54.15	6520	38142.0
51	30	Gyanpur	28°55'44.03	78°19'52.917	4130	24160.5
52	31	Gyanpur	28°55'16.67	78°37'4.453	4500	26325.0
53	31	Gyanpur	28°58'50.15	78°24'57.729	6230	36445.5
54	31	Kathna	28°40'57.93	78°26'19.73	4520	26442.0

55	31	Chittawali	28°42'20.07	77°46'15.768	8740	51129.0
56	31	Chittawali	28°41'40.53	77°46'3.867	3720	21762.0
						2211538.1

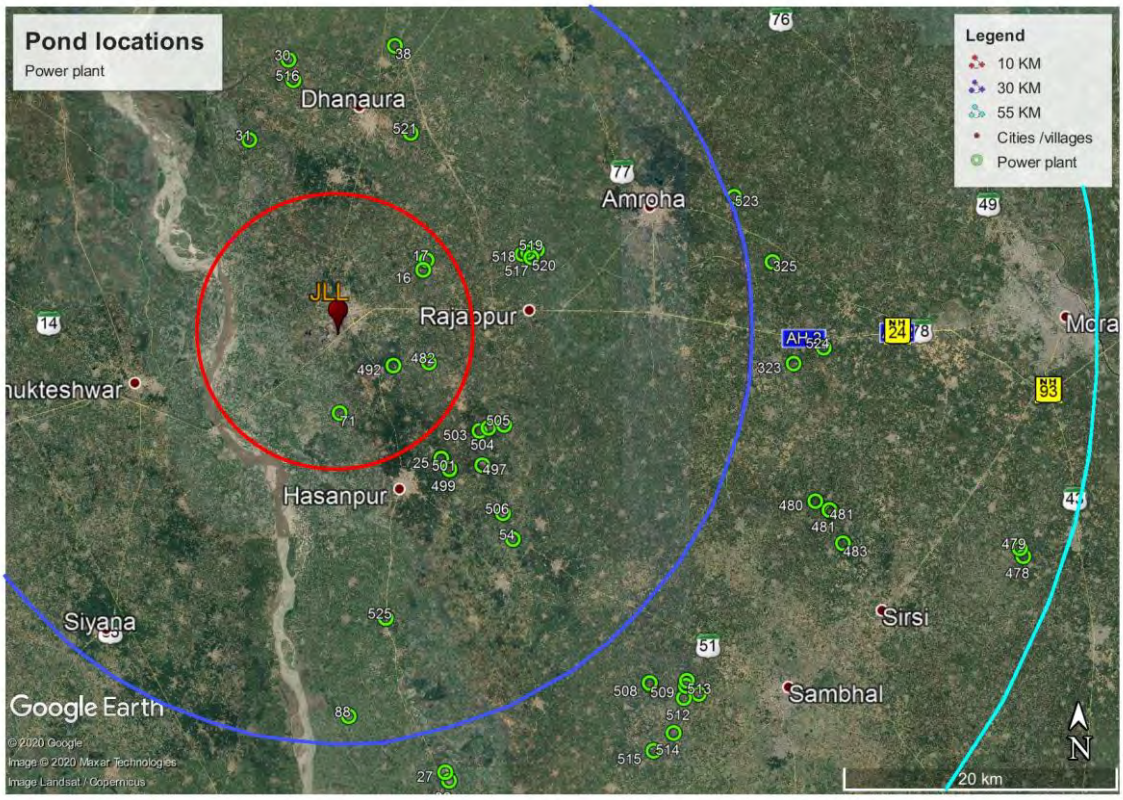


Location of Recharge structure constructed for Distillery Unit

Table 6.4: Details of Recharge structure constructed for Power Plant

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m^2	Recharge Potential m^3
1	1	Hoshangpur	28°51'4	78°17'52.8"	4820	28197.0
2	1	Nagalia	28°52'1	78°18'01.7"	5180	30303.0
3	2	Karanpur Mafi	28°44'2	78°18'41.1"	19790	115771.5
4	5	Shekhpur Jakri	28° 43'	78° 19' 3.936" E	33570	196384.5
5	3	Berkhera	29°00'0	78°11'49.5"	5790	33871.5
6	3	Sujmana	28°56'5	78°10'04.0"	10800	63180.0
7	3	Chuchela Kala	29°00'3	78°16'36.58"	5300	31005.0
8	5	Galsua	28°41'1	78°21'53.46"	22780	133263.0
9	8	Bartora	28°34'1	78°14'31.88"	4170	11384.1
1	7	Agrola Kala	28°46'1	78°14'07.96"	38500	225225.0
1	5	Rajheda Bahadurpur	28° 45'	78° 20' 23.964"	12340	72189.0
1	5	Rajheda Bahadurpur	28° 45'	78° 20' 48.66" E	17000	99450.0
1	3	Patai Kalsa	28°48'5	78°34'28.7256"	4500	26325.0
1	3	Kailsa	28°52'4	78°33'32.7564"	7980	46683.0
1	4	Kadarpur Masti	28°40'29	78°44'45.564"	6360	37206.0
1	4	Kadarpur Masti	28°40'48	78°44'35.7"	27680	161928.0
1	4	Harthala	28°42'4	78°35'26.1996"	11520	67392.0
1	4	Harthala	28°42'2	78°36'4.0032"	13470	78799.5
1	4	Harthala	28°42'1	78°36'9.6228"	11640	68094.0
2	4	Harthala	28°41'1	78°36'39.9996"	14410	84298.5
2	4	Sisota Milak	28°42'2	78°36'4.0032"	8740	51129.0
2	4	Tanda	28°48'8	78°18'8.064"	8740	51129.0
2	4	Karanpurmafi	28°44'23	78°18'40.932"	19790	115771.5
2	4	Siali Jagir	28°48'1.	78°16'32.736"	7330	42880.5
2	4	Chakori	28°44'7.	78°20'31.65"	9790	57271.5
2	4	Seikhpur Jhakri	28°43'58	78°19'2.82"	6640	38844.0
2	5	Rajheda	28°45'35	78°20'47.9904"	17000	99450.0
2	5	Rajheda	28°45'42	78°21'29.844"	12750	74587.5
2	5	Brahmawaad	28°42'14	78°21'26.928"	14000	81900.0
3	5	Badhraula	28°35'34	78°28'0.084"	6150	35977.5
3	5	Badhraula	28°35'31	78°28'0.5772"	6720	39312.0
3	2	Rahra	28°32'0	78°18'51.1"	4290	25096.5
3	3	Rahra	28°31'4	78°19'01.08"	11970	70024.5
3	5	Lakhori Jalalpur	28°35'27	78°29'37.2588"	20920	122382.0
3	5	Lakhori Jalalpur	28°35'7.	78°30'11.7"	12750	74587.5
3	5	Lakhori Jalalpur	28°34'58	78°29'31.7652"	13960	81666.0
3	5	Lakhori Jalalpur	28°35'39	78°29'39.8112"	10800	63180.0
3	5	Bhatola	28°33'36	78°29'4.0524"	8090	47326.5
3	5	Bhatola	28°32'54	78°28'10.3296"	6560	38376.0
4	5	Jujhelachak	28°59'14	78°12'2.844"	10720	62712.0
4	5	Chandnagar	28°52'24	78°22'20.0568"	7090	41476.5
4	5	Chandnagar	28°52'2	78°22'35.22"	7050	41242.5
4	5	Chandnagar	28°52'34	78°22'58.6452"	7170	41944.5
4	5	Chandnagar	28°52'16	78°22'44.0076"	6760	39546.0
4	5	Melesiya	28°57'9.	78°17'19.3884"	9000	52650.0
4	5	Sirsa Kumar	28°54'3	78°31'50.26"	7570	44284.5
4	5	Jiwai	28°48'4	78°35'49.8732"	6480	37908.0
4	5	Hakampur	28°38'7.	78°16'11.676"	9380	54873.0

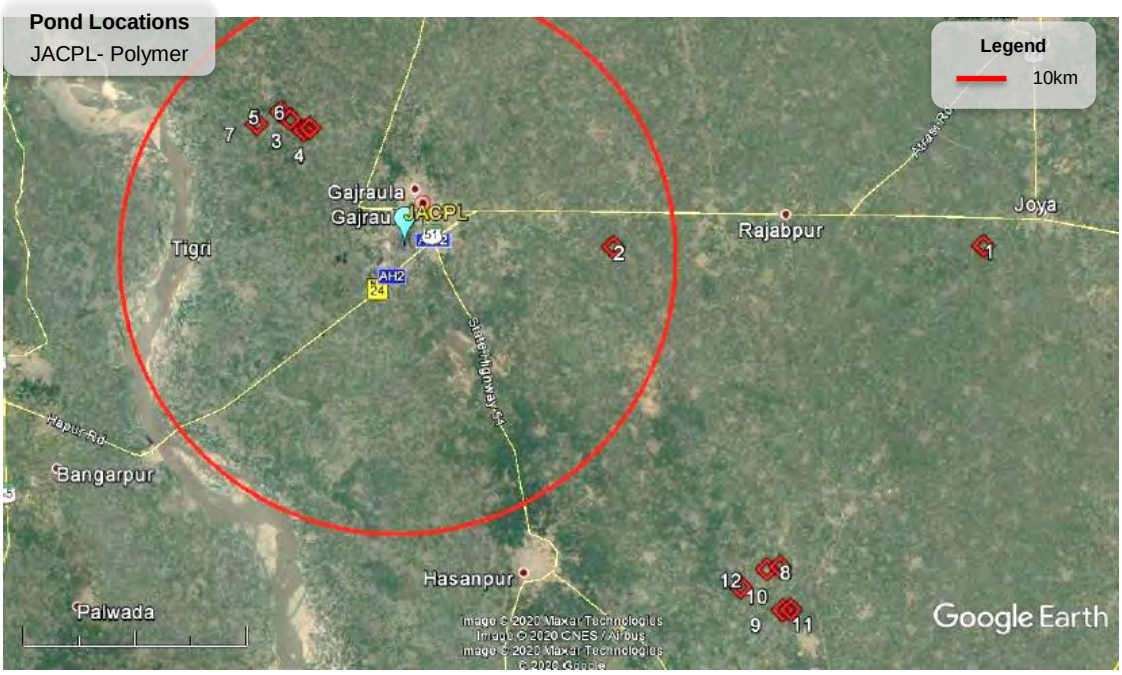
4	5	Amhera	29°15'4	78°17'15.1182"	6410	37498.5
5	5	Amhera	29°15'20	78°16'58.8102"	6450	37732.5
5	4	Bhadora	29°40'20	78°16'56.82"	5470	31999.5
5	4	Bhadora	29°41'18	78°18'50.46"	4660	27261
						3372969.6



Locations of Recharge structure constructed for Power Plant

Table 6.5: Details of Recharge Structure Constructed for Over- Exploited Condition (JACPL-Polymer Unit)

S.No	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m^2	Recharge Potential
1	Sarkari Azeez	28.826403	78.450932	5870	35220
2	Mirpur	28.825888	78.312881	4490	26940
					62160
3	Karmallipur	28.863819	78.19786	5630	28177.6
4	Karmallipur	28.864717	78.20012	2470	12362.1
5	Redra	28.869987	78.18936	5350	26776.2
6	Redra	28.867447	78.19283	5550	27777.2
7	Nangalia	28.865934	78.180336	4980	24924.4
8	Bhadora	28.72118	78.370285	4660	23322.8
9	Bhadora	28.707771	78.376144	4290	21471
10	Bhadora	28.72118	78.370285	4660	23322.8
11	Bhadora	28.707771	78.376144	4290	21471
12	Bhadora	28.71528	78.36049	5470	27376.8
TOTAL (B)					**236982**
Total Actual (A+B)					**299142**

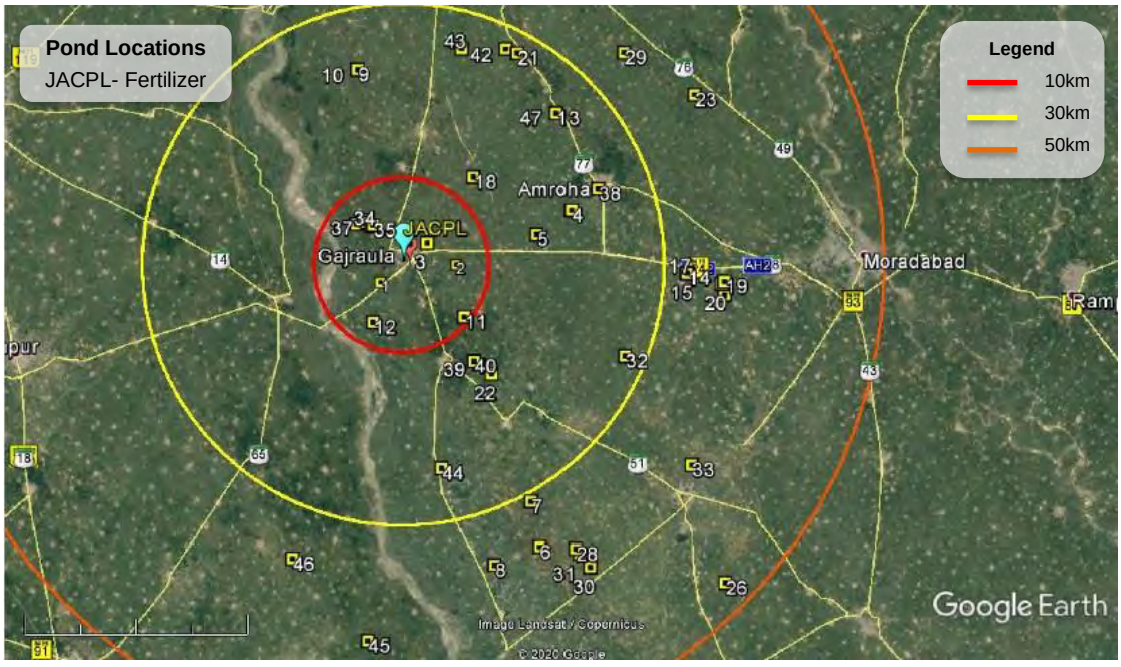


Locations of Recharge structure constructed for JACPL- Polymer Unit

Table 6.6: Details of Recharge Structure Constructed for Over- Exploited Condition (JACPL-Fertilizer Unit)

S.No	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m^2	Recharge Potential
1	Sahvajpur Door	28.805368	78.208525	15300	91800
2	Atali Muridpur	28.823832	78.297633	14780	88680
3	Faundapur	28.846425	78.263957	7120	42720
4	Khalakpur Khurd	28.880196	78.433745	7140	42840
5	Dhera Nikat	28.735.984	78.393155	5050	30300
6	Seetala sarai	28.532671	78.396333	2750	16500
7	Dhawarsi	28.579145	78.386191	8300	49800
					362640
8	Nanhera	28.514048	78.343108	2790	13963.7
9	Maleshiya	29.025909	78.181439	5790	28978.4
10	Maleshiya	29.025911	78.181432	3040	15214.9
11	Dhaki	28.5930.48	78.36'1.6488	2910	14564.3
12	Sarakthal	29.324.12	78.20'1.0824"	3670	18368
13	Gajasthal	28.9806	78.4160364	5060	25324.8
14	Baserataga	29.02.40.32	78.28.18.20	7460	37336.6
15	Baserataga	29.02.40.39	78.28.18.36	6400	32031.4
16	Baserataga	29.02.40.28	78.28.18.39	13280	66465.1
17	Baserataga	29.02.40.48	78.28.18.35	7460	37336.6
18	Daurala	28.9147	78.3185527	3680	18418
19	Arola mafi / petiyamafi	28.8061	78.6136896	5020	25124.6
20	Arola mafi / petiyamafi	28.8037	78.6109704	2500	12512.3
21	Shiwala	29.0428	78.3702047	3950	19769.4
22	Brahmawaad	28.710979	78.339912	5710	28578
23	Akbarpur Sihali	28.9995	78.5792	3320	16616.3
24	Rudayan	28.3002.70	78.2937.30	4170	20870.4
25	Rudayan	28.3002.85	78.2937.45	3720	18618.2
26	Bhudan pur Bilayat Nagar	28.4953	78.3410.68	3680	18418
27	Sondhan Mohmmadpur	28.5259	78.4427736	4160	20820.4
28	Sondhan Mohmmadpur	28.5305	78.4378838	2790	13963.7
29	Bakaina	29.0433	78.4961013	5470	27376.8
30	Haripur Milak	28.4358.5078	78.2756.5344	4160	20820.4
31	Haripur Milak	28.4358.5029	78.2756.5370	2790	13963.7
32	Qutibpur Sakta	28.7292	78.4965	4240	21220.8
33	Pali ki Mandaiya	28.3854.6460	78.2954.9955	4880	24423.9

S.No	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m^2	Recharge Potential
34	Karmallipur	28.863819	78.19786	5630	28177.6
35	Karmallipur	28.864717	78.20012	2470	12362.1
36	Redra	28.869987	78.18936	5350	26776.2
37	Redra	28.867447	78.19283	5550	27777.2
38	Sehra	28.902397	78.465042	2630	13162.9
39	Seikhpur Jhakri	28.720451	78.32558	4330	21671.2
40	Seikhpur Jhakri	28.72416	78.31943	4050	20269.8
41	Nangalia	28.865934	78.180336	4980	24924.4
42	Jujhela	29.0471	78.356694	3160	15815.5
43	Shawabaaz Pur	29.0473	78.304939	3200	16015.7
44	Burawali	28.6135	78.2811	5630	28177.6
45	Seikhpur Jhakri	28.435668	78.19398	3200	16015.7
46	Nangalia	28.5204	78.10479	2510	12562.3
47	Gajasthal	28.9806002	78.4160364	3640	18217.8
Total					**893024.3**
Total Actual (A+B)					**1255664.3**



Locations of Recharge structure constructed for JACPL- Fertilizer Unit

Table 6.7 Summery of Recharge to ground water through Village Pond

A. Jubilant Life Sciences Limited

S. No	Unit	Mandatory Recharge as Per NOC (m^3 / annum)	Number of Recharge Ponds	Recharge made (m^3 /annum)
1	Chemical Unit 1	10,60,000	45	16,52,095
2	Chemical Unit 2	4,60,000	56	19,14,537
3	Distillery Unit	10,00,000	52	22,11,538
4	Power Plant	16,68,500	42	33,72,969
	Total	**41,88,500**	**195**	**91,51,139**

B. Jubilant Agri & Consumer Products Limited

S. No	Unit	Mandatory Recharge as Per NOC (m^3/annum)	Number of Recharge Ponds	Recharge made (m^3 / annum)
5	Polymer Unit	59,000	12	299,142
6	Fertilizer Unit	3,34,610	47	1,255,664
	Total	**3,93,610**		**15,54,806**
	GROSS TOTAL	**4582110**	**254**	**1,07,05,945**

On perusal of the above table it is apparent that JLL & JACPL has implemented recharge of 1,07,05,945.00 m^3 annually which is more than double the extraction (50,60,000 m^3 per annum) as artificial recharge to ground water. In compliance to the CGWA NOC condition & Guidelines, 254 village ponds were adopted for revised recharge requirement as per the "Over Exploited Block" conversion later in 2018 as per Revised GWRE 2017 published.

The recharge structures as per NoCs granted have been inspected by appointed officer of CGWA while verifying and confirming the compliances of the conditions stipulated vide NOCs. The recharge structures have also been completed before the expiry of the NoCs and submitted the compliance report well in advance to the CGWA. Site Photograph along with details of village recharge ponds are given at **Annexure I to Annexure VI.**

5.3 IMPACT ASSESSMENT OF RECHARGE STRUCTURE

In order to assess the impact of recharge to ground water through recharge structures a network of Piezometers have been established in and around the village ponds adopted for artificial recharge to ground water. Total of 46 Piezometers drilled and installed for

monitoring the impact of artificial recharge on ground water regime. All these piezometers are being monitored manually Monitoring of these piezometers have been started in May 2018 and so far, only two times pre-monsoon monitoring has been carried out i.e. May 2018, May 2019, October 2018, and post-monsoon in Oct 2019 and February 2020. After that due to Lockdown of COVID-19 monitoring of Piezometers could not be monitored due to lockdown restrictions. However, after the pandemic continuous seasonal monitoring will be carried out for assessing the recharge to ground water in and around the recharge structures. Details of Piezometers established is given in table 6.2.

Table 6.2: Details of Piezometers constructed to monitor Ground Water Recharge

Village	Land owner-Name and	Northing	Easting	DTW (Oct. 2019)	DTW (Feb 2020)	Screen length
				(m)	(m)	(m)
Aehraula Tejwan	Jagdish Chand	28°51'02.42"	78°13'36.10"	13.2	12.93	3.04
Agrola Kalam	Imart Singh	28°46'02.41"	78°14'00.61"	8.15	8.1	3.04
Bachchraiyu	Nafeesh Ahmad	28°55'16.10"	78°14'06.52"	11.8	11.18	3.04
Baseli	Irshad Ali	28°49'45.72"	78°12'04.31"	8.34	8.13	3.04
Batupura	Kunwarpal Singh	28°45'34.47"	78°11'58.82"	3.8	3.56	3.04
Chobara	Dharampal Singh	28°49'36.13"	78°16'17.88"	14.68	14.77	3.04
Chohadpur Mafi	Rajaram	28°49'13.05"	78°17'26.28"	14.52	14.56	3.04
Chowkpuri	Samarpal	28°52'37.98"	78°17'01.94"	16.14	15.82	3.04
Dakiya Bhood	Satvir Singh	28°53'17.26"	78°15'19.02"	15.69	14.83	6.09
Dariyapur	Satender Upadiyay	28°50'42.56"	78°16'57.77"	18.2	17.36	3.04
Deepur	Anit Chauchan	28°44'39.54"	78°16'01.39"	14.4	13.95	6.09
Fattahpur	Tej Pal Singh	28°46'20.08"	78°12'32.54"	7.15	4.49	3.04
Faundapur	Nauhbar Singh	28°50'49.43"	78°15'43.05"	12.29	12.54	3.04
Ferozpur	Hukum Singh	28°47'48.27"	78°13'50.81"	5.94	5	3.04
Ferozpur Bagad	Nanhe Singh	28°54'16.48"	78°11'54.24"	12.02	11.8	3.04
Hira Singh Baldana	Tofeek Ahmad	28°52'19.38"	78°19'43.84"	18.53	17.92	3.04
Jhanakpuri	Prem	28°50'05.45"	78°19'58.17"	19.7	18.69	3.04
Kakather	Manish Kumar	28°47'37.38"	78°10'21.96"	Well Defunct		3.04
Katai	Vijay Singh	28°48'57.46"	78°18'56.25"	13.6	13.93	3.04
Khad Gujar	KisnPal	28°51'43.59"	78°17'00.64"	17.32	16.74	6.09
Khai Khera	Ajeet Singh	28°51'48.31"	78°12'41.93"	7.8	7.33	3.04
Khiyalipur ka Dhal	Dharmveer Singh	28°47'44.25"	78°12'10.53"	5.3	5.18	3.04
Kumarala	Manvir Singh	28°50'18.92"	78°12'40.28"	7.19	7.1	3.04
Lakhamiya	Yakoob Ali	28°53'09.05"	78°17'30.70"	15.95	15.8	3.04
Machrai	Kiran pal	28°45'51.09"	78°15'30.02"	17.44	17.2	6.09
Manota	Veer Singh	28°46'39.63"	78°16'02.31"	15.75	15.74	3.04
Mohamadpur	Rajveer Singh	28°46'35.25"	78°13'11.69"	6.95	6.4	3.04
Mohammadabad	Sharafat Ali	28°46'06.73"	78°09'49.26"	3.72	3.84	3.04
Moharkapatti	Anish	28°48'27.58"	78°10'31.97"	5.00	5.24	3.04
Nagla Mafi	Ramgopal	28°52'21.60"	78°16'09.66"	15.7	15.07	6.09
Pal	Madanpal Singh	28°52'00.55"	78°15'00.91"	15.1	13.65	3.04
Pipli Dauad	Ram Pal Singh	28°47'35.27"	78°18'56.25"	18.1	18.9	3.04
Rahrdra	Karan Singh Pradhan	28°52'17.29"	78°11'31.48"	7.38	7.27	3.04
Rampur Bhoor	Mintu	28°44'56.45"	78°17'23.37"	16.72	16.62	6.09

Village	Land owner-Name and	Northing	Easting	DTW (Oct. 2019)	DTW (Feb 2020)	Screen length
				(m)	(m)	(m)
Sadarpur	Bisan Singh	28°48'20.87"	78°19'55.55"	19.57	18.86	3.04
Saergarh	Maesh Singh Sir	28°47'14.78"	78°18'14.19"	17.4	17.2	6.09
Sahapur	Shahbuddin	28°50'17.74"	78°10'45.26"	5.7	5.76	3.04
Sakarthali	Hompal Yadav	28°52'41.01"	78°13'47.88"	13.4	12.33	3.04
Sheshsoli	Rampal Balmiki	28°46'52.84"	78°15'06.20"	13.14	12.54	3.04
Shihali Gosai	Satesh Kumar	28°51'12.80"	78°11'41.69"	7.4	7.24	3.04
Sultan Ther	Vinod Kumar	28°47'20.25"	78°12'55.17"	6.17	6.03	6.04
Taharpur	RamBarose	28°46'02.33"	78°19'15.59"	17.65	17.58	3.04
Tigri	Yogender Upadhyay	28°49'28.82"	78°09'29.15"	3.4	3.48	6.04
Tigriya Khadar	Har Swaroop	28°48'09.57"	78°13'10.57"	5.6	5.55	3.04
Tookra Patti	Babbu	28°51'48.85"	78°10'59.98"	7.24	7	3.04
Yakhbagdi	Kirpal Singh	28°50'23.77"	78°18'07.45"	18.7	17.77	3.04

In view of the limited data available for DTW the hydrographs, trend analysis and Flow, Net analysis could not be performed for recharge to ground water. However, it is assured that after monitoring sufficient data in future all such analysis shall be provided to CGWA.

6 CONCLUSION

1. M/s Jubilant Life Science Limited and M/s. Jubilant Agri & Consumer Products Limited has Six units comprising of Coal based Power plant, Molases Based Distillery, Advance Intermediates Chemical Units 1, Fine Ingredients Chemical Unit 2, Fertilizer and Polymer manufacturing units at Gajurala, District Amroha, Uttar Pradesh. To operate the units, water is essential commodity. Municipal Corporation of Gajraula is unable to provide the requirement water demand of the plant, therefore, NOC for ground water from deeper aquifers are extracted for operationalization of Plan.

2. After constitution of Central Ground Water Authority (CGWA), withdrawal of ground water was regularized as per the directives of CGWA and NOC for withdrawal of ground water has been obtained which was for two years with effective from April 2017.

3. As per NOC all the directions of CGWA have been complied by the M/s Jubilant Life Science Limited and M/s. Jubilant Agri & Consumer Products Limited and

submitted all the required data to RD, CGWB, NR, Lucknow. This impact assessment reports are in continuation of the directives of CGWA depicting all the available details in prescribed format, as suggested by CGWA.

4. In Nutshell, to withdraw 14250 m^3/ day of ground water from deeper aquifers NOC has been granted by CGWA with conditions of mandatory artificial recharge to ground water to the tune of 37,47,860 m^3/annum. M/s JLL & JACPL has adopted 254 village ponds wherein more than **1,07,05,945.00** m^3/annum (twice the mandatory requirement) has been implemented.

5. To monitor ground water regime in the plant area 4 Piezometers have been installed which show rising trends in ground water levels. Apart from these more than 46 Pz wells have been established for monitoring ground water levels in 10 km radius area from the plant to generate regional ground water scenario. To assess the impact of ground water recharge the 46 Piezometers are monitored every pre-monsoon and post-monsoon season. The Recharge structures are maintained through Repair and maintenance every Pre-Monsoon season.

6. The ground water withdrawal in the JLL and JACPL Plants is from deeper aquifers (confined aquifers) which are not directly connected with shallow aquifers (unconfined aquifers). The recharge to these deeper aquifers is also established from Bhabhar / Tarai regions of Uttar Pradesh. However, as per the assessment of ground water resources by CGWB, it is for dynamic aquifers (unconfined aquifers) and do not reflect the ground water resources estimation of deeper aquifers.

7. Based on the ground water level data of shallow aquifers few depressions are observed in flow net analysis, but they are restricted to shallow aquifers. Detailed analysis of ground water withdrawal from shallow aquifers in Gajraula for Agricultural, industrial and domestic purpose complement such depressions.

8. Data of deeper aquifers from piezometers and hydrographs shows no decline in ground water (Piezometric head) due to withdrawal of ground water from JLL an JACPL Plants.

9. Ground water monitoring data of shallow aquifers within the study area is indicative that in upstream of the JLL and JACPL observation well no 7 and 21

(fig. 4.12 & 13) are not showing any significant decline of ground water levels. Similarly, in downstream at well no 12 and 18 are exhibiting shallow ground water levels. **These trends are indicative, that no effect of ground water withdrawal from JLL and JACPL is taking place in upstream and downstream area.**

10. M/s JLL and JACPL is providing support of pharmaceuticals and chemicals and farmers to the Country since inception and has played a major role during the COVID -19 pandemic. Therefore, it is urged to renew the NOC for withdrawal of ground water to M/s Jubilant Life Science Limited and M/s. Jubilant Agro Consumer Products Limited for continuing its endeavor in favor of human health and agricultural needs of the Country.

Appendix -I

Water Quality reports of Tube wells in Jubilant Life Science Plan

	Drinking water -Test as per IS 10500: 2012					CHEMICAL UNIT-1				CHEMICAL UNIT-1		
	Parameter	Test Method	Units	Limits	Extended limits	Borewell-4 (RESULTS)				Borewell-3 (RESULTS)		
						3/20/2017	7/5/2017	2/19/2018	7/23/2018	3/20/2017	7/5/2017	2/19/2018
	Bacteriological Quality OF Drinking Water											
1	Coliform	IS1622:1981	cfu/100ml	Absent		Absent	Absent	Absent	Abesent	Absent	Absent	Absent
	Organoleptic and Physical Parameters											
2	Colour	IS3025PT4:1983	Hazen	Max 5	Max 15	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0
3	pH Value at 25'C	SI 3025 Pt 11:1983		6.5-8.5	No relaxation	7.42	7.42	7.5	7.4	7.62	7.52	7.31
4	Solids Dissolved (TDS)	IS 3025 Pt 16:2006	mg/1	Max.500	Max.2000	244	196	225	228	282	191	289
	General Parameters Concerning Substances Undesirable											
5	Calcium (as Ca)	IS 3025 Pt 40:1991	mg/1	MAX.75	MAX.200	39.5	37	35.2	38	26	28	27
6	Chloride (as Cl)	IS 3025 Pt 32:1988	mg/1	MAX.250	MAX.1000	16	22	18	14	12	23	18
7	Copper (as Cu)	IS 3025 Pt 42:1992	mg/1	MAX.0.05	MAX.1.5	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)
8	Fluoride (as F)	IS 3025 Pt 60: 2008	mg/1	MAX.1	MAX.1.5	ND(<0.1)	ND(<0.1)	ND(<0.1)	ND(<0.1)	ND(<0.1)	0.1	ND(<0.1)
9	Iron (as Fe)	IS 3025 Pt 53.2003	mg/1	MAX 0.1	No relaxation	0.1	0.2	0.05	ND(<0.05)	0.1	0.1	0.1
10	Magnesium (as Mg)	IS 3025 Pt 46: 1994	mg/1	MAX.30	MAX.100	16	19	17	17	25	16	13
11	Manganese (AS Mn)	IS 3025 Pt 59: 2006	mg/1	MAX 0.1	MAX 0.3	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)	ND(<0.02)
12	Nitrates (as NO3)	IS 3025 Pt 34:1988	mg/1	MAX.45	MAX.No Relaxation	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
13	Phenolic Compounds (as C6H5OH)	IS 3025 Pt 43:1992	mg/1	MAX 0.001	MAX.0.002	ND(<0.0005)	ND(<0.0005)	ND(<0.0005	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)

14	Selenium (as Se)	IS 3025 Pt 56:2003	mg/1	MAX.0.01	No relaxation	ND(0.005)	ND(<0.005)	ND(<0.005	ND(<0.005)	ND(<0.005)	ND)<0.005)	ND)<0.005)
15	Sulphate (as SO4)	IS 3025 Pt 24:1986	mg/1	MAX.200	MAX.400	1	10	12	8	4.1	9.5	8
16	Alkalinity Total (as CaCO3)	IS 3025 Pt 23:1986	mg/1	MAX.200	MAX.600	164	162	170	168	167	168	160
17	Hardness Total (as CaCO3)	IS 3025 Pt 21:2009	mg/1	MAX.200	MAX.600	165	168	160	164	169	181	152
18	Zinc (as Zn)	IS 3025 Pt 49:1994	mg/1	Max.5	MAX.15	ND(<0.05)	ND(<0.05)	ND(<0.05)	ND(<0.05)	ND(<0.05)	ND(<0.05)	ND(<0.05)
	Parameter concerning Toxic Substances											
19	Cadmium (as Cd)	IS 3025 Pt 41:1992	mg/1	Max 0.003	No relaxation	ND(<0.001)	ND(<0.001)	ND(<0.001)	ND(<0.001)	ND(<0.001)	ND(<0.001)	ND(<0.001)
20	Cyanide (as CN)	IS 3025 Pt 27:1986	mg/1	Max 0.05	No relaxation	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)
21	Lead (ASpB)	IS 3025 Pt 47:1994	mg/1	Max 0.01	No relaxation	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)
22	Mercury (as Hg)	IS 3025 Pt 48:1994	mg/1	Max 0.001	No relaxation	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)	ND(<0.0005)
23	Nickel (as Ni)	IS 3025 Pt 54:2003	mg/1	MAX.0.02	No relaxation	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)
24	Arsenic (as As)	IS 3025 Pt 37:1988	mg/1	MAX.0.01	No relaxation	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)
26	Chromium (as Cr)	IS 3025 Pt 52:2003	mg/1	MAX.0.05	No relaxation	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)	ND(<0.01)

Pond No.	P-2	Longitude	78°11'08.23"
Village Name	Moharka	Latitude	28°48'19.21"
Date of Construction	13.02.2019	Pond Area (in Hectares)	0.208
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 3	Longitude	78°20'37.65"
Village Name	Koural, Dhanaura	Latitude	28°58'41.67"
Date of Construction	14.06.2018	Pond Area (in Hectares)	0.841
Village Land Record	Fard Document attached		

Photo - Initial Stage

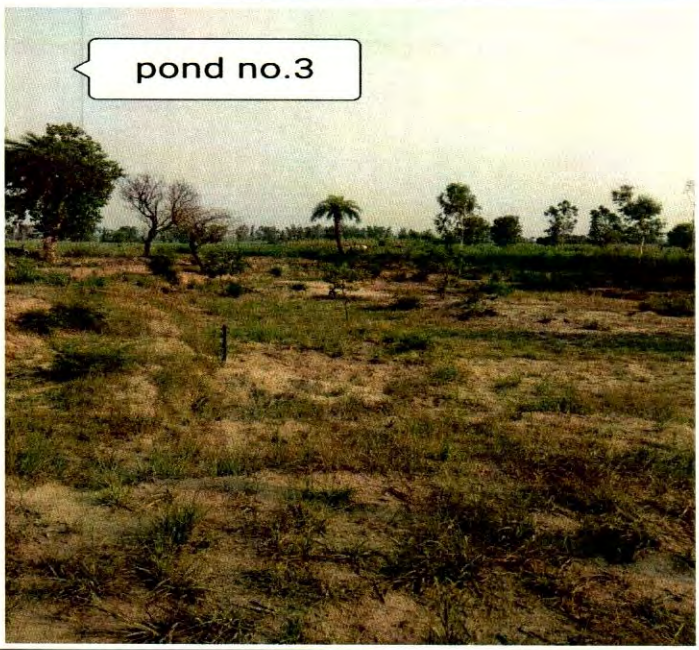
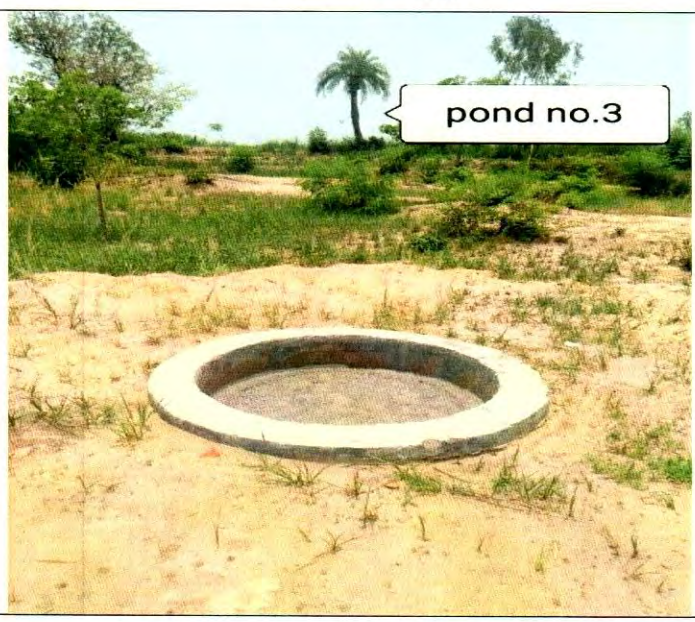


Photo – Final Stage



Pond No.	P - 9	Longitude	78°20'46.73"
Village Name	Koural	Latitude	28°59'08.27"
Date of Construction	14.06.2018	Pond Area (in Hectares)	0.405
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 12	Longitude	78°29'08.79"
Village Name	ShahpurFarraspura	Latitude	28°50'45.09"
Date of Construction	25.03.19	Pond Area (in Hectares)	1.319
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 18	Longitude	78°18'17.8"
Village Name	Afjalpur Loot	Latitude	28°53'16.8"
Date of Construction	16.06.2018	Pond Area (in Hectares)	0.579
Village Land Record	Fard Document attached		

Photo - Initial Stage

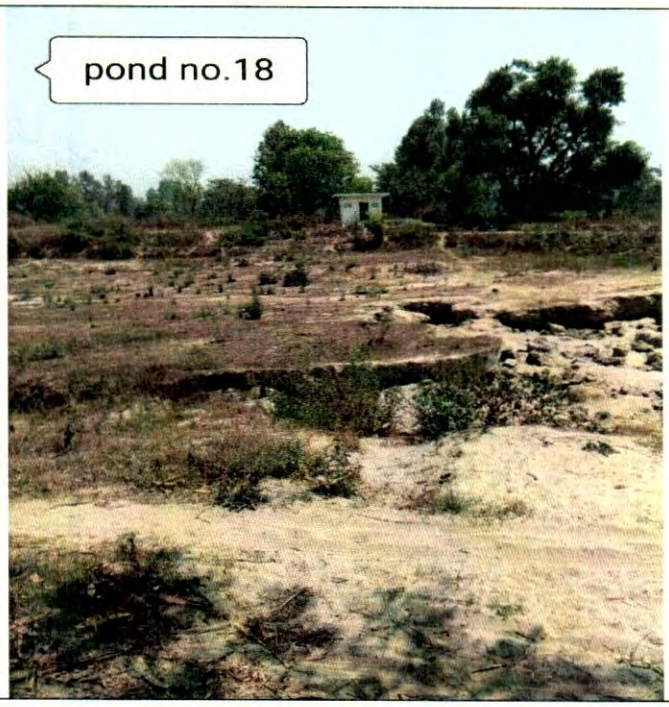
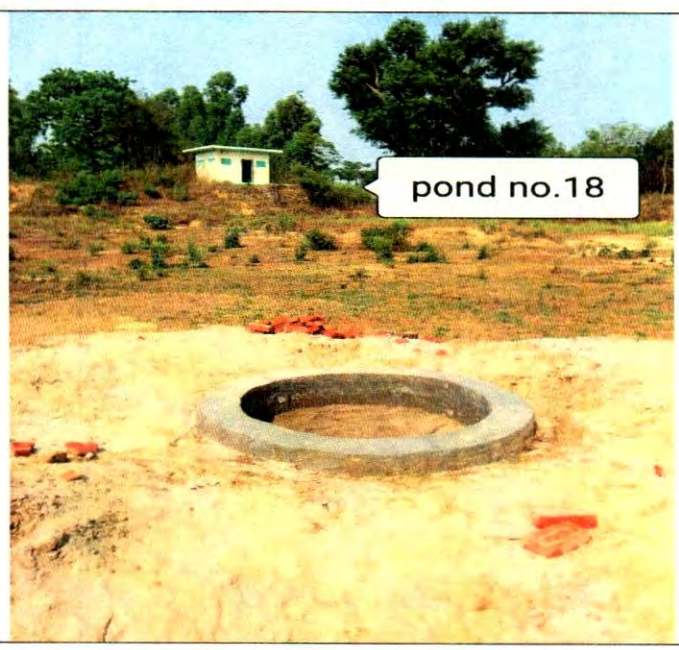


Photo – Final Stage



Pond No.	P - 19	Longitude	78°16'55.8"
Village Name	Lambia	Latitude	28°54'19.8"
Date of Construction	16.06.2018	Pond Area (in Hectares)	0.789
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 22	Longitude	78°12'24.7"
Village Name	Kumrala	Latitude	28°50'19.4"
Date of Construction	19.05.2018	Pond Area (in Hectares)	0.514
Village Land Record	Fard Document attached		

Photo - Initial Stage
Photo – Final Stage

Pond No.	P - 28	Longitude	78°18'03.7"
Village Name	Kuwakhera	Latitude	28°55'28.5"
Date of Construction	09.06.2018	Pond Area (in Hectares)	4.072
Village Land Record	Fard Document attached		

Photo - Initial Stage

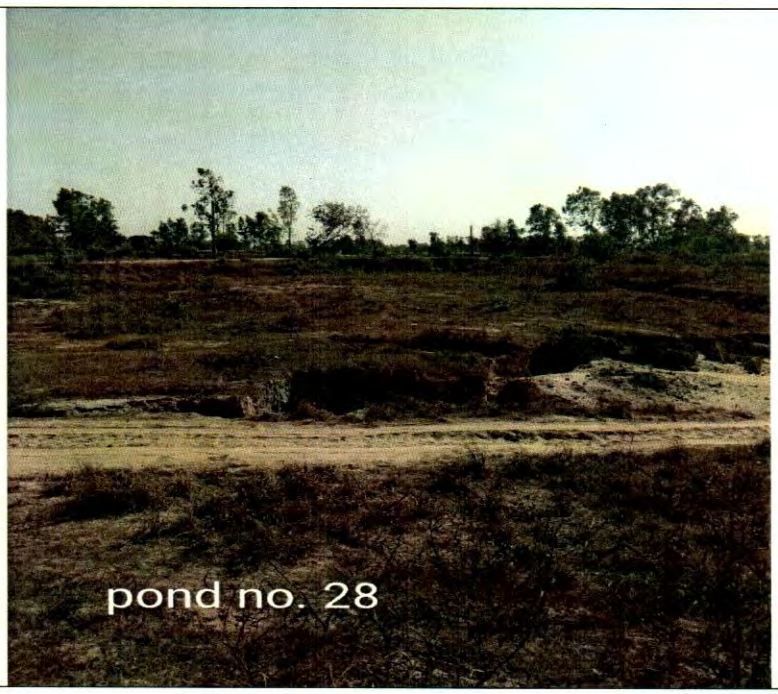


Photo – Final Stage

Pond No.	P - 34	Longitude	78°15'41.98"
Village Name	Chuchela Kala	Latitude	28°59'57.70"
Date of Construction	16.06.2018	Pond Area (in Hectares)	1.104
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 34N	Longitude	78°33'41.11"
Village Name	PataiKalsa	Latitude	28°48'26.31"
Date of Construction	26.03.19	Pond Area (in Hectares)	1.725
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 75	Longitude	78°13'04.81"
Village Name	Sultan Ther	Latitude	28°47'15.91"
Date of Construction	16.05.2018	Pond Area (in Hectares)	0.450
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 86	Longitude	78°19'27.14"
Village Name	Jalalpur Kalan	Latitude	28°50'41.29"
Date of Construction	16.06.2018	Pond Area (in Hectares)	0.588
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 105	Longitude	78°15'13.07"
Village Name	DhakiyaBhoor	Latitude	28°53'13.01"
Date of Construction	14.06.2018	Pond Area (in Hectares)	1.149
Village Land Record	Fard Document attached		

Photo - Initial Stage

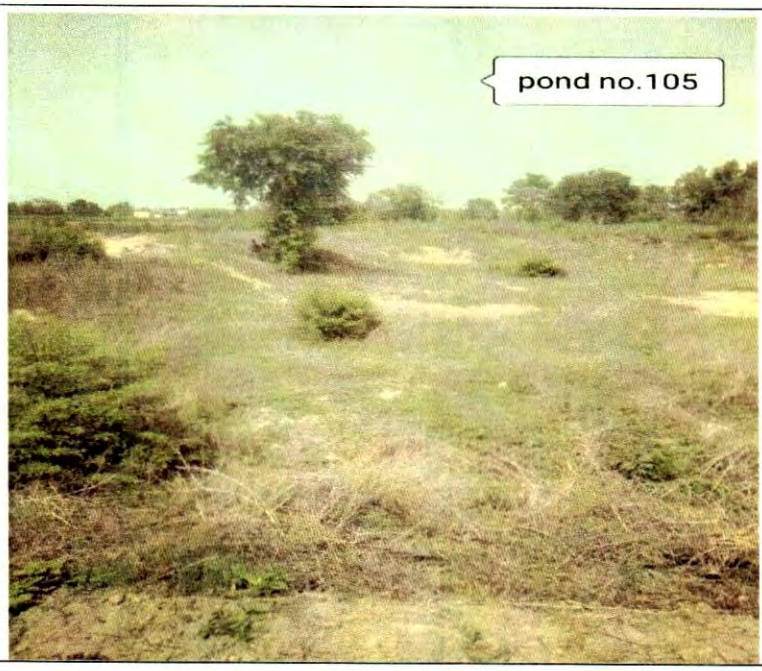


Photo – Final Stage

Pond No.	P - 106	Longitude	78°16'43.79"
Village Name	ChandarpurKhadar	Latitude	28°33'39.87"
Date of Construction	20.06.2018	Pond Area (in Hectares)	0.425
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 115	Longitude	78°17'03.24"
Village Name	Chohadpur/Salarpur	Latitude	28°49'47.92"
Date of Construction	20.06.2018	Pond Area (in Hectares)	0.235
Village Land Record	Fard Document attached		

Photo - Initial Stage

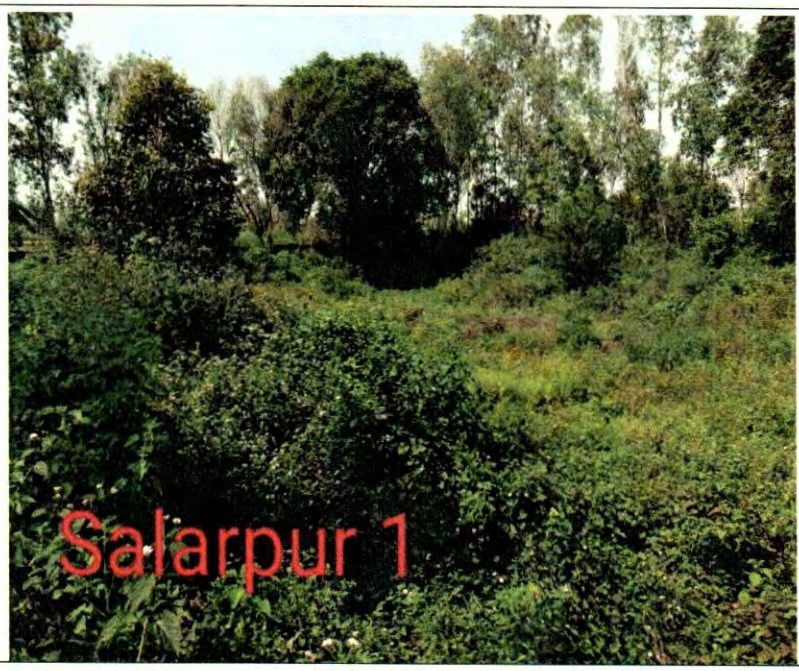


Photo – Final Stage

Pond No.	P –117	Longitude	78°33'40.91"
Village Name	DhanoriMafi I	Latitude	28°81'44.93''
Date of Construction	20.06.2018	Pond Area (in Hectares)	0.478
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 166	Longitude	78° 28' 18.20"
Village Name	Baserataga	Latitude	28° 02' 40.32"
Date of Construction	06.03.19	Pond Area (in Hectares)	1.259
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 178	Longitude	78° 11' 16.7892"
Village Name	Mohraka	Latitude	28° 49' 18.48"
Date of Construction	06.03.19	Pond Area (in Hectares)	0.138
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 180	Longitude	78° 11' 25.7244''
Village Name	Moharka	Latitude	28° 48' 52.56''
Date of Construction	05.03.19	Pond Area (in Hectares)	0.104
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 181	Longitude	78° 10' 48.6588''
Village Name	Tokra	Latitude	28° 51' 48.6''
Date of Construction	05.03.19	Pond Area (in Hectares)	0.3400
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 182	Longitude	78° 10' 47.4096''
Village Name	Tokra	Latitude	28° 51' 46.8''
Date of Construction	05.03.19	Pond Area (in Hectares)	0.1780
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 184	Longitude	78° 21'8.65''
Village Name	DaudpurJageer	Latitude	28° 40' 36.12''
Date of Construction	25.02.19	Pond Area (in Hectares)	0.165
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 185	Longitude	78° 20' 1.392"
Village Name	DaudpurJageer	Latitude	28° 42' 42.12"
Date of Construction	26.03.19	Pond Area (in Hectares)	0.263
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 187	Longitude	78° 23' 12.6384''
Village Name	TelipuraKhalsa	Latitude	28° 46' 7.32''
Date of Construction	30.01.19	Pond Area (in Hectares)	0.771
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 188	Longitude	78° 22' 57.44''
Village Name	TelipuraKhalsa	Latitude	28° 46' 10.56''
Date of Construction	30.01.19	Pond Area (in Hectares)	1.0490
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 189	Longitude	78°22'31.84"
Village Name	Ghosipura	Latitude	28°46'58.44"
Date of Construction	05.02.2019	Pond Area (in Hectares)	0.190
Village Land Record	Fard Document attached		

Photo - Initial Stage

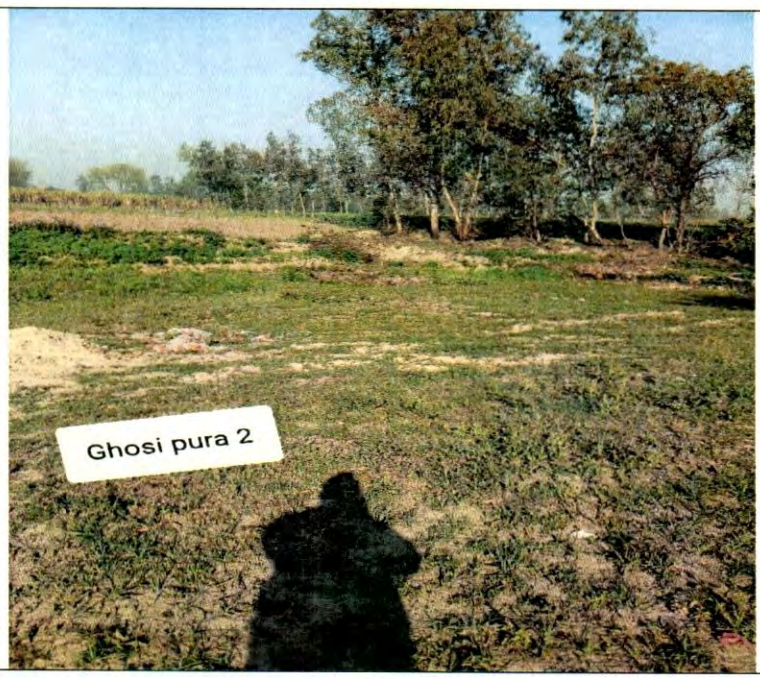


Photo – Final Stage

Pond No.	P - 198	Longitude	78°27'59.37"
Village Name	Sevda	Latitude	28°39'20.16"
Date of Construction	05.02.2019	Pond Area (in Hectares)	0.608
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 203	Longitude	78°29'10.31"
Village Name	Rajha	Latitude	28°41'44.88"
Date of Construction	05.02.2019	Pond Area (in Hectares)	1.359
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 205	Longitude	78°28'08.82"
Village Name	Ainchora Kamboh	Latitude	28°41'58.20"
Date of Construction	05.02.2019	Pond Area (in Hectares)	0.408
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 206	Longitude	78°28'32.88"
Village Name	Ainchora Kamboh	Latitude	28°41'52.44"
Date of Construction	05.02.2019	Pond Area (in Hectares)	0.433
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 207	Longitude	78°28'17.77"
Village Name	Ainchora Kamboh	Latitude	28°42'22.68"
Date of Construction	06.02.2019	Pond Area (in Hectares)	0.235
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 208	Longitude	78°28'28.02"
Village Name	Ainchora Kamboh	Latitude	28°42'31.68"
Date of Construction	06.02.2019	Pond Area (in Hectares)	0.304
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 209	Longitude	78°47'49.23"
Village Name	Nehroli	Latitude	28°72'47.01"
Date of Construction	11.02.2019	Pond Area (in Hectares)	1.019
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 210	Longitude	78°28'32.99"
Village Name	Nehroli	Latitude	28°43'12.72"
Date of Construction	06.02.2019	Pond Area (in Hectares)	0.607
Village Land Record	Fard Document attached		

Photo - Initial Stage

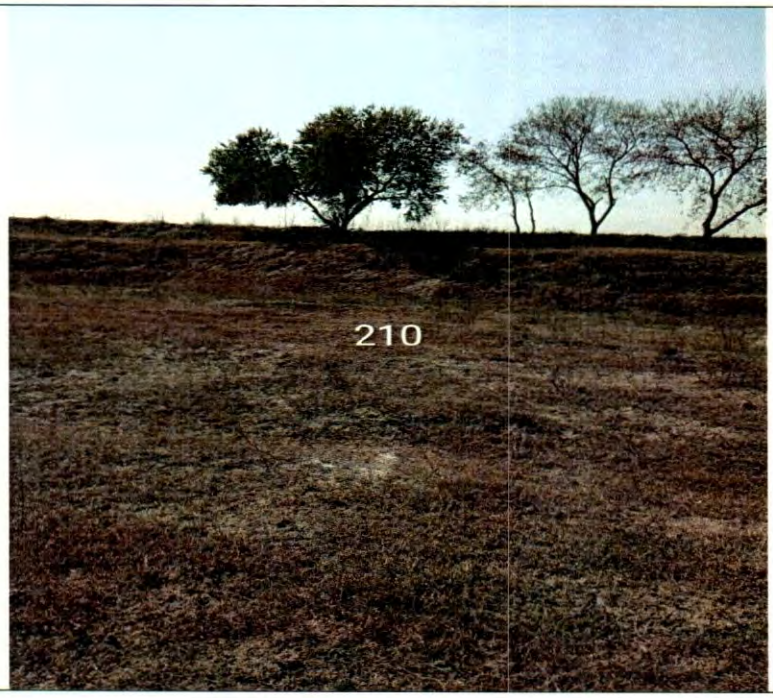


Photo – Final Stage

Pond No.	P - 211	Longitude	78°28'32.08"
Village Name	Nehroli	Latitude	28°43'12.36"
Date of Construction	06.02.2019	Pond Area (in Hectares)	0.514
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 213	Longitude	78°29'44.26"
Village Name	AitmadpurBhatpura	Latitude	28°43'18.84"
Date of Construction	06.02.2019	Pond Area (in Hectares)	0.312
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 214	Longitude	78°30'46.86"
Village Name	Ekrotiya	Latitude	28°42'12.24"
Date of Construction	03.04.2019	Pond Area (in Hectares)	0.547
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P - 215	Longitude	78°25'33.78"
Village Name	ManniKhera	Latitude	28°38'35.16"
Date of Construction	26.02.2019	Pond Area (in Hectares)	0.547
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 217	Longitude	78°26'35.60"
Village Name	ManniKhera	Latitude	28°38'27.24"
Date of Construction	25.01.2019	Pond Area (in Hectares)	0.837
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 219	Longitude	78°30'15.33"
Village Name	Kurkawali	Latitude	28°37'21.00"
Date of Construction	29.01.2019	Pond Area (in Hectares)	0.526
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 221	Longitude	78°30'58.89"
Village Name	Kurkawali	Latitude	28°38'04.92"
Date of Construction	30.01.2019	Pond Area (in Hectares)	0.2750
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 220	Longitude	78°30'15.96"
Village Name	Kurkawali	Latitude	28°37'26.76"
Date of Construction	30.01.2019	Pond Area (in Hectares)	0.45
Village Land Record	Fard Document attached		

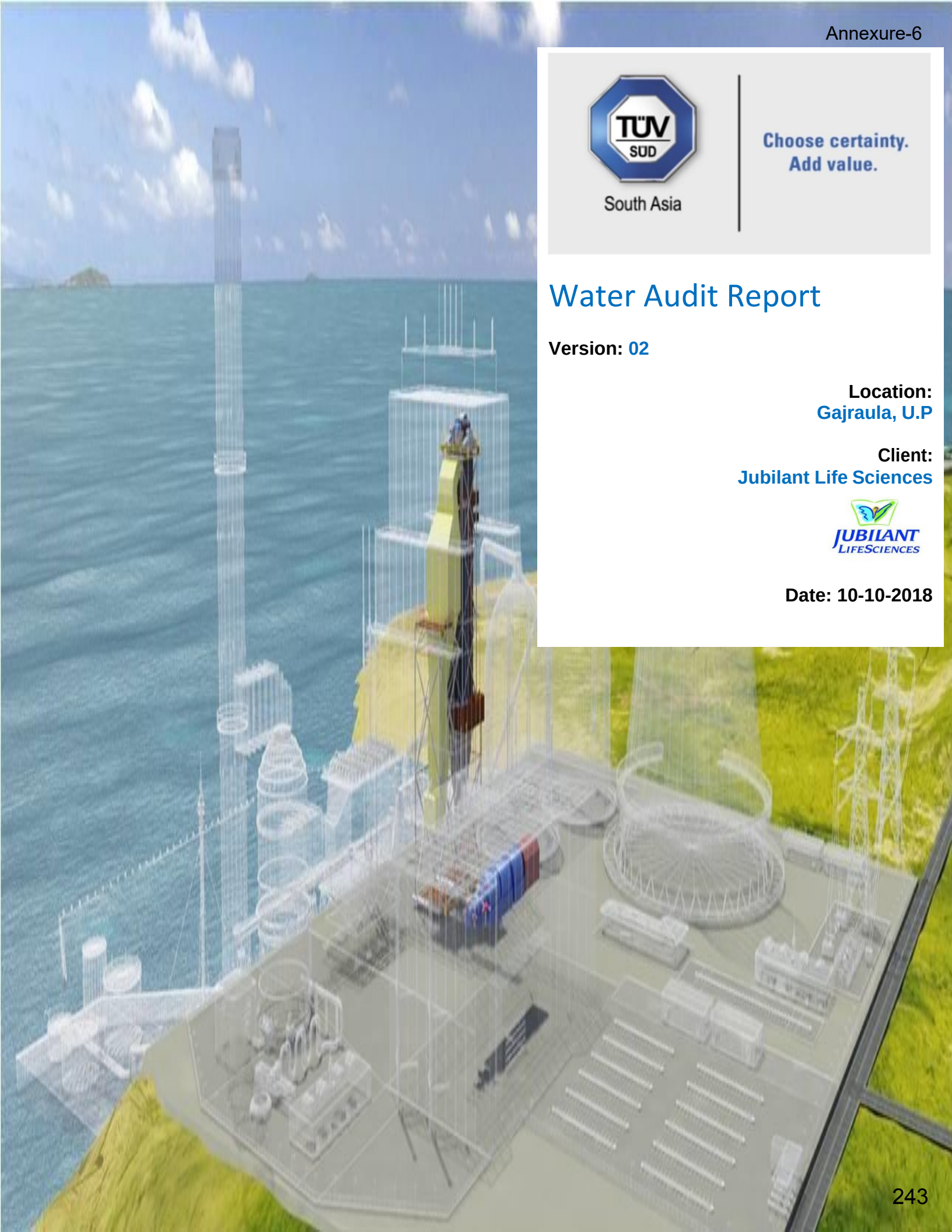
Photo - Initial Stage

Photo – Final Stage

Pond No.	P – 233	Longitude	78°19'26.23"
Village Name	Haiwatpur Banjara	Latitude	28°42'57.24"
Date of Construction	14.03.2019	Pond Area (in Hectares)	0.243
Village Land Record	Fard Document attached		

Photo - Initial Stage

Photo – Final Stage



South Asia

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Water Audit Report

Version: 02

Location:
Gajraula, U.P

Client:
Jubilant Life Sciences

Date: 10-10-2018

Table of Contents

Abbreviations 3
Preamble 4
Acknowledgement 5
Disclaimer 6
Executive Summary. 7

CHAPTER 1. INTRODUCTION 9

Objective of the Study 10
Scope of Work 10
Approach & Methodology 10

CHAPTER 2. FACILITY INFORMATION 12

About the Facility –Jubilant Life Sciences, Gajraula 13
Description of Facility and Process 13
Water Management 18
Waste Water Management 19

CHAPTER 3. FINDINGS 25

Capacity Utilization 26
Raw Water Abstraction and Consumption 27
Steam and Condensate 28
Cooling Towers 30
Waste water 31
Flow rate measurements 35

CHAPTER 4. RECOMMENDATIONS 36

Recommendations 37

CHAPTER 5. FRESH WATER REQUIREMENT AT 100% DESIGNED CAPACITY UTLIZATION 39

Table of Figures

Figure 1: FLOW DIAGRAM OF CONDENSATE POLISHING UNIT 43
Figure 2:FLOW DIAGRAM OF D M PLANT 44
Figure 3: CETP Process Flow Diagram 45
Figure 4: Schematic Block Diagram for Distillery Effluent Treatment & Biogas Generation 46
Figure 5: Process Flow Diagram of Distillery RO Plant 47
Figure 6: Process Flow Block Diagram for Sludge Dewatering Plant 48
Figure 7: CTRO -Process Flow Diagram-1200 KLD 49
Figure 8: SWTP Process Flow Diagram 51
Figure 9: Water Network from Ash Pond 52
Figure 10: Raw Water Balance 53
Figure 11: Usage of raw water in process 54
Figure 12:: DM water production and usages 55
Figure 13: Raw water usages in cooling towers 56
Figure 14: Condenste generation and utilization 58
Figure 15: Water Balance across Cooling Towers 59
Figure 16: Waste water management of Utilities (via CTRO) 60
Figure 17: Wastewater management of Unit-1 (via CETP) 61
Figure 18: Waste water management of Unit-2 62
Figure 19: Waste water management of Distillery 63
Figure 20: Domestic Waste water management of Township (via STP) 64
Figure 21: Domestic Waste water management of Plant via portable STP's 64
Figure 22: Waste water utilization 66

LIST OF ANNEXURES

ANNEXURE 1: NOC for groundwater withdrawal 69
ANNEXURE 2: Water balance and water consumption in various processes 77

Abbreviations

- BCCRs - Bio conditioning and Control Reactors
- BME- Bio-Methanated effluent
- BOD- Bio-chemical Oxygen Demand
- CETP – Central Effluent Treatment Plant
- CGWA- Central Ground Water Authority
- CPP – Captive Power Plant
- CPU-Condensate Polishing Unit
- COC- Cycle of Concentration
- COD – Chemical Oxygen Demand
- CTRO- Common Cooling Water blowdown effluent management system
- DMP- Diminearilized Plant
- DMW- Diminearilized Water
- DM- Diminearilized
- JLSL- Jubilant Life Sciences Limited
- JAPCL- Jubilant Agri & Consumer Products Ltd
- KLD – Kilo Liter per day
- MEE – Multi Effect Evaporators
- MT – Metric Tonne
- MURs- Methane Up-flow Reactors
- NOC – No Objection Certificate
- RO – Reverse Osmosis
- RSW- Raw Spent Wash
- STP – Sewerage Treatment Plant
- TSS- Total Suspended Solids
- TPH- Tonn per hour
- TPM- Tonne per month
- TPA – Tonne per annum
- UPPCB- Uttar Pradesh Pollution Control Board
- WHRB- Waste Hear Recovery Boiler
- ZLD – Zero Liquid Discharge

Preamble

Jubilant Life Sciences Limited ("JLSL") is an integrated global pharmaceutical and life sciences company and engaged in manufacturing a broad portfolio of high quality ingredients such as APIs, Solid Dosage Formulations, Radiopharmaceuticals, Allergy Therapy Products, Advance Intermediates, Fine Ingredients, Crop Science Ingredients, Life Science Chemicals and Nutritional Products that find application in wide range of industries. It also provides services in Contract Manufacturing of Sterile Injectable and Drug Discovery Solutions. Jubilant, is supplying products and services to customers in over 100 countries. Jubilant cater to 19 of top 20 pharmaceutical companies and 7 of top 10 leading global agrochemical companies.

JLSL is very committed to conserve the natural resources and working towards the smart water management solutions including water reuse and zero liquid discharge technologies and has taken a number of initiatives on water re-use and conservation.

JLSL has appointed TÜV SÜD South Asia a leading professional technical consultancy to conduct the Water audit study of their facility located at Gajraula in Amroha district in the state of Uttar Pradesh.

Acknowledgement

"Water Audit" is a joint venture of consultant and industry to verify real time water and waste water balance, to account for water consumption and waste water generation per unit of products and losses due to wastages and leakages. The contribution of facility's team is equally important in this venture. We sincerely acknowledge the contribution of the following dignitaries and site engineering personnel whose co-operation helped to conclude the study very smoothly.

- Mr. C.B. Bhardwaj - Chief of Manufacturing
- Mr. Radheyshyam Singh - Unit Head
- Mr. Kaushik Biswas - Associate Vice President (Manufacturing Excellence)
- Mr. Vimal Rai - General Manager (Technical Services)
- Mr. Dharmendra Mehra - AVP (EHS)
- Mr. Shashank Balyan - Dy. General Manager (Production)
- Mr. Sanjeev Dutta - Manager (Water Treatment Plant)

We are also thankful to all other staff members who were actively involved while collecting the data and conducting the field visits& measurements.

We believe that the observations, findings and recommendations incorporated in the report will help & lead the management of JLSL, Gajraula to account, monitor, control and conservation of water in much efficient and effective manner.

Disclaimer

This report is based on review of information/details/data provided by JLSL, Gajraula, observations and discussions made during site visits, verification of flow in existing water meters on randomly basis, information available in the public domain.

TUV has relied on the integrity of the information/details/data made available and collected for the purpose and has not sought to carry out an independent verification. The sufficiency of the work performed is solely JLSL, Gajraula responsibility, as are any decisions with respect to the study. This report is exclusively for JLSL, Gajraula sole benefit and use.

Executive Summary

The integrated chemical complex at Gajruala consists of Jubilant Life Sciences Ltd (JLSL) & its sister concern Jubilant Agri & Consumer Products Ltd. (JACPL). All units of JLSL and JAPCL are operated under separate Consent to Operate(s). However, all units have common utility services catering to the auxiliary and process support requirement. This study has been conducted for JLSL and objective of the study is to carry out (a) Detailed audit for water balance, steam balance, effluent generation and return to common system; and (b) To prepare total water balance report and suggest improvements for water conservation.

The study has been carried out on the basis of data collected from data management system of JLSL from 19 July to 27 July 2017 on unit wise production, water consumption & waste water generation (quantitative data only), steam generation & consumption and water and waste water management. However, same have been verified from log book on randomly basis. Existing water meters have also been verified by using ultrasonic flow meter on randomly basis.

The demand of fresh water is being met from 8 nos of tube wells for the entire chemical complex housing distillery unit, chemical unit-1, chemical unit-2, power plant unit of JLSL and Fertilizer unit, Polymer unit of JACPL and domestic usages in plant and colony.

Findings of study during study period are summarized as per details given hereunder:

- **Raw water abstraction and consumption**

Particulars	Values (KL)	
	Total	Per day
Input		
Total metered water extracted from all eight tub wells	78451	8717
Total metered condensate added to Raw water header	8339	927
Total water consumption(A)	86790	9643
Output		
Total metered cum estimated water consumption in process including domestic usages in plant	11839	1315
Total metered water used in DM plant	27653	3072
Total metered & unmetered water used in cooling towers	44389	4932
Total estimated water used in colony and swimming pool	2909	323
Total usages (B)	86790	9643

- **Waste water utilization/disposal**

Particulars	Values (KL)	
	Total	Per day
Total waste water available		
Rejects from CTRO	798	89
From Unit-1	1676	186
From CETP (treated)	1877	209
From STP-Township	2216	246
From STP-Plant	846	94
From Ash pond	8194	910
Total (A)	**15607**	1734
Total waste water utilization		
Ash slurry making	2569	285
Horticulture	4939	549
Dust suppression	8099	900
Total (B)	**15607**	1734

Based on findings of the study, following recommendations are made for improvements in water and waste water management to compliance with objectives-

(A) All water consumption points should be metered;
(B) Real time water and waste water balance should be established/recorded;
(C) Fresh water consumption in cooling towers is around 50% of total fresh water consumption. It is recommended to take measures for further reduction of fresh water consumption in Cooling Towers through increase in recycling of waste water after proper treatment e.g.-
  i) Distillery RO permeate (around 420 KLD) currently being utilized for molasses dilution in process/ horticulture, may also be utilized for cooling towers make up during less requirements in process/ rainy season;
  ii) Recovery of RO permeate may be increased further to get more clean water for recycling.
  iii) CETP treated effluent (around 200 KLD) currently being utilized for horticulture, can also be utilized for cooling towers make up after polishing treatment;
  iv) Treated sewage from STP (around 250 KLD) is currently being utilized for horticulture. During rainy season, it can be utilized in cooling towers make up also after required treatment;
  v) Above mentioned points can be accomplished by up gradation of existing CTRO capacity.

(D) Attempt should be made to reduce the quantity of makeup water to each Cooling Tower by increasing COC;

- **Estimated fresh water requirement at 100% designed capacity utilization**

On the basis of findings of study and details/data provided, an attempt has been made to estimate the fresh water requirement at 100% designed capacity utilization of all units. Based on detailed water and waste water balance including recycling and reuse of waste water generated for 100% designed capacity utilization of all units, details of estimated fresh water requirement are as per given hereunder:

Particulars	Values (KLD)
Total fresh water requirement in process including domestic usages in plant	3374
Total fresh water requirement in DM plant	4958
Total fresh water requirement in cooling towers	6727
Total fresh water requirement in colony and swimming pool	323
Horticulture	462
Total fresh water requirements	**15843**

Chapter 1.Introduction

1.1. Objective of the Study

The integrated chemical complex at Gajruala consists of Jubilant Life Sciences Ltd (JLSL) & its sister concern Jubilant Agri& Consumer Products Ltd. (JACPL). All units of JLSL and JAPCL are operated under separate Consent to Operate(s). However, all units have common utility services catering to the auxiliary and process support requirement. This study has been conducted for JLSL and objective of the study is to carry out :

- Detailed audit for water balance, steam balance, effluent generation and return to common system; and
- To prepare total water balance report and suggest improvements for water conservation.

1.2. Scope of Work

Detailed assessment of water and steam intensive process including associated utilities / auxiliaries services in order to identify status of ZLD and water conservation measures and recommend corrective action plan for implementation.

1.3. Approach & Methodology

The study has been carried out on the basis of data collected from data management system of JLSL from 19 July to 27 July 2017 on unit wise production, water consumption & waste water generation (quantitative data only), steam generation & consumption and water and waste water management. However, same have been verified from log book on randomly basis. Existing water meters have also been verified by using ultrasonic flow meter on randomly basis.

TÜV SÜD South Asia has adopted following approach & methodology for the successful completion of the Study.

- First visit was made by TUV team on 6th& 7thJuly 2017 for having initial discussion with technical team of JLSL, Gajraula on scope of work to be covered, methodology to be adopted and list of data/details to be collected. During visit, facility was visited focusing on water and waste water management and available data/details including drawings were collected;
- Data/details received from JLSL were reviewed to identify the issues and requirements of additional data/details. Plan was prepared for collection of unit wise production data, quantitative data on water, steam and waste water management, additional details/documents and verification of existing online meters on randomly basis;
- Second visit was made by TUV team from 19thto 27thJuly 2017, during which:
  1. TUV team has conducted limited online flow measurement through calibrated ultrasonic flow meters to verify the existing metering facilities on randomly basis;

2. Unit wise data for production, steam generation and consumption, water consumption, waste water generation and water and waste water management were collected on daily basis from data management system and verified from log book on randomly basis;
3. A detailed discussion was held with technical team of JLSL, Gajraula on status of data/details provided and to be provided; etc

- Desktop study was conducted by TUV team to analysis the data/details monitored/collected/provided by JLSL, Gajruala from 19 July to 27 July 2017 and based on study, following activities were accomplished:
  1. Quantitative water balance, waste water balance and steam balance were made for integrated plant;
  2. Requirements of additional metering facility were identified;
  3. Possible action plan for improvements in water conservation including recycling/reuse of condensate and treated waste water;etc

- Draft report consisting of findings and proposed possible action plan was discussed during visit of TUV team from 6 to 8 November 2017 with technical team of JLSL and subsequently final report was prepared and submitted.

Chapter 2.Facility Information

2.1. About the Facility –Jubilant Life Sciences, Gajraula

JLSL, Gajraula, located on the National Highway No.24, connecting Moradabad with Delhi, lies in Tehsil Dhanaura, District Amroha of Uttar Pradesh. The total area of facility is 467 acres with Latitude 28^0 54'14"N and Longitude 78^0 55'10''E.The broad gauge railway line connecting Delhi with Moradabad passes through Gajraula.

2.2. Description of Facility and Process

The integrated chemical complex at Gajraula consists of Jubilant Life Sciences Ltd (JLSL) & its sister concern Jubilant Agri & Consumer Products Ltd. (JACPL). JLSL has four units namely (a) Molasses based Distillery, (b) Chemical Unit 1 (c) Chemical Unit 2 (d) Coal based Power plant while JAPCL has two units namely (a) Fertilizer Unitand (b) Polymer unit .

All units of JLSL and JAPCL are operated under separate Consent to Operate(s). However, all units have common utility services catering to the auxiliary and process support requirement such as:

a) Coal based Captive CO-generation Power Plant: The integrated chemical complex has a coal based co-generation power plant for its captive requirement of power and steam. It has 2 x 90 TPH (High Pressure Boiler) for turbine operation. The released low-pressure steam from turbine operation is used to meet the process and heating requirements. There are 2 nos. Medium Pressure Boilers (24 TPH an 34 TPH) as a standby.

b) Water Management System (Water supply, DM Water, Process steam)

c) Common Cooling Water blowdown effluent management system (CTRO)

d) Chemical Effluent Treatment Plant (CETP)

e) Incinerators - 3 nos for Liquid – 288 KLD & 2 nos for Gaseous/Thermo Oxidizer – 1500 kg/hr each

f) Secured landfill – 11000 MT

The unit wise details of production capacity of JLSL as per design and consent issued by UP Pollution Control board are as given hereunder:

- **Capacity as per design**

1- Alcohol		
Name of the Product	**Capacity (KLD)**	**Capacity/Annum**
Ethyl alcohol	305	111325
Anhydrous alcohol	150	54750
Name of the Product	**Capacity (TPM)**	**Capacity/Annum**
Acetaldehyde	20550	246600
Acetic Acid	17525	210300
Acetic Anhydride	3250	39000
Ethyl/Butyl Acetate	7452.1	89425
Formaldehyde	11700	140400
3- Product list of Chemical Unit-2		
Name of the Product		**Capacity (TPA)**
Pyridine and derivatives and Specialty chemicals		
Pyridine and Picoline & derivatives		55480
Cyano Pyridine		8030
Fine Chemicals		
MPP Products		
Lutidine & Collidine and derivatives		1190
Amino pyridine and derivatives		1600
Piperidines and derivatives		860
Pyridine carboxylic acids and derivatives		1825
Chloro/Fluoro/Bromo/Hydroxyl pyridine and derivatives		2920
Pyrazine and derivatives		1095

Vinyl Pyridines	548
Catalyst of Pyridine carboxylic acids	548
Pyridine ethanol/Aldehydes and ketone derivatives	365
Cyclo alkino pyridine and derivatives and aliphatic derivatives	27.375

Name of the Product	**Capacity**	
Steam (TPH)	345	
Power (MW)	48	(Including stand by DG set)

- **Capacity as per consent granted by UPPCB**

Molasses based Distillery

Name of the Product	**Capacity (KBLD)**	**Valid upto**
Ethyl alcohol (Non Monson Season)	183	31/Dec/2018
Ethyl alcohol (Monson Season) Jul-Sep	91	31/Dec/2018
Anhydrous alcohol	150	31/Dec/2018

Product list of Chemical Unit-1

Name of the Product	**Capacity (TPM)**	**Valid upto**
Acetaldehyde	20550	31/Dec/2018
Acetic Acid	17525	31/Dec/2018
Acetic Anhydride	3250	31/Dec/2018
Ethyl/Butyl Acetate	7452	31/Dec/2018
Formaldehyde	11700	31/Dec/2018

Product list of Chemical Unit-2

Name of the Product	**Capacity (TPA)**	**Valid up to**
Pyridine and derivatives and Specialty chemicals		
Pyridine and picoline & derivatives	55480	31/Dec/2018
Cyano Pyridine	8030	31/Dec/2018

Fine Chemicals		
MPP Products		
Lutidine & Collidine and derivatives	1190	31/Dec/2018
Amino pyridine and derivatives	1600	31/Dec/2018
Piperidines and derivatives	860	31/Dec/2018
Pyridine carboxylic acids and derivatives	1825	31/Dec/2018
Chloro/Fluoro/Bromo/Hydroxyl pyridine and derivatives	2920	31/Dec/2018
Pyrazine and derivatives	1095	31/Dec/2018
Vinyl Pyridines	547.5	31/Dec/2018
Catalyst of Pyridine carboxylic acids	547.5	31/Dec/2018
Pyridine ethanol/Aldehydes and ketone derivatives	365	31/Dec/2018
Cyclo alkino pyridine and derivatives and aliphatic derivatives	27.375	31/Dec/2018
List of by Products		
By Product	**Capacity (TPA)**	**Valid upto**
Specialty chemicals		
KCl rich salt	720	31/Dec/2018

- Mainly following chemicals are handled in the manufacturing process.

Raw Material	**Molasses, Ammonia, Methanol, Formaldehyde, etc**
Intermediate	Ethyl Alcohol, Acetaldehyde, Formaldehyde
End Product	Acetic Acid, Acetic Anhydride, Ethyl Acetate, Pyridine & its derivatives, Picolines, PHBr, Lutidine, Collidines, Formaldehyde etc
Other Substances	• Catalysts: Silver, Alumina, Potassium per magnate etc • Fuels: Diesel, Coal, Biogas, and Furnace oil.

- The details of section/plant wise manufacturing process in brief are as per given hereunder:

Sn.	Section/Plant	Process
1	Distillery	Manufacturing Ethyl Alcohol (Fermentation of reducible sugar from molasses)
2	CO2 Plant	The evolved gas from distillery fermenters is diverted and after purification and odour removal pure gas is compressed and filled in to the Cylinders.
3	Biogas Plant	The distillery effluent is cooled and processed for generation of Biogas.
4	Acetaldehyde	Manufacturing of Acetaldehyde(Oxidation of Ethyl Alcohol)
5	Acetic Acid	Manufacturing of Acetic Acid (Oxidation of Acetaldehyde).
6	Acetic Anhydride	Manufacturing of Acetic Anhydride Plant. (Cracking of Acetic Acid)
7	Ethyl Acetate Plant	Manufacturing of Ethyl Acetate (Esterification of Ethyl alcohol with Acetic Acid)
8	Incinerators	Burning of liquid and gas PP-Ils effluents
9	Pyridine & Picoline Plant I & II	Manufacturing of Pyridine & Picoline
10	Formaldehyde	Manufacturing of Formaldehyde Oxidation of Methanol in the presence of catalyst)
11	3-Cyano Pyridine	Manufacturing of 3-Cyano Pyridine
12	Lutidine	Manufacturing of Lutidine
13.	FC (I to VI)	Derivatives of Pyridine
14.	Boiler	Generation and Distribution of steam
15.	TG/DG	Turbine Generator & Diesel Generator for Power generation.
16.	Substations	Distribution of power.
17.	Utilities	Raw water, cooling water, chilled water, Drinking water treatment & Distribution.
18.	Stores	Material procurement, storage & inventory control.
19.	R & D	Research & development in various fields relating to process development, market development, environmental protection etc.
20.	Kilo Lab	Validation of lab product developed in R & D.
21.	CDFP	Manufacturing of CRAMS products.
22.	Niacin	Manufacturing of Niacin catalyst
23.	Niacinamide	Manufacturing of Niacinamide
24.	SRP	Solvent is extracted from the waste
25.	ZPTO	Manufacturing of ZPTO
26.	FTF (Pilot Plant)	Manufacturing of 2Flouro 6 triflouro Methyl Pyridine

Plant's processes are of continuous nature. However, there are some batch processes also but it remains in operation round the year & 24 hrs daily except during shutdown. Approximate 873 staff + 1213 workmen are employed.

2.3 Water Management

- **Fresh water**

The demand of fresh water is being met from 8 nos of tube wells (7 nos. for JLSL i.e. borewell number 1,3,4,5,6,7,8 and 1 no. for JACPL i.e. borewell number-2) for the entire chemical complex housing distillery unit, chemical unit-1, chemical unit-2, power plant unit of JLSL and Fertilizer unit, Polymer unit of JACPL and domestic usages in plant and colony. Flow meter has been installed on each tube well. Water is distributed to all the units through common pipe line system through flow meters. Details of NOC obtained from Central Ground Water Authority for ground water withdrawal by JLSL are as per given hereunder and copies of NOCs are enclosed as **Annexure-1**.

.S.N	Reference of NOC from CGWA	Permitted Quantity of ground water abstraction	Number of tube wells permitted
1	CGWA/NOC/IND/ORIG/2017/2533 dated 19 April 2017 for existing distillery unit	3000 m^3/day (and not exceeding 1065000 m^3/year)	Through existing two tubewells
2	CGWA/NOC/IND/ORIG/2017/2529 dated 18 April 2017 for power generation unit	4700 m^3/day (and not exceeding 1668500 m^3/year)	Through existing two tube wells
3	CGWA/NOC/IND/ORIG/2017/2530 dated 7 April 2017 for existing Chemical unit-1	2300 m^3/day (and not exceeding 816500 m^3/year)	Through existing two tube wells
4	CGWA/NOC/IND/ORIG/2017/2531 dated 7 April 2017 for existing Chemical unit-2	2600 m^3/day (and not exceeding 923000 m^3/year)	Through existing one tube wells
Total		**12600 m^3/day (and not exceeding 4473000 m^3/year)**	

- **DM water**

The demand of DM water is met via following system:

Plant	Capacity (m3/hr)	Status
DMP-1 as Condensate Polishing Unit (CPU)	30	In operation with 18 running hours per day
DMP-2 for DM water generation from fresh water	60	Not in operation
DMP-3 for DM water generation from fresh water	80	In operation with 20 running hours per day
DMP-3 for DM water generation from fresh water	120	In operation with 20 running hours per day

Sketch flow diagrams for CPU and DMW are depicted in **Figure 1.0** and **2.0**respectively.

2.4 Waste Water Management

The details of integrated waste water generated management are described hereunder:

Effluent Treatment Process- Chemical Unit-1

Acetyl effluent generated from Chemical unit-1 and M/s JACPL is treated in two stage aerobic biological treatment plant (CETP). The treated effluent is being used for horticulture purpose. The CETP consists of two stage aeration tanks followed by clarifiers.

- As per O&M manual, designed details of CETP are as per given hereunder:

Sn	Particulars	Values
1	Total hydraulic loading	700 m3/day
2	Inlet effluent quality	pH:6.5-7.5, TSS: 300 mg/l, BOD:2000 mg/l and COD:7600 mg/l
3	Outlet effluent quality	pH:6.5-8.0, TSS: 10-20 mg/l, BOD:<30 mg/l and COD:<250 mg/l

- While operating parameter maintained at CETP are as per given hereunder:

Parameters	Influent	Effluent
Flow (m3/hr)	200	200
pH	3.4-3.5	>7.5
BOD (mg/l)	6500-7500	5-10 (<30)
COD (mg/l)	9500-12000	100-150 (<250)
TSS (mg/l)	150-200	50-60 (<100)

Details of treatment methodology are depicted in **Figure 3.0** and described hereunder:

- **Primary Treatment**

Raw effluent generated from process section (Chemical Unit-I) and M/s JAPCL is collected in the Equalization Tank. In the equalization tank, sufficient retention time is provided to equalize and homogenize the variations in the flow and pollutant concentration, if any. Air for uniform mixing is supplied using air blowers.

The homogenized effluent is then constantly pumped to the pH correction tank where stoichiometric quantities of alkali is dosed to correct the pH to the neutral range (>6.5). The overflow from the pH

correction tank is taken by gravity to the Re-activator type clarifier (RCT). The presence of recirculation mechanism helps in improve the sludge settling characteristics. The settled sludge is put on to the sludge thickener Tank from where it is pumped to decanter centrifuge/sludge drying beds & finally to Captive SLF (Secured Land Fill).

The overflow of the Re-activator Clarifier is then taken by gravity to Secondary Treatment system for the removal of organics (BOD & COD).

- **Secondary Treatment (Two stage Aeration)**

Secondary Treatment system consists of aeration tanks, secondary clarifier followed by sludge recirculation facility. In the aeration tank, sufficient amount of air is supplied to oxidize the organic matter (present in Influent) biologically by the bacterial biomass. Required quantity of oxygen is supplied and mixing done by the Diffused Aeration System. Stoichiometric quantity of air supply ensures complete oxidation of the organic matter contributing to the BOD/ COD in the effluent.

The bio-mass slurry/excess sludge from the Aeration tank-1 then flows by gravity to the Sludge clarifier-1(SCT-1) for separating the bacterial bio-mass from the treated water. The settled sludge at the bottom of the sludge clarifier tank-1 is re-circulated back to the Aeration tank-1 inlet to maintain the bacterial population at 25-30% ratio. The overflow of the Secondary Clarifier-1 is taken to Aeration tank-2 for second stage biological-treatment and the aerated effluent overflows to Secondary Clarifier-2 for solid liquid separation. The settled sludge at the bottom of the secondary clarifier tank-2 is re-circulated back to the Aeration tank-2 inlet to maintain the bacterial population.

Required quantities of nutrients in the form of Urea and DAP are added by gravity to the Aeration tank to enhance bio activity. The excess bio sludge is pumped to decanters for sludge dewatering.

- **Tertiary Treatment System**

The clarified water i.e. the overflow of the Sludge Clarifier-2 (SCT-2) is taken by gravity to the Clarified water tank (CWT) where it is disinfected using hypo solution and then it is passed through Pressure sand filter and Activated Carbon Filter for the removal of the remaining Suspended Solids, removal of colloidal impurities, odor if any in the treated effluent.

Effluent Treatment Process- Chemical Unit-2

The effluent generated from manufacturing of Pyridine and derivatives is organic/inorganic in nature and is known as raffinate. The organic raffinate is non-biodegradable in nature and hence it can be treated through incineration only. Presently the organic raffinate is concentrated in existing two (02) nos. Multi Effect Evaporators (MEE- 324 m^3/d and 528 m^3/d capacity). Condensate generated is used as make-up water in cooling towers. The concentrate from MEE is incinerated in three (3) nos. Liquid Waste Incinerators (90 m^3/d, 90 m^3/d and 108 m^3/d capacity), provided with waste heat recovery system, cyclones,

scrubbers and spray dryer etc.The Inorganic raffinate from Pyridine derivatives is spray dried in Spray drier associated with liquid waste incinerator-III.

Details of treatment methodology are depicted in **Figure 20.0A**:

Effluent Treatment Process- Distillery

The details of treatment process of effluent generated from distiller are depicted **in Figure 4.0,5.0**& **6.0** and described hereunder:

1. **Bio-Methanation Process**

Raw Spent Wash (RSW) is fed into BCCRs (Bio conditioning and Control Reactors) and MURs (Methane Up-flow Reactors) for anaerobic digestion. Biogas is generated and utilized in various processes as a fuel substitute. Typical characteristics of inlet effluent RSW and treated effluent (bio-methaneted effluent) is a below

Parameters	Raw Spent Wash	Bio-Methanated effluent
Flow, m^3/hr	50	50
pH	4.2-4.5	7.5-7.8
COD (mg/l)	145500-150500	45000-48000
TDS(mg/)	144600-147500	51000-55000
TSS (mg/l)	6500-8500	11000-15000

An approximate 53 Nm^3 of Biogas (54% Methane concentration) is generated from every KL of RSW having calorific value of 4000-4200 Kcal /MNm^3.

2. **Reverse Osmosis Process:**

Effluent after bio-methanation is concentrated for volume reduction passed through Reverse Osmosis plant. 50 % permeate generated is recycled and utilized in molasses dilution whereas RO Reject (50 %) is further concentrated through MEE (Multi Effect Evaporator). Typical characteristics of inlet effluent, Bio-Methanated effluent (BME) and RO Reject is as below-

Parameters	Bio-Methanated effluent	RO Reject
Flow, m^3/hr	50	25
pH	7.5-7.8	7.2-7.5
COD (mg/l)	45000-48000	70000-72000
TDS (mg/l)	51000-55000	75000-79000
TSS (mg/l)	11000-15000	2500-3500

3. Concentration through Evaporation in MEE

RO Reject is further concentrated through evaporation in MEE (Multi Effect Evaporator) and water is recovered as condensate. The condensate generated is reused in cooling tower make up and concentrate (SLOP) is either incinerated in SLOP Fired Boiler with coal as support fuel or Bio-composted.

Typical characteristics of inlet effluent Bio-Methanated effluent (BME) and treated effluent RO Reject is as per given below:

Parameters	RO Reject (MEE Feed)	MEE Condensate	MEE Concentrate
Flow m^3/hr	25	17.5	7.5
pH	7.2-7.5	8.0 – 9.0	6.3-6.5
COD (mg/l)	75000-90000	1500 – 2500	300000- 500000
TDS (mg/l)	75000-85000	150 – 250	>30%
TSS (mg/l)	2500-3500	<10	NA

4. Concentrated effluent (SLOP) incineration

Concentrated (Remaining) effluent from evaporators' is further transferred to SLOP boiler for incineration. Coal used as support fuel to help incineration of SLOP. To start incineration of MEE concentrate, boiler drum filled with DM water up to 50% and maintain bottom furnace temperature at 950°C along with furnace top temperature >600 °C. Once achieved desired ranges of temperature, feed to boiler starts through slop spray gun. Ash as a result of incineration collected from convection zones, economizer & bag filters, which is rich in micro nutrient such as potash in the range of 15%.

5. Bio - Composting

MEE concentrate is transferred to Bio-compost plant & sprayed on press mud windrows with the help of aero tillers. Then press mud is shifted from press mud yard to composting yard for windrow laying. Total number of windrow is 140,with dimensions of each windrow a 80-120 m (L) X 2.8 m (W) X 1.5m (H). Dressing of windrows is done by hydraulic machine (JCB).On completion of windrow dressing, turning through aero tiller machines to reduce present moisture in windrows. Bio- culture is added in to above windrows to activate the windrows-biological activity in windrows along with spraying MEE concentrate. After 60-65 days (on mature conditions), prepared compost is shifted from windrows to "Bio-compost Finish good yard".

Effluent Treatment Process- Utilities

The waste water generated from DM plant and cooling towers blow down from ChemicalUnit-1 , Chemical Unit-2 , Distillery Unit and Power plant of Jubilant Life Sciences Limited and 35.0 m3 per day from JACPL Unit (8.0 m3/day from Polymer Unit & 27.0 m3/day from Estergum plant) is being treated in RO plant (CTRO). The permeate of CTRO is being sent to cooling towers to be used as cooling tower make up water while rejects is being sent for ash slurry making/dust suppression. CTRO has been designed at hydraulic loading of 1200 m3/day with 80% recovery but presently it is being used at hydraulic loading of 400 m3/day and needed up gradation to make it operate at design hydraulic loading of 1200 m3/day. The process flow diagram of treatment system is depicted in **Figure 7.0**.

Effluent Treatment Process- Domestic

As depicted in **Figure 8.0**, domestic effluent from township& plant is collected in sewage collection tank from where it is transferred to aeration tank after passing through bar screen chamber. Aeration tank has diffusers for air supply to microorganism and here effluent is decomposed into its simple chain compounds. Effluent from aeration tank reaches to clarifier hydraulically where sludge settles and clear treated effluent reaches to final collection tank after passing through sand and carbon filter as tertiary treatment. After disinfection through chlorination, treated effluent utilized for horticulture process. Sludge generated during treatment process is collected in sludge drying beds which after drying disposed accordingly. The STP is designed at hydraulic loading of 400 m^3/day with following inlet and outlet parameter:

S. No.	Parameter	UOM	Inlet	Outlet
1	BOD 5, 20oC	mg/l	300	<30
2	COD	mg/l	450	<250
3	TSS	mg/	350	<100
4	pH	mg/l	6.5 – 7.5	6 – 9
5	TDS	mg/l	ND	<2100

However, average operating parameter are as per given hereunder:

S.N	Parameter	operation values	
		At inlet	**At outlet**
1	pH	7.4	7.8
2	TDS	211	226
3	TSS	44	17
4	BOD	23	4
5	COD	183	24

Ash slurry system

As depicted in **Figure 9.0**, single pipeline with bypass arrangement has been provided to transfer the slurry from ash slurry pit to ash pond at Shabazpur and to bring back the overflow from ash pond to water pit for making ash slurry. The details of the system are as per given hereunder:

- Ash pond area- water capacity 432289m^3
- Pump capacity, 100m^3\Hr and Suction /discharge of 4"/3" for pumping overflow of water from ash pond to water pit of 4000 m^3.
- Pump capacity, 100 m3\Hr,43 meter head and Suction /discharge of 4"/3" for pumping ash slurry to ash pond.

Chapter 3.Findings

The section presents findings of the study based data collected from data management system and verified from log book on randomly basis and verification of existing flow meters with calibrated ultrasonic flow meter on randomly basis during site visit from 19 July 2017 to 27 July 2017.

3.1 Capacity Utilization

The details of products with average production and capacity utilization during study period are summarized as per given hereunder:

Name of the Product	Product	Unit	Average Production During study period	Capacity w.r.t Consent to operate	Capacity Utilization %
Ethyl alcohol (Monson Season) Jul-Sep	Alcohol (BG Route)	KBL D	91	91.00*	99.6%
	Alcohol (MEE Route)	KBL D			
Anhydrous alcohol		KBL D	150	150.00	99.7%
Acetic Anhydride	AC2O_Crude	TPD	83	108.00	76.5%
Ethyl/Butyl Acetate	E.A. I & II	TPD	58	248.00	23.2%
	E.A. III	TPD			
Acetaldehyde	ACH-VI	TPD	127	685.00	18.6%
	ACH-VII	TPD			
Formaldehyde	HCHO-I	TPD	274	390.00	70.2%
	HCHO-II	TPD			
Pyridine and picoline & derivatives	Crude PB (P&P-I)	TPD	109.97	168.00	65%
	Pyridine_Pure	TPD			
	Beta_Pure	TPD			
	CS_Pyridine	TPD			
	ACS_Pyridine	TPD			
	Crude PB (P&P-II)	TPD			
	Pyridine_Pure	TPD			
	Beta_Pure	TPD			
	Alpha Gamma	TPD			
	Total - Pyr. & B-Pic.	TPD			
Cyano Pyridine	3 C.P_Crude	TPD	9	24.00	37%
MPP Products	3,5 Lutidine (98.7%)	TPD	12.42	33.00	37%
	2-Amino Pyridine-Crude	TPD			

	3, 5 Lutidine (Acetic Acid test passed)	TPD			
	2,4,6-Collidine_Crude	TPD			
	2-Acetyl Pyridine-Pure	TPD			
	3, 5 Lutidine (95%)	TPD			
	3,5 Lutidine (98.5%)	TPD			
	MEP_Crude	TPD			
	2HMP_Crude	TPD			
	Azacyclonol_Crude	TPD			
	P2A_Crude	TPD			
	4-DMAP_Crude	TPD			
	2A4MP special grade for flakes	TPD			
	2A4MP crystals	TPD			
	2A3HP Purification	TPD			
	5Bromo 2Nitro Pyridine Drying.	TPD			
	5Bromo 2 Nitro Pyridine Crude	TPD			
	ZPT 50% FPS (Gen)	TPD			

Consent capacity of ethyl alcohol is 183 KLD for non-monsoon period

3.2 Raw Water Abstraction and Consumption

As depicted in **Figure 10.0** to **13.0**, following observations are made:

- **Raw water abstraction and consumption**

Particulars	Values (KL)
Input	
Total metered water extracted from all eight tub wells	78451
Total metered condensate added to Raw water header	8339
Total water consumption(A)	86790
Output	
Total metered cum estimated water consumption in process including domestic usages in plant	11839
Total metered water used in DM plant	27653
Total metered & unmetered water used in cooling towers	44389
Total estimated water used in colony and swimming pool	2909
Total usages (B)	86790
Balance water (A-B)	**0**

- Average unmetered raw water consumption is 593 m^3/day which is reportedly being used in cooling towers;
- Water used for each cooling tower is not being metered and unmetered water to cooling towers should be established by installation of meters;
- Total water used for domestic purposes in plant and colony has been reported as single head and metered; etc.

- **DM water production**

Particulars	Values (KL)
Input	
Total metered water used in DM plant	27653
Total metered condensate used in Anion-1 unit (as per water usages data sheet)	2428
Total input (A)	**30081**
Output	
Total metered DM water produced	25405
Total polished water produced from Anion-1	2428
Total output (B)	27833
Waste Water	
Total estimated (by difference) waste water generated from DM plant	2248
Total estimated waste water generated from Anion-1	0.0
Total waste water (C)	2248
Total unaccounted water (A–B-C)	**00**

- **DM water usage**

Particulars	Values (KL)
Input (A)	27833
Usages	
Metered DM water to CPP	23600
DM water to WHRBs and Process (partly metered)	4233
Total usages (B)	27833
Total unaccounted DM water (A –B-C)	**00**

3.3 Steam and Condensate

Steam generation and consumption

Particulars	Mass basis
Total Steam generation (A)	34946
CPP	6193
Distillery	2788
Unit-1	5251
Unit-2	19810
Misc	402
Total usages (B)	34443
Total steam losses (A –B)	**503**

- Details of boilers and capacity utilization (based on steam generation) of each boiler are as per given hereunder:

Particulars	Capacity Utilization (%)
90 TPH BOILER OLD	74.07
90 TPH BOILER NEW	71.1
RFL TO JLSL (14 TPH)	81.5
SLOP FIRE BOILER / FIQ-101 (25 TPH)	14.87
35 TPH BOILER	NA
25 TPH BOILER	NA
34 TPH BOILER	NA
HCHO TO P&P /61-FI-601-2 (4 TPH)	65.76
HCHO-2nd. (4 TPH)	51.76
Thermal Oxidizer 1st. FT 2001 (4 TPH)	27.09
Thermal Oxidizer EOU FI 5154 (4 TPH)	46.83
INCINERATOR-1 / FIQ-601-1 (12 TPH)	0
INCINERATOR-2 / FIQ-602-2 (12 TPH)	40.18

Condensate generation and utilization

As details depicted in **Figure 15.0**, following observations are made

Condensate generation

Units	Values (KL)		
	Recovered Condensate	**Non-Recovered Condensate**	**Total**
CPP	6193	NIL	6193
Unit-1	5251	NIL	5251
Unit-2	17259	2551	19810
Distillery	848	1940	2788
Misc	-	402	402
Steam loss	-	503	503
Total	**29551**	**5396**	**34946**

- **Condensate utilization**

Units	Condensate (KL)
CPP	6193
Raw water header	8339
Anion-1	2428
Condensate used at Deaerator-I (MPB+Inc+Slop+TO)	2027
Condensate used for SAP WHRB	3113
Condensate used at P & P in process	718
Condensate used at EOU in process	511
Condensate used at HCHO WHRB	1283
Process	2026
Total	**26638**

- Total non-recovered condensate was 23.8%
- Total utilization of condensate was 76.2 %
- About 78% of the streams were metered while rest of streams were estimated;

3.4 Cooling Towers

- Cooling towers in operation were as per details given in **Figure 13.0** and inlet (make up water) to each cooling tower was not metered;
- Based on data collected as depicted in **Figure 16.0**, balance across cooling towers are summarized as per given hereunder

Particulars	Values (KL)
Make up water	
Raw water including condensate added to R.W header	39073
Permeate from CTRO	3629
Condensate from unit-2	450
Total	**43152**
Generation of Blow down	
Waste water from Cooling towers as calculated	2227

- Meters for monitoring blow down from each cooling tower has not been provided. However, same was metered at CTRO only;

3.5 Waste water

Waste water is being handled at number of locations by using different methods and findings of study are summarized as per given hereunder:

Waste water treated by CTRO

As depicted in **Figure 17.0**, waste water from DM plant and blow down from cooling towers are being treated. Findings during study period are summarized as per given hereunder:

Particulars	Values (KL)
Generation	
From DM plant (metered/calculated)	2248
From cooling towers (by difference)	2227
Total waste water receipt in storage tank (metered)	4475
Treated waste water	
Feed to CTRO (A) (metered)	4427
Permeate (B) (metered)	3629
Rejects (C) (by difference)	798
Balance (A-B-C)	0.0
Waste water left in storage tank	4475-4427=48

- CTRO remained non-operative on 23 July 2017 and waste water generated was stored in receipt tank.

It is being mentioned that 35.0 m3 per day from JACPL Unit (8.0 m3/day from Polymer Unit & 27.0 m3/day from Estergum plant) is also treated in CTRO

Waste water from Unit-1

Waste water generated from unit-1 is being treated in CETP which is also taking care of waste water generated from sister company (M/s JACPL) – permitted as per consent provided by UPPCB. Findings during study period are depicted in **Figure 18.0** and summarized hereunder:

- Total waste water generation and receipt details:

Particulars	Values (KL)
Generation	
From DA (metered)	2824
From EA-III(metered)	464
From JAPCL(metered)	326
Total (A)	3614
Receipt	

To ash slurry pit (metered)	1676
Receipt in equalization tank (metered)	1938
Total (B)	3614
Balance (A-B)	**0**

- Details of waste water across CETP:

Particulars	Values (KL)
Receipt at CETP equalization tank (A) (metered)	1938
Feed To CETP(B) (metered)	1905
Losses (C)	28
Treated waste water to horticulture purpose (D) (metered)	1877
Balance in equalization tank (A-B)	**33**

Waste water from Unit-2

The details of effluent (raffinate) generated and treatment are depicted in **Figure 19.0** and summarized hereunder:

Particulars	Values (KL)
Rafffinate generated (A)	3245
Raffinate fed to MEE-1&2 from storage tank (B)	3145
Total raffinate fed to MEE-1&2 (A+B)	6390
Steam fed to MEE-1&2 (C)	1459
Condensate generated from MEE-1&2 which were sent to cooling towers for usages as make up water (D)	3825
Concentrate generated from MEE-1&2 (E)	4024
Concentrate fed to Incinerator- 1, 2 & 3 (F)	1094
Balanced Concentrate sent to storage tank (G)	2930

Waste water from Distillery

As depicted in **Figure 20.0** and data provided, following observations are made:

- **RSW balance**

Particulars	Values (KL)
Total generation (A)	**8725**
Utilization	
Stored in Service tank (metered)	1543
Feed to Biogas plant (metered)	6079
To MEE feed tank (metered)	1103
Total (B)	**8725**
Net balance (A-B)	0.0

- No RSW was sent to MEE feed tank on 22, 23, 26 & 27 July;
- **Balance- RO Plant**

Particulars	Values (KL)
Input	
BME from Biogas plant (metered)	6079
Leachate from Bio-compositing area (estimated)	1488
Condensate from MEE (metered)	447
Total (A)	8014
Permeate	
Feed to process dilution (B) (metered)	3783
Rejects	
Feed to MEE (C) (by difference)	4231
Net balance (A-B-C)	0.0

- No condensate was sent to RO on 19, 21, 26 & 27 July;

- **Balance- MEE**

Particulars	Values (KL)
Input to MEE Feed tank	
RSW (metered)	1103
RO Rejects (Calculated)	4231
Total (A)	**5334**
Feed to MEE (B) **(metered)**	**3738**
Balance left in MEE feed tank (C)	**1596**
Balance (A-B-C)=(D)	**0.0**
Output from MEE	

SLOP Generated (metered)(E)	1813
SLOP to Slop Boiler (metered)	1198
SLOP to Biocompost (metered)	615
Condensate Generated (Calculated)(F)	1926
Condensate to Cooling towers	564
Condensate to RO	1362
Net Balance (B-E-F)	**0.0**

- MEE was not in operation on 26 & 27 July.
- SLOP boiler was not in operation from 22 to 27 July.

Domestic waste water

Township

- Details are depicted in **Figure 21.0a**;
- Meter has been provided at outlet of STP only.

Plant

Numbers of potable STPs have been provided to take care of domestic waste water generated from plant.This domestic waste water is not possible to be metered however as per standards it is considered @45lite per person .The estimated domestic waste water is 94 KLD. Details are depicted in **Figure 21.0b.**

Waste water utilization/disposal

- Details of water balance across ash slurry making are depicted in **Figure 22.0**.
- As per **Figure 18.0** to **22.0**, summarized balance of waste water generation and utilization are as per given hereunder:

Particulars	Values (KL)
Total waste water available *	
Rejects from CTRO	798
From Unit-1	1676
From CETP (treated)	1877
From STP-Township	2216
From STP-Plant	846
From Ash pond	8194
Total (A)	**15607**
Total waste water utilization*	
Ash slurry making	2569
Horticulture	4939
Dust suppression	8099
Total (B)	**15607**

- No ash slurry was sent to ash pond from 22 to 27 July.

3.6 Flow rate measurements

Verification of existing metering facilities in operation was made on limited basis by using ultrasonic flow meters on randomly basis. Details of flow measurements study are summarized in table given below and described hereunder:

SL.No	Name of the Location	Jubilant Meter Reading x M³/hr.	TUV Meter	Difference	
			M³/hr.	M³/hr.	%
1	Tube well 5	140	133.312	6.7	5.0
2	tube well 3	100	101.06	-1.1	-1.0
3	Tube well 1	17	18.12	-1.1	-6.2
4	Tube well 7	140	136.34	3.7	2.7
5	Tube well 2	172	166.02	6.0	3.6
6	DM plant 4 (Inlet)	80	77.42	2.6	3.3
7	DM plant 3 (Inlet)	70	77.42	-7.4	-9.6
8	Drinking water Colony	No meter	18.36	NA	NA
9	Drinking water Plant	18	17.76	0.2	1.4
10	DMW Boiler 90TPH(old)	40	40.6	-0.6	-1.5
11	DMW Boiler 90TPH(New)	76	75.06	0.9	1.3
12	MB#2	57.4	59.04	-1.6	-2.8
13	MB#3	76	82.98	-7.0	-8.4
14	DMW fertilizer	7.2	7.46	-0.3	-3.5
15	Condensate from PHE 1	33.2	35.84	-2.6	-7.4
16	Condensate from PHE 2	28	30.8	-2.8	-9.1
17	CT 7D Make up	52	51.36	0.6	1.2
18	CT 14 Make up	18.4	19.4	-1.0	-5.2
19	CT 4 Make up	3	3.12	-0.1	-3.8
20	CT 13 Make up	34	34.48	-0.5	-1.4
21	CT 7 ABC Make up	26.4	27.52	-1.1	-4.1
22	EOU + Cooling tower	22	21.48	0.5	2.4
23	Colony STP	18	17.16	0.8	4.9

- Variations in flow rate were observed in every installed meter and varied from -1.0% to 9.6%; and
- .Variation are mainly contributed to errors incurred due unavoidable reasons in installation of potable ultra-sonic flow measurement for flow measurement.

Chapter 4.Recommendations

4.1 Recommendations

Based on findings of the study, following recommendations are made for improvements in water and waste water management to compliance with objectives-

(A) JLSL, Gajraula has installed meters at raw water, waste water generation & received at treatment plant and recycled water consumption points. However all the consumption points are not metered. It is recommended that all water consumption points should be metered;

(B) All existing meters should be periodically calibrated and records to be maintained.

(C) Real time water and waste water balance should be established/recorded to estimate the losses via wastage and/or leakage by installation of meters at all consumption points and waste water generation points e.g.:

a. At inlet (make up water separately for fresh water and recycled treated waste water) and outlet (blow down) of cooling towers.
b. Condensate generated from each stream and recycled;
c. Individual waste water stream at source of generation and receiving end (reuse or treatment);
d. Inlet to STP for township etc.

(D) The existing turbine type water flow meters on bore wells should be converted to digital magnetic flow meters for better accuracy;

(E) All domestic waste water generated from plant and colony should be accounted for and should be sent to STP. Inlet to STP metering is to be done.

(F) Amount of ash sent to ash pond in form of slurry should be estimated and record should be kept.

(G) Fresh water consumption in cooling towers is around 50% of total fresh water consumption. It is recommended to take measures for further reduction of fresh water consumption in Cooling Towers through increase in recycling of waste water after proper treatment e.g.-

vi) Distillery RO permeate (around 420 KLD) currently being utilized for molasses dilution in process/ horticulture, may also be utilized for cooling towers make up during less requirements in process/ rainy season;

vii) Recovery of RO permeate may be increased further to get more clean water for recycling.

viii) CETP treated effluent (around 200 KLD) currently being utilized for horticulture, can also be utilized for cooling towers make up after polishing treatment;

ix) Treated sewage from STP (around 250 KLD) is currently being utilized for horticulture. During rainy season, it can be utilized in cooling towers make up also after required treatment;

x) Above mentioned points can be accomplished by up gradation of existing CTRO capacity.

(H) Attempt should be made to reduce the quantity of makeup water to each Cooling Tower by increasing COC;

(I) Continuous efforts to be made for reduction in steam consumption and effluent generation thereby reducing fresh water consumption;
(J) It is recommended to provide Rain Water Harvesting system in non-process areas for water conservation;
(K) Roof top rain water harvesting system for covered shed in bio-compost yard is recommended;
(L) Adopt drip irrigation technique for horticulture to save water may be evaluated.

Chapter 5. FRESH WATER REQUIREMENT AT 100% DESIGNED CAPACITY UTLIZATION

5.1 Estimated fresh water requirement at 100% designed capacity Utilization

On the basis of findings of study and details/data provided, an attempt has been made to estimate the fresh water requirement at 100% designed capacity utilization of all units. Based on detailed water and waste water balance including recycling and reuse of waste water generated as depicted in **Figures A to L (Refer Annexure-2)** for 100% designed capacity utilization of all units, details of estimated fresh water requirement are as per given hereunder:

Particulars	Values (KLD)
Total fresh water requirement in process including domestic usages in plant	3374
Total fresh water requirement in DM plant	4958
Total fresh water requirement in cooling towers	6727
Total fresh water requirement in colony and swimming pool	323
Horticulture	462
Total fresh water requirements	**15843**

Figures

Figure 1: FLOW DIAGRAM OF CONDENSATE POLISHING UNIT

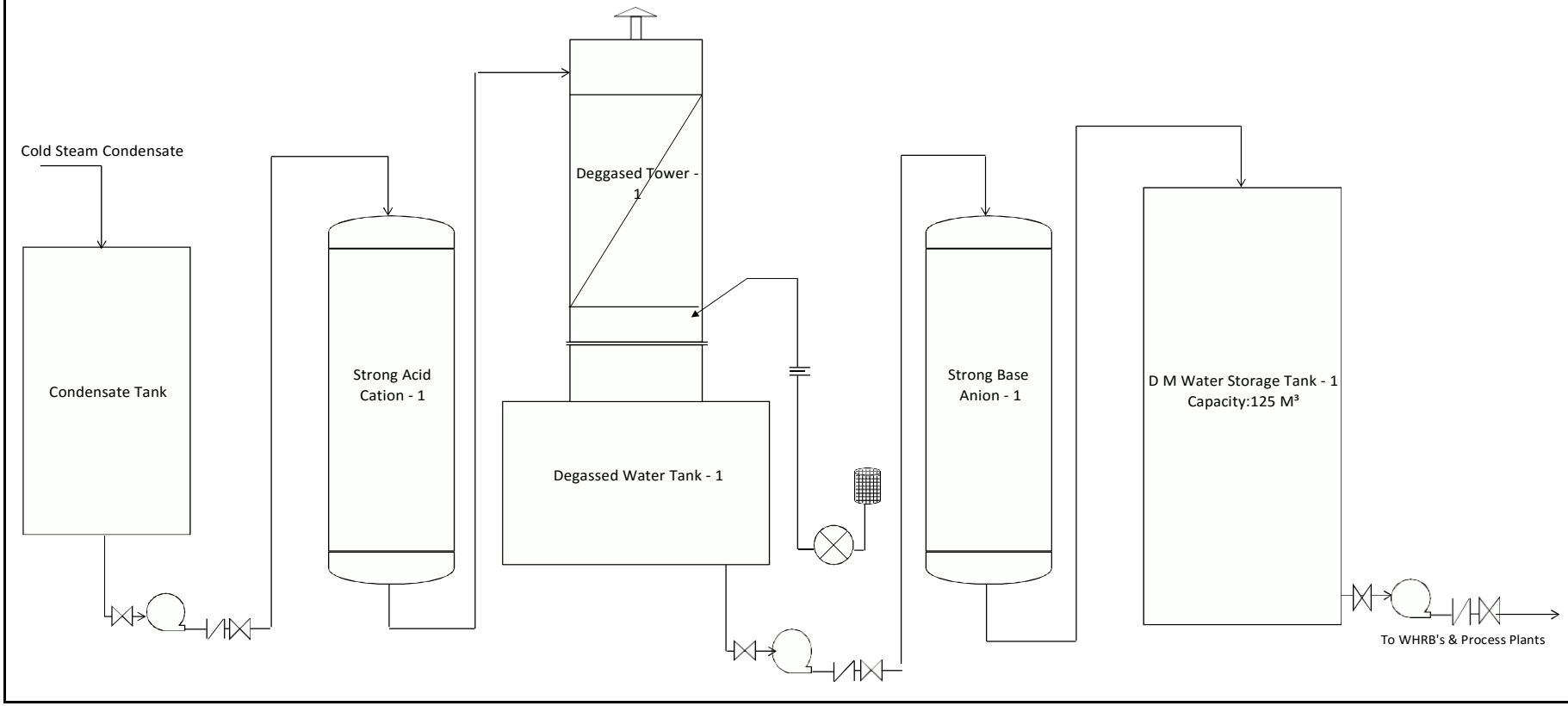


Figure 2: FLOW DIAGRAM OF D M PLANT

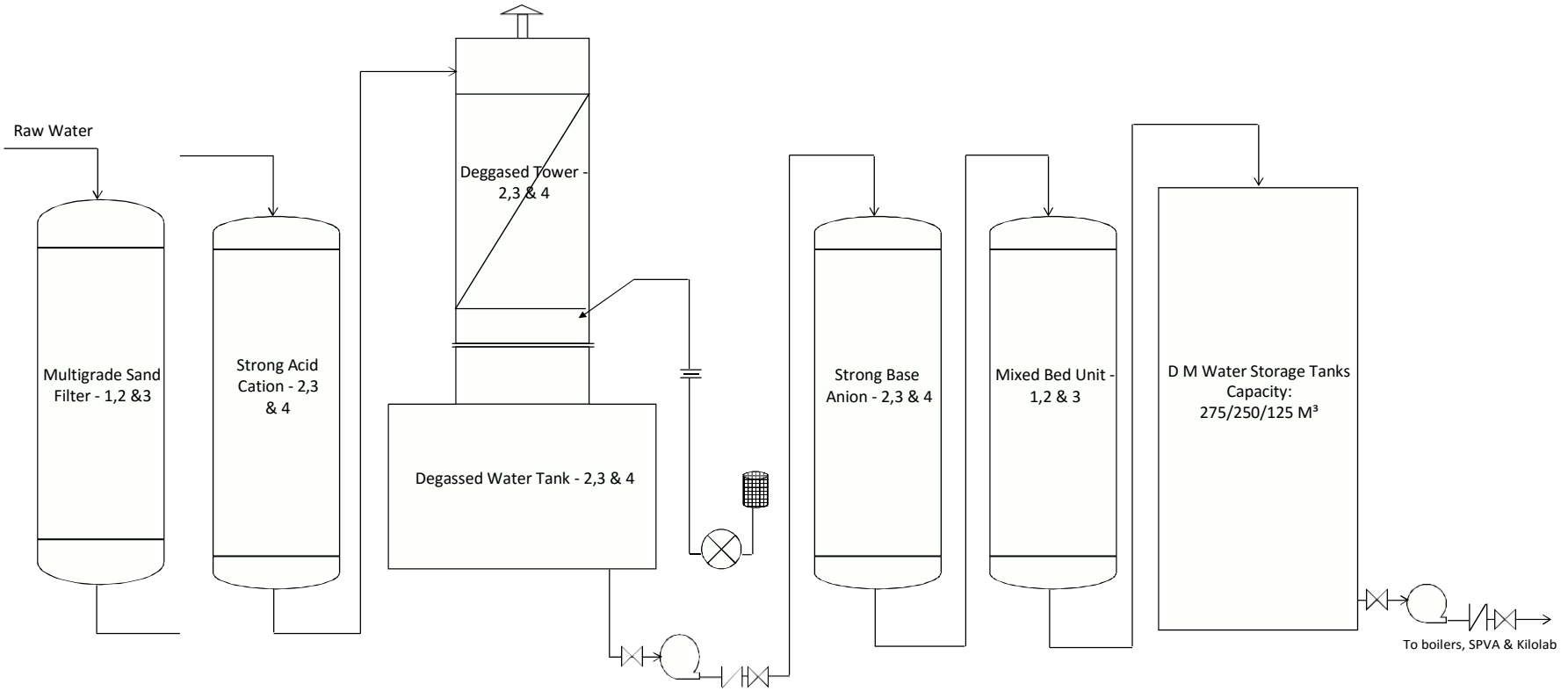
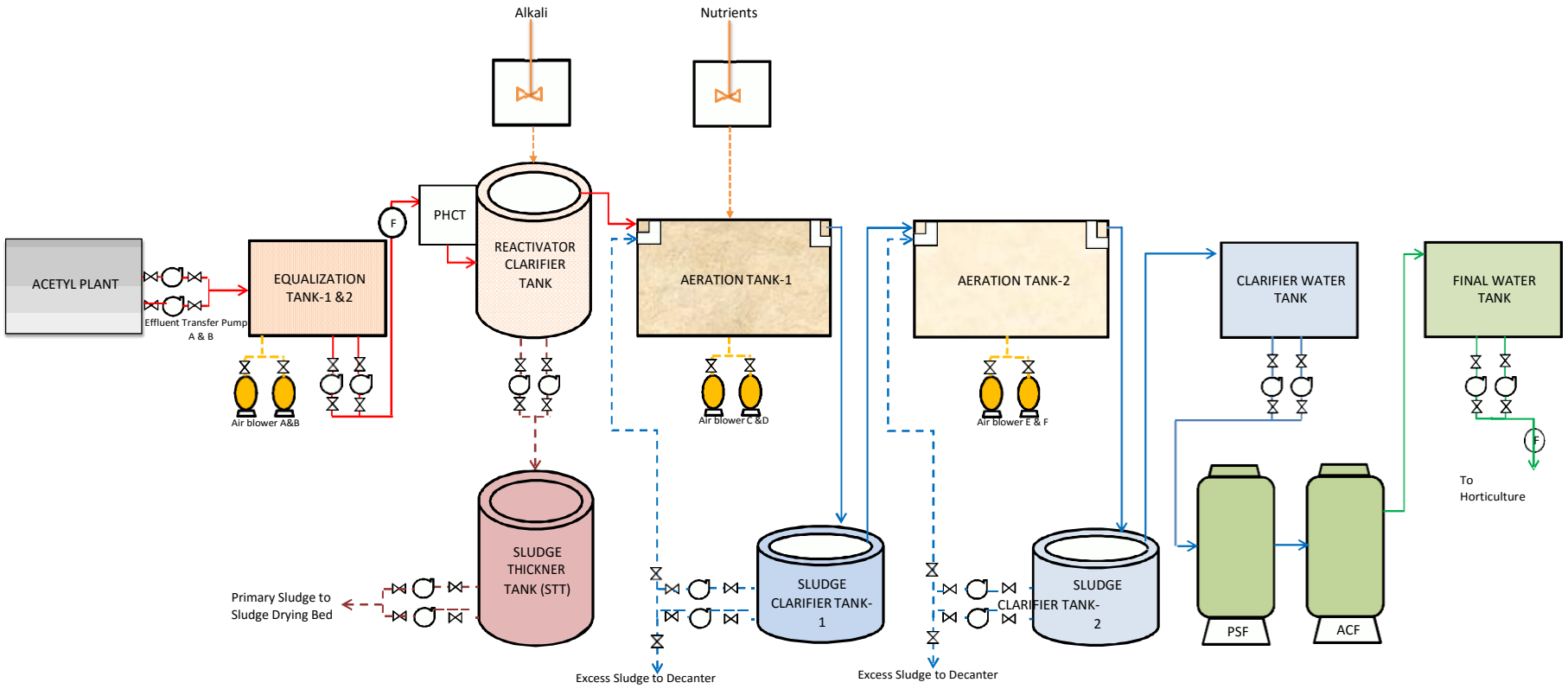


Figure 3: CETP Process Flow Diagram

Capacity : 700 m3/d



Prepared by: Jitendra Gaur

Figure 4: Schematic Block Diagram for Distillery Effluent Treatment & Biogas Generation

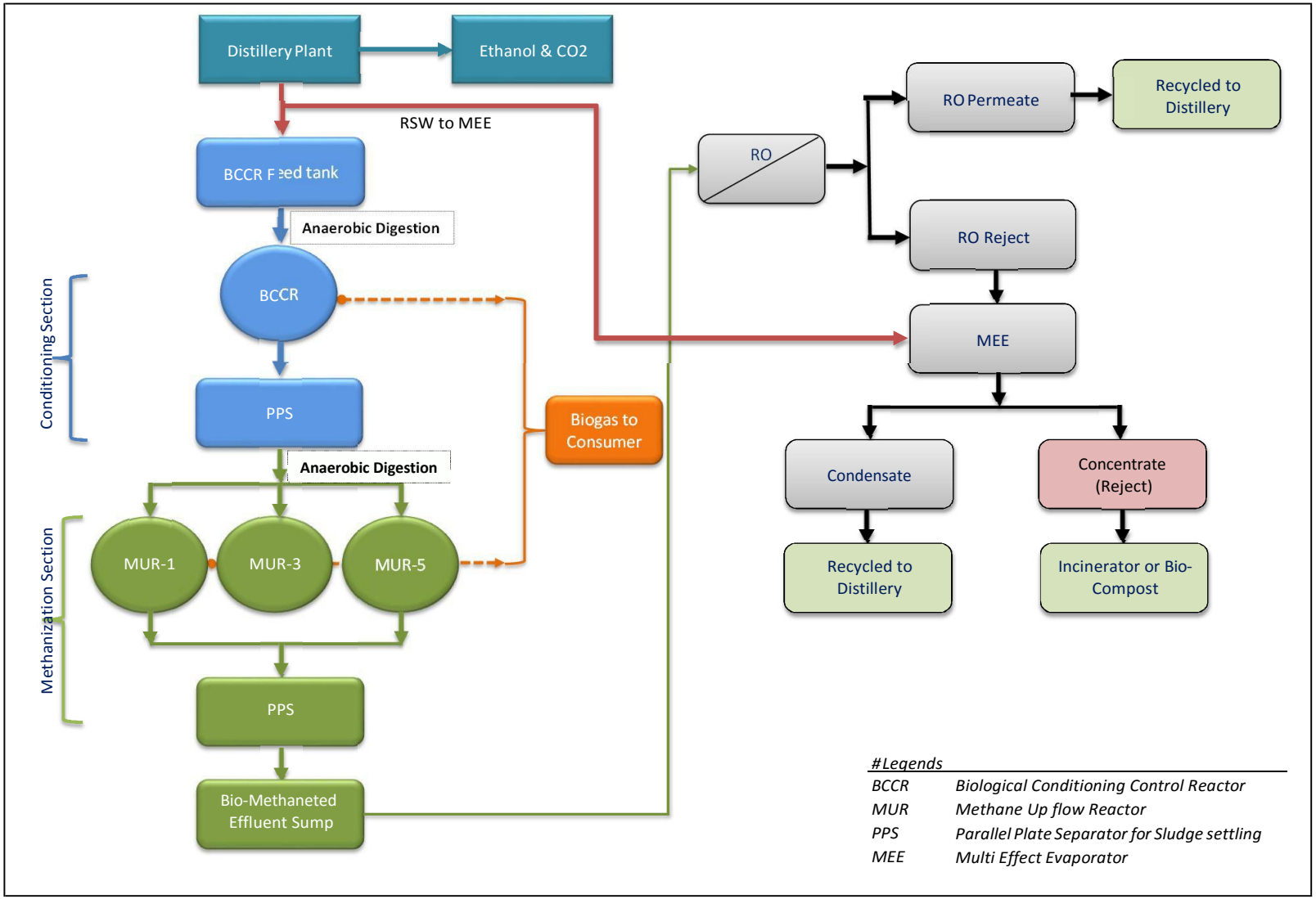


Figure 5: Process Flow Diagram of Distillery RO Plant

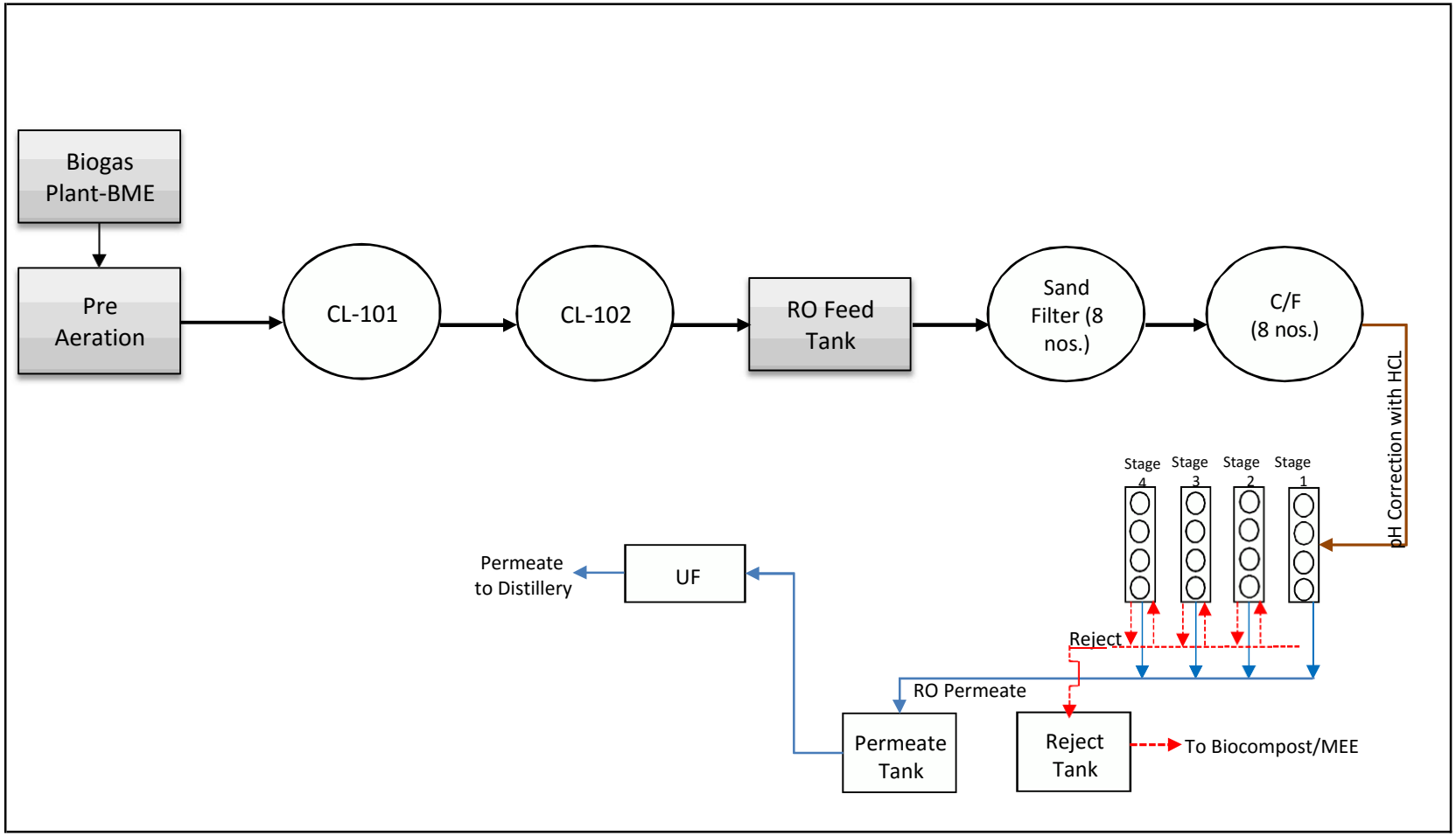
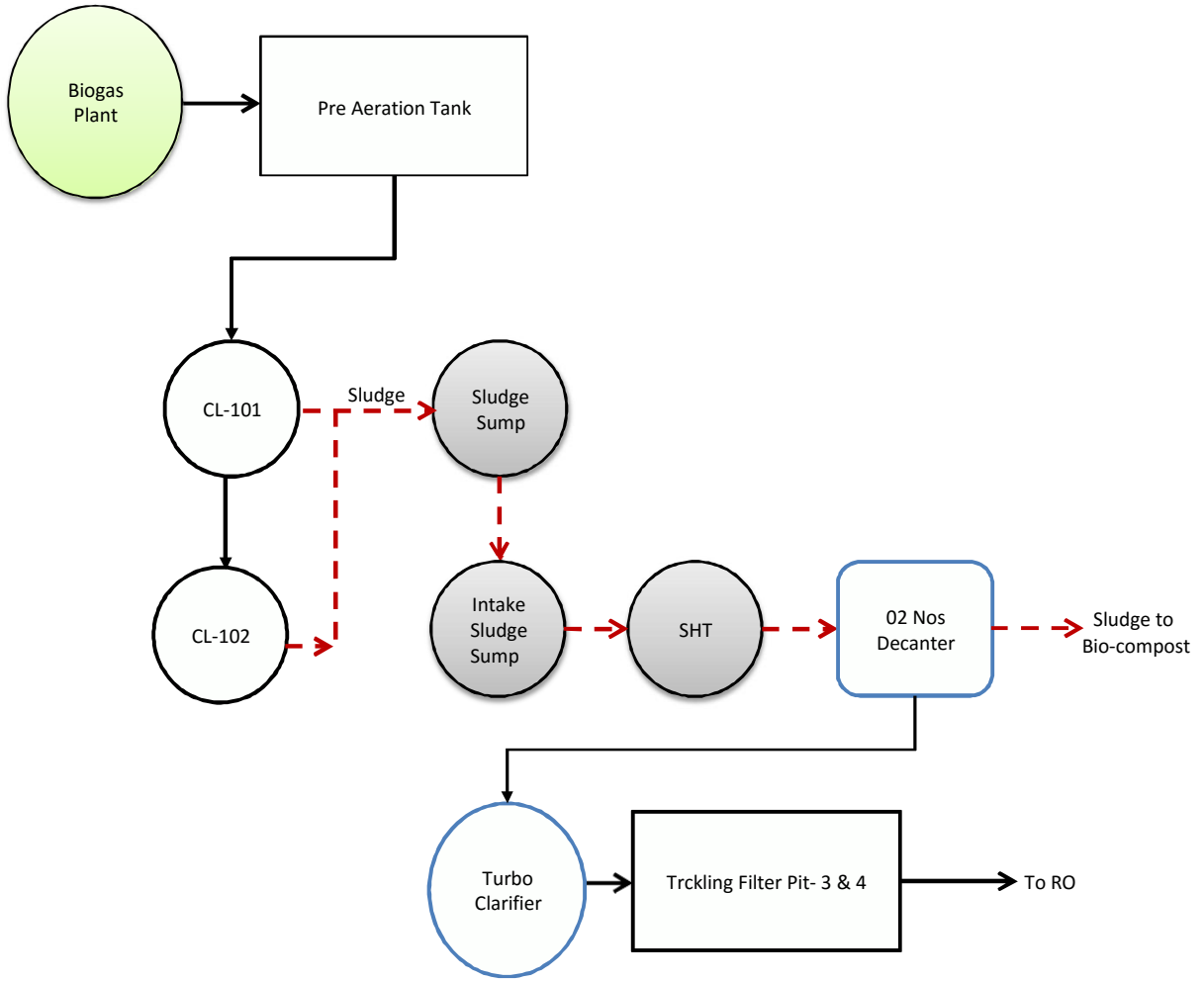


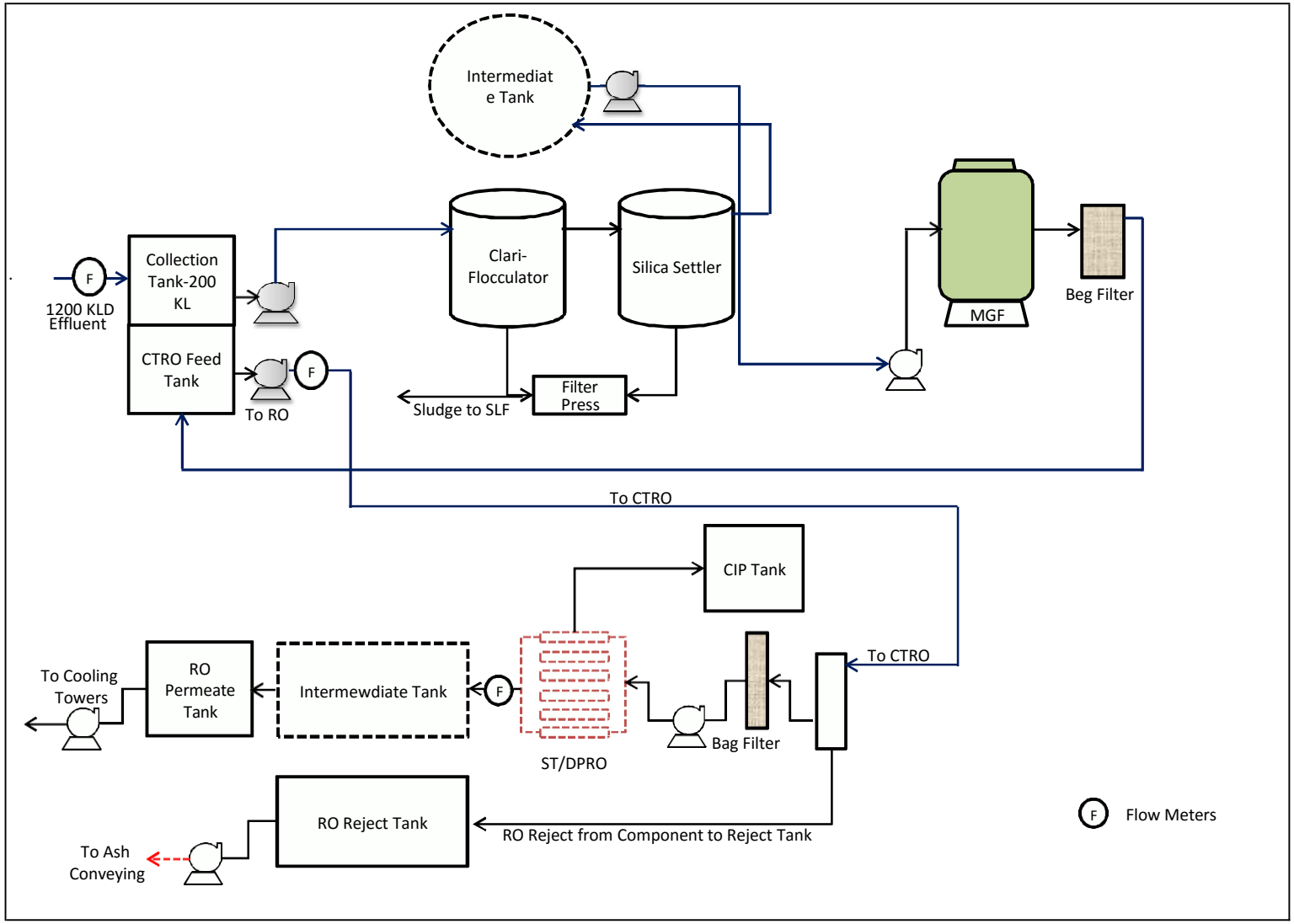
Figure 6: Process Flow Block Diagram for Sludge Dewatering Plant



Poly Dosing Details

Water Required (m3/day)	60
Poly Consumption (Kg)	24

Figure 7: CTRO -Process Flow Diagram-1200 KLD



Block Diagram for 1200 cum/day CTRO system

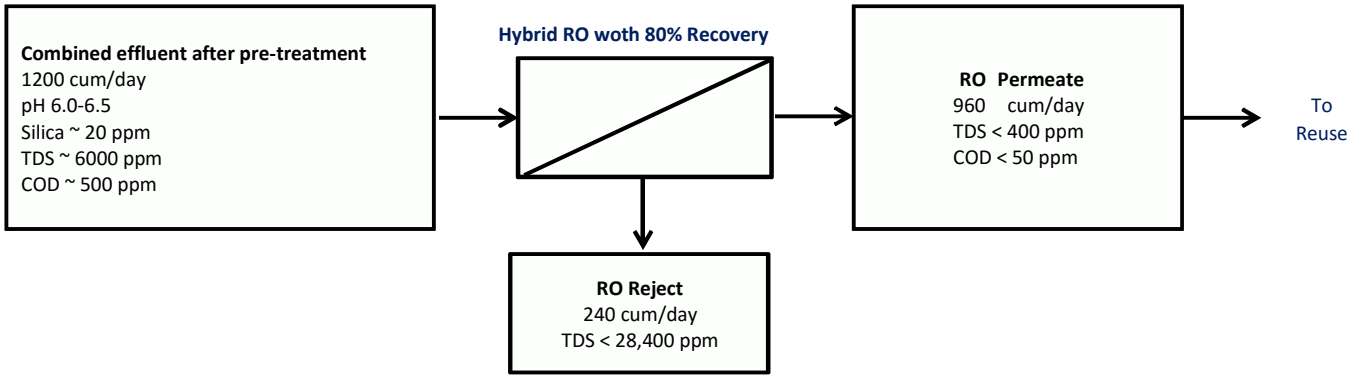


Figure 8: SWTP Process Flow Diagram

Capacity : 400 m3/d

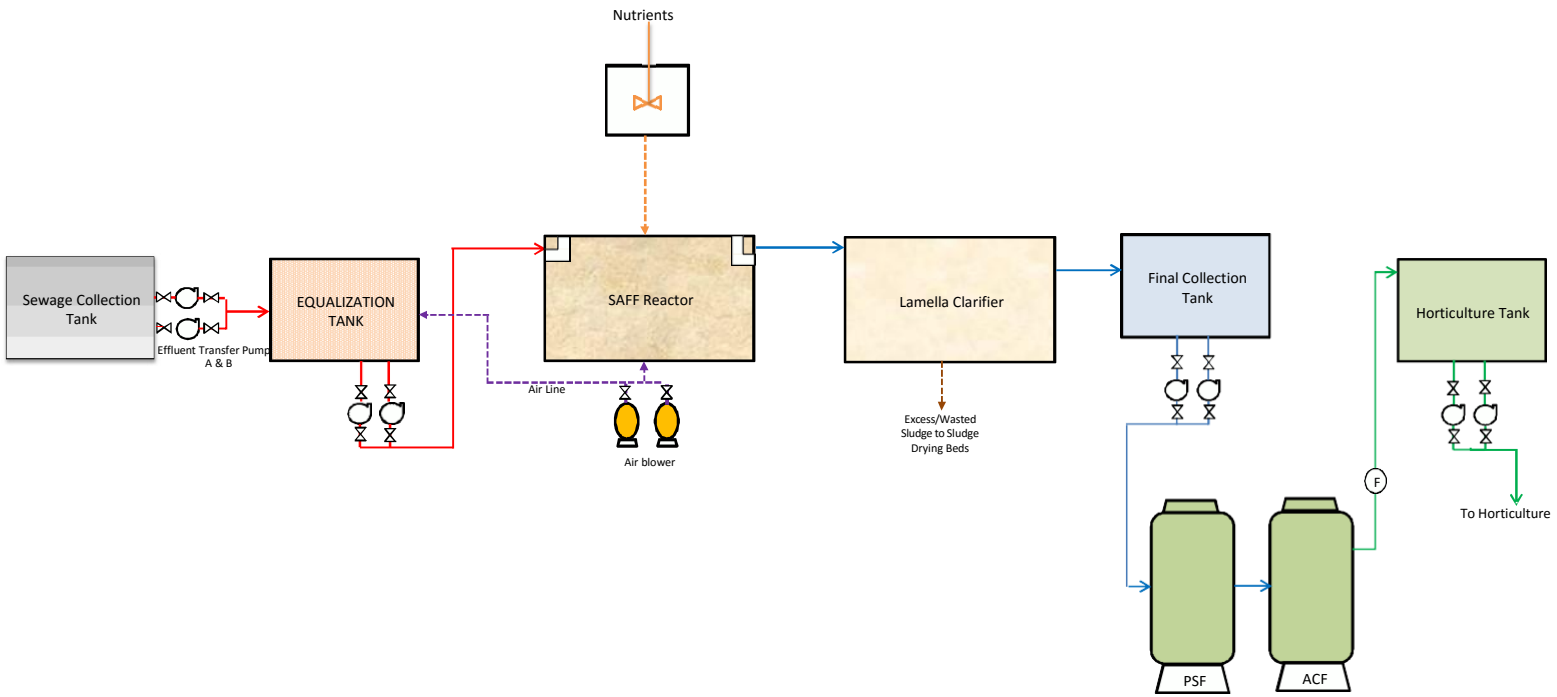


Figure 9: Water Network from Ash Pond

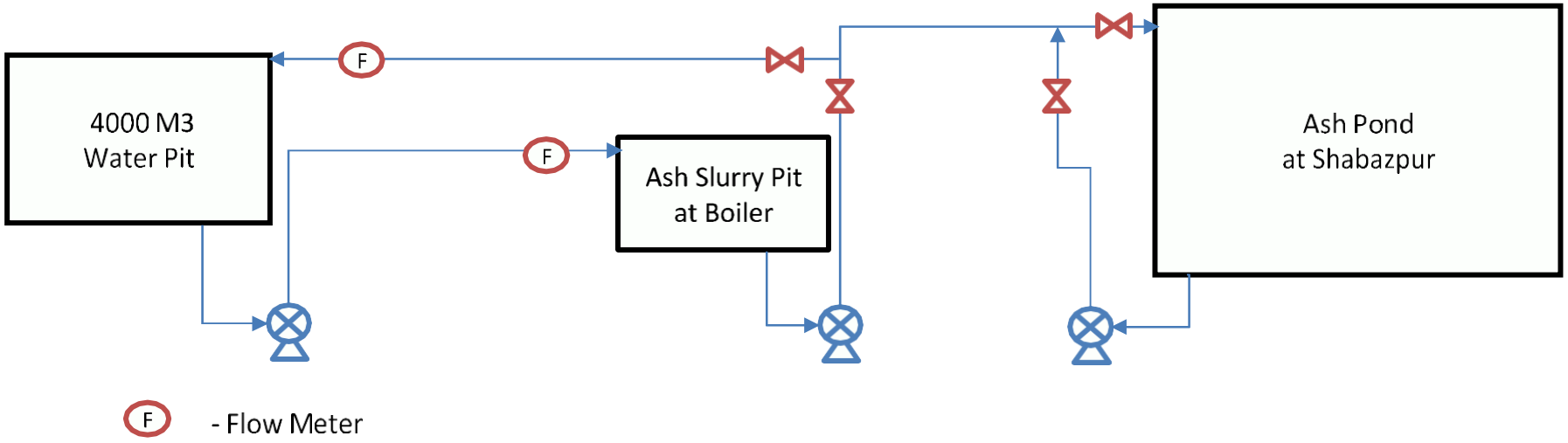
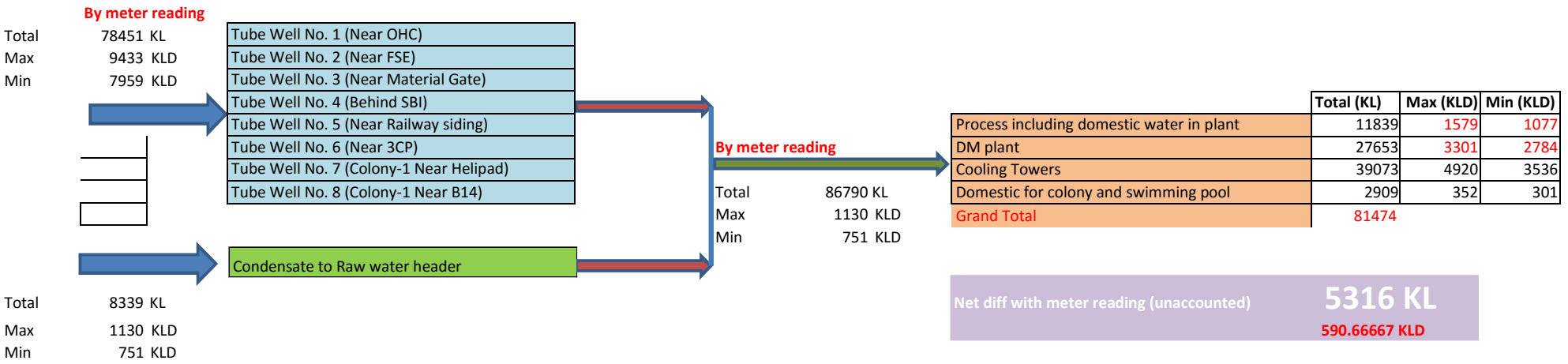


Figure 10: Raw Water Balance



	Total (KL)	Max (KLD)	Min (KLD)
Process including domestic water in plant	11839	1579	1077
DM plant	27653	3301	2784
Cooling Towers	39073	4920	3536
Domestic for colony and swimming pool	2909	352	301
Grand Total	81474		

Net diff with meter reading (unaccounted) **5316 KL**

590.66667 KLD

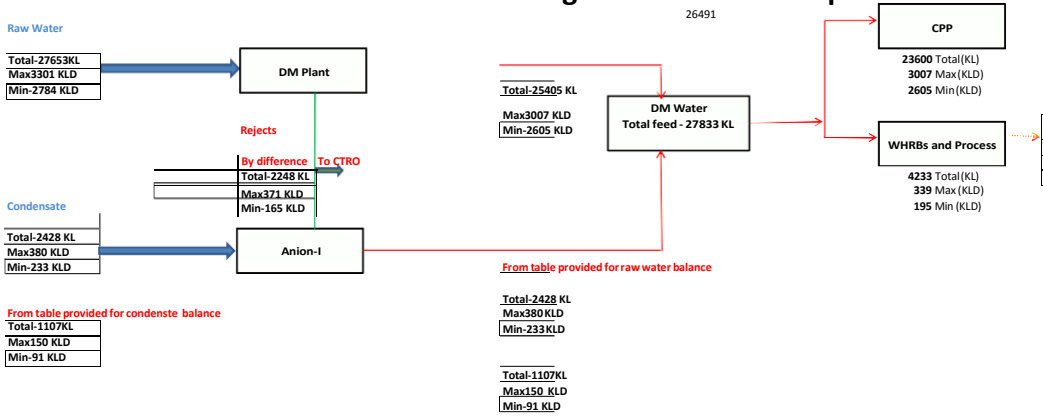
Figure 11: Usages of raw water in process

	Raw water	
Total	**11839**	**KL**
Max	**1579**	**KLD**
Min	**1077**	**KLD**

Units	Total (KL)	Max (KLD)	Min (KLD)
R W Distillery (Batch)	Total	Max	Min
Horticulture	2930	420	240
R W CO2 Plant	50	20	0
R W ACOH / ACH	2535	355	78
R W P & P	38	23	0
R W ACH-4,5,6,HCHO-1 & EA-3	0	0	0
R W AC2O	0	0	0
R W Ethyl Acetate	99	33	0
R W Fertiliser	11	6	0
R W Biogas	1916	215	203
R W PVA+PU+SPVA+Commercial	400	313	0
RW Fire Hydrant	21	6	0
Drinking Water (Total-P&P-FC)	0	0	0
RW Boiler + Incinerator	3276	473	300
RW 3CP+Ammonia Yard+Biogas	0	0	0
RW 2 CNA	43	17	0
MPP	0	0	0
FC-3 SRP	0	0	0
Boiler 90 TPH	28	10	0
R W DG & TG	0	0	0
Slop Fired Boiler	0	0	0
FC-6	327	79	19
Sprinkler system	165	44	0
Total	11839		

Drinking Water (Total-P&P-FC) reported has been bifurcated as Drinking water in plant and colony

Figure 12:: DM water production and usages

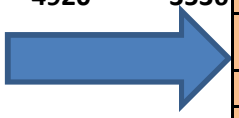


	DMW Fertiliser	DMW SPVA	DMW PVA + WF	DMW HCHO I	DMW HCHO II	DMW P & P	Slop Fired Boiler	Catalyst-2 Plant	FC	EOU P & P Plant	EOU TO	DMW ZPT	DMW FTF Plant	DMW FTF Plant
Total (KL)	1321	71	0	262	225	1776.28	423.88	0	152	2	0	0	0	0
Max (KLD)	173	3.2	0	39	25	50	32	0	15	2	0	0	0	0
Min (KLD)	120	0	0	20	25	14	1	0	15	0	0	0	0	0

Figure 13: Raw water usages in cooling towers

Raw water

Total (KL)	Max (KLD)	Min (KLD)
39073	**4920**	**3536**



Cooling Towers	Total (KL)	Max (KLD)	Min (KLD)
M/up W Cooling Tower # 1	0	0	0
M/up W Cooling Tower # 2&3	1228	166	99
M/up W Cooling Tower # 4	6051	773	569
M/up W Cooling Tower # 5	779	110	63
M/up W Cooling Tower # 7A,B,C	4530	780	350
M/up W Cooling Tower # 7D	2026	470	40
M/up W Cooling Tower # 7E	791	154	0
M/up W Cooling Tower # 8	1539	202	130
M/up W Cooling Tower # 9	1667	195	175
M/up W Cooling Tower # 10	1998	250	210
M/up W Cooling Tower # 11	2	1	0
M/up W Cooling Tower # 11A & B	0	0	0
M/up W Cooling Tower # 12	248	67	0
M/up W Cooling Tower # 13	3312	546	174
M/up W Cooling Tower # 14	7155	996	576
EOU Plant + Cooling Tower	5560	980	380
M/up W Cooling Tower # 9A & 9B	2187	373	124
Total	39073	4920	3536

Steam generation			
	Total	Max	Min
90 TPH BOILER OLD	14399	1691	1472
90 TPH BOILER NEW	13823	1678	1398
RFL TO JLSL (9.5 TPH)	3022.59	343	320
SLOP FIRE BOILER / FIQ-101 (25 TPH)	408	155	0
35 TPH BOILER	0	0	0
25 TPH BOILER	0	0	0
34 TPH BOILER	0	0	0
	0	0	0
HCHO TO P&P /61-FI-601-2 (4 TPH)	697.181	84.616	71.46
HCHO-2nd. (4 TPH)	548.77	67.995	53.9
Thermal Oxidizer 1st. FT 2001 (4 TPH)	282	38	24
Thermal Oxidizer EOU FI 5154 (4 TPH)	487.526	57.212	52.589
INCINERATOR-1 / FIQ-601-1 (12 TPH)	0	0	0
INCINERATOR-2 / FIQ-602-2 (12 TPH)	1278	163	130
	34946.07	4092.763	3660.622

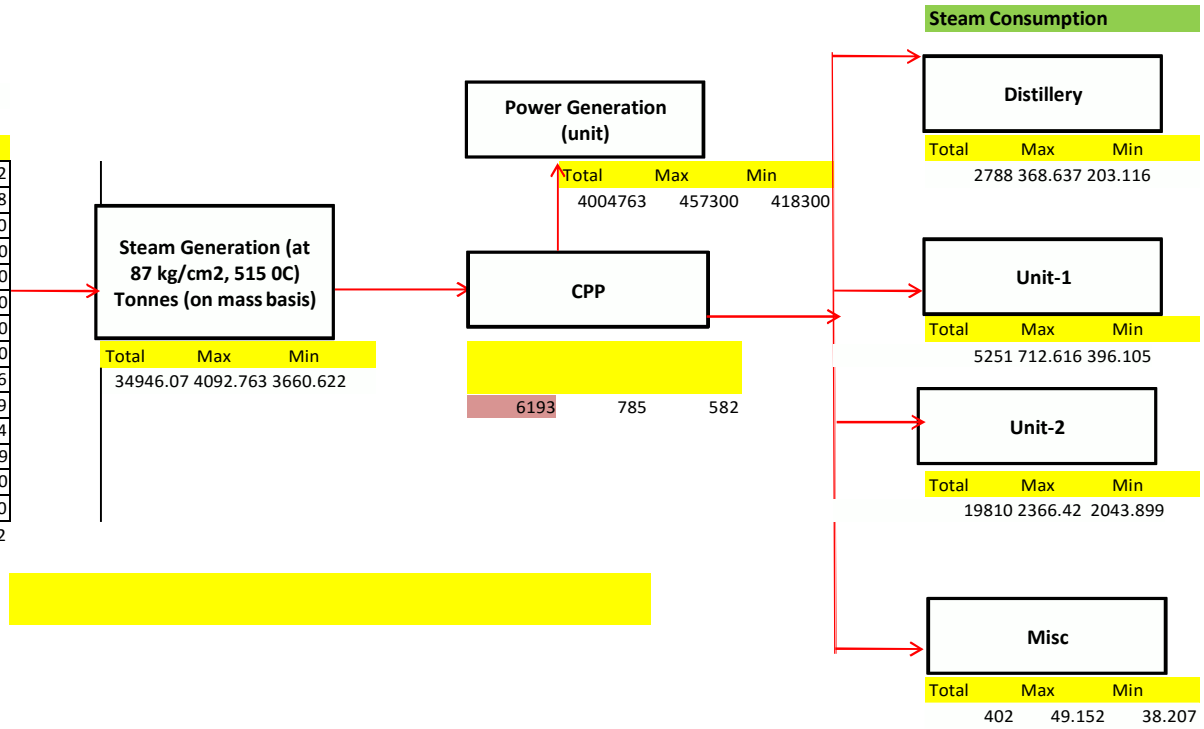


Figure 14: Condenste generation and utilization

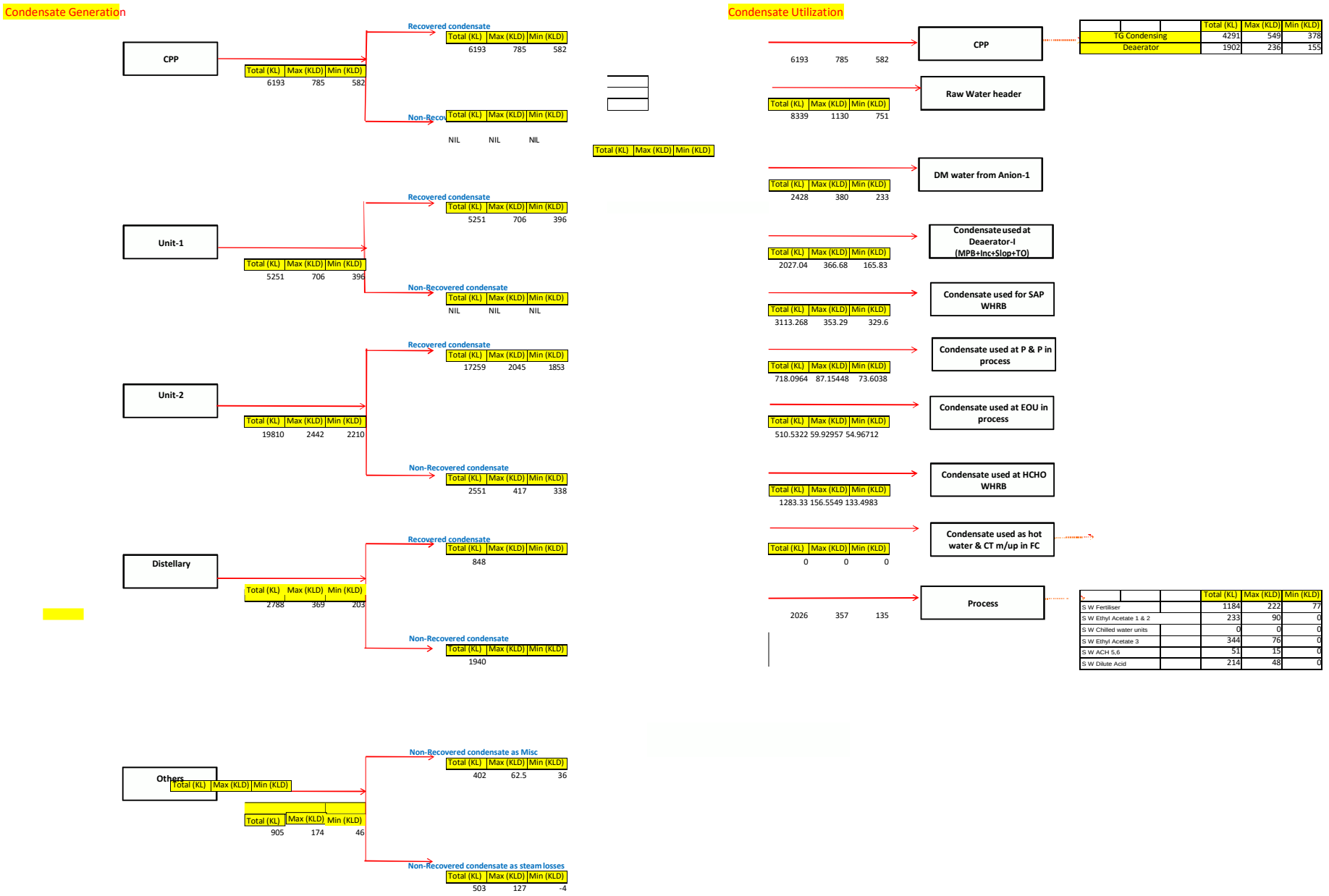


Figure 15: Water Balance across Cooling Towers

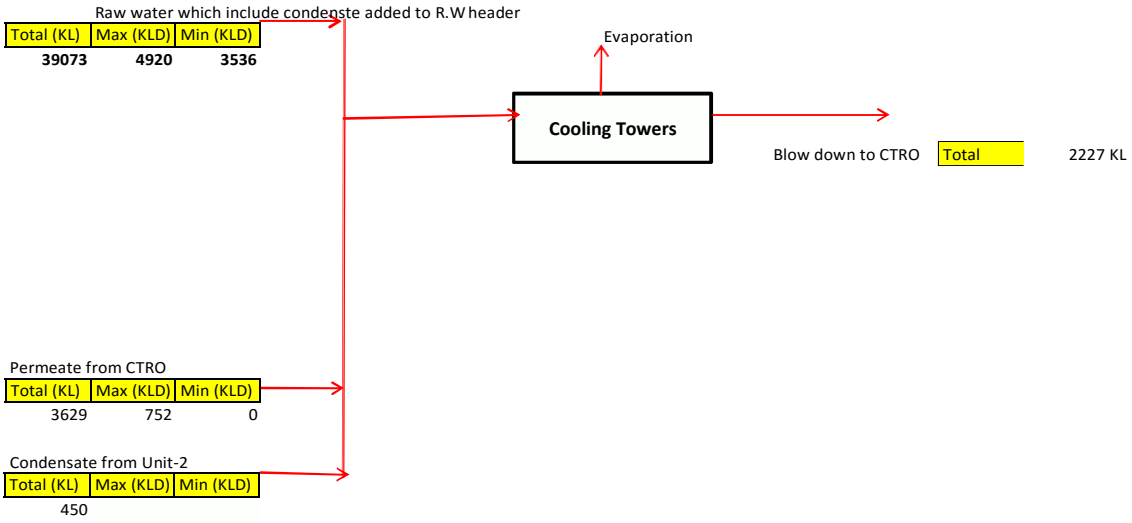


Figure 16: Waste water management of Utilities (via CTRO)

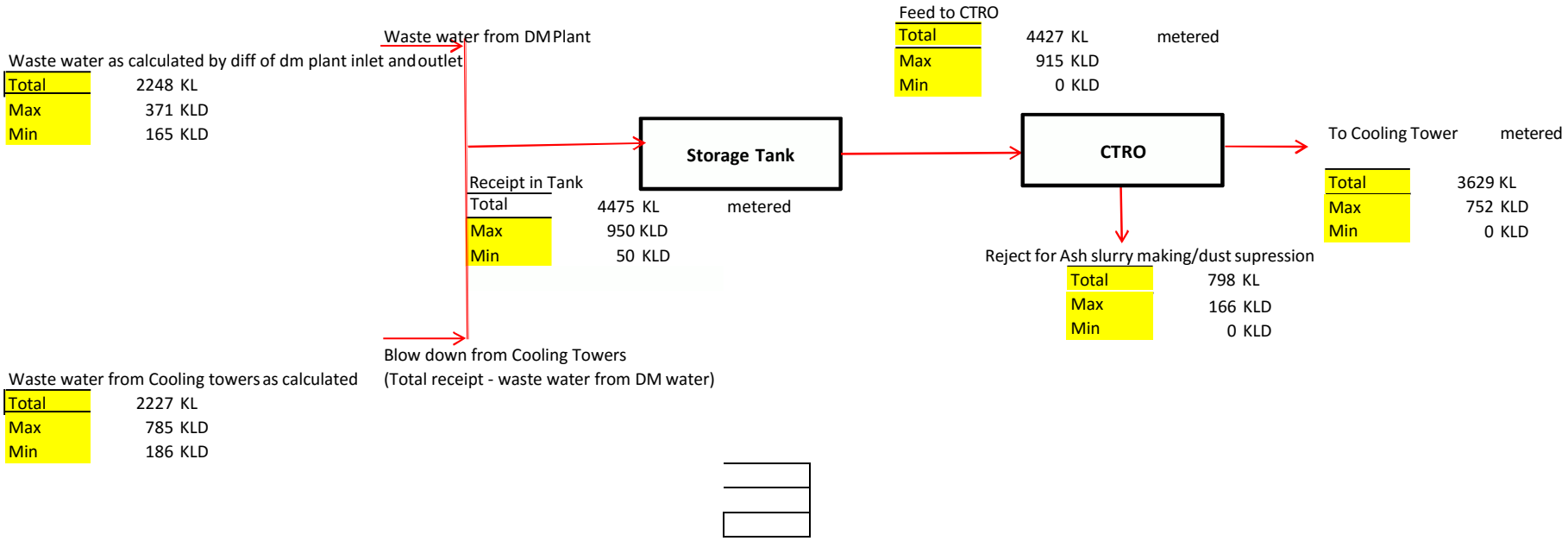


Figure 17: Wastewater management of Unit-1 (via CETP)

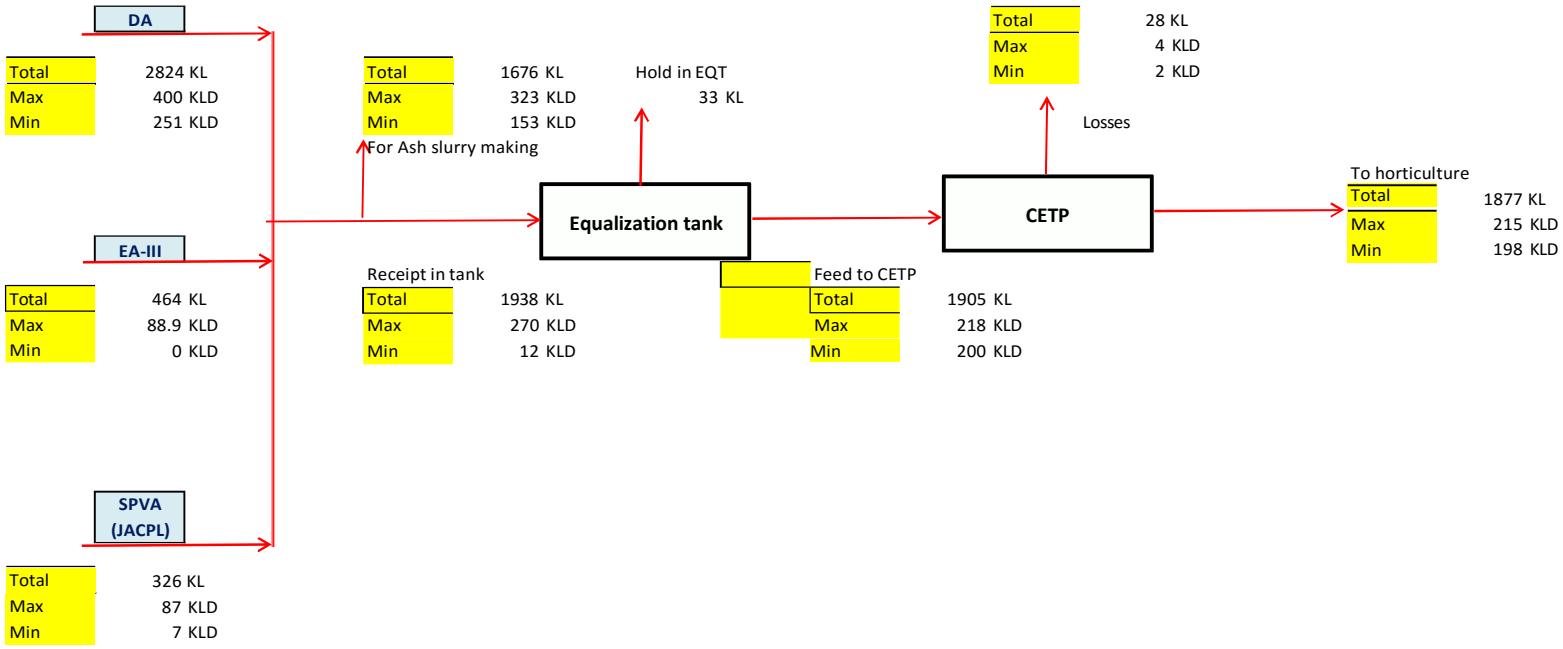


Figure 18: Waste water management of Unit-2

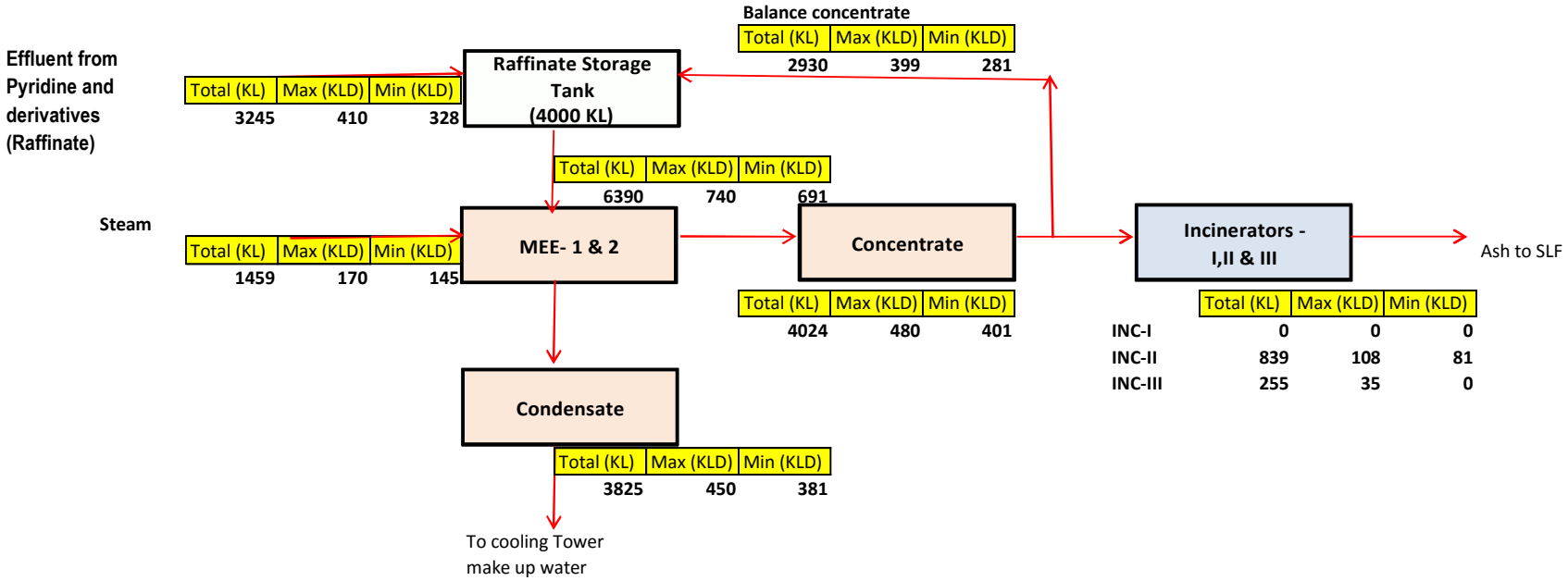


Figure 19: Waste water management of Distillery

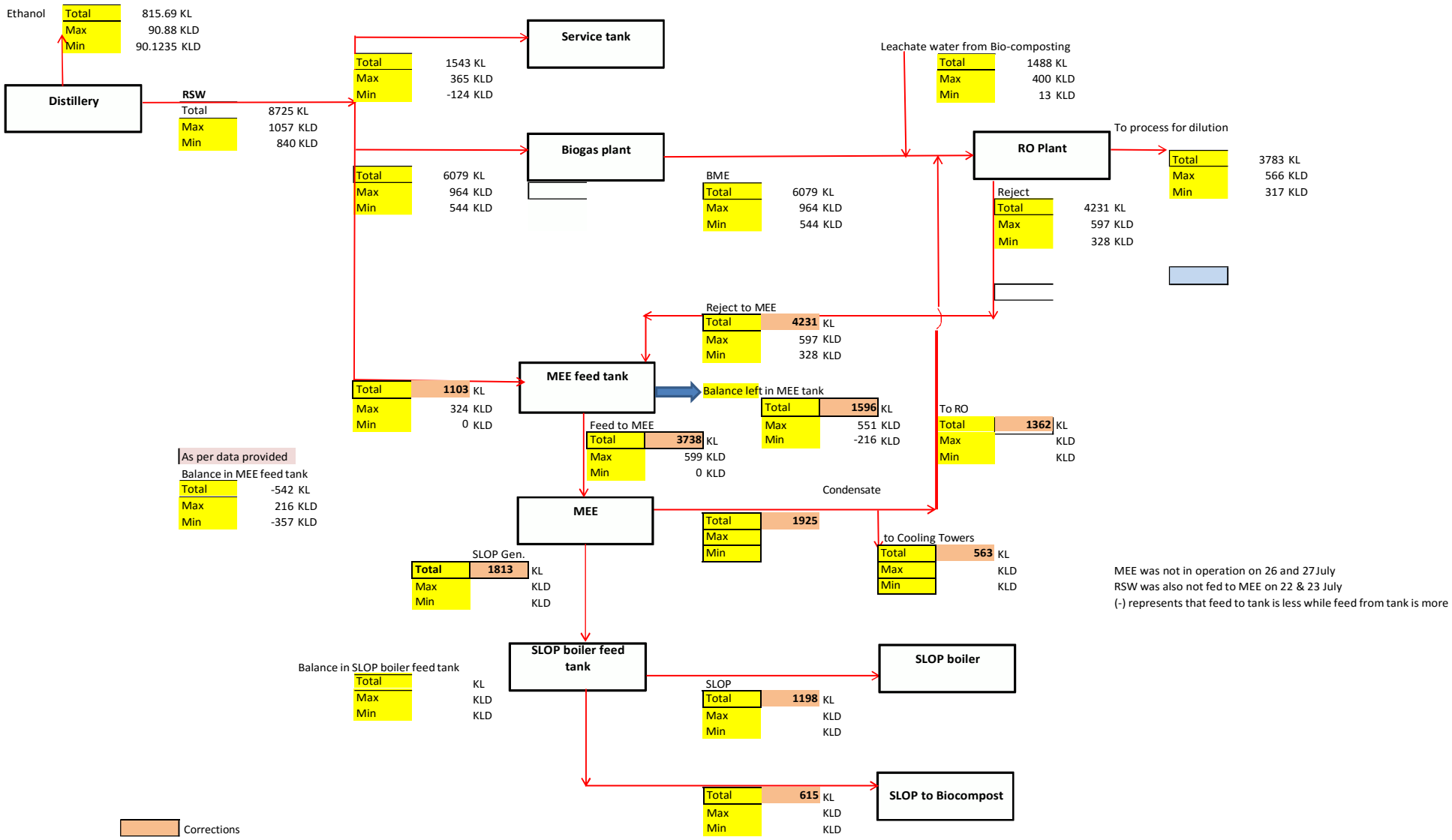


Figure 20: Domestic Waste water management of Township (via STP)

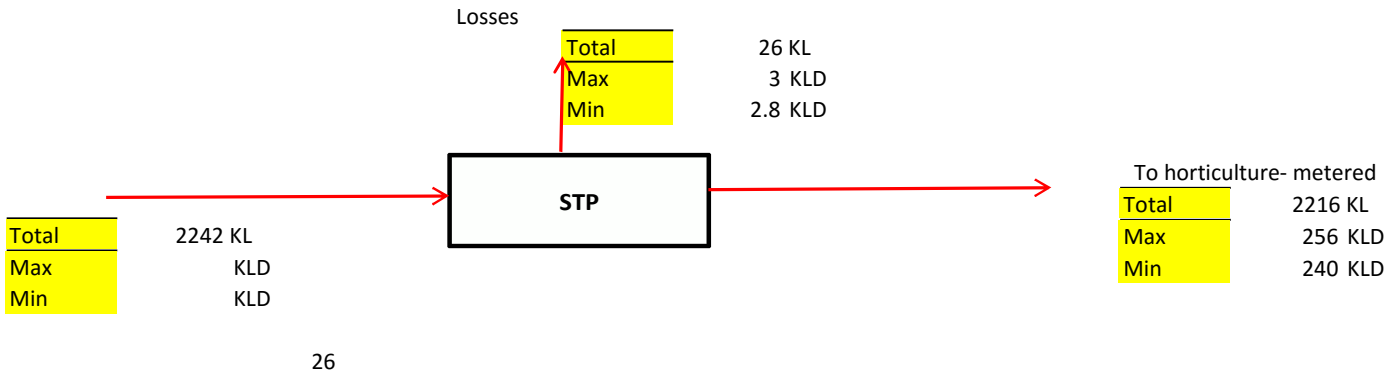


Figure 21: Domestic Waste water management of Plant via portable STP's

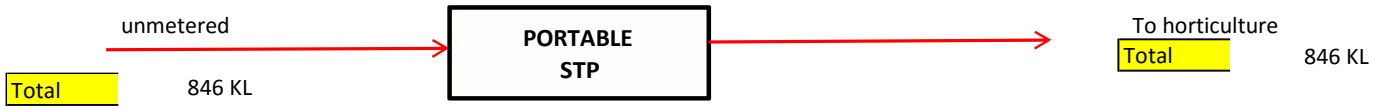
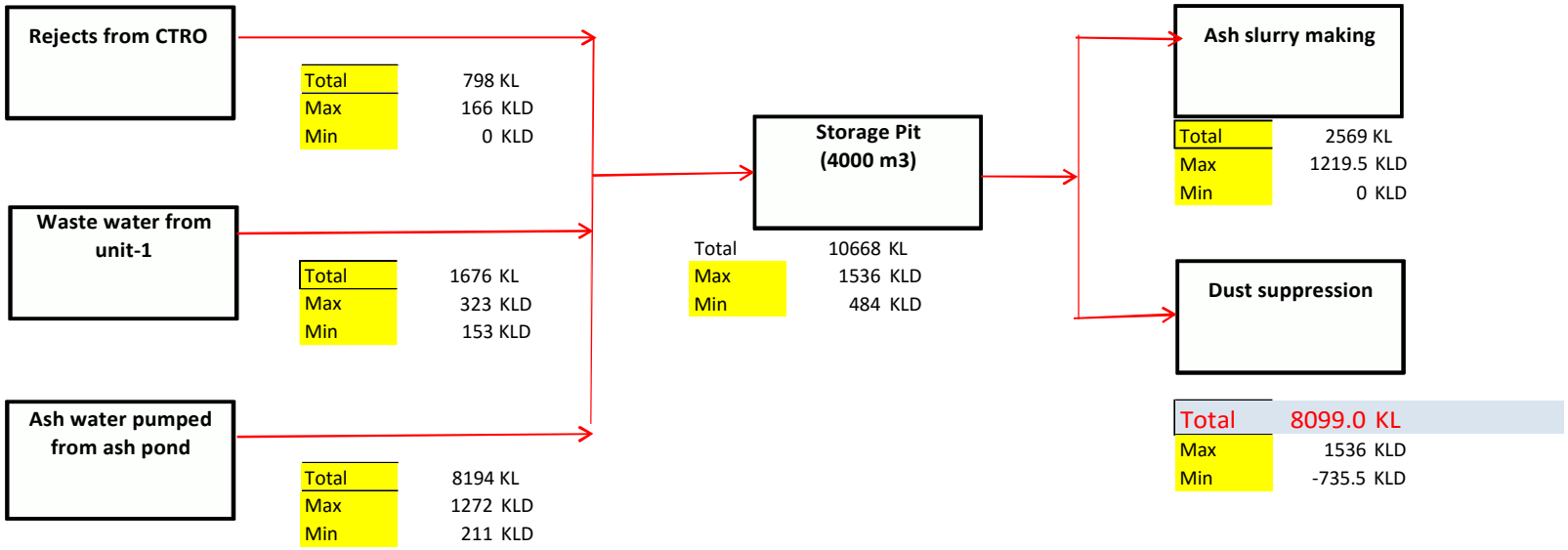


Figure 22: Waste water utilization



Annexures

Annexure 1: NOC for groundwater withdrawal

MEMBER SECRETARY

भारत सरकार
केन्द्रीय भूमि जल प्राधिकरण
जल संसाधन, नदी विकास
और गंगा संरक्षण मंत्रालय

Government of India
Central Ground Water Authority
Ministry of Water Resources,
River Development & Ganga Rejuvenation

File No:- 21-4/1181/UP/IND/2016 - 863

NOC No:- CGWA/NOC/IND/ORIG/2017/2533

Dated:- 19 APR 2017

To,
M/s Jubilant Life Sciences Limited (Distillery Unit),
Bhartiagram, Gajraula,
District Amroha, Uttar Pradesh – 244223

Sub:- NOC for ground water withdrawal to M/s Jubilant Life Sciences Limited (Distillery Unit), in respect of their existing distillery unit located at Bhartiagram, Gajraula, Block Gajraula, District Amroha, Uttar Pradesh – reg.

Refer to your application on the above cited subject. Based on recommendations of Regional Director, Central Ground Water Board, Northern Region, Lucknow vide their recommendations dated 14/10/2016, presentation made before the committee members at CGWB, New Delhi on 10.02.2017 and further deliberations on the subject, the NOC of Central Ground Water Authority is hereby accorded to **M/s Jubilant Life Sciences Limited (Distillery Unit), in respect of their existing distillery unit located at Bhartiagram, Gajraula, Block Gajraula, District Amroha, Uttar Pradesh.** The NOC is, however subject to the following conditions:-

1. The firm may abstract **3000 cu.m/day (and not exceeding 10,65,000 cu.m/year)** of ground water through existing two (2) tubewells only. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA. Firm to ensure the effluent quality so that no contamination to surface water and ground water takes place. Firm to prepare a detailed ground water monitoring report in and around the plant area and impact on the ambient ground water regime alongwith long term water level trends including modelling which is to be submitted within six months.
2. All the wells to be fitted with water meter by the firm at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, atleast once in a month. The ground water quality to be monitored twice in a year during pre- monsoon and post- monsoon periods.
3. **M/s Jubilant Life Sciences Limited (Distillery Unit),** shall, in consultation with the Regional Director, Central Ground Water Board, Northern Region, Lucknow implement ground water recharge measures atleast to the tune of **10,00,000 cu.m/year** as proposed, for augmenting the ground water resources of the area within six months from the date of issue of this letter. In addition, the firm shall adopt 1 no. village for Water Security Plan in District Amroha, Uttar Pradesh. The necessary guideline for the Water Security Plan is available on website of Ministry of Water Resources, RD & GR (www.mowr.gov.in). Both, the Demand Side Management /Supply Side Management with maintenance of structures in the said villages to be ensured and a comprehensive plan to be submitted to Regional Director, CGWB. Firm shall also undertake periodic maintenance of recharge structures at its own cost. Firm to take up area specific

West Block - 2, Wing - 3, Sector - 1, R.K. Puram, New Delhi - 110066
Tel : 011-26175362, 26175373, 26175379 • Fax : 011-26175369
Website : www.cgwa-noc.gov.in

स्वच्छ सुरक्षित जल - सुन्दर खुशहाल कल
CONSERVE WATER - SAVE LIFE

plantation to enhance the recharge measures. Firm to take up recharge measures alongwith provision of safe drinking water and sanitation for 1 No. of primary/middle school in adjacent village.

4. The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board, Northern Region, Lucknow for verification and under intimation to this office.

5. The firm at its own cost shall install one (1) piezometer fitted with automatic water level recorder having telemetry system at suitable location and execute ground water regime monitoring programme in and around the project area on regular basis in consultation with the Central Ground Water Board Northern Region, Lucknow.

6. The ground water monitoring data in respect of S.No. 2 & 5 to be submitted to Central Ground Water Board, Northern Region,Lucknow on regular basis at least once in a year.

7. The firm shall ensure proper recycling and reuse of waste water after adequate treatment.

8. Action taken report in respect of S. No. 1 to 7 may be submitted to CGWA within one year period.

9. The permission is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 8.

10. This NOC is subject to prevailing Central/State Government rules/laws or Courts orders related to construction of tubewell/ground water withdrawal/construction of recharge or conservation structure/discharge of effluents or any such matter as applicable.

11. This NOC does not absolve the applicant / proponent of this obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.

12. The NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and be taking decisions independently of the NOC.

13. This NOC is valid from 05/04/2017 till 04/04/2019.

Member Secretary

Copy to:

1. The Member Secretary, Uttar Pradesh State Pollution Control Board, Picup Bhawan, Third Floor, B-Block, Vibhuti Khand, Gomti Nagar, Lucknow **with a request to ensure that the conditions mentioned in the NOC are complied by the firm in consultation with the District Magistrate, District Amroha, Uttar Pradesh.**
2. The District Magistrate, District Amroha, Uttar Pradesh for necessary action
3. The Regional Director, Central Ground Water Board, Northern Region, Lucknow.This has reference to your recommendation dated 14/10/2016.
4. TS to the Chairman, Central Ground Water Board, Bhujal Bhawan, Faridabad.
5. Guard File 2017-18.

Member Secretary

MEMBER SECRETARY

भारत सरकार
केन्द्रीय भूमि जल प्राधिकरण
जल संसाधन, नदी विकास
और गंगा संरक्षण मंत्रालय

Government of India
Central Ground Water Authority
Ministry of Water Resources,
River Development & Ganga Rejuvenation

File No:- 21-4/1173/UP/IND/2016 - 858

NOC No:- CGWA/NOC/IND/ORIG/2017/2529

Dated:- 18 APR 2017

To,
M/s Jubilant Life Sciences Limited (Power Plant),
Bhartiagram, Gajraula,
District Amroha, Uttar Pradesh – 244235

Sub:- NOC for ground water withdrawal to M/s Jubilant Life Sciences Limited (Power Plant), in respect of their Power generation unit manufacturing unit located at Bhartiagram, Gajraula, Block Gajraula, District Amroha, Uttar Pradesh – reg.

Refer to your application on the above cited subject. Based on recommendations of Regional Director, Central Ground Water Board Northern Region, Lucknow vide their recommendations dated 14/10/2016, presentation made before the committee members at CGWB, New Delhi on 10.02.2017 and further deliberations on the subject,the NOC of Central Ground Water Authority is hereby accorded to **M/s Jubilant Life Sciences Limited (Power Plant), in respect of their Power generation unit manufacturing unit located at Bhartiagram, Gajraula, Block Gajraula, District Amroha, Uttar Pradesh.**The NOC is, however subject to the following conditions:-

1. The firm may abstract **4700 cu.m/day** (and not exceeding **16,68,500 cu.m/year**) of ground water, through existing two (2) tubewells only. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA. Firm to ensure the effluent quality so that no contamination to surface water and ground water takes place. Firm to prepare a detailed ground water monitoring report in and around the plant area and impact on the ambient ground water regime alongwith long term water level trends including modelling which is to be submitted within six months.
2. All the wells to be fitted with water meter by the firm at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, atleast once in a month. The ground water quality to be monitored twice in a year during pre- monsoon and post- monsoon periods.
3. **M/s Jubilant Life Sciences Limited (Power Plant)** shall, in consultation with the Regional Director, Central Ground Water Board, Northern Region, Lucknow implement ground water recharge measures atleast to the tune of **834250 cu.m/year** as proposed, for augmenting the ground water resources of the area outside the plant premises within six months from the date of issue of this letter. In addition, the firm shall adopt 1 no. village for Water Security Plan in District Amroha, Uttar Pradesh. The necessary guideline for the Water Security Plan is available on website of Ministry of Water Resources, RD & GR (www.mowr.gov.in). Both, the Demand Side Management /Supply Side Management with maintenance of structures in the said villages

to be ensured and a comprehensive plan to be submitted to Regional Director, CGWB. Firm shall also undertake periodic maintenance of recharge structures at its own cost. Firm to take up area specific plantation to enhance the recharge measures. Firm to take up recharge measures alongwith provision of safe drinking water and sanitation for 1 No. of primary/middle school in adjacent village.

4. The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board, Northern Region, Lucknow for verification and under intimation to this office.

5. The firm at its own cost shall install one (1) piezometer fitted with automatic water level recorder with telemetry system at suitable location and execute ground water regime monitoring programme in and around the project area on regular basis in consultation with the Central Ground Water Board, Northern Region, Lucknow.

6. The ground water monitoring data in respect of S.No. 2 & 5 to be submitted to Central Ground Water Board, Northern Region,Lucknow on regular basis at least once in a year.

7. The firm shall ensure proper recycling and reuse of waste water after adequate treatment.

8. Action taken report in respect of S. No. 1 to 7 may be submitted to CGWA within one year period.

9. The permission is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 8.

10. This NOC is subject to prevailing Central/State Government rules/laws or Courts orders related to construction of tubewell/ground water withdrawal/construction of recharge or conservation structure/discharge of effluents or any such matter as applicable.

11. This NOC does not absolve the applicant / proponent of this obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.

12. The NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and be taking decisions independently of the NOC.

13. This NOC is valid from 05/04/2017 till 04/04/2019.

Member Secretary

Copy to:

1. The Member Secretary, Uttar Pradesh State Pollution Control Board, Picup Bhawan, Third Floor, B-Block, Vibhuti Khand, Gomti Nagar, Lucknow **with a request to ensure that the conditions mentioned in the NOC are complied by the firm in consultation with the District Magistrate, district Amroha, Uttar Pradesh**
2. The Regional Director, Central Ground Water Board, Northern Region, Lucknow.This has reference to your recommendation dated 14/10/2016.
3. The District Magistrate, District Amroha, Uttar Pradesh for necessary action.
4. The Chairman, Central Ground Water Board, Bhujal Bhawan, Faridabad.
5. Guard File 2017-18.

Member Secretary

MEMBER SECRETARY

भारत सरकार
केन्द्रीय भूमि जल प्राधिकरण
जल संसाधन, नदी विकास
और गंगा संरक्षण मंत्रालय

Government of India
Central Ground Water Authority
Ministry of Water Resources,
River Development & Ganga Rejuvenation

File No:- 21-4/1163/UP/IND/2016-787
NOC No:- CGWA/NOC/IND/ORIG/2017/2530

Dated :- 05/04/2017
07 APR 2017

To,
M/s Jubilant Life Sciences Limited (Chemical Unit-1)
Bhartiagram, Gajraula,
District Amroha, Uttar Pradesh – 244223

Sub:- NOC for ground water withdrawal to M/s Jubilant Life Sciences Limited (Chemical Unit-1) in respect of their existing chemical manufacturing unit located at Bhartiagram, Gajraula, Block Gajraula, District Amroha, Uttar Pradesh – reg.

Refer to your application on the above cited subject. Based on recommendations of Regional Director, Central Ground Water Board, Northern Region, Lucknow vide their recommendations dated 14/10/2016, presentation made before the committee members at CGWB, New Delhi on 10.02.2017 and further deliberations on the subject, the NOC of Central Ground Water Authority is hereby accorded to **M/s Jubilant Life Sciences Limited (Chemical Unit-1) in respect of their Chemical manufacturing unit located at Bhartiagram, Gajraula, Sub-District Gajraula, District Amroha, Uttar Pradesh.** The NOC is, however subject to the following conditions:-

1. The firm may abstract **2300 cu.m/day (and not exceeding 8,16,500 cu.m/year)** of ground water, through existing two (2) tubewells only. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA. Firm to ensure the effluent quality so that no contamination to surface water and ground water takes place.
2. All the wells to be fitted with water meter by the firm at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, atleast once in a month. The ground water quality to be monitored twice in a year during pre- monsoon and post- monsoon periods.
3 **M/s Jubilant Life Sciences Limited (Chemical Unit-1)** shall, in consultation with the Regional Director, Central Ground Water Board, Northern Region, Lucknow implement ground water recharge measures atleast to the tune of **10,60,000 cu.m/year** as proposed, for augmenting the ground water resources of the area within six months from the date of issue of this letter outside the plant complex. In addition, the firm shall adopt 1 no. village for Water Security Plan in District Amroha, Uttar Pradesh. The necessary guideline for the Water Security Plan is available on website of Ministry of Water Resources, RD & GR (www.mowr.gov.in). Both, the Demand Side Management /Supply Side Management with maintenance of structures in the said villages to be

ensured and a comprehensive plan to be submitted to Regional Director, CGWB. Firm shall also undertake periodic maintenance of recharge structures at its own cost. Firm to take up area specific plantation to enhance the recharge measures. Firm to take up recharge measures alongwith provision of safe drinking water and sanitation for 1 No. of primary/middle school in adjacent village.

4. The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board, Northern Region, Lucknow for verification and under intimation to this office.

5. The firm at its own cost shall install one (1) piezometer fitted with automatic aater level recorder with telemetry system at suitable location and execute ground water regime monitoring programme in and around the project area on regular basis in consultation with the Central Ground Water Board, Northern Region, Lucknow.

6. The ground water monitoring data in respect of S.No. 2 & 5 to be submitted to Central Ground Water Board. Northern Region, Lucknow on regular basis at least once in a year.

7 The firm shall ensure proper recycling and reuse of waste water after adequate treatment

8. Action taken report in respect of S. No. 1 to 7 may be submitted to CGWA within one year period.

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Member Secretary

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2. The District Magistrate, District Amroha, Uttar Pradesh for necessary action.
3. The Regional Director, Central Ground Water Board, Northern Region, Lucknow.This has reference to your recommendation dated 14/10/2016.
4. TS to the Chairman, Central Ground Water Board, Bhujal Bhawan, Faridabad.
5. Guard File 2017-18.

Member Secretary

MEMBER SECRETARY

भारत सरकार
केन्द्रीय भूमि जल प्राधिकरण
जल संसाधन, नदी विकास
और गंगा संरक्षण मंत्रालय

Government of India
Central Ground Water Authority
Ministry of Water Resources,
River Development & Ganga Rejuvenation

File No:- 21-4/1174/UP/IND/2016 - 788
NOC No:- CGWA/NOC/IND/ORIG/2017/2531

Date :- 05/04/2017
07 APR 2017

To,
M/s Jubilant Life Sciences Limited (Chemical Unit-2),
Bhartiagram, Gajraula,
District Amroha, Uttar Pradesh – 244223

Sub:- NOC for ground water withdrawal to M/s Jubilant Life Sciences Limited (Chemical Unit-2) in respect of their existing chemical manufacturing unit located at Bhartiagram, Block Gajraula, District Amroha, Uttar Pradesh – reg.

Refer to your application on the above cited subject. Based on recommendations of Regional Director, Central Ground Water Board Northern Region, Lucknow vide their recommendations dated 14/10/2016 and further deliberations on the subject,the NOC of Central Ground Water Authority is hereby accorded to **M/s Jubilant Life Sciences Limited (Chemical Unit-2) in respect of their existing chemical manufacturing unit located at Bhartiagram, Block Gajraula, District Amroha, Uttar Pradesh.** The NOC is, however subject to the following conditions:-

1. The firm may abstract **2600 cu.m/day (and not exceeding 9,23,000 cu.m/year**) of ground water, through existing one (1) tuneewell only. No additional ground water abstraction structures to be constructed for this purpose without prior approval of the CGWA. Firm to ensure the effluent quality so that no contamination to surface water and ground water takes place.
2. The well to be fitted with water meter by the firm at its own cost and monitoring of ground water abstraction to be undertaken accordingly on regular basis, atleast once in a month. The ground water quality to be monitored twice in a year during pre- monsoon and post- monsoon periods.
3. **M/s Jubilant Life Sciences Limited (Chemical Unit-2)** shall, in consultation with the Regional Director, Central Ground Water Board Northern Region, Lucknow implement ground water recharge measures atleast to the tune of **4,60,000 cu.m/year** as proposed, for augmenting the ground water resources of the area within six months from the date of issue of this letter. In addition, the firm shall adopt 1 no. village for Water Security Plan in District Amroha, Uttar Pradesh. The necessary guideline for the Water Security Plan is available on website of Ministry of Water Resources, RD & GR (www.mowr.gov.in). Both, the Demand Side Management /Supply Side Management with maintenance of structures in the said villages to be ensured and a comprehensive plan to be submitted to Regional Director, CGWB. Firm shall also undertake periodic

maintenance of recharge structures at its own cost. Firm to take up area specific plantation to enhance the recharge measures. Firm to take up recharge measures alongwith provision of safe drinking water and sanitation for 1 No. of primary/middle school in adjacent village.

4. The photographs of the recharge structures after completion of the same are to be furnished immediately to the Regional Director, Central Ground Water Board Northern Region, Lucknow for verification and under intimation to this office.

5. The firm at its own cost shall install one (1) piezometer fitted with Automatic Water Level Recorder having Telemetry system at suitable location and execute ground water regime monitoring programme in and around the project area on regular basis in consultation with the Central Ground Water Board Northern Region, Lucknow.

6. The ground water monitoring data in respect of S.No. 2 & 5 to be submitted to Central Ground Water Board Northern Region,Lucknow on regular basis at least once in a year.

7. The firm shall ensure proper recycling and reuse of waste water after adequate treatment.

8. Action taken report in respect of S.No.1 to 7 may be submitted to CGWA within one year period.

9. The permission is liable to be cancelled in case of non-compliance of any of the conditions as mentioned in S. No. 1 to 8.

10. This NOC is subject to prevailing Central/State Government rules/laws or Courts orders related to construction of tubewell/ground water withdrawal/construction of recharge or conservation structure/discharge of effluents or any such matter as applicable.

11. This NOC does not absolve the applicant / proponent of this obligation / requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.

12. The NOC does not imply that other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would consider the project on merits and be taking decisions independently of the NOC.

13. This NOC is valid from 05/04/2017 till 04/04/2019.

Member Secretary

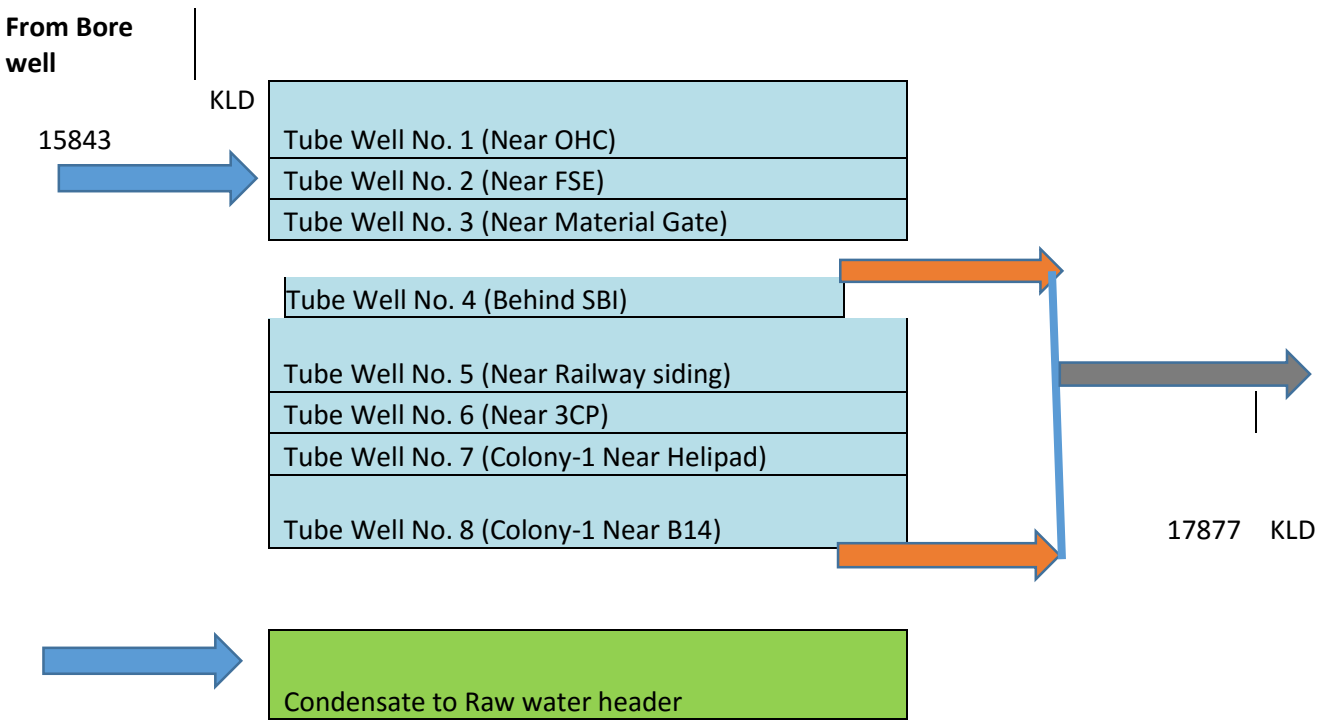
Copy to:

1. The Member Secretary, Uttar Pradesh State Pollution Control Board, Picup Bhawan, Third Floor, B-Block, Vibhuti Khand, Gomti Nagar, Lucknow **with a request to ensure that the conditions mentioned in the NOC are complied by the firm in consultation with the District Magistrate, District Amroha, Uttar Pradesh.**
2. The District Magistrate, District Amroha, Uttar Pradesh for necessary action.
3. The Regional Director, Central Ground Water Board, Northern Region, Lucknow.This has reference to your recommendation dated 14/10/2016
4. TS to the Chairman, Central Ground Water Board, Bhujal Bhawan, Faridabad.
5. Guard File 2017-18.

Member Secretary

Annexure 2: Water Balance and Water consumption in various processes

Figure A: Raw Water Balance



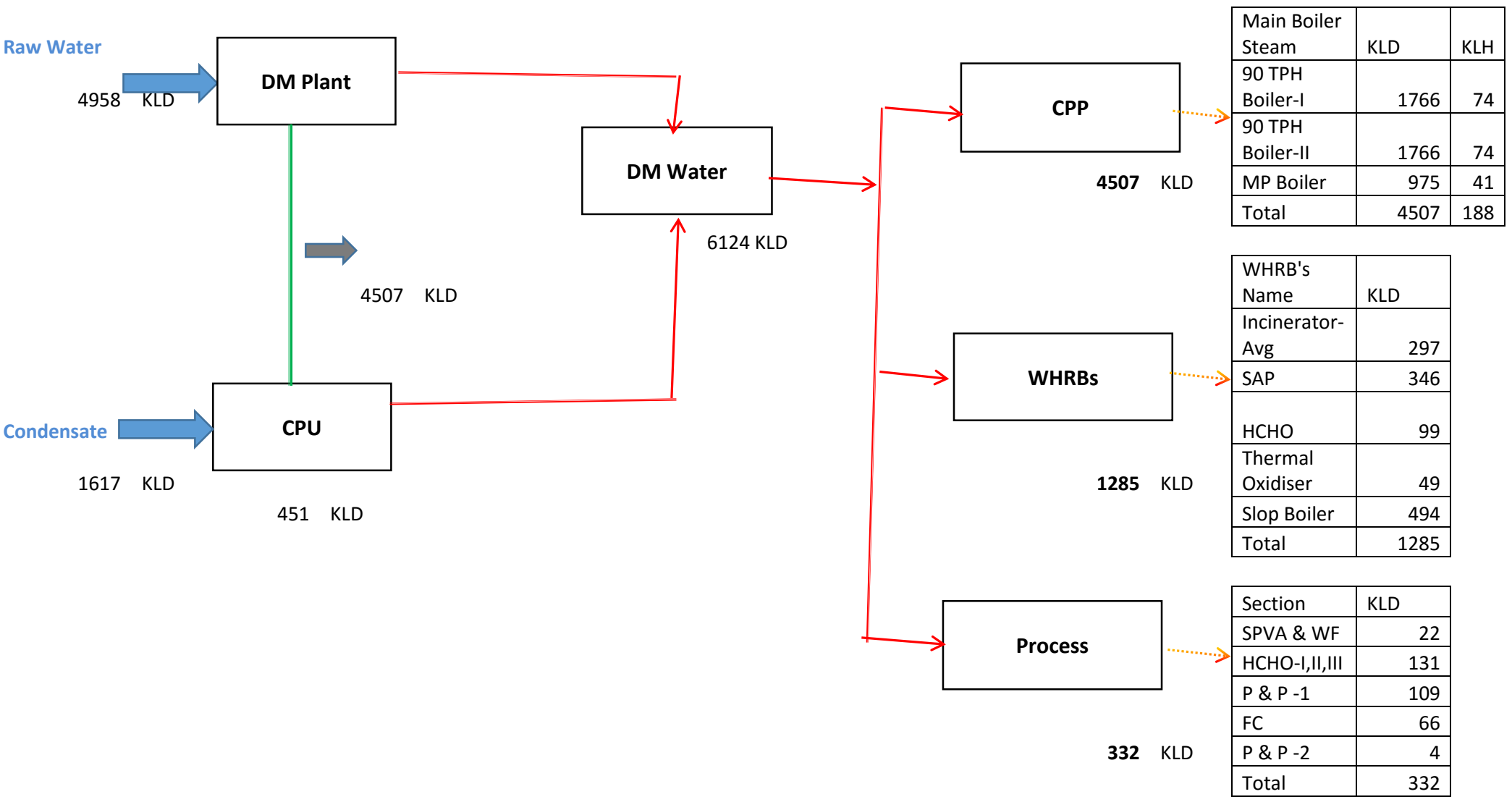
	Total (KLD)
Process including domestic water in plant	3374
DM plant	4958
Cooling Towers	8760
Domestic for colony and swimming pool	323
Horticulture	462
Grand Total	17877

Figure B: Usages of raw water in process

3374 KLD

Units	Total (KL)
R W Distillery (Batch)	1266
Horticulture	50
R W CO2 Plant	600
R W ACOH / ACH	38
R W P & P	10
R W ACH-4,5,6,HCHO-1 & EA-3	10
R W AC2O	120
R W Ethyl Acetate	20
R W Fertiliser	250
R W Biogas	120
R W PVA+PU+SPVA+Commercial	25
RW Fire Hydrant	50
Drinking Water (Total-P&P-FC)	660
RW Boiler + Incinerator	10
RW 3CP+Ammonia Yard+Biogas	35
RW 2 CNA	0
MPP	0
FC-3 SRP	10
Boiler 90 TPH	10
R W DG & TG	0
Slop Fired Boiler	25
FC-6	15
Sprinkler system	50
Total	3374

Figure C: DM water production and usages



Main Boiler Steam	KLD	KLH
90 TPH Boiler-I	1766	74
90 TPH Boiler-II	1766	74
MP Boiler	975	41
Total	4507	188

WHRB's Name	KLD
Incinerator-Avg	297
SAP	346
HCHO	99
Thermal Oxidiser	49
Slop Boiler	494
Total	1285

Section	KLD
SPVA & WF	22
HCHO-I,II,III	131
P & P -1	109
FC	66
P & P -2	4
Total	332

Figure D: Raw water usages in cooling towers

Raw water

6727 KLD

Cooling Towers	Makeup (KLD)
M/up W Cooling Tower # 1B	141
M/up W Cooling Tower # 2	141
M/up W Cooling Tower # 3	250
M/up W Cooling Tower # 3A	125
M/up W Cooling Tower # 4	572
M/up W Cooling Tower # 5	117
M/up W Cooling Tower # 6	274
M/up W Cooling Tower # 6A	313
M/up W Cooling Tower # 7A,B,C	751
M/up W Cooling Tower # 7D	375
M/up W Cooling Tower # 7E	125
M/up W Cooling Tower # 8	633
M/up W Cooling Tower # 9	188
M/up W Cooling Tower # 9A, 9B	156
M/up W Cooling Tower # 10	235
M/up W Cooling Tower # 11	78
M/up W Cooling Tower # 11A & B	500
M/up W Cooling Tower # 12	78
M/up W Cooling Tower # 13	563
M/up W Cooling Tower # 14	469
M/up W Cooling Tower # EOU	469
M/up W Cooling Tower # RFL	172
Total	6727

Figure E: Steam Generation and Utilization (mass basis)

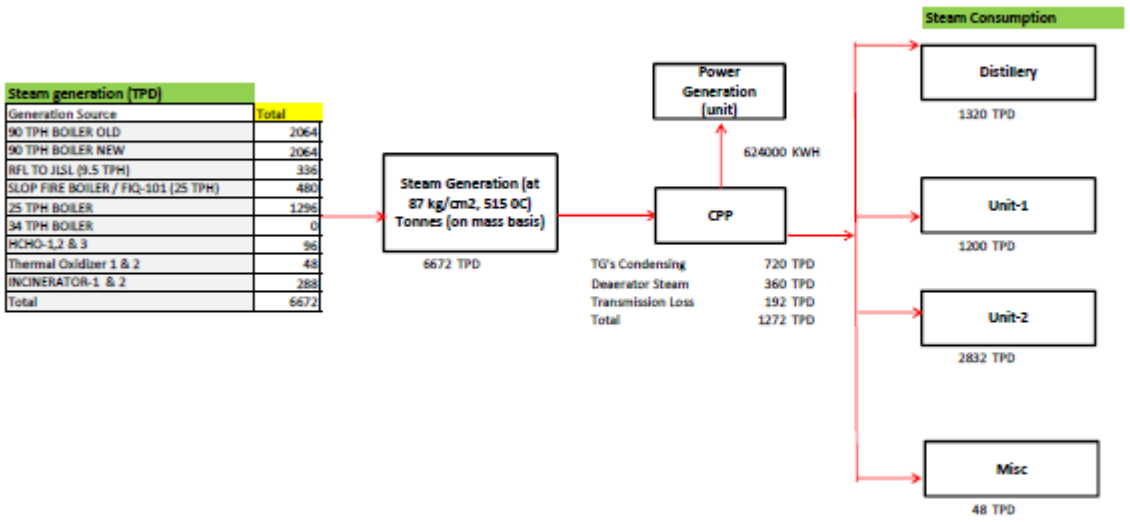


Figure F: Condenste generation and utilization

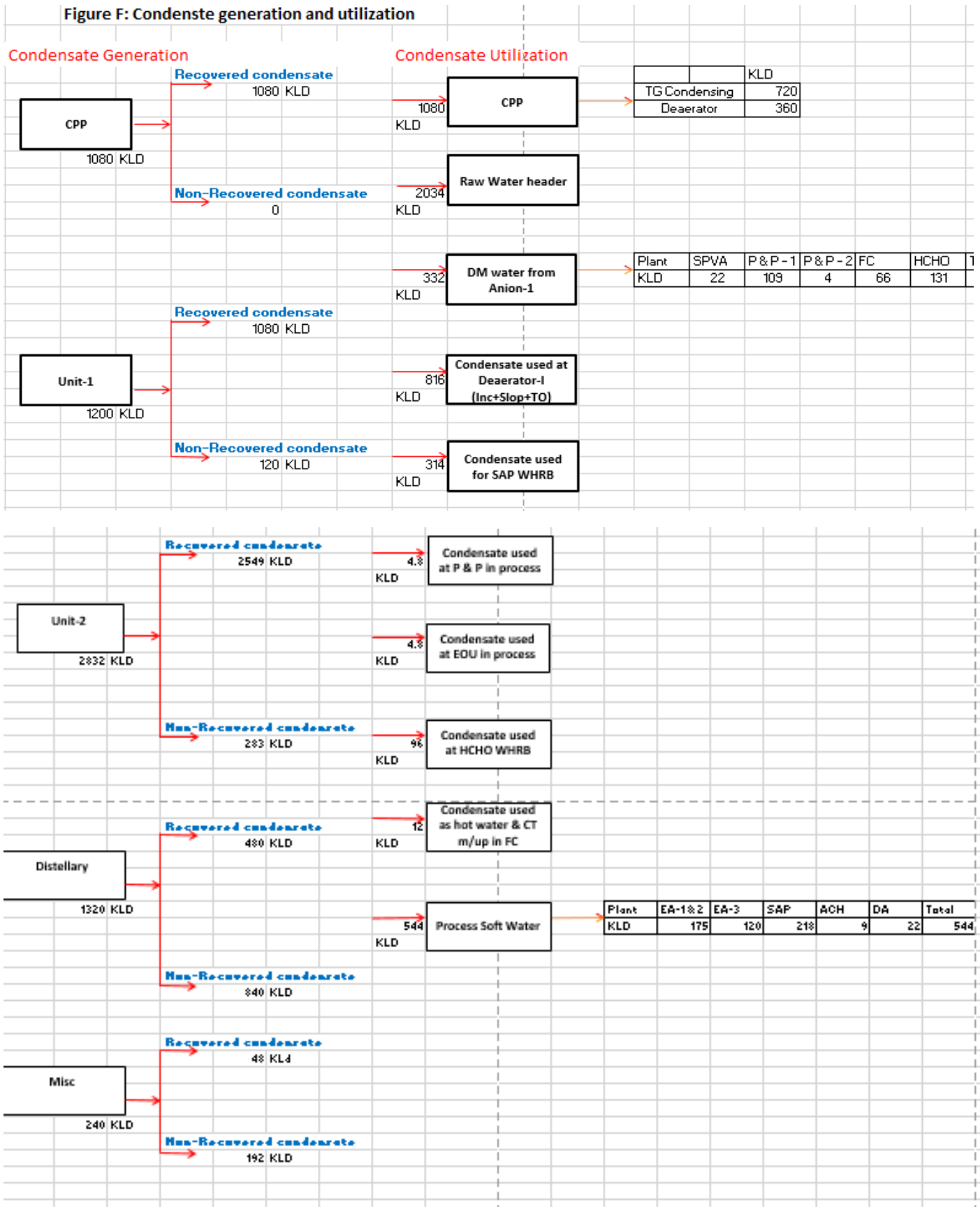


Figure G: Water Balance across Cooling Towers

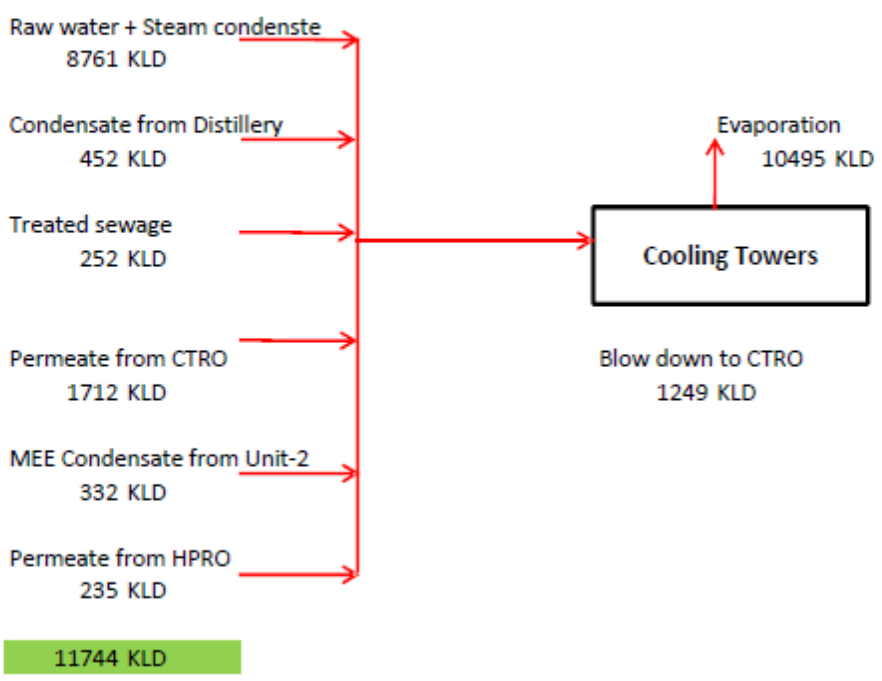


Figure H: Waste water management of Utilities (via CTRO)

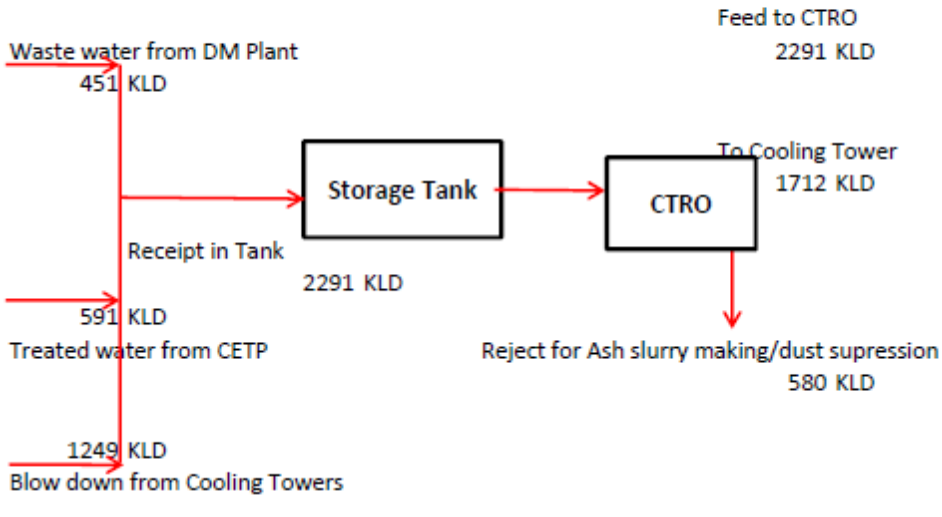


Figure I: Waste water management of Unit-1 (via CETP)

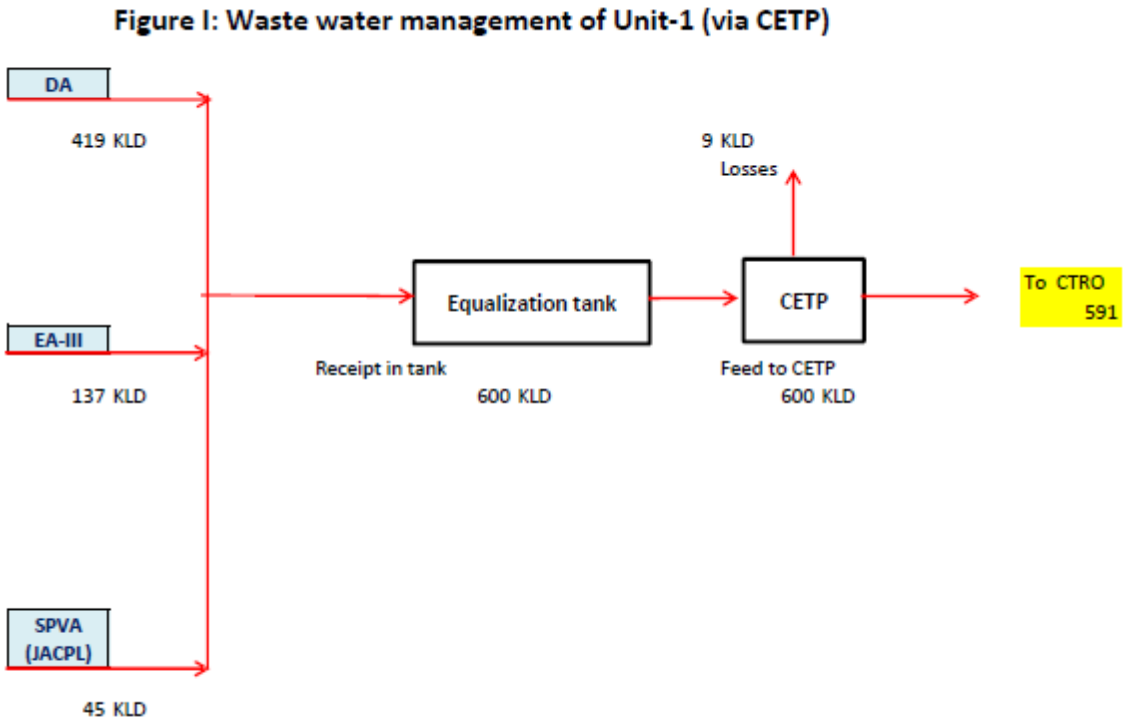


Figure J: Waste water management of Distillery

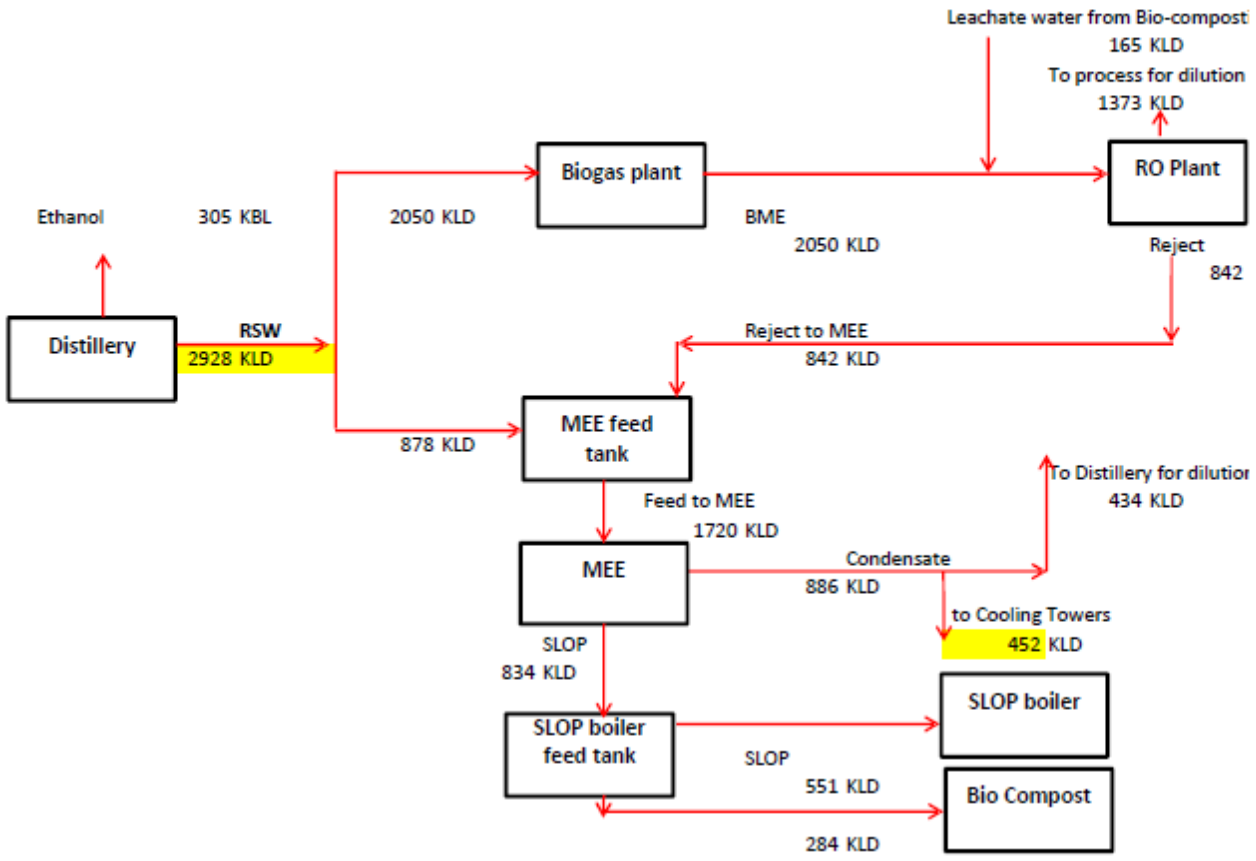


Figure K-1.1: Domestic Waste water management of Township (via STP)

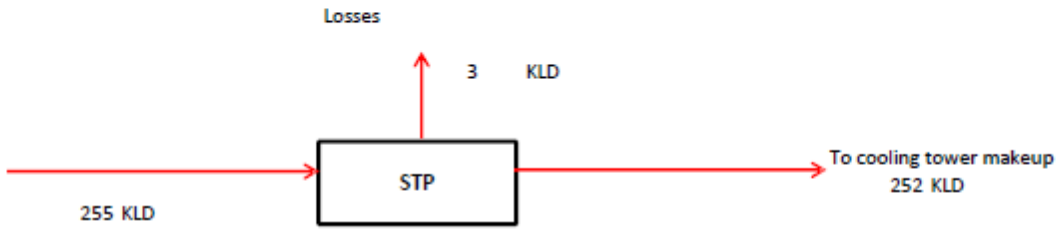


Figure K-1.2: Domestic Waste water management of Plant (via Porable STPs)

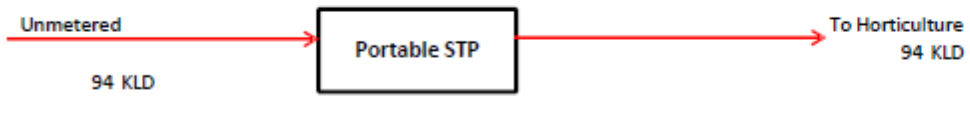
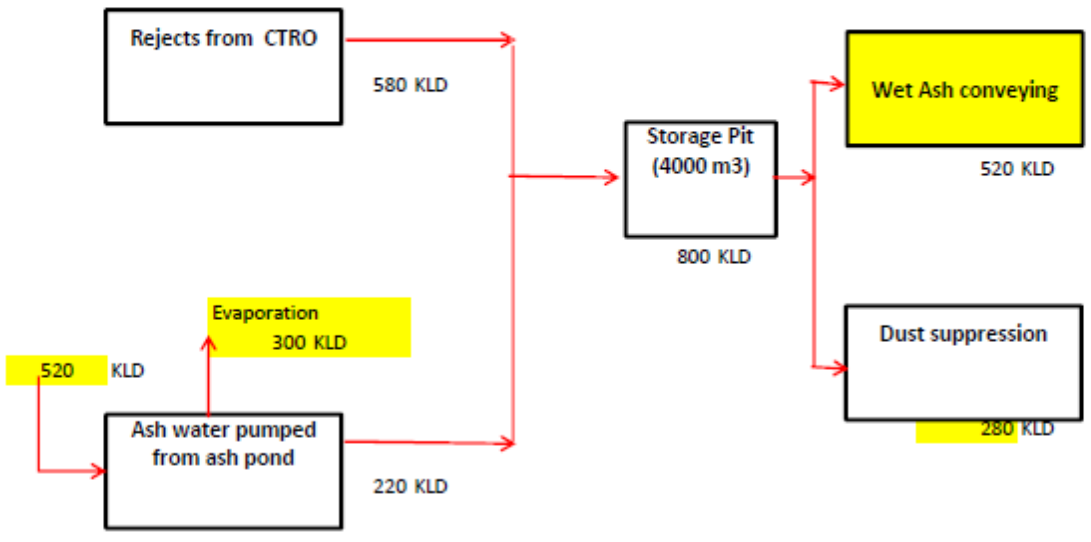


Figure L: Waste water utilization



Speed Post

F. No. B-410/PCI-III/DIST/NGRBA/2K14-2K15 5025-5035 December 7, 2015

To,

The Chairman
(U.P, Uttarakhand, Bihar, West Bengal, Haryana, Chhattisgarh, M.P)

Sub: Revised Direction under section 18(1) (b) of the Water (Prevention & Control of Pollution) Act, 1974 to ensure zero liquid discharge from distilleries

WHEREAS, CPCB had issued direction on 24.02.2015 and a follow up direction on 23.04.2015, under section 18 (1) (b) of the Water Act, 1974 to SPCB for ensuring that the molasses based distilleries including yeast manufacturing units in your State shall achieve zero liquid discharge of effluent, as per the options specified in the direction; and

WHEREAS, as per the request of All India Distillers Association (AIDA), CPCB had convened two meetings with AIDA, to review the options specified for achieving ZLD and after discussions and deliberations, it was decided to consider the option of Bio- Composting as an alternate method for achieving ZLD; and,

WHEREAS, CPCB had already communicated the minutes of the meeting held on 25.05.2015 with AIDA to the State Pollution Control Boards on 03.06.2015; and

Now therefore, in view of the above and in exercise of the powers conferred under section 18 (1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 and in partial modification at S. No. 1, 2, 3, 8 & 10 of the earlier direction dated 24.02.2015, you are hereby directed to take adequate steps to implement the following revised directions in the distilleries in your State to ensure achievement of Zero Liquid Discharge;

1. All the molasses based distilleries including yeast manufacturing units in your state shall be directed to achieve zero liquid discharge of effluent by following either of the two routes as specified below;
    a. Installing systems for *Solid separation for reduction in volume of spent wash and Evaporation – concentration* **or** *only Evaporation – concentration* so as to reduce the volume to min. 40% with 30% solid conc. and water conservation by using appropriate technology such as *R.O & M.E.E* **or** *only M.E.E*, by ***December 31, 2015,*** followed by bio composting with press mud from sugar industry by complying with conditioned specified below at S. No. 2; **or**

    Installing system for Evaporation – concentration by using appropriate technology such as *M.E.E* and *Incineration boiler* (Slope fired / mixed with aux. fuel, etc.), using appropriate technology by ***March 31, 2016.***

b. Installing advance process technologies (continuous fermentation, multi pressure distillation, integrated evaporation, etc) for reduction of spent wash generation to 6-8 KL/KL of alcohol produced, by ***March 31, 2016***, followed by evaporation-concentration and incineration, using appropriate technology such as MEE and incineration boiler by ***September 30, 2016.***

2. Industries opting for bio composting shall be directed to comply with the following within the given time frame;
    a. Obtaining valid registration/certification for the production and quality of bio-enriched Organic manure (bio compost) as per Gazette Notification S.O.2776(E) dated 10.10.2015 under the Fertilizer (Control) Fourth Amendment Order, 2015 issued by Ministry of Agriculture and Farmers Welfare (Deptt. Of Agriculture, Cooperation and Farmers Welfare) (copy enclosed) from the Ministry of Agriculture/concerned agency – within a time period of four months.
    b. The final storage capacity of concentrated spent wash after R.O & M.E.E or only M.E.E, utilized in bio composting shall be properly lined and made impermeable and shall be strictly restricted to thirty days equivalent of concentrated spent wash (40% by volume of spent wash generated) – by **31.03.2016.**
    c. The finished bio-compost shall be packed in sealed poly bags super scribed with quality and composition of bio compost along with the name of the manufacturer industry. Industries shall not be allowed to sale compost in open tractors/trolleys.
    d. The bio composting activity shall only be carried out under covered premises – by **31.03.2016**

3. Industries opting for concentration incineration system shall restrict the impermeable storage of spent wash at any stage, to 07 days equivalent of production and excess storage facilities beyond this shall be levelled / dismantled by 31.03.2016 or 30.9.2016, as applicable.

4. The 'Consent to operate' issued/to be issued to all the distilleries in the State shall be suitably modified within 15 days, incorporating the above conditions, and linking the validity of the 'Consent to Operate' with the compliance of the directions. The Consent to operate issued to the distilleries shall ***stand automatically withdrawn*** by the deadline as specified below;

    a. Such of those industries which opt for bio-composting system:
        i. ***December 31, 2015*** - failure to complete the installation of solid separation system (such as R.O) and evaporation – concentration (such as MEE) **or** only evaporation – concentration (such as MEE).
    b. Such of those industries which opt for incineration system:
        i. ***March 31, 2016***–failure to install evaporation-concentration and incineration, using appropriate technology such as MEE and incineration boiler.
    c. Such of those industries which opt for adoption of advanced process technologies:
        i. ***March 31, 2016*** – failure to adopt advanced process technologies (continuous fermentation, multi pressure distillation, integrated evaporation, etc), to reduce spent wash generation to 6-8KL/KL.
        ii. ***September 30, 2016***–failure to install evaporation-concentration and incineration, using appropriate technology such as MEE and incineration boiler.

Timely compliance of above directions, as per the Action Plan obtained / to be obtained from the individual industries in your state shall be ensured. Further, the progress in the implementation of directions may be communicated to CPCB on a regular basis through e-mail (adaba.cpcb@nic.in and pkg64us@yahoo.com).

(Arun Kumar Mehta)
CHAIRMAN

Copy to:

1) **The Advisor (CP Division)**
   Ministry of Environment, Forest & C.C
   Prithvi Block, Indira Paryavaran Bhawan,
   Jorbagh Road, New Delhi – 110 003

2) **The In-charge, Zonal Office**
   (Concerned Z.O, CPCB)

3) The In-charge, PCI-III Division, CPCB
4) The In-charge, NGRBA Cell, CPCB
5) The In-charge, IT Division, CPCB

(A B Akolkar)
MEMBER SECRETARY

रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

असाधारण
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PART II—Section 3—Sub-section (ii)
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PUBLISHED BY AUTHORITY

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No. 2620] NEW DELHI, TUESDAY, DECEMBER 8, 2015/AGRAHAYANA 17, 1937

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 7 दिसम्बर, 2015

का.आ. 3305(अ).— केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात् :—

1.(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) संशोधन नियम, 2015 है।

(2) ये उनके राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची 1 में,—

(क) क्रम सं. 5 और उससे संबंधित प्रविष्टियों के स्थान पर निम्नलिखित क्रम सं. और प्रविष्टियां अंत:स्थापित की जाएंगी, अर्थात् :—

क्रम सं.	उद्योग	मापदंड	मानक
1	2	3	4
5क	**ताप विद्युत संयंत्र (जल उपभोग सीमा)**	**जल उपभोग**	I. एक बार शीतलन (ओटीसी) के माध्यम से सभी संयंत्र शीतलन टावरों (सीटी) को प्रतिष्ठापित करेंगे और अधिसूचना की तारीख से दो वर्ष की अवधि के भीतर अधिकतम 3.5m^3/MWh के विनिर्दिष्ट जल उपभोग को हासिल करेंगे।

			II. सभी विद्यमान सीटी-आधारित संयंत्र 3.5m^3/MWh इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर अधिकतम 3.5m^3/MWh तक के विनिर्दिष्ट जल उपभोग को कम करेंगे। III. जनवरी, 2017 के पश्चात् प्रतिष्ठापित किए जाने वाले नए संयंत्र अधिकतम 2.5 m^3/MWh तक के विनिदिष्ट जल उपभोग को पूरा करेंगे और शून्य जल दुर्व्यय को हासिल करेंगे।

(ख) क्रम सं. 25 और उससे संबंधित प्रविष्टियों के पश्चात् निम्नलिखित क्रम सं. और प्रविष्टियां रखी जाएंगी, अर्थात् :—

क्रम सं.	उद्योग	मापदंड	मानक
1	2	3	4
		विवक्त पदार्थ	100 mg/Nm^3
		सल्फर डायोक्साइड(SO_2)	600 mg/Nm^3 (500 मेगावाट से कम क्षमता की इकाईयों से लघु इकाईयां) 200 mg/Nm^3 (500 मेगावाट और उससे अधिक क्षमता की इकाईयां)
		नाइट्रोजन के आक्साइड (NOx)	300 mg/Nm^3
		पारा (Hg)	0.03 mg/Nm^3 (500 मेगावाट और उससे अधिक क्षमता की इकाईयां)
		1 जनवरी, 2003 के पश्चात् 31 दिसंबर, 2016* तक प्रतिष्ठापित टीपीपी (इकाईयां)	
		विवक्त पदार्थ	50 mg/Nm^3
		सल्फर डायोक्साइड (SO_2)	600 mg/Nm^3 (500 मेगावाट से कम क्षमता की इकाईयों से लघु इकाईयां) 200 mg/Nm^3 (500 मेगावाट और उससे अधिक क्षमता की इकाईयां)
		नाइट्रोजन के आक्साइड (NOx)	300 mg/Nm^3
		पारा (Hg)	0.03 mg/Nm^3
		1 जनवरी, 2017** से प्रतिष्ठापित टीपीपी (इकाईयां)	
		विवक्त पदार्थ	30 mg/Nm^3
		सल्फर डायोक्साइड (SO_2)	100 mg/Nm^3
		नाइट्रोजन के आक्साइड	100 mg/Nm^3

		(NOx)	
		पारा (Hg)	0.03 mg/Nm^3

* टीपीपी (इकाईयां) इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर परिसीमाओं को पूरा करेंगी ।

** इसके अंतर्गत सभी टीपीपी (इकाईयां) हैं, जिन्हें पर्यावरणीय निकासी प्रदान की गई है और संनिर्माण के अधीन है ।

[फा. सं. क्यू-15017/40/2007-सीपीडब्ल्यू]

डा. राशिद हसन, सलाहकार

टिप्पण :- मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii) में सं. का.आ. 844(अ) 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और उनका पश्चातवर्ती का.आ. 433(अ) तारीख 18 अप्रैल, 1987 ; सा.का.नि 176(अ) तारीख 2 अप्रैल, 1996; सा.का.नि. 97 (अ), तारीख 18 फ़रवरी, 2009 ; सा.का.नि 149(अ) तारीख 4 मार्च, 2009 ; सा.का.नि. 543(अ) तारीख 22 जुलाई, 2009 ; सा.का.नि. 739(अ) तारीख 9 सितम्बर, 2010 ; सा.का.नि. 809(अ) तारीख 4 अक्टूबर, 2010, सा.का.नि. 215(अ) तारीख 15 मार्च, 2011 ; सा.का.नि. 221(अ) तारीख 18 मार्च, 2011 ; सा.का.नि. 354(अ) तारीख 2 मई, 2011 ; सा.का.नि. 424(अ) तारीख 1 जून, 2011 ; सा.का.नि. 446(अ) तारीख 13 जून, 2011 ; सा.का.नि. 152(अ) तारीख 16 मार्च, 2012 ; सा.का.नि. 266(अ) तारीख 30 मार्च, 2012 ; सा.का.नि. 277(अ) तारीख 31 मार्च, 2012; सा.का.नि. 820(अ) तारीख 9 नवम्बर, 2012 ; सा.का.नि. 176(अ) तारीख 18 मार्च, 2013 ; सा.का.नि. 535(अ) तारीख 7 अगस्त, 2013 ; सा.का.नि. 771(अ) तारीख 11 दिसम्बर, 2013 ; सा.का.नि. 2(अ) तारीख 2 जनवरी, 2014 ; सा.का.नि. 229(अ) तारीख 28 मार्च, 2014 ; सा.का.नि. 232(अ) तारीख 31 मार्च, 2014 ; सा.का.नि. 325(अ) तारीख 7 मई, 2014, सा.का.नि. 612(अ) तारीख 25 अगस्त, 2014 और अन्तिम संशोधन सा.का.नि. 789(अ) तारीख 11 नवम्बर, 2014 किया गया था ।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 7th December, 2015

S.O. 3305(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:–

1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2015.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule – I, -

(a) after serial number 5 and entries relating thereto, the following serial number and entries shall be inserted, namely:–

Sr. No.	Industry	Parameter	Standards
1	2	3	4
"5A.	**Thermal Power Plant (Water consumption limit)**	**Water consumption**	I. All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption upto maximum of 3.5m^3/MWh within a period

			of two years from the date of publication of this notification. **II.** All existing CT-based plants reduce specific water consumption upto maximum of 3.5m^3/MWh within a period of two years from the date of publication of this notification. **III.** New plants to be installed after 1st January, 2017 shall have to meet specific water consumption upto maximum of 2.5 m^3/MWh and achieve zero waste water discharged";

(b) for serial number 25, and the entries related thereto, the following serial number and entries shall be substituted, namely:-

Sr. No.	Industry	Parameter	Standards
1	**2**	**3**	**4**
"25.	**Thermal Power Plant**	**TPPs (units) installed before 31st December, 2003***	
		Particulate Matter	100 mg/Nm^3
		Sulphur Dioxide (SO_2)	600 mg/Nm^3 (Units Smaller than 500MW capacity units) 200 mg/Nm^3 (for units having capacity of 500MW and above)
		Oxides of Nitrogen (NOx)	600 mg/Nm^3
		Mercury (Hg)	0.03 mg/Nm^3(for units having capacity of 500MW and above)
		TPPs (units) installed after 1st January,2003, upto 31st December, 2016*	
		Particulate Matter	50 mg/Nm^3
		Sulphur Dioxide (SO_2)	600 mg/Nm^3 (Units Smaller than 500MW capacity units) 200 mg/Nm^3 (for units having capacity of 500MW and above)
		Oxides of Nitrogen (NOx)	300 mg/Nm^3
		Mercury (Hg)	0.03 mg/Nm^3
		TPPs (units) to be installed from 1st January, 2017**	
		Particulate Matter	30 mg/Nm^3
		Sulphur Dioxide (SO_2)	100 mg/Nm^3
		Oxides of Nitrogen (NOx)	100 mg/Nm^3
		Mercury (Hg)	0.03 mg/Nm^3

*TPPs (units) shall meet the limits within two years from date of publication of this notification.

**Includes all the TPPs (units) which have been accorded environmental clearance and are under construction".

[F. No. Q-15017/40/2007-CPW]

Dr. RASHID HASAN, Advisor

Note: - The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) *vide* number S.O. 844(E), dated the 19th November, 1986 and subsequently amended *vide* the following notifications:—

S.O. 433(E), dated 18th April 1987; G.S.R. 176(E) dated 2nd April, 1996; G.S.R. 97(E), dated the 18th February, 2009; G.S.R. 149(E), dated the 4th March , 2009; G.S.R. 543(E), dated 22nd July, 2009; G.S.R. 739(E), dated the 9th September, 2010; G.S.R. 809(E), dated, the 4th October, 2010, G.S.R. 215(E), dated the 15th March, 2011; G.S.R. 221(E), dated the 18th March, 2011; G.S.R. 354(E), dated the 2nd May, 2011; G.S.R. 424(E), dated the 1st June, 2011; G.S.R. 446(E), dated the 13th June, 2011; G.S.R. 152(E), dated the 16th March, 2012; G.S.R. 266(E), dated the 30th March, 2012; and G.S.R. 277(E), dated the 31st March, 2012; and G.S.R. 820(E), dated the 9th November, 2012; G.S.R. 176(E), dated the 18th March, 2013; G.S.R. 535(E), dated the 7th August, 2013; G.S.R. 771(E), dated the 11th December, 2013; G.S.R. 2(E), dated the 2nd January, 2014; G.S.R. 229(E), dated the 28th March, 2014; G.S.R. 232(E), dated the 31st March, 2014; G.S.R. 325(E), dated the 07th May, 2014, G.S.R. 612,(E), dated the 25th August, 2014 and lastly amended vide notification G.S.R. 789(E), dated 11th November, 2014.

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भारत का राजपत्र
The Gazette of India

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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)
PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं. 540] नई दिल्ली, बृहस्पतिवार, अक्तूबर 22, 2020/आश्विन 30, 1942
No. 540] NEW DELHI, THURSDAY, OCTOBER 22, 2020/ASVINA 30, 1942

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 19 अक्तूबर, 2020

सा.का.नि. 662(अ).—केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात् :--

1.(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) संशोधन नियम, 2020 है ।

(2) ये उनके राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे ।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची 1 में,--

क्र. सं. 25 के सामने, "जनवरी, 2003 के पश्चात् 31 दिसंबर, 2016 तक प्रतिष्ठापित टीपीपी (इकाईयां)", शीर्ष के अधीन, नाइट्रोजन के आक्साइड (NOx) के संबंध में, " 300 mg/Nm^3", अंकों और अक्षरों के स्थान पर, स्तंभ 4 में, "450 mg/Nm^3", अंक और अक्षर रखे जाएंगे ।

[फा.सं. क्यू-15017/40/2007-सीपीडब्ल्यू]

जिगमेत टक्पा, संयुक्त सचिव

टिप्पण : —मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii) में सं. का.आ. 844(अ) 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और उनका अंतिम संशोधन अधिसूचना सा.का.नि. 48 (अ), तारीख 24 जनवरी, 2020 द्वारा किया गया ।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 19th October, 2020

G.S.R. 662(E).—In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. (1) These rules may be called the Environment (Protection) Amendment Rules, 2020.

   (2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule – I, -

against S. No. 25, under the heading "TPPs (units) installed after 1st January, 2003, upto 31st December, 2016", in respect of Oxides of Nitrogen (NOx), for figure and letters "300 mg/Nm^3" in column 4, the figure and letters "450 mg/Nm^3" shall be substituted.

[F. No. Q-15017/40/2007-CPW]

JIGMET TAKPA, Joint Secretary

Note : The principle rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) *vide* number S.O. 844(E), dated the 19th November, 1986 and lastly amended *vide* notification G.S.R. 48(E), dated the 24th January, 2020.

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SURENDER MAHADASAM Digitally signed by SURENDER MAHADASAM Date: 2020.10.22 21:50:05 +05'30'

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0005
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	Bhartiagram	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Chemical Unit I
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	01/03/1992	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	90.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	220.00	250.00	30.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	200.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	01/03/1992

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	5475.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	15.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through in combination of ETP and RO.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1. GW aquifer impact assessment study completed 2. Water audit completed 3. 45 Nos GW recharge structure constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1997.00	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2530	**Issue Date** **निर्गमन तिथि**	05/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0004
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	Bhartiagram	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Chemical Unit I
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	01/03/1992	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	100.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	204.00	230.00	26.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	230.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	01/03/1992

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	5475.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	15.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through in combination of ETP and RO.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1. GW aquifer impact assessment study completed 2. Water audit completed 3. GW recharge structure -45 constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1996.80	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2530	**Issue Date** **निर्गमन तिथि**	05/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0011
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	BHARTIAGRAM	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Chemical Unit II
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	01/04/1994	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	100.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	225.00	250.00	25.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	250.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	01/04/1994

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	6205.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	17.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through in combination of MEE ATFD and Incinerator and RO.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1.GW aquifer impact assessment study completed 2. Water audit completed 3. 42 Nos GW recharge structure constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1996.80	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2531	**Issue Date** **निर्गमन तिथि**	07/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

UPGWD- NOC APPLICATION DETAILS

Unit	Registration No	Application submitted on	Challan No.
Chemical Unit-1	AMRH1120RIN0004	11/4/2020	84938389
	AMRH1120RIN0005	11/4/2020	18164217
Chemical Unit-2	AMRH1120RIN0011	11/4/2020	63424464
Power Plant Unit	AMRH1120RIN0007	11/4/2020	37848751
	AMRH1120RIN0008	11/4/2020	58704655
Distillery Unit	AMRH1120RIN0009	11/4/2020	64308941
	AMRH1120RIN0010	11/4/2020	20438937

Challan amount	Bank Details
5000 5000	SBI, Hasanpur
5000	
5000 5000	
5000 5000	

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0010
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	BHARTIAGRAM	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Distillery Unit
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	15/04/1991	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	100.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	226.00	250.00	24.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	250.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	15/04/1991

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	5110.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	14.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through in combination of RO MEE and slop fired boiler.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1. GW aquifer impact assessment study completed 2. Water audit completed 3. 56 Nos GW recharge structure constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1997.00	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2533	**Issue Date** **निर्गमन तिथि**	19/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0009
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	BHARTIAGRAM	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Distillery Unit
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	15/03/1981	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	100.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	225.00	250.00	25.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	220.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	15/03/1981

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	5475.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	15.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through in combination of RO MEE and slop fired boiler.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1. GW aquifer impact assessment study completed 2. Water audit completed 3. 56 Nos GW recharge structure constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1997.00	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2533	**Issue Date** **निर्गमन तिथि**	19/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0008
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	BHARTIAGRAM	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Power Plant
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	20/04/1994	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	100.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	225.00	250.00	25.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	250.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	20/04/1994

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	5475.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	15.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through RO.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1.GW aquifer impact assessment study completed 2. Water audit completed 3. 52 Nos GW recharge structure constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1997.00	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2529	**Issue Date** **निर्गमन तिथि**	18/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

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

Form 1(B)/फॉर्म 1(बी)

[See rule 6(2)/नियम 6(2) देखें]

APPLICATION FOR REGISTRATION OF WELL
कूप के रजिस्ट्रीकरण हेतु आवेदन पत्र

(Commercial/Industrial/Infrastructural/Bulk user having N.O.C. issued by Central Ground Water Authority or by Ground Water Department)
(वाणिज्यिक/औद्योगिक/अवसंरचनात्मक/सामूहिक उपयोक्ता जिनके पास एन.ओ.सी. केंद्रीय भूगर्भ जल प्राधिकरण या भूगर्भ जल विभाग द्वारा जारी किया गया)

[UIS 10(1) or 11(1) of the Uttar Pradesh Ground Water Management and Regulation Act, 2019.]
[उत्तर प्रदेश भूगर्भ जल प्रबंधन और विनियमन अधिनियम, 2019 का युआईएस 10 (1) या 11 (1)]

Applicant's Details
आवेदक का विवरण

Type of Applicant आवेदक का प्रकार	Behalf of Firm/Company	**Application Number** आवेदन संख्या	AMRH1120RIN0007
Name of the Applicant आवेदक का नाम	Radheshyam Singh	**Father's Name** पिता का नाम	Vakil Singh
Date of Birth जन्मतिथि	10/03/1966	**Gender** लिंग	Male
Nationality राष्ट्रीयता	Indian	**ID as Address Proof** निवास प्रमाण हेतु आईडी	Aadhaar Card
Aadhaar Card Number आधार कार्ड संख्या	9371-2630-3967	**Uploaded Aadhaar Card** अपलोड किया गया आधार कार्ड	Download
House No./Flat No./Building No. मकान सं0/फ़्लैट सं0/भवन सं0	BHARTIAGRAM	**Locality/Village** मुहल्ला/गाँव	GAJRAULA
City/Town/Post Office नगर/कस्बा/पोस्ट ऑफिस	GAJRAULA	**State** राज्य	Uttar Pradesh
District जनपद	Amroha (J.P.Nagar)	**Pin Code** पिन कोड	244223
Designation पद	Site Head	**Company Name** कंपनी का नाम	Jubilant Life Science Ltd. Power Plant
Company Address कंपनी का पता	Bhartiagram, Gajraula	**Authorization Letter** प्राधिकार पत्र	Download

Details of Existing Well
विद्यमान कूप का विवरण

District जनपद	Amroha (J.P.Nagar)	**Block** ब्लॉक	GAJRAULA
Plot No./Khasra No. प्लॉट संख्या/खसरा संख्या	N/A	**Municipality/Municipal Corporation** नगर पालिक/नगर निगम	GAJRAULA
Ward No./Holding No. वॉर्ड संख्या/होल्डिंग संख्या			N/A

Particulars of The Existing Well
विद्यमान कूप का ब्यौरा

Date of Construction/Sinking of Well **कूप की निर्माण तिथि**	20/04/1994	**Type of Well** **कूप का प्रकार**	Tube Well/Boring
Housing Pipe If Any **यदि कोई है**	Yes	**Approx. Length of Housing Pipe (In meter)** **हाउसिंग पाईप की अनुमानित लंबाई (मीटर में)**	100.00
Approx. Diameter of Housing Pipe (mm) **हाउसिंग पाईप का अनुमानित व्यास (मिलीमीटर में)**	300.00	**Material of the Housing Pipe & Blank Pipe** **हाउसिंग पाईप एवं ब्लैंक पाईप की सामग्री**	Iron

Strainer Details
स्ट्रेनर का विवरण

Material of Strainer **स्ट्रेनर की सामग्री**	Iron	**Number of Strainer(s)** **स्ट्रेनर की संख्या**	1

S.No. क्रम संख्या	Strainer Installed at what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई पर स्थापित है (मीटर में)	Strainer Installed upto what Depth from Ground Level (in Meter) स्ट्रेनर, भू-स्तर से कितनी गहराई तक स्थापित है (मीटर में)	Length (In meter) लंबाई (मीटर में)	Diameter (In millimeter) व्यास (मिलीमीटर में)
1	205.00	230.00	25.00	200.00

Approx. Depth of Well (In meter) **कूप की अनुमानित गहराई (मीटर में)**	230.00	**Whether There has been Any Adverse Report Regarding Water Quality of the Well?** **क्या कूप के जल की गुणवत्ता के संबंध में कोई प्रतिकूल रिपोर्ट है?**	No

Details of Existing Pumping Device विद्यमान पंपिंग उपकरण का विवरण

Type of Pump to be Used **प्रयोग किये जाने वाले पंप का प्रकार**	Submersible	**Pump Capacity (In m3/hr)** **पंप क्षमता (m3/hr)**	150.00
Horse Power (H.P.) **हॉर्स पावर (एच.पी.)**		60.00	
Operational Device **परिचालन उपकरण**	Electric Motor	**Date of Energization** **विद्युतीकरण तिथि**	20/04/1994

Details of Utilization of Well
कूप के उपयोग का विवरण

Purpose of the Existing Well **विद्यमान कूप का उद्देश्य?**	Industrial	**Annual Running Hours** **वार्षिक उपयोग (घंटे में)**	5840.00
Daily Running Hours **दैनिक उपयोग (घंटे में)**	16.00	**Whether the Water Supplied in Well Area Through Pipe Water Supply or Not?** **क्या क्षेत्र में जल की आपूर्ति पाइप जलापूर्ति के माध्यम से होती है?**	No
Please Submit Mode of Treatment of Waste Water/Effluent (For Industries) **अपशिष्ट जल की उपचार प्रणाली भरें (उद्योग हेतु)**	The domestic sewage is treated through STP. The Industrial effluent is treated through in combination of RO.	**Please Mention Whether Obtained NOC from Uttar Pradesh Pollution Control Board for Discharge of Effluent/Waste Water or Not?** **कृपया उल्लेख करें कि क्या उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड से अपशिष्ट प्रवाह/अपशिष्ट जल प्रवाह हेतु अनापत्ति प्रमाण पत्र प्राप्त कर लिया गया है अथवा नहीं**	Yes
Upload NOC **अनापत्ति प्रमाणपत्र अपलोड करें**		Download	

Whether Rain Water Harvesting Structure has been Constructed within the Premises? **क्या परिसर में वर्षा जल संचयन संरचना का निर्माण किया गया है?**	Yes	**Any Other Information Which You Would Like to Furnish** **कोई अन्य जानकारी जो आप प्रदान करना चाहते हैं**	1. GW aquifer impact assessment study completed 2. Water audit completed 3. 56 Nos GW recharge structure constructed in village ponds 4. CGWA NOC is deemed renewed 5. No rain water recharge structure in chemical process area 6. Schools adopted for sanitation and rain water recharge
Capacity of Structure, Constructed for Rain Water Harvesting (M^3) **वर्षा जल के संचयन हेतु निर्मित संरचना की क्षमता (मी०^3)**		1997.00	
NOC Issued By: **अनापत्ति प्रमाण पत्र (द्वारा निर्गत)**			
Central Ground Water Authority **केन्द्रीय भूगर्भ जल प्राधिकरण**			Yes
Certificate Number **प्रमाणपत्र संख्या**	IND/ORIG/2017/2529	**Issue Date** **निर्गमन तिथि**	18/04/2017
Expiry Date **अंतिम तिथि**	04/04/2019	**Upload Certificate** **प्रमाणपत्र अपलोड करें**	Download
Ground Water Department Uttar Pradesh **भूगर्भ जल विभाग उत्तर प्रदेश सरकार**			No

Declaration by the Applicant
आवेदक द्वारा उद्घोषणा

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

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

I Agree/मैं सहमत हूं ☑

Meeting No. 55

MINUTES OF MEETING OF NGT OVERSIGHT COMMITTEE, UP LUCKNOW HELD ON 20.08.2020 AT 11-00 A.M IN OA NO. 107 OF 2019 IN RE: SHAH ALAM VS STATE OF UTTAR PRADESH

(ORGANISED WITH THE HELP OF NIC THROUGH VIDEO-CONFERENCING)

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Present: **Hon'ble Mr Justice SVS Rathore, Chairman, and**
Dr Anup Chandra Pandey, Member

Other dignitaries present:

1. Ms Sandeep Kaur, Special Secretary, Horticulture
2. Shri Umesh Mishra, District Magistrate, Amroha
3. Shri Amit Chandra, CEO, UPPCB Lucknow
4. Dr DK Soni, Addl Director, CPCB Lucknow
5. Shri Jagdamba Prasad Maurya, RO, UPPCB Bijnor
6. Dr Jyotsna Pant, Director, Medical and Health
7. Dr Shipra Pandey, Nodal Officer, Health Department
8. Shri Ramesh Ranjan, JMD, Jal Nigam
9. Shri PK Tripathi, CGWA
10. Dr Arvind Kumar Mishra, Krishi Vigyan Kendra, Amroha
11. Addl District Magistrate, Gajraula, District Amroha

The meeting was held as scheduled.

The Hon'ble NGT, vide order dated 01.11.2019 had considered alleged violation of environmental norms by M/s Jubilant group of Industries at Gajraula, District Amroha, U.P and required actions to be taken by statutory regulators, in accordance with law. A joint committee was constituted, comprising representatives of CPCB, UPPCB, Health Department, District Admin., U.PJal Nigam, Horticulture Department and the Krishi Vigyan Kendra, Amroha, which

conducted the inspection and submitted its report to the Hon'bleNGT of 13.09.2019. In its order dated 01.11.2019 the Hon'ble Tribunal observed the following:

1. *None of the units of Jubilant group of Industries in Gajraula Industrial Complex has requisite permission for groundwater extraction but such extraction is continuing in violation of law.*
2. *Captive power plant is not complying with respect to NO2 standards.*
3. *The distillery plant as per the adequacy report of the Joint Committee indicates that the RO and MEE plants are not installed as per the requirements. Further, the compost yard is not maintained as per the guidelines of CPCB and also the compost quality is not ascertained before providing to the farmers.*
4. *The effluents of chemical unit 1 and the polymer unit are collectively treated in a chemical effluent treatment plant and both the units have been consented as Zero Liquid Discharge. The treated effluents from the chemical effluent treatment plant should operate on ZLD system and this effluent may not be consented for utilization for horticulture purpose.*
5. *The 400 KLD of sewage after treatment is utilized for horticulture/agriculture. The treated sewage is not meeting with respect to feacal coliform. After treatment, it can be better utilized for industrial use so to reduce consumption of groundwater.*
6. *We have also observed that there have been several inspections carried out in the past with regard to all the industries and the actions required to be taken are well known. UPPCB has not taken any action to ensure compliance nor imposed environment compensation so far. As regulatory body, entrusted with statutory functions, has thus failed in its duty so far.*
7. *Though we have yet not issued notice to the units in question which is to be considered in the light of action of the statutory authorities, Shri Sanjay Upadhyay, Advocate sought to appear for the industrial units to submit that once applications are filed for permission to extract groundwater, extraction of groundwater cannot held to be illegal. We are unable to accept this submission. As held by this Tribunal on several occasions, extraction of groundwater in semi critical, critical and over exploited areas is required to*

be regulated in view of judgment of the Hon'ble Supreme Court in M.C Mehta Vs. Union of India (1997) 11 SCC 312. The report notes that the area in question has deteriorated from semi-critical to overexploited. In such a situation, while extraction of groundwater for drinking purposes may stand on different footing, there is no absolute right for such extraction for industrial purposes. Such extraction may lead to further deterioration of limited groundwater resource depriving the inhabitants of access to drinking water. The contention is thus rejected. We refrain from dealing with the merits of further remedial action which is yet to be taken by the statutory authorities after giving opportunities to the units in question in accordance with law except that in the light of facts found further action needs to be taken and report furnished to this Tribunal."

On 31.10.2019 SPCB has issued show-cause notice to the unit and imposed an EC of 6,19,00,000 for various environmental violations except the illegal withdrawal of groundwater. The State PCB on 30.10.2019 issued a show-cause notice to the unit along with levying of environmental compensation of 9.84 Cr for illegal drawl of groundwater.

The Oversight Committee reviewed the progress of implementation of NGT orders in the light of the above on 20.8.2020. The compliance received during the meeting is as follows:

A. Dr. D. K. Soni Addl Director, CPCB, Lucknow informed that they have submitted their written compliance report to the Hon'bleNGT on 16.06.2020. Summary of brief facts as per their compliance report are as follows:
    1. Pursuant to NGT orders dated 03.07.2019 inspection of the unit was carried out on July 17-18, 2019 by a Joint Team and inspection report filed before NGT on 13.09.2019.
    2. Hon'ble NGT directed on 01.11.2019 filing of further ATR within 2 months.
    3. The ATR was filed on 28.01.2019 which was considered by NGT on 05.02.2020. It was mentioned therein that compensation of Rs 6.19 crore was assessed for various violations. It was also pointed out before NGT that State PCB had

calculated compensation of Rs 9.84 Crore for illegal drawl of groundwater, for which opportunity of hearing was given to the unit. In view of the above NGT on 05.02.2020 directed further action to be taken and a joint report of CPCB and SPCB to be filed.

4. CPCB issued directions under Section 18(1) of Water Act 1974 to SPCB for issuing directions for compliance of recommendations of Joint inspection report including recovery of Rs 6.19 crore, statutory action as per their show cause notice dated 30.10.2019 along with levy of EC of Rs 9.84 crores and appropriate legal actions including closure and prosecution in respect of non-complying Distillery Unit. CPCB had forwarded the request of the unit to represent personally to SPCB on 10.06.2020 for appropriate action. SPCB was asked to furnish their ATR in 15 days.
5. UPPCB issued closure directions dated 03.06.2020 under Section 33(A) of Water Act 1974 to the unit and levied EC of Rs 9.84 Crores for illegal extraction of Ground Water and EC of Rs 6.19 Crores for violation of environmental norms. In the closure order, it was mentioned that the slop boiler was under maintenance, pipeline to carry spent wash to bio-composting yard was found broken at many places and spent wash was found discharged at the nearby fields and drain along the railway line which is in violation of consent conditions. Also, concrete lining of the lagoon A and Lagoon B was not done as recommended in the inspection report of the inspection undertaken on 17.07.2019 and 18.07.2019.
6. UPPCB vide their letter dated 11.06.2020 disposed the representation of the unit which was forwarded to them by CPCB on 10.6.20 and directed the unit to comply with the closure directions.
7. Further, the unit had filed a writ petition in the high court of judicature at Allahabad i.e. Civil Misc. Writ Petition (Diary No. 10515 of 2020) (under article 226 of Constitution of India), M/s Jubilant Life Sciences Limited (Distillery Unit), Gajraula, Amroha, Uttar Pradesh-244223 Vs. Central Ground Water Authority of India and 03 Ors. With prayer to pass an ad-interim stay order on UPPCB's closure notice dated 03.06.2020 levying environmental compensation as well as

the sealing order of UPPCB dated 06.06.2020. No stay has been given yet by the Hon'ble High court, Allahabad.

B. The representative from UPPCB informed that they have inspected the unit on 23.06.2020, 30.06.2020 and 18.08.2020. During the inspection, unit was found compliant on the issues raised in the report of Joint committee. In the letter issued by UPPCB on 30.06.2020, they have conditionally revoked the closure order on the unit. The conditions are as follows:

1. The water consent is restored till 31.12.2020 subject to limit for groundwater extraction as 125 KL/day. The industry can run on full capacity post 15.07.2020 once the slop boiler l becomes functional. The unit shall also inform UPPCB before starting full-scale production.
2. The unit shall pay the complete EC within 2 months. In violation of the order, the closure orders will automatically become operative voiding the conditional permission to function.
3. The collected spent wash in the unit shall never be more than 17800 MT in any condition.
4. The unit shall take permission to withdraw groundwater from CGWA and present the same to the UPPCB failing which the unit will be closed and EC will be imposed on it.
5. All the recommendations given by Joint Committee constituted by the Hon'ble NGT in OA 107/2019 shall be followed by the unit.

C. The representative from CGWA mentioned that the consent for drawl of underground water lapsed on 04.04.2019. The unit has applied for renewal. So far no decision has been taken by their Head Office in this regard. He also mentioned that they have so far not assessed any penalty for illegal drawl of groundwater as directed by NGT.

The Oversight Committee examined the matter in the light of above averments. The Unit has so far not paid EC of Rs 6.19 Crores for violation of environmental conditions, nor has it paid EC of Rs 9.84 Crores for illegal drawl of groundwater without CGWA permission. It has also not obtained CGWA permission for groundwater drawl so far. Pendency of application with CGWA cannot be treated as their consent. We have also gone through the order of SPCB dated 30.06.2020 regarding conditional restoration. It needs further clarification that the restoration will be effective from the date these conditions have been fulfilled. The fulfillment can be verified by a Joint inspection of CPCB and SPCB. The Hon'ble NGT also had directed that a joint report of CPCB and SPCB may be filed. The plea of CPCB as expressed in their letter dated 18.08.2020 declining to conduct the joint inspection of the unit on the ground that the case is subjudice in High Court does not appear to be acceptable as there is no stay on inspection. CPCB and SPCB may be directed to conduct a joint inspection once the unit has complied with the conditions as mentioned in the conditional revocation order of SPCB dated 30.08.2020. In the meanwhile, CGWA may be directed to consider all relevant factors and decide on the groundwater permission issue in the light of Supreme Court and NGT orders on the subject.

20-08-2020

X Anup Chandra Pandey

Dr Anup Chandra Pandey
Member, Oversight Committee
Signed by: ANUP CHANDRA PANDEY

20-08-2020

X SVS Rathore

Justice SVS Rathore
Chairman, Oversight Committee
Signed by: SURENDRA VIKRAM SINGH RATHORE

August 20, 2020

Please visit our website: ***oscngt.upsdc.gov.in*** for more information.

Meeting No. 68

MINUTES OF MEETING OF NGT OVERSIGHT COMMITTEE, UP LUCKNOW HELD ON 02.11.2020 AT 03-00 P.M IN OA NO. 107 OF 2019 IN RE: SHAH ALAM VS STATE OF UTTAR PRADESH (THROUGH VIDEO-CONFERENCING)

***

Present: Hon'ble Mr Justice SVS Rathore, Chairman, and Dr Anup Chandra Pandey, Member

Other dignitaries present:

1. Dr. D. K. Soni, Additional Director CPCB
2. Shri Girish Arya UPPCB
3. Shri Atulesh Yadav, Environment Engineer UPPCB
4. Dr. A. K. Tripathi, CPCB
5. Shri P. K. Tripathi, CGWA
6. Shri V. K. Upadhyay, SGWA
7. Shri Jagdamba Prasad Maurya, RO Moradabad UPPCB
8. Shri N. K. Jain, Representative of Jubilant group of Industries
9. Shri Anant Pande Representative of Jubilant group of Industries
10. Shri G. K. Raman, Representative of Jubilant group of Industries

The meeting held as scheduled.

The Oversight Committee reviewed the progress of implementation of Hon'ble NGT's order dated 26.08.2020 in **OA No. 107 of 2019** in re: *Shah Alam vs State of UP.*

The Committee had called representatives from Central Pollution Control Board, State Pollution Control Board, Central Ground Water Authority and State Ground Water Authority besides the representatives of M/s Jubilant Group of Industries. At the outset, it was made clear to the representatives of the Units that this Committee is not a forum for providing hearing in regard to the orders passed by Hon'ble NGT. This Committee is only a forum to monitor implementation of the

Hon'ble NGT's orders and the Unit had been called specifically to ensure proper and timely implementation of the NGT's orders.

1. Hon'ble NGT vide its order dated 26.08.2020 had directed that the State Pollution Control Board needs to take further prompt action of not allowing the activities of the Unit unless assessed compensation is paid and further remedial action is taken in the light of the Central Pollution Control Board and the Oversight Committee report. It was brought to the notice of the Oversight Committee that State Pollution Control Board had conditionally revoked the closure order dated 30.06.2020 despite the Unit not depositing the Environmental Compensation of Rs 6.19 crore and Rs 9.84 crore respectively. The State Pollution Control Board was asked to inform the Oversight Committee in writing as to how despite the orders of the Hon'ble NGT for not allowing the activities of the Unit until payment of assessed compensation, the Unit had been allowed to function.

2. Hon'ble NGT had also directed that the Central Pollution Control Board and the State Pollution Control Board may conduct the joint inspection of the Unit and file a compliance report. The Central Pollution Control Board mentioned that the joint inspection had been conducted on 16.09.2020 and the report is under preparation. The Central Pollution Control Board was directed by the Oversight Committee to finalise the report immediately and send it to Hon'ble NGT with a copy to the Oversight Committee.

3. Hon'ble NGT had directed the State Pollution Control Board to modify its conditional revocation order dated 30.06.2020 to the effect that the restoration will be effective from the date the conditions have been fulfilled and fulfilment of these conditions would be verified by a joint inspection of Central Pollution Control Board and State Pollution Control Board. However, the State Pollution Control Board has not modified its order dated 30.06.2020. The State Pollution Control Board was asked to modify its order as per Hon'ble NGT's directions.

4. CGWA was directed by Hon'ble NGT to consider all relevant factors and decide on the ground water permission issue in the light of orders of Hon'ble Supreme Court and Hon'ble NGT. CGWA officers mentioned that they have come out with guidelines dated 24.09.2020 and the matter of renewal of content was being considered under these guide-lines. They have mentioned that these guidelines would be applicable only to the case where State Government has not formed their own Ground Water Authority. Director, State Ground Water Board Shri Upadhyay confirmed that there was a meeting held last week under the Principal Secretary, Ground Water and it has been decided in that meeting that after 10th of October, 2020, all the cases of NoC would be dealt with by the State Ground Water Authority. Accordingly, CGWA has given the list of the cases to the State Ground Water Authority. Director, State Ground Water Board has mentioned that the Unit will have to apply afresh to them alongwith all the documents so that they can proceed in the issue of NoC. He also mentioned that there is a deeming provision under their guide-lines whereby the decision of NoC has to be taken within thirty (30) days of receipt of complete application failing which the renewal shall be deemed to have been given. The officers of the Unit were directed to send the relevant papers to State Ground Water Authority to enable them to take a decision regarding groundwater NoC in a time-bound manner. The Oversight Committee also directed the Director, State Ground Water Board to send copies of the guide-lines and relevant GOs on the subject to the Oversight Committee so that it can examine them in the light of NGT directions.

5. The officers of the industry mentioned that they had complied with all the directions of Hon'ble NGT. Their reply to the questionnaire given to them by the Oversight Committee is enclosed herewith as Annexure-1. As per the information provided the total consumption of water by the unit during the month of Jan to Sep 2020 was 1896763 Kl. The industry is using groundwater as source of fresh water aswell as they are treating their waste water and recycling their water to reuse it. However, the unit is not using any treated water from the nearby drains or sourcing treated water from any municipality. The industry has adopted and constructed 259

Rain Water Harvesting Structures (RWHS) within the premises as well as in the nearby villages. The capacity of each RWHS is 500 CuM/day. The industry has also taken initiatives to reduce their fresh groundwater extraction by collecting rainfall runoff from manufacturing plants area and reuse it during monsoon season. Also in future they plan to source treated sewage water from Gajraula municipality as and when STP is installed for sewage treatment. In the industry at major points of water extraction and consumption water meters have been installed to measure their consumption. The industry had also carried an EIA study in 2013 through MoEF&CC accredited consultant i.e. M/s EQMS Consultants, New Delhi. The industry has implemented all the observations made by Hon'ble NGT which was inspected in the joint inspection of UPPCB and CPCB on 16.09.2020..

6. The Oversight Committee mentioned that the Joint Committee of CPCB and SPCB had done a detailed technical inspection and submitted its report dated 13.09.2019. Various violations had been mentioned in detail in Hon'ble NGT's order dated 05.02.2020. The officers of M/s Jubilant Group of Industries mentioned that they had complied with all 52 points raised by the Joint Committee and the compliance is complete. While listening to their compliance, the Committee directed them to file written compliance of these pointed violations separately. The pointwise compliance of industry with regard to the violations mentioned in the order of Hon'ble NGT. The distillery unit was kept closed for over 90 days and was operational under capacity for the period of July and August to handle the rainwater/leachates. The industry concentrated the rainwater leachates in MEE and consumed it. Also, they are adhering to the guidelines for storing spentwash. They are adhering to the SOP for maintaining <50% moisture in windrows and storing the lagoon sludge in covered bio composting shed. They are also complying with the guidelines for Distiller, stipulating minimum 60% vol. reduction and >30% solids. The Air pollution Control Systems and OCEMS have been installed and connected to the CPCB and UPPCB. The industry is maintaining their records and submitting a quarterly report to the UPPCB on regular basis. They are obtaining 8-10 Cycle of Concentration (COC)

based on the process requirements. The industry is using the treated sewage for campus green belt management and had stopped the use of treated effluents for horticulture.The reply of M/s Jubilant Group of Industries pointwise on the violations mentioned by the Hon'ble NGT is enclosed herewith as Annexure-2. In another representation they have mentioned that they have constructed >200 village ponds over 15000 Km^2. The UPPCB had issued a Show cause notice vide letter dated 30/10/2019 with a direction to deposit Rs. 30 Lakhs as EC. The industry had paid the said amount on 30/12/2019. Further in compliance to the EC imposed of Rs 6.19 Cr. The industry had paid Rs. 70 Lakh on 28/09/2020.

- M/s Jubilant Group of Industries made a representation seeking personal hearing against EC imposed on them on the ground that they were complying with all the conditions. However it was made clear to them that Oversight Committee is not the forum for hearing and they have been called to ensure compliance of NGT Order.

7. The Oversight Committee directed CPCB and SPCB to send their joint inspection report to Hon'ble NGT with a copy to the Oversight Committee at the earliest and also consider the technical reply of the Unit as mentioned in **Annexures-1 and 2** and send a report on them to Hon'ble NGT with a copy to the Oversight Committee.

02-11-2020	02-11-2020
X Anup Chandra Pandey	X SVS Rathore
Dr Anup Chandra Pandey Member, Oversight Committee Signed by: ANUP CHANDRA PANDEY	Justice SVS Rathore Chairman, Oversight Committee Signed by: SURENDRA VIKRAM SINGH RATHORE

Nov 02, 2020

Annexures: As above

Please visit our website: ***oscngt.upsdc.gov.in*** for more information.

Annexure 1

Questionnaire regarding OA No. 107/2019 for Industry:

1. What is the total water consumption of all the units? Provide the details industry-wise.

   Response: The total water consumption of the Unit along with Unit wise bifurcation for the Period Jan'20 to Sept'20 is as follows:

Unit wise Water consumption (Jan'20 to Sept'20)

Jan'20 to Sept'20	Unit Name : Water consumption (KL)						Total (KL)
	Chemical unit-1	Chemical Unit-2	Distillery Unit	Power plant Unit	Polymer Unit	Fertilizer Unit	
Jan-20	51128	25508	77699	64501	8538	2469	**229843**
Feb-20	46385	14783	62598	68114	3037	2305	**197222**
Mar-20	51620	17816	54691	65299	5423	3632	**198481**
Apr-20	48846	16196	60797	72546	8438	3351	**210174**
May-20	55487	28725	79432	83813	4593	3947	**255997**
Jun-20	52301	29521	65279	59118	5402	5044	**216665**
Jul-20	51787	18590	59028	53852	4643	6765	**194665**
Aug-20	41018	23158	64510	57740	5978	4068	**196472**
Sep-20	33420	20042	59851	75353	5578	3000	**197244**
Total (KL)	**431992**	**194339**	**583885**	**600336**	**51630**	**34581**	**1896763**

2. Total production at each unit?

   Response: The total production from Jan-Sept. 2020 at each unit is as per following table:

Unit Name	Total production Jan'20 to Sept'20	Unit of Production
Jubilant Life Sciences Limited		
Chemical Unit-1	1,13,588.99	MT
Chemical Unit-2	26,422.070	MT

Distillery Unit	21,011.73	KL
Power Plant	1,13,161	MWH
Jubilant Agro Consumer Products Limited		
Polymer Unit	8,265.67	MT
Fertilizer Unit	1,76,035.29	MT

3. What is the water utilisation break from different sources i.e. Surface water, Groundwater, and Reuse of treated water?

   Response: The fresh source of water is **Groundwater.** Details of fresh water consumption and recycle/reuse is given below:

Unit Name	**Jan-Sept 2020**			
	Total Water Consumption KL	**Fresh Water Consumption KL**	**Recycling /Reuse water KL**	**% Recycle /Reuse water**
Jan-20	329132	229843	99289	30.2%
Feb-20	309560	197222	112338	36.3%
Mar-20	318198	198481	119717	37.6%
Apr-20	319090	210174	108916	34.1%
May-20	373598	255997	117601	31.5%
Jun-20	311411	216665	94746	30.4%
Jul-20	276690	194665	82025	29.6%
Aug-20	287405	196472	90933	31.6%
Sept-20	298516	197244	101272	33.9%

4. Are they using water from nearby drains? If yes, how much and how?

Response: No.

5. What is the current status of rain water harvesting? Had any inspection being done for the rain water harvesting system? What is the efficiency of the rain water harvesting system? Whether it is fully functional?

   Response: Rainwater harvesting for ground water recharge is constructed inside the company property as well in village ponds adopted from the local government. The details of theRWH structures are as below:

Details	**Total number of RWH structures.**	**Remarks**
Within Premises	5	Photographs are attached below.

Chemical Unit-1	45	Unitwise List of RWHstructure is attached below.
Chemical Unit-2	42	
Distillery Unit	56	
Power Plant	52	
Polymer Unit	9	
Fertilizer Unit	50	
Total	259	

Jubilant Life Sciences Limited, Gajraula

RWH Structures within Premises

Near Time Office Gate

Back side of Director bungalow – Colony

Outside Canteen

Back Side of Guest House

Near B-13 and B-14 Block Colony

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Chemical Unit - 1)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	9	Koural	28°59'08.27"	78°20'46.73"	4050	19190.9	Chemical Unit-1
2	18	Afjalpur Loot	28°53'16.8"	78°18'17.8"	5790	28226.3	Chemical Unit-1
3	19	Lambia	28°54'19.8"	78°16'55.8"	7890	30771.0	Chemical Unit-1
4	22	Kumrala	28°50'19.4"	78°12'24.7"	5140	30069.0	Chemical Unit-1
5	28	Kirwakhera	28°55'28.5"	78°18'03.7"	40720	238212.0	Chemical Unit-1
6	34	Chachela Kala	28°59'57.70"	78°15'41.98"	11040	64584.0	Chemical Unit-1
7	75	Sultan Thar	28°47'15.91"	78°13'04.81"	4500	13338.0	Chemical Unit-1
8	86	Jalalpur Kalan	28°50'41.29"	78°19'27.14"	5880	34398.0	Chemical Unit-1
9	105	Dhakiya Bhoor	28 53 13.01	78 15 13.07	11490	36969.1	Chemical Unit-1
10	106	Chandarpur Khadar	28 33 39.87	78 16 43.79	4250	10773.8	Chemical Unit-1
11	115	Chohadpur/Salarpur	78°17'03.24"	28°49'47.92"	2350	12418.6	Chemical Unit-1
12	117	Dhanori Mafi I	78°33'40.91"	28°81'44.93"	4780	27963.0	Chemical Unit-1
13	2	Moharka	28°48'19.21"	78°11'08.23"	2080	12168.0	Chemical Unit-1
14	3	Moharka	28°48'19.33"	78°11'05.12"	1880	10998.0	Chemical Unit-1
15	178	Mohraka	28°49'18.48"	78°11'16.7892"	1380	8073.0	Chemical Unit-1
16	180	Mohraka	28°48'52.56"	78°11'25.7244"	1040	6084.0	Chemical Unit-1
17	12	Shahpur Farrapura	28°50'45.09"	78°29'08.79"	13190	77161.5	Chemical Unit-1
18	34	Patni Kalsa	28°48'26.31"	78°33'41.11"	17250	100912.5	Chemical Unit-1
19	234	Haiwatpur Banjara	28°42'47.52"	78°20'1.44"	3600	21060.0	Chemical Unit-1
20	233	Haiwatpur Banjara	28°42'57.24"	78°19'26.23"	2430	14215.5	Chemical Unit-1
21	185	Daudpur Jageer	28°42'42.12"	78°20'1.38"	2630	15385.5	Chemical Unit-1
22	184	Daudpur Jageer	28°40'36.12"	78°21'8.65"	1650	9652.5	Chemical Unit-1
23	186	Daudpur Jageer	28°42'40.68"	78°19'41.5128"	14200	83070.0	Chemical Unit-1
24	187	Telipura Khalsa	28°46'7.32"	78°23'12.63"	7710	45103.5	Chemical Unit-1
25	188	Telipura Khalsa	28°46'10.56"	78°22'57.44"	10400	60840.0	Chemical Unit-1
26	189	Ghozipura	28°46'58.44"	78°22'31.84"	1900	11115.0	Chemical Unit-1
27	198	Sevda	28°39'20.16"	78°27'59.37"	6080	35568.0	Chemical Unit-1
28	203	Rajha	28°41'44.88"	78°29'10.31"	13590	79501.5	Chemical Unit-1
29	205	Ainchora Kamboh	28°41'58.20"	78°28'08.82"	4080	23868.0	Chemical Unit-1
30	206	Ainchora Kamboh	28°41'52.44"	78°28'32.88"	4330	25330.5	Chemical Unit-1
31	207	Ainchora Kamboh	28°42'22.68"	78°28'17.77"	2350	13747.5	Chemical Unit-1
32	208	Ainchora Kamboh	28°42'31.68"	78°28'28.02"	3040	17784.0	Chemical Unit-1
33	210	Nekroli	28°43'12.72"	78°28'32.99"	6070	35509.5	Chemical Unit-1
34	211	Nekroli	28°43'12.36"	78°28'32.08"	5140	30069.0	Chemical Unit-1
35	209	Nekroli	28°43'28.92"	78°28'29.7228"	10190	59611.5	Chemical Unit-1
36	213	Aitmadpur Bhatpura	28°43'18.84"	78°29'44.26"	3120	18252.0	Chemical Unit-1
37	214	Ekrotiya	28°42'12.24"	78°30'46.86"	5470	31999.5	Chemical Unit-1
38	219	Kurkawali	28°37'21.00"	78°30'15.33"	5260	30771.0	Chemical Unit-1
39	220	Kurkawali	28°37'26.76"	78°30'15.96"	4500	26325.0	Chemical Unit-1
40	221	Kurkawali	28°38'04.92"	78°30'58.89"	2750	16087.5	Chemical Unit-1
41	166	Basaratnga	29°02'40.32"	78°28'18.20"	12590	73651.5	Chemical Unit-1
42	181	Tokra	28°51'48.6"	78°10'48.6588"	3400	19890.0	Chemical Unit-1
43	182	Tokra	28°51'46.8"	78°10'47.4096"	1780	10413.0	Chemical Unit-1
44	215	Manni Khera	28°38'35.16"	78°25'33.78"	5470	31999.5	Chemical Unit-1
45	217	Manni Khera	28°38'27.24"	78°26'35.60"	8370	48964.5	Chemical Unit-1
					Total	1652095.6	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Chemical Unit - 2)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	3	Koural	28°58'41.67"	78°20'37.65"	8410	49198.5	Chemical Unit-2
2	8	Koural	28°59'19.17"	78°20'49.68"	7450	39079.0	Chemical Unit-2
3	534	Rajehda Bahadurpur	28° 43' 42.090" N	78° 21' 30.024" E	12750	57183.8	Chemical Unit-2
4	53	Dhakka	28°41'51.13"	78°22'54.13"	6340	37089.0	Chemical Unit-2
5	64	Katai	28°48'42.87"	78°17'29.60"	8900	49114.7	Chemical Unit-2
6	83	Kuda Mafi	28°57'10.13"	78°20'47.28"	24890	117941.3	Chemical Unit-2
7	72	Agrola Kala	28°45'58.55"	78°14'10.61"	15000	87750.0	Chemical Unit-2
8	116	Aalampur	78°28'12.21"	28°79'53.11"	4080	23868.0	Chemical Unit-2
9	117d	Dhanori Mafi IV	78°33'36.93"	28°81'76.02"	400	2340.0	Chemical Unit-2
10	119	Fhattepur sumali/ Chitra I	78°24'04.94"	28°89'82.10"	3760	21996.0	Chemical Unit-2
11	120	Salempur	78°24'73.15"	28°87'28.41"	3360	13979.3	Chemical Unit-2
12	222	Bhartal Sirsi	28°36'07.56"	78°30'24.55"	4250	24862.5	Chemical Unit-2
13	223	Bhartal Sirsi	28°36'01.44"	78°30'32.14"	4780	27963.0	Chemical Unit-2
14	224	Bhartal Sirsi	28°36'06.12"	78°29'33.61"	4620	27027.0	Chemical Unit-2
15	225	Khagupura	28°36'23.40"	78°31'43.27"	6920	40482.0	Chemical Unit-2
16	236	Dahpa	28°38'30.60"	78°27'24.43"	8090	47326.5	Chemical Unit-2
17	237	Dahpa	28°38'28.14"	78°26'59.27"	6920	40482.0	Chemical Unit-2
18	238	Dahpa	28°38'34.80"	78°26'49.20"	3930	22990.5	Chemical Unit-2
19	239	Dahpa	28°38'48.66"	78°27'12.40"	3760	21996.0	Chemical Unit-2
20	240	Dahpa	28°38'54.44"	78°27'02.43"	2550	14917.5	Chemical Unit-2
21	241	Dahpa	28°38'48.14"	78°26'56.78"	1240	7254.0	Chemical Unit-2
22	90	Rudayan	28°30'02.90"	78°29'37.15"	7710	45103.5	Chemical Unit-2
23	227	Mehrana	28°34'44.76"N	78°27'3.09"E	3280	19188.0	Chemical Unit-2
24	228	Mehrana	28°34'9.84"N	78°28'0.11"E	1090	6376.5	Chemical Unit-2
25	229	Sujadpur	28°34'45.59"N	78°28'4.37"E	1300	7605.0	Chemical Unit-2
26	230	Sujadpur	28°34'36.12"N	78°28'9.70"E	2900	16965.0	Chemical Unit-2
27	231	Sujadpur	28°34'9.84"N	78°28'0.36"E	2830	16555.5	Chemical Unit-2
28	104	Sirsa Kumar	28°54'38.91"	78°31'50.26"	7570	44284.5	Chemical Unit-2
29	149	Imaliya	29°03'53.14"	78°17'55.95"	11630	68035.5	Chemical Unit-2
30	162	Adalpur Samdoo	29°02'26.30"	78°26'03.91"	7200	42120.0	Chemical Unit-2
31	317	Sakatpur	28°44'14.8554"	78°30'25.2354"	20420	119457.0	Chemical Unit-2
32	319	Isapur Shumali/ Musslepur	28°56'54.24"	78°16'42.456"	5300	31005.0	Chemical Unit-2
33	320	Isapur Shumali/ Musslepur	28°56'27.6"	78°15'44.5572"	9260	54171.0	Chemical Unit-2
34	322	Halpura	28°55'44.04"	78°19'52.9176"	6190	36211.5	Chemical Unit-2
35	326	Pheena	29°4'12"	78°21'15.3072"	4810	28138.5	Chemical Unit-2
36	327	Pheena	29°4'1.92"	78°21'19.1772"	6830	39955.5	Chemical Unit-2
37	334	Pali ki Mandaiya	28°38'54.6432"	78°29'54.9996"	9200	53820.0	Chemical Unit-2
38	335	Pali ki Mandaiya	28°38'21.9732"	78°29'38.3604"	6770	39604.5	Chemical Unit-2
39	336	Daudpur Jageer	28°42'47.52"	78°20'1.4316"	2630	15385.5	Chemical Unit-2
40	337	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0	Chemical Unit-2
41	360	Itala mafi	28°47'56.50"	78°38'22.15"	26400	154440.0	Chemical Unit-2
42	398	Barahi/Mohammadpur	28°40'12.85"	78°38'39.35"	45200	264420.0	Chemical Unit-2
					Total	**1915590.5**	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Distillery Unit)

S. No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	1	Koural	28°58'12.56"	78°20'19.28"	9060	53001.0	Distillery
2	4	Koural	28°58'41.55"	78°20'37.60"	17890	104656.5	Distillery
3	6	Koural	28°58'37.33"	78°21'08.52"	9630	56335.5	Distillery
4	10	Rahamapur Khasla	28°48'21.84"	78°18'56.55"	12830	75055.5	Distillery
5	11	Sadarpur	28°48'16.51"	78°19'48.62"	13310	77863.5	Distillery
6	24	Soharka	28°44'33.9"	78°14'54.5"	4700	27495.0	Distillery
7	26	Gangeshwari	28°33'14.2"	78°16'51.4"	5950	34807.5	Distillery
8	33	Mohammadabad	28°46'31.98"	78°09'55.62"	11700	45630.0	Distillery
9	36	Chuchela Kala	29°00'01.03"	78°16'09.54"	6280	29757.8	Distillery
10	39	Chuchela Kala	29°00'21.89"	78°16'41.45"	5100	29835.0	Distillery
11	42	Neeli Kheri	29°01'44.44"	78°13'50.48"	4660	19355.3	Distillery
12	43	Neeli Kheri	29°01'35.99"	78°13'41.66"	4050	16979.6	Distillery
13	56	Faiyaj Nagar	28°49'33.48"	78°23'29.96"	6070	35509.5	Distillery
14	57	Faiyaj Nagar	28°49'36.52"	78°23'42.57"	5060	23976.8	Distillery
15	65	Katai	28°48'45.93"	78°17'27.85"	12460	59041.7	Distillery
16	68	Katai	28°48'26.68"	78°17'12.41"	10520	61542.0	Distillery
17	87	Jihal	28°44'35.25"	78°24'14.65"	8220	48087.0	Distillery
18	489	Nagalia	28°52'0.87"	78°10'47.47"	10040	58734.0	Distillery
19	97	Chandarpur Khadar	28°33'47.30"	78°17'32.86"	28530	158555.5	Distillery
20	114	Nawada	78°15'42.13"	28°49'20.38"	4010	19001.4	Distillery
21	117b	Dhamori Mafi II	78°32'81.26"	28°81'03.53"	1170	6844.5	Distillery
22	117c	Dhamori Mafi III	78°33'34.39"	28°81'84.77"	490	2866.5	Distillery
23	118	Phattepur sumali/ Chitra I	78°24'66.90"	28°90'88.02"	9390	54931.5	Distillery
24	216	Manni Khera	28°38'6.72"	78°25'55.9668"	7350	42997.5	Distillery
25	232	Rajpura	28°41'48.48"	78°21'25.6788"	2060	12051.0	Distillery
26	235	Tuklabad	28°45'31.68"	78°24'50.2524"	1980	11583.0	Distillery
27	242	Asmoli	28°42'2.16"	78°31'44.8716"	4860	28431.0	Distillery
28	251	Hasanpur	28°48'4.9968"	78°35'29.8104"	9160	53586.0	Distillery
29	253	Hatwa	28°49'11.28"	78°30'15.0624"	1460	8541.0	Distillery
30	254	Hatwa	28°49'14.16"	78°30'12.096"	1340	7839.0	Distillery
31	255	Fasgari (Hatwa)	28°49'14.16"	78°30'12.1104"	1250	7312.5	Distillery
32	258	Bhikampur Mundha	28°47'29.76"	78°31'9.84"	3360	19656.0	Distillery
33	259	Bhikampur Mundha	28°47'7.8"	78°30'58.5324"	7290	42646.5	Distillery
34	260	Bhikampur Mundha	28°47'13.2"	78°30'58.0716"	2020	11817.0	Distillery
35	261	Bhikampur Mundha	28°47'13.56"	78°30'57.2364"	1300	7605.0	Distillery
36	262	Bhikampur Mundha	28°46'58.08"	78°30'59.472"	1630	9535.5	Distillery
37	263	Bhikampur Mundha	28°47'4.56"	78°30'58.3128"	6720	39312.0	Distillery
38	264	Tikiya	28°48'30.96"	78°30'5.6376"	4050	23692.5	Distillery
39	266	Dulepur band urf Darapur	28°45'5.2056"	78°30'21.1752"	8250	48262.5	Distillery
40	280	Emliya	29°3'55.08"	78°17'54.5928"	10120	59202.0	Distillery
41	281	Emliya	29°4'13.44"	78°17'42.198"	12650	74002.5	Distillery
42	282	Sarakthal	29°3'24.12"	78°20'1.0824"	5310	31063.5	Distillery
43	288	Bhudan pur Bilayat Nagar	28°49'5.16"	78°34'10.6824"	4290	25096.5	Distillery
44	290	Dhaki	28°59'30.48"	78°36'1.6488"	12990	75991.5	Distillery
45	292	Jamuna Khas	29°2'11.4"	78°29'20.1408"	6680	39078.0	Distillery
46	298	Adalpur Samdoo	29°2'48.48"	78°26'20.76"	7210	42178.5	Distillery
47	303	Haripur Milak	28°43'58.5078"	78°27'56.5344"	6960	40716.0	Distillery
48	306	Gyanpur Sisona	28°54'52.9194"	78°19'6.7902"	16680	97578.0	Distillery
49	307	Gyanpur Sisona	28°55'37.1994"	78°19'26.8356"	4700	27495.0	Distillery
50	308	Gyanpur Sisona	28°55'38.2794"	78°19'54.159"	6520	38142.0	Distillery
51	309	Gyanpur Sisona	28°55'44.0394"	78°19'52.9176"	4130	24160.5	Distillery
52	310	Gyanpur Sisona	28°55'16.6794"	78°37'4.4538"	4500	26325.0	Distillery
53	311	Gyanpur Sisona	28°58'50.1594"	78°24'57.7296"	6230	36445.5	Distillery
54	312	Kathna	28°40'57.9354"	78°26'19.734"	4520	26442.0	Distillery
55	313	Chittawali	28°42'20.0772"	77°46'15.7686"	8740	51129.0	Distillery
56	314	Chittawali	28°41'40.5378"	77°46'3.8676"	3720	21762.0	Distillery
					Total	**2211538.1**	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Power Plant)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	16	Hoshangpur	28°51'47.7"	78°17'52.8"	4820	28197.0	Power Plant
2	17	Nagalia	28°52'10.9"	78°18'01.7"	5180	30303.0	Power Plant
3	25	Karanpur Mafi	28°44'23.1"	78°18'41.1"	19790	115771.5	Power Plant
4	501	Shakhpur Jakri	28° 43' 56.712" N	78° 19' 3.936" E	33570	196384.5	Power Plant
5	30	Berkhera	29°00'02.3"	78°11'49.5"	5790	33871.5	Power Plant
6	31	Sujnana	28°56'53.0"	78°10'04.0"	10800	63180.0	Power Plant
7	38	Chuchela Kala	29°00'35.55"	78°16'36.58"	5300	31005.0	Power Plant
8	54	Galsua	28°41'13.32"	78°21'53.46"	22780	133263.0	Power Plant
9	88	Bartora	28°34'16.13"	78°14'31.88"	4170	11384.1	Power Plant
10	71	Agrola Kala	28°46'10.82"	78°14'07.96"	38500	225225.0	Power Plant
11	503	Rajheda Bahadurpur	28° 45' 28.332" N	78° 20' 23.964" E	12340	72189.0	Power Plant
12	535	Rajheda Bahadurpur	28° 45' 36.216" N	78° 20' 48.66" E	17000	99450.0	Power Plant
13	323	Patni Kalsa	28°48'5.04"	78°34'28.7256"	4500	26325.0	Power Plant
14	325	Kailsa	28°52'4.44"	78°33'32.7564"	7980	46683.0	Power Plant
15	478	Kadarpur Masti	28°40'29.7624"	78°44'45.564"	6360	37206.0	Power Plant
16	479	Kadarpur Masti	28°40'48.5364"	78°44'35.7"	27680	161928.0	Power Plant
17	480	Harthala	28°42'41.04"	78°35'26.1996"	11520	67392.0	Power Plant
18	481	Harthala	28°42'20.52"	78°36'4.0032"	13470	78799.5	Power Plant
19	482	Harthala	28°42'17.64"	78°36'9.6228"	11640	68094.0	Power Plant
20	483	Harthala	28°41'1.68"	78°36'39.9996"	14410	84298.5	Power Plant
21	481	Sisota Milak	28°42'20.52"	78°36'4.0032"	8740	51129.0	Power Plant
22	482	Tanda	28°48'8.73"	78°18'8.064"	8740	51129.0	Power Plant
23	483	Karanpurmafi	28°44'23.7192"	78°18'40.932"	19790	115771.5	Power Plant
24	492	Sisli Jagir	28°48'1.7352"	78°16'32.736"	7330	42880.5	Power Plant
25	497	Chakori	28°44'7.2312"	78°20'31.65"	9790	57271.5	Power Plant
26	499	Seikhpur Jhakri	28°43'58.9656"	78°19'2.82"	6640	38844.0	Power Plant
27	504	Rajheda	28°45'35.0388"	78°20'47.9904"	17000	99450.0	Power Plant
28	505	Rajheda	28°45'42.5916"	78°21'29.844"	12750	74587.5	Power Plant
29	506	Brahmawnad	28°42'14.4432"	78°21'26.928"	14000	81900.0	Power Plant
30	508	Badhramla	28°35'34.0872"	78°28'0.084"	6150	35977.5	Power Plant
31	509	Badhramla	28°35'31.8228"	78°28'0.5772"	6720	39312.0	Power Plant
32	27	Rahra	28°32'04.09"	78°18'51.1"	4290	25096.5	Power Plant
33	32	Rahra	28°31'44.41"	78°19'01.08"	11970	70024.5	Power Plant
34	510	Lakhori Jalalpur	28°35'27.9888"	78°29'37.2588"	20920	122382.0	Power Plant
35	511	Lakhori Jalalpur	28°35'7.7532"	78°30'11.7"	12750	74587.5	Power Plant
36	512	Lakhori Jalalpur	28°34'58.3896"	78°29'31.7652"	13960	81666.0	Power Plant
37	513	Lakhori Jalalpur	28°35'39.1128"	78°29'39.8112"	10800	63180.0	Power Plant
38	514	Bhatola	28°33'36.3276"	78°29'4.0524"	8090	47326.5	Power Plant
39	515	Bhatola	28°32'54.8808"	78°28'10.3296"	6560	38376.0	Power Plant
40	516	Jujhalachak	28°59'14.3376"	78°12'2.844"	10720	62712.0	Power Plant
41	517	Chandnagar	28°52'24.4596"	78°22'20.0568"	7090	41476.5	Power Plant
42	518	Chandnagar	28°52'28.29"	78°22'35.22"	7050	41242.5	Power Plant
43	519	Chandnagar	28°52'34.2984"	78°22'58.6452"	7170	41944.5	Power Plant
44	520	Chandnagar	28°52'16.8312"	78°22'44.0076"	6760	39546.0	Power Plant
45	521	Meleniya	28°57'9.3132"	78°17'19.3884"	9000	52650.0	Power Plant
46	523	Sirsa Kumar	28°54'38.91"	78°31'50.26"	7570	44284.5	Power Plant
47	524	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0	Power Plant
48	525	Hakampur	28°38'7.4292"	78°16'11.676"	9380	54873.0	Power Plant
49	526	Ambera	29°15'49.179"	78°17'15.1182"	6410	37498.5	Power Plant
50	527	Ambera	29°15'20.6886"	78°16'38.8102"	6450	37732.5	Power Plant
51	494	Bhadora	29°40'20.6886"	78°16'56.82"	5470	31999.5	Power Plant
52	495	Bhadora	29°41'18.6886"	78°18'50.46"	4660	27261	Power Plant
					Total	3372969.6	

Jubilant Agri & Consumer Products,Gajraula

Details of Recharge Structure Constructed for Over- Exploited Condition (Polymer Unit)						
S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	Sarkari Azeez	28.8264030	78.4509320	5870.0	35220.0	Polymer Unit
2	Mirpur	28.8258880	78.3128810	4490.0	26940.0	Polymer Unit
3	Karmallipur	28.8638190	78.1978600	5630.0	28177.6	Polymer Unit
4	Karmallipur	28.8647170	78.2001200	2470.0	12362.1	Polymer Unit
5	Redra	28.8699870	78.1893600	5350.0	26776.2	Polymer Unit
6	Redra	28.8674470	78.1928300	5550.0	27777.2	Polymer Unit
7	Nangalia	28.8659340	78.1803360	4980.0	24924.4	Polymer Unit
8	Bhadora	28.7211800	78.3702850	4660.0	23322.8	Polymer Unit
9	Bhadora	28.7077710	78.3761440	4290.0	21471.0	Polymer Unit
10	Bhadora	28.7211800	78.3702850	4660.0	23322.8	Polymer Unit
11	Bhadora	28.7077710	78.3761440	4290.0	21471.0	Polymer Unit
12	Bhadora	28.7152800	78.3604900	5470.0	27376.8	Polymer Unit

Jubilant Agri & Consumer Products,Gajraula						
Details of Recharge Structure Constructed for Over- Exploited Condition (Fertilizer Unit)						
S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	Sahvajpur Door	28.8053680	78.2085250	15300.0	91800.0	Fertilizer Unit
2	Atali Muridpur	28.8238320	78.2976330	14780.0	88680.0	Fertilizer Unit
3	Faundapur	28.8464250	78.2639570	7120.0	42720.0	Fertilizer Unit
4	Khalakpur Khurd	28.8801960	78.4337450	7140.0	42840.0	Fertilizer Unit
5	Dhera Nikat	28.735.984	78.3931550	5050.0	30300.0	Fertilizer Unit
6	Seetala sarai	28.5326710	78.3963330	2750.0	16500.0	Fertilizer Unit
7	Dhawarsi	28.5791450	78.3861910	8300.0	49800.0	Fertilizer Unit
8	Nanhera	28.5140480	78.3431080	2790.0	13963.7	Fertilizer Unit
9	Maleshiya	29.0259090	78.1814390	5790.0	28978.4	Fertilizer Unit
10	Maleshiya	29.0259110	78.1814320	3040.0	15214.9	Fertilizer Unit
11	Dhaki	28.5930.48	78.36'1.6488	2910.0	14564.3	Fertilizer Unit
12	Sarakthal	29.324.12	78.20'1.0824"	3670.0	18368.0	Fertilizer Unit
13	Gajasthal	28.9806	78.4160364	5060	25324.794	Fertilizer Unit
14	Baserataga	29.02.40.32	78.28.18.20	7460	37336.554	Fertilizer Unit
15	Baserataga	29.02.40.39	78.28.18.36	6400	32031.36	Fertilizer Unit
16	Baserataga	29.02.40.28	78.28.18.39	13280	66465.072	Fertilizer Unit
17	Baserataga	29.02.40.48	78.28.18.35	7460	37336.554	Fertilizer Unit
18	Daurala	28.9147	78.31855271	3680	18418.032	Fertilizer Unit
19	Arola mafi / petiyamafi	28.8061	78.61368957	5020	25124.598	Fertilizer Unit
20	Arola mafi / petiyamafi	28.8037	78.61097037	2500	12512.25	Fertilizer Unit
21	Shiwala	29.0428	78.37020472	3950	19769.355	Fertilizer Unit
22	Brahmawaad	28.710979	78.339912	5710	28577.979	Fertilizer Unit
23	Akbarpur Sihali	28.9995	78.5792	3320	16616.268	Fertilizer Unit
24	Rudayan	28.3002.70	78.2937.30	4170	20870.433	Fertilizer Unit
25	Rudayan	28.3002.85	78.2937.45	3720	18618.228	Fertilizer Unit
26	Bhudan pur Bilayat Naga	28.4953	78.3410.68	3680	18418.032	Fertilizer Unit
27	Sondhan Mohmmadpur	28.5259	78.4427736	4160	20820.384	Fertilizer Unit
28	Sondhan Mohmmadpur	28.5305	78.43788376	2790	13963.671	Fertilizer Unit
29	Bakaina	29.0433	78.49610127	5470	27376.803	Fertilizer Unit
30	Haripur Milak	28.4358.5078	78.2756.5344	4160	20820.384	Fertilizer Unit
31	Haripur Milak	28.4358.5029	78.2756.5370	2790	13963.671	Fertilizer Unit
32	Qutibpur Sakta	28.7292	78.4965	4240	21220.776	Fertilizer Unit
33	Pali ki Mandaiya	28.3854.6460	78.2954.9955	4880	24423.912	Fertilizer Unit
34	Karmallipur	28.863819	78.19786	5630	28177.587	Fertilizer Unit
35	Karmallipur	28.864717	78.20012	2470	12362.103	Fertilizer Unit
36	Redra	28.869987	78.18936	5350	26776.215	Fertilizer Unit
37	Redra	28.867447	78.19283	5550	27777.195	Fertilizer Unit
38	Sehra	28.902397	78.465042	2630	13162.887	Fertilizer Unit
39	Seikhpur Jhakri	28.720451	78.32558	4330	21671.217	Fertilizer Unit
40	Seikhpur Jhakri	28.72416	78.31943	4050	20269.845	Fertilizer Unit
41	Nangalia	28.865934	78.180336	4980	24924.402	Fertilizer Unit
42	Jujhela	29.0471	78.356694	3160	15815.484	Fertilizer Unit
43	Shawabaaz Pur	29.0473	78.304939	3200	16015.68	Fertilizer Unit
44	Burawali	28.6135	78.2811	5630	28177.587	Fertilizer Unit
45	Seikhpur Jhakri	28.435668	78.19398	3200	16015.68	Fertilizer Unit
46	Nangalia	28.5204	78.10479	2510	12562.299	Fertilizer Unit
47	Gajasthal	28.9806002	78.4160364	3640	18217.836	Fertilizer Unit

Each rainwater harvesting structure is designed for a recharge capacity of about 500 CuM/day. The recharge structures are inspected and cleaned to remove silt and/or replace with fresh filter media if required, every year prior to monsoon.

The rain water Harvesting Structures were inspected by the office of the Regional Director, CGWB, Lucknow in May 2019 during the NOC renewal and the NoC renewal was recommended to CGWA New Delhi.

6. Is there any agency providing water to the unit?
   Response: No

7. Is there any development or planning to reduce the overall water consumption in the Industry? If any, please elaborate.

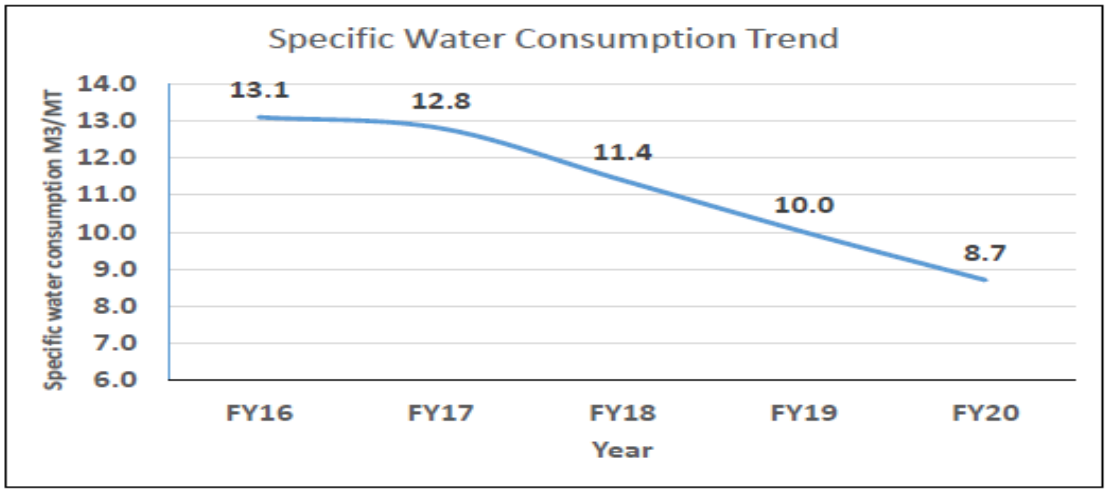
   Response: Yes, reduction of water consumption has always been our top most priority. Our specific water consumption trend is attached as figure below that shows decreasing trend in terms of year wise specific water consumption.

   Further, additional initiatives are being implemented for reduction in fresh ground water extraction through:

   1. Collection of rainwater runoff from manufacturing plant areaand reuse during monsoon season.
   2. Sourcing treated sewage from Gajraula municipality as and when STP is installed for sewage treatment,which is presently discharged to Bagad or Oxidation ponds.

Specific Water Consumption trend (FY16-FY20)

For the integrated Captive coal power, Molasses Distillery and Chemical manufacturing complex of M/s Jubilant Life Sciences Limited, Gajraula.



8. Has the water meters being installed in the Industry? If yes, what is the monitoring mechanism and standardisation process being followed?

Response: Yes. Water meters are installed for every ground water extraction well and supply to major consumption points in every unit. The water consumption is metered and records are maintained through daily logbooks/Registers.

The major points of water meter installed are,

1. Water Extraction at each Borewells,
2. Water consumption points,
3. Water recycling/reuse,
   a) RO permeates,
   b) Evaporator Condensate
   c) Treated Sewage Water

Periodic calibration of each meter is carried out by instrumentation department through a Calibration bench setup in-house with tractability from National Physical Laboratory.

9. Had any EIA being conducted for the industry? If any, please provide the details.

Response: Yes. Environment Impact Assessment studies was conducted through MoEF& CC accredited consultants in 2013 for Expansion project for our industry (Synthetic organic chemical) carried by M/s EQMS Consultants, New Delhi for seeking Environment Clearance.

Further, ground water extraction impact assessment study was carried out by M/s NEER, Ghaziabad in June'2020, for all our unitsfor assessing the impact of Ground Water Extraction and was submitted to CGWA in June 2020.

10. What is the future plan of industry to work as per the NGT orders? Has any planning and progress being done to run industry as per the standards laid down by different applicable statutes and also the directions given by Hon'ble NGT:

Response:All observations and recommendations made by the Joint Inspection team of the NGT in the OA No. 107 of 2019 have been implemented and duly verified by the Joint Inspection team in Sept 2020 Re-inspection.

All units are operating in compliance to the standards laid down by different applicable statutes and the directions given by the Hon'ble NGT.

11. Please also attach the photographs wherever it is helpful with the compliance report?

Response: The pointwise compliance to the JIT recommendations along with Photographs showing implementation of the actions recommended by the JIT is attached in **Annexure-1.1**

Annexure 1

Compliance to the Recommendation of Joint Inspection Team visit Dt. 17th -19th July 2019 in the matter of O.A. No. 107/2019 Shah Alam Vs Govt of UP

Point No	NGT Joint Inspection Team Recommendation (17th -19th July 2019)	Status as on 16.09.2020
i.	The unit shall stop its distillery manufacturing process till compliance of the directions issued.	**Complied**. The Distillery unit stopped for Over 90 days during and post monsoon to handle the large volumes of rainwater leachates generated from unprecedented rainfall. Further, it was also was operated at lower capacities for many days. The production data during 01/07/2019 to 31/08/2020 is attached.
ii.	The unit shall consume the already stored spent wash through further concentration for use in the incinerator.	**Complied**. The stored concentrated spent wash diluted with rainwater leachates was concentrated in MEE and consumed.
iii.	The unit shall recycle the stored spent wash from the old ash pond to ensure that no traces of spent wash remain in ash pond.	**Complied**. The spent wash leachate was stored in Old Ash Pond was transferred to Lagoon 28A and further to MEE for concentration and treatment. Rehabilitation of the old ash pond with green belt has been commenced with plantation of 300 tree samplings in 2020 **Photographs of Old pond is attached.**
iv.	The unit shall restrict its storage capacity of concentrated spent wash up to 17800 m3 including 07 days for incinerator and 30 days for bio-composting separately by dismantling (filling /levelling the additional storage capacity of the lagoon within 30 days.	**Complied.** The storage capacity for Spent wash is adhered as per guidelines as 17800m3. Out of two parts of Lagoon 28 (28A and 28B), One-part Lagoon 28A is filled and levelled with Earth/Ash. **Photograph of backfilled Lagoon 28A is attached**.
v.	The unit has made partition in the lagoon by filling it with soil and made two lagoons i.e., Lagoon 'A' and Lagoon 'B'. The unit shall line up the area by using concrete.	

Old Ash Pond

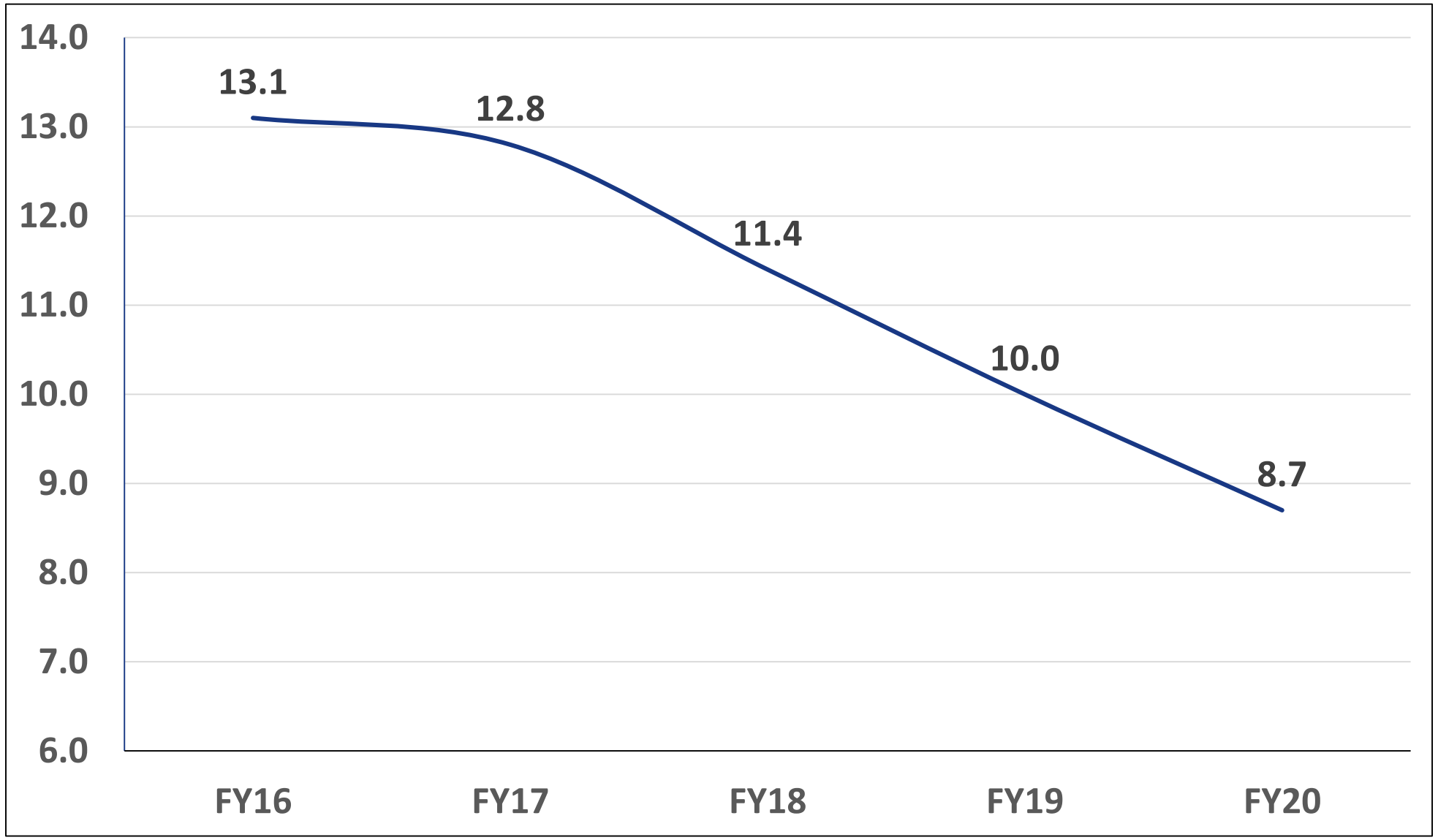
Lagoon 28 A Backfilled

Point No	Recommendation	Status as on 16.09.2020
vi.	To maintain the quality of concentrated spent wash for efficient use in bio composting as well as in incineration the unit shall operate its MEE uniformly.	**Complied.** MEE is operated as per requirement of slop and Bio-composting for reduction in Spent Wash volume by 60% and minimum solids 30% suitable for biocomposting and incineration. Monthly details submitted through NGRBA report.
vii	To avoid the situation of generation of diluted spent, the unit shall restrict the use of excess spent wash in Bio-compost area	**Complied.** The dilute spent wash generation witnessed was due to rainwater ingress from covered shed damaged due to turbulent winds and incessant rains. The SOP for maintaining <50% moisture in windrow is strictly maintained.
viii.	The unit shall stop storage of the lagoon sludge in open area and shall use the sludge directly in bio composting.	**Complied.** The lagoon sludge is stored in covered Bio composting shed and used in Bio composting. Rehabilitation of the sludge storage yard with green belt has been commenced with plantation of 200 tree samplings in 2020 Details of area used for Sludge storage , press mud storage and Bio compost is attached. **Photographs attached.**
ix.	After recycling the stored spent wash from the ash pond, the unit shall dismantle the pipelines for carrying the spent wash to the ash ponds.	**Complied.** The Pipeline has been dismantled.

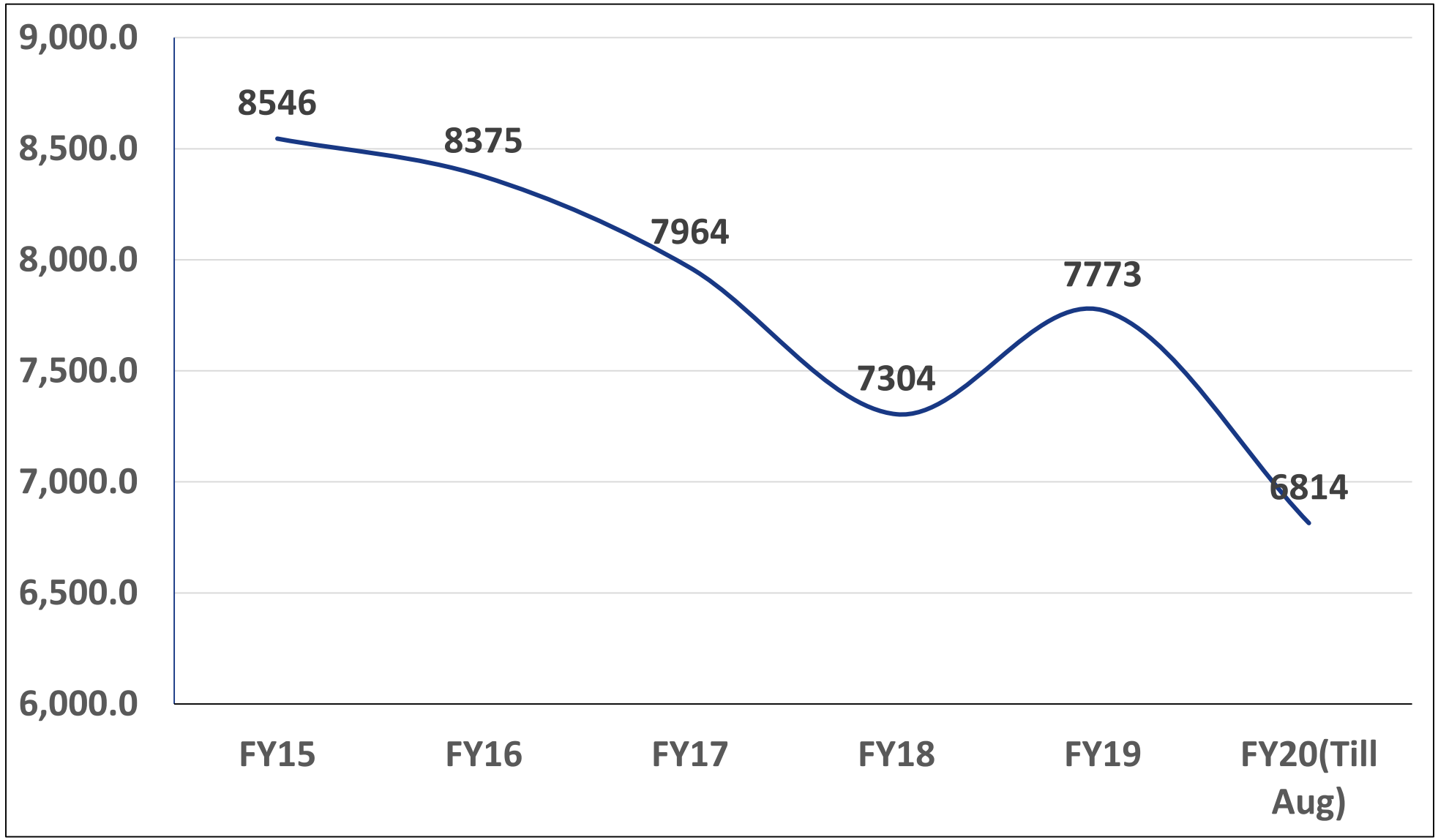
Dismantled Sludge Storage Yard

Point No	Recommendation	Status as on 16.09.2020
x.	The unit shall implement the requisite facility as per suggestion of the water audit report so that detailed study may be carried out to reduce the withdrawal of the ground.	**Complied**. Ground Water extraction for the entire complex has been reducing continuously through different water conservation projects, trend since 2014-15 as attached
xi.	To avoid contamination of the ground water with coloured effluent the unit shall close down the rain water harvesting system at bio-composting site.	**Complied**. Rain water harvesting pit in Bio compost area is filled with Soil and rehabilitated with green belt. **Photographs is attached**.
xii.	The unit shall stop bio-composting during rainy season as the covered bio-compost yard was damaged.	**Complied**. The Bio compost operations were stopped and damaged covered shed were repaired before commencement of bio compost operation.
xiii	The unit shall take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production.	The recommendation is not feasible due to atmospheric distillation technology installed in the 1980's and 1900's. Also, this will require changes in the entire effluent treatment system including Bio Methanation, RO & MEE due to increased solid concentration. We have voluntarily reduced the Spent wash from design norms of 11.7 KL/KL norms of 9.13 KL/KL spent for year 2018-19 and 8.76 Kl/KL for FY 2019-20.

Fresh Water Specific Consumption Trend, M3/MT



Ground Water withdrawal Trend, M3/Day



BackFilled rainwater Harvesting Structure at Biocompost Area

Point No	Recommendation	Status as on 16.09.2020
xiv	The unit shall install additional system to improve the quality of CPU permeate. As per the analysis result, CPU RO Permeate have pH-9.48, COD-2083 mg/l and BOD 1078 mg/l is being utilized in cooling tower, which may not be appropriate at such high pH.	**Complied**. pH is maintained between 7.5 and 8.0 before end use in cooling tower. The operation parameters are technically viable and have been in practice since 24 months. No operational issue or environmental impact encountered due to the practice. We request for exemption from this direction.
xv	The unit shall set up proper and separate systems for concentration of spent wash up to 45 % solids and up to 30 % solids for incineration and for bio-composting respectively.	Complied The unit is in compliance to the guidelines for Distillery, stipulating minimum 60% volume reduction and >30% solids.

Point No	Recommendation	Status as on 16.09.2020
i.	The unit shall maintain and operate Air Pollution Control Systems (ESP) on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.	**Complied** • Requisite APCS are installed and are operating satisfactorily to meet the emission norms. • OCEMS is installed and connected to CPCB and UPPCB.
ii	The unit shall submit time bound action plan for augmentation / retrofitting of ESP.	**Completed**. • ESP of standby 34 TPH & 25 TPH MP Boilers are Replaced during FY-2019. • Monthly compliance report is being submitted to Chairman, CPCB.
iii	The unit shall submit the ambient air quality report and stack report of all the air pollution sources from MOEF&CC authorized laboratory on quarterly basis.	**Complied**. • Report is being regularly submitted to UPPCB as stipulated in the consent.
iv	To avoid additional ash disposal on ash pond, the unit shall ensure and increase the disposal of fly ash as per the agreement.	**Complied** Entire fly ash generated is supplied to Shree Cement/Ultra tech Cement as per the agreement. Ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation. Agreement with Cement companies are provided as Annexure
v	The unit shall keep and maintain Ash generation as well as disposal record.	**Complied** Records are maintained. A quarterly report is being submitted to UPPCB on regular basis. A Copy of report is provided as Annexure.

Pt. No.	Recommendation	Status as on 16.09.2020
i.	The unit shall install meter on all fresh 'water consumption and effluent recycling points.	**Complied**. All important fresh water consumption and effluent recycling points are metered and monitored on daily basis. The log book is maintained for the same.
ii	The unit shall calibrate and maintain records of all existing meters periodically.	**Complied** Calibration bench is installed to calibrate the existing meters with traceable source from National Physical Laboratory and calibration started. Copy of calibration certificate are provided during visit.
iii	The unit shall replace the existing turbine type water flow meters on bore wells with digital magnetic flow meters.	**Complied**. **Magnetic flowmeters are in place on all bore wells since 2017.** The daily water meter reading is also being recorded. Copy of water consumption details provided during visit. Also photographs of each water meter was taken in presence of Company representative.
iv	The unit shall send all domestic waste water generated from plant and colony to STP and metering at STP inlet shall be done.	**Complied**. **Magnetic flow meter were in place at inlet and outlet of STP since** 2017 photographs of inlet and outlet meters was taken in presence of Company representative.
v	The unit shall obtain NOCs for withdrawal of groundwater from CGWA at earliest as NOCs already expired on 04.04.2019.	**As per Gazette S.O. 3289(E) issued on 24.09.2020 on Guidelines to regulate and control ground water extraction in India, the renewal of NOC is deemed approved from the date of its expiry**. • Renewal application to CGWA was filed through Manual filing on 04.01.2019 and online on Dt. 28.02.2019. • CGWB Lucknow inspection done Dt. 03.05.2019 to 08.05.2019 and have found us in full compliance. • The CGWB Lucknow forwarded the recommendation for grant of NOC to CGWA New Delhi on Dt. 26.11.2019. • The NoC renewal is pending before the CGWA New Delhi, citing restriction imposed by the NGT

Water meter at Bore wells

Bore well No. - 7

Bore well No. - 8

Magnetic Flow meter at STP Inlet and Outlet

STP Inlet

STP Outlet

CGWB Lucknow recommendation to CGWA New Delhi.

CGWB Lucknow forwarded our recommendation for grant of NOC to CGWA New Delhi.

Speed Post/ Registered
21-4/1181/REN/UP/IND/2016 - 3496
Government of India
Ministry of Water Resources, RD & GR
Central Ground Water Board, NR
Bhujal Bhawan, Sector 'B'
Sitapur Road Yojna, Aliganj
Lucknow 226021
Phone: 0522 – 2363812 Fax: 2732478
Dated: 26 NOV 2019

To,

The Member Secretary
Central Ground Water Authority
Ministry of water Resources, RD & GR
18/11, Jamngar House,
Mansingh Road, New Delhi,
110011.

Sub: Renewal of Ground Water Clearance in respect of M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh-Reg.

Ref: Online Application No: 21-4/1181/REN/UP/IND/2016 dated 28/02/2019.

Sir,

Kindly refer to online application No. 21-4/1181/UP/IND/2016 dated 28/02/2019 for renewal of NOC, received from M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh for ground water abstraction for **2,918 m3/day** i.e. **10,65,070 m3/year,** Which has been examined and is recommended. The hardcopy of duly filled online evaluation proforma and copy of proposal is also being submitted for necessary action. This application has been processed in reference to NGT order dated 1.11.2019 in O.A. No. 107/2019.

Encl. As above

Yours Sincerely

(Y B Kaushik)
Regional Director

Copy to:

M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh 244223

Point No	Recommendation	Status as on 16.09.2020
vi.	The unit shall take measures for reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.	**Complied**. The COC is obtained at its highest level 8-10, based on the process requirement. Further the CT Blow Down is recovered through RO thus reducing fresh water consumption. Also, Fresh water conservation is achieved through recycling of treated effluent RO Permeate and MEE condensate towards achieving ZLD.
vii	The unit may reduce the quantity of makeup water used in each Cooling Tower by increasing Cycle of Concentration (COC).	
viii	The unit may make efforts for reduction in steam consumption and effluent generation thereby reducing fresh water consumption.	
ix	The unit shall provide Rain Water Harvesting system in non-process areas for water conservation.	**5 nos. of Rainwater Harvesting structures already provided in non processing area** since 2017. The same is verified by CGWA during inspection.

Rain Water Harvesting Structure in Non-Process Area

Near Time Office Gate

Outside of Canteen

Back side of Director bungalow – Colony

Back Side Of Guest House

Near B-13 and B-14 Block Colony

Point No	Recommendation	Status as on 16.09.2020
i.	The unit shall immediately stop the spray of RO reject on ash for dust suppression.	**Complied** • The RO reject use for dust suppression during ash handling is stopped.
ii	The unit shall set up the incinerator facility to achieve ZLD.	• As Coal storage yard fire quenching water requirement is met with RO reject, no incinerator is proposed for ZLD. • There is no environment damage established with the practice, instead fresh water is conserved. • We may kindly be exempted from implementing this recommendation.
Chemical Effluent Treatment Plant (CETP)		
i.	The unit shall stop discharge of effluent for horticulture purposes and the entire effluent shall be recycle/reuse in process or cooling tower.	**Complied**. Treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant (CTBDRO). The permeate is reused in cooling tower makeup. The same is verified during visit.
Common Cooling Tower Reverse Osmosis Plant (CTRO)		
i.	The unit shall install a dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard and make spray arrangement exclusively for using this effluent.	**Complied.** A dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard is provided. **The photograph of metering arrangement is attached.**

Flow Meter at RO Reject Line

M/s Jubilant Life Sciences Ltd. , Stack Emission Monitoring Results

Point No	Recommendation	Status as on 16.09.2020
Stack Emission Monitoring Results		
i	The unit shall maintain the wet scrubber periodically to restrict SO2 emission within the prescribed norms. To evaluate the performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied.** The wet scrubber was being maintained and its stack has been regularly being monitored through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.
ii	To restrict the NOx emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied**. As bed height is level control is rigorously monitored and maintained as a measure for NOx control. Regular stack monitoring is being done through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.

Point No	M/S Jubilant Life Sciences Ltd., Distillery unit	Status as on 16.09.2020
i.	The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke [heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes	**Complied**. Well designed Fire fighting system is available around the storage of incinerable hazardous wastes area. Following fire fighting arrangements are at place which is sufficient for addressing any fire incident :- • Monitors (For water sprinkling arrangement) – 5 Nos.; Alarm system (MCP) – 1 No.; Hydrant Point - 4 Nos.; Hose box with hoses – 2 Nos. • Safety Shower – 1 Nos.; Emergency display board with communication system – 1 No.; Dedicated storage of 7000 KL fire water ;Company owned fire tenders – 2 Nos.; Fire crew - 26 firemen
ii	The unit shall sell caustic lye along with other hazardous waste generated by the unit only to the authorized utilizer/recycler; and shall maintain records and manifest document as required under Rule 9 of the HOWM Rules, 2016	**Complied.** End user have all necessary permissions.
iii	The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit	**Complied.** The display board is installed since 2016. Photographs attached.
iv	The unit shall maintain date wise record of leachate generated from captive SLF.	**Complied.** Record of leachate generation and disposal is maintained.

Fire fighting arrangements around hazardous waste storage area

Display board displaying details of hazardous wastes

Display board displaying details of hazardous wastes being handled

Display board displaying details of hazardous wastes

Online Digital Display Board at main gate

Point No	NGT Observation on 05/02/2020	Compliance Status
i	The effluents of chemical unit I and the polymer unit are collectively treated in a chemical effluent treatment plant and both the units have been consented as Zero Liquid Discharge. The treated effluents from the chemical effluent treatment plant should operate on ZLD system and this effluent may not be consented for utilization for horticulture purpose.	**Complied**. • Treated effluent was used for horticulture was as per consent condition and is now stopped. • The treated ETP water is reused in cooling tower makeup after recovery in an RO
ii	The 400 KID of sewage after treatment is utilized for horticulture/agriculture. The treated sewage is not meeting with respect to faecal coliform. After treatment, it can be better utilized for industrial use so to reduce consumption of ground water.	• The treated sewage is analyzed on regular basis by MoEF & CC approved lab and all the results including E-coli found with in limit. • Treated sewage is used for campus green belt management and thus is a Water conservation measure to reduce ground water extraction.

THANK YOU

Annexure 2

1) In compliance to the order of the Hon'bleNGT Dt. 05/02/2020, Para 5, the Unit was to be provided an opportunity of being heard in terms of the principles of natural justice. Accordingly, we have made as many as 3 requests/representations to MS, Central Pollution Control Board ("CPCB") and multiple representations to MS, UP Pollution Control Board ("UPPCB") seeking personal hearing to make our submissions on the observations and recommendations made by the JIT. However, we await to be heard yet.

2) The Joint Inspection Team had made various recommendations from their visit to our site during 17-19 Aug 2019. A pointwise compliance report was submitted to your good office along with the questionnaire vide email on 25/10/2020 as Annexure 5. From the same you would find that we have duly complied with almost all the recommendations of the JIT and await the report of the JIT's re-inspection/verification visit Dt. 16/09/2020.

3) We have been making representation to the UPPCB and CPCB on the observations and the recommendations of the JIT, as below, that need re-consideration and for which we have been seeking personal hearing before the JIT.

i. The JIT, in its report from the visit, has not established any impact caused to Environment nor has established any crop failure to the Mango orchard of the Complainant Mr. Shah Alam.

ii. The report of the JIT has many observation and recommendation that lacks technical feasibility and statutorily basis/validity, which can be explained again and corrected only by granting an opportunity of being heard to us, as detailed below.

iii. The EC of Rs. 6.19 Crore has been incorrectly calculated, both in terms of the factors considered as well the period of violation, if any, and the following considerations.

a) UPPCB, as our environmental regulator, has vide letter Dt. 30/10/2019 issued a Showcause notice with a direction to deposit Rs. 30 lakhs as Environmental Compensation. We complied with the direction and deposited the said amount on 30/12/2019.

b) However, the CPCB submitted to the Hon'bleNGT during the hearing Dt.05/02/2020 that the EC is assessed as Rs, 6.19 Crore.

c) The basis of EC calculation as accessed from the reports submitted to the Ho'bleNGT is in large deviation from the guidelines of the CPCB for assessment of EC and is therefore over estimated and incorrect.

d) We have already deposited an additional amount of Rs.70 Lakh on 28/09/2020, making the total EC deposited = Rs. 1 crore, in protest, and have requested for personal hearing to make our submissions.

We have been requesting the CPCB for a hearing to put forth our submission and await an opportunity. In view of the above submission, we humbly request that the Rs. 6.19 Cr EC imposed is not warranted, and needs to be withdrawn/cancelled.

4) With regards to the renewal of the Central Ground Water Authority ("CGWA") NoC for ground water extraction that expired on 04/04/2019 and the Rs.9.84 Crore imposed as Environmental clearance for illegal ground water extraction, we would like to submit that:

i. The CGWA (MoWR) has notified the guidelines for grant of NoC for ground water extraction and the said notification has provided for deemed approval from the date of expiry of NoC, on timely submission of renewal application.

ii. The CGWALucknow inspected our Unit in May 2019 and submitting its supporting recommendation to the CGWA New Delhi in October, 2019.

iii. Accordingly, our renewal applications are now deemed approved.

Notwithstanding the above, even when the NoC renewal was pending before the CGWA, we have constructed artificial recharge structures in >200 village ponds over 15,000 Sq Km area around our unit in May 2019 and thus has helped in augmenting the ground water resources through the monsoon season of 2019 and 2020. The list of all the recharge structures constructed in the village ponds are as in Enclosure 1.

iv. Further, the UP Ground Water Authority ("UPGWA") has constituted the UP Ground Water Rules 2019 for regulation of ground water extraction and has issued the guidelines.

v. As informed by the UPGWB officials during the hearing of the Hon'ble Over-Site committee on 02/11/2020, the online registration of Ground

water extraction structures has commenced and would be processed by the UPGWA for grant of NoC from 10/11/2020.

vi. We have filed the application before the UPGWA for grant of NoC. We are herewith enclosing the Ground Water Aquifer Impact Assessment Report (Enclosure 2) and the Water Audit of our plants (Enclosure 3) undertaken at our unit for your ready reference.

In view of the above submission, we humbly request that the Rs. 9.84 Cr EC imposed is not warranted, and needs to be withdrawn/cancelled.

5) The Visit of the Joint inspection team Dt. 17-19 July 2019 was preceded by a force majeure incident of excessive rains of about 260 mm, as in the table below, accompanied with turbulent winds damaging the Covered Sheds of Biocomposting yard. In such an event, the Distillery unit has not let any contaminated water from the Biocompost yard to run away into the River Bagad or anywater body to environment and instead collected it within the available areas like the Lagoon 28, Old ash pond and the Open Biocompost yard (12 Acres) and depleted it through ZLD facilities over a period of time by stopping the distillery operations or operating at much lower capacity.

The effort that was made in the interest of Environment though, the JIT has recorded multiple observations and recommendations as intentional violation to environmental norms, without due acknowledgement of the voluntary efforts even during force Majeure.

Date	Rainfall, mm
05.07.2019	40
09.07.2019	50
10.07.2019	30
11.07.2019	40
15.07.2019	70
16.07.2019	30
Total	**260**

6) The JIT has listed the operation of Distillery Slop boiler at capacity below 11.5 KL/Hr as a violation of Environment condition is based on the original design capacity in 2009. However, since the CPCB issued guidelines for ZLD of distillery in 2015 the operating parameters have changed and we have voluntarily amended our Consent to Operate from 11.5 KL/Hr to 8.0 KL/Hr and also distillery consent from 305

KLD to 183 KLD to comply with the new guidelines and further that operating a facility with lower capacity is not a violation under any environmental law.

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration.

7) The JIT has made an observation that ***"the unit shall set up proper and separate systems for concentration of spent wash up to 45 % solids and up to 30 % solids for incineration and for bio-composting respectively"*** and has recorded it as Environmental violation. We would like to submit that this is beyond the statute as the CPCB guidelines for ZLD of distillery Dt.07/12/2015 stipulates only Volume reduction by 60% and minimum Solids as 30% (Enclosure 4).

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration.

8) The JIT has made an observation "***the unit shall take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production***" and has recorded it as Environmental violation. We would like to submit that this is beyond the statute as the CPCB guidelines for ZLD of distillery Dt. 07/12/2015 does not mandatorily imposes this and is an option for the industry which was not opted by us (Enclosure 4).

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration

9) The JIT has made an observation that "***the unit shall install additional system to improve the quality of CPU permeate. As per the analysis result, CPU RO Permeate have pH-9.48, COD-2083 mg/l and BOD 1078 mg/l is being utilized in cooling tower, which may not be appropriate at such high pH****"* and has recorded it as Environmental violation. We would like to submit that there is no standards stipulated by the Environmental regulator for cooling tower makeup water.

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration

10) The JIT has made multiple observations as "***The unit shall install meter on all fresh 'water consumption and effluent recycling points***" "***The unit shall calibrate and maintain records of all existing meters periodically***"; "***The unit shall replace the existing turbine type water flow meters on bore wells with digital magnetic flow meters***" and has recorded it as Environmental violation. We would like to submit that none of the above are statutory requirement under any environmental law.

Therefore, the JIT attributing the observation as Environmental violation is beyond statute that needs reconsideration.

11) The JIT had undertaken a stack monitoring for Captive Power Plant and had measured the NOx as 459 mg/Nm3 and recorded as violation against a norm of 300 mg/Nm3. We would like to submit that our stack is connected with OCEMS to UPPCB and CPCB for almost 2 years and no deviation has been recorded, while based on a single physical monitoring data it has been recorded as violation by the JIT. Moreover, the comparison with 300 mg/Nm3 is incorrect as the MoEFCc notification SO. 3305 (E) Dt. 07/12/2015 stipulates 600 mg/Nm3 as the norm for CPP prior to 31/12/2003 and 300 mg/Nm3 for CPP during 01/01/2004 to 31/12/2016 (Enclosure 5). Further, the MoEFCc has vide its notification GSR 662 (E) Dt. 19/10/2020 has amended the notification Dt. 07/12/2015 with the norms for CPP during 01/01/2004 to 31/12/2016 as 450 mg/Nm3 against 300 mg/Nm3 (Enclosure 6).

We therefore submit that the violation as recorded by the JIT is incorrect and needs reconsideration.

12) The JIT has made multiple observations as "***the unit shall take measures for reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment***" "***the unit may reduce the quantity of makeup water used in each Cooling Tower by increasing Cycle of Concentration (COC)***" "t***he unit may make efforts for reduction in steam consumption and effluent generation thereby reducing fresh water consumption***" and has recorded it as Environmental violation. We would like to submit that none of the above are statutory requirement under any environmental law and without any technical evaluation of their feasibility beyond what is already achieved by us and continues to be our focus area.

Therefore, the JIT attributing the observation as Environmental violation is beyond statute that needs reconsideration.

13) The JIT has made multiple observations as "***the unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke [heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes***" and has recorded it as Environmental violation. We would like to submit that we have all fire fighting arrangements like hydrant system, fire extinguishers etc., which the statutory authority being the Directorate of Industrial Safety and Health(DISH) and have duly approved On-site emergency preparedness plan.

Therefore, the JIT attributing the observation as Environmental violation lacks jurisdiction and hence need reconsideration

MINUTES OF MEETING OF THE OVERSIGHT COMMITTEE, NGT UP LUCKNOW, HELD ON 28.12.2020 AT 11:00 A.M IN OA NO. 107/2019 IN RE: SHAH ALAM VERSUS STATE OF UTTAR PRADESH, WITH REGARD TO VIOLATION OF ENVIRONMENTAL NORMS BY M/S JUBILANT GROUP OF INDUSTRIES AT GAJRAULA, DISTRICT AMROHA IN THE STATE OF UP THROUGH VIDEO-CONFERENCING

***

Present: Hon'ble Mr. Justice S.V.S Rathore, Chairman
Hon'ble Dr Anup Chandra Pandey, Member

Other dignitaries present:

1. Shri Ajit Vidhyarthi, Additional Director, CPCB, New Delhi
2. Ms Reena Satvan, Scientist D, CPCB, New Delhi
3. Shri A K Tripathi, CPCB, Lucknow
4. Shri Girish Arya, UPPCB

The Meeting held as scheduled.

The Oversight Committee had earlier reviewed the progress of implementation of Hon'ble NGT's order dated 26.08.2020 in OA No. 107 of 2019 in re: Shah Alam vs State of UP on 02.11.2020. During this meeting the Oversight Committee had directed CPCB and SPCB to send their joint inspection report to Hon'ble NGT with a copy to the Oversight Committee at the earliest and also consider the technical reply of the Unit and send a report on them to Hon'ble NGT with a copy to the Oversight Committee.

On 28.11.2020, the Oversight Committee again conducted a meeting to discuss the status and findings of the joint inspection report conducted on 16.09.2020. Ajit Vidhyarthi, Additional Director, CPCB informed that they had received the approved report from UPPCB on 26.12.2020, which will be filed in Hon'ble NGT in the first week of January 2021 and a copy of same will be provided to this Committee.

He further informed that comments with regard to the technical replies sent by the Unit as mentioned in the Minutes of the Meeting dated 02.11.2020 had been prepared. They had sent their comments to the UPPCB for their concurrence. These comments will also be made

available to Oversight Committee post concurrence l from UPPCB by the end of this week i.e 1st Jan 2021. In reference to the EC imposed on the Unit it was informed that on 18th Nov 2020 in writ petition no. C 9908 of 2020 Hon'ble the High Court has restrained the UPPCB from taking any coercive action against the company for recovery of EC provided the company furnish solvent security for Rs 160300000/- (sixteen crore and three lacs only) (order of Hon'ble High Court is annexed as Annexure 1). The company had furnished the solvent security on 07 Dec 2020 (letter is annexed as Annexure 2).

28-12-2020

X Anup Chandra Pandey

Dr Anup Chandra Pandey
Member, Oversight Committee
Signed by: ANUP CHANDRA PANDEY

28-12-2020

X SVS Rathore

Justice SVS Rathore
Chairman, Oversight Committee
Signed by: SURENDRA VIKRAM SINGH RATHORE

Dec 28, 2020

Annexures: As above

Please visit our website: ***oscngt.upsdc.gov.in*** for more information.

BEFORE THE NATIONAL GREEN TRIBUNAL,

Principal Bench, New Delhi

Original Application No 107/2019

In the matter of:

Shah Alam **Applicant(s)**

Vs.

State Of Uttar Pradesh **Respondent(s)**

Index

S.No.	Particulars	Page No.
1.	**Compliance Report** in the matter of Shah Alam Vs. State of Uttar Pradesh, O.A. No. 107/2019, in compliance to Hon'ble NGT order dated 26.08.2020.	
2.	**Annexure-I** Hon'ble NGT order dated 26.08.2020.	
3.	**Annexure -II** Show Cause Notice issued by UPPPCB on 01.09.2020 to M/s Jubilant Group of Industries, Amroha, UP	
4.	**Annexure -III** Show Cause Notice issued by UPPPCB on 16.09.2020 to M/s Jubilant Group of Industries, Amroha, UP	
5.	**Annexure- IV** Representation received from M/s Jubilant Group of Industries vide e-mail dated 05.11.2020.	
6.	**Annexure- V** CPCB letter dated 12.11.20 to UPPCB	
7.	**Annexure-VI** UPPCB letter dated 19.11.2020 to CPCB	
8.	**Annexure-VII** CPCB letter dated 27.11.2020 to UPPCB.	
9.	**Annexure-VIII** Hon'ble High Court of Allahabad order dated 18.11.2020 in Civil Writ Petition No. 9908/2020 tilted as M/s Jubilant Life Sciences (Distillery unit) Ltd. Vs. CGWA of India & Ors.	
10.	**Annexure-IX** Joint Inspection Report of Jubilant Group of Industries by the Joint Committee as per inspection undertaken on 16.09.2020.	
11.	**Annexure-X** Minutes of Meeting of Oversight Committee, Meeting No. 68, held on 02.11.2020 in the matter of Shah Alam Vs. State of UP, O.A No. 107/2019.	
12.	**Annexure-XI** Comments of CPCB and UPPCB on the Annexures 1 & 2 of MoM of Oversight Committee	

Ajit Kumar Vidyarthi

(Dr. A.K. Vidyarthi)
Scientist-E,
Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar,
Delhi- 110032

Place: Delhi
Date: 31.12.2020

(1)

Compliance Report in the matter of Shah Alam Vs State of Uttar Pradesh
O.A. No. 107/2019

The present matter is related to violation of environmental norms by M/s Jubilant group of Industries at Gajraula, District Amroha, U.P (herein after referred to as "the unit").

Hon'ble NGT vide its order dated 26.08.2020 **(Annexure-I)** considered the Joint Committee report and has further directed:

"5. In view of the above, to uphold the rule of law, the State PCB needs to take further prompt action of not allowing the activities of the unit unless assessed compensation is paid and further remedial action is taken in the light of the CPCB and the oversight Committee report.

6. Let a further compliance report be filed by the joint Committee as well as Oversight Committee before the next date of hearing 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"

Hon'ble NGT vide its above said order has directed UPPCB *"To not allow the activities of the unit unless assessed compensation is paid."* In pursuance to Hon'ble NGT directions, UPPCB vide its show cause notices dated 01.09.2020 **(Annexure-II)** and 16.09.2020 **(Annexure-III)** had given time period of 15 days to the unit to deposit the EC i.e. 6.19 crore and 9.84 crores levied vide letter dated 30.06.2020.

As informed by the unit vide its representation through email dated 05.11.20 **(Annexure-IV), the** unit has deposited an amount of 30 lakhs and 70 lakhs to UPPCB. The Unit has challenged the calculations of EC of 6.19 crore done by the Joint Committee and has also requested to waive off the EC levied on the unit for illegal extraction of ground water in accordance with the recent guidelines of CGWA dated 24.09.2020. The unit has claimed that as per the latest CGWA guidelines, their NOC for ground water withdrawal is deemed approved as they have applied for the NOC before the expiry of their previous NOC.

CGWA Guidelines dated 24.09.2020, Pg. 44, point 11 states:

"If the application for renewal is submitted in time and the CGWA/ the respective State/ Ut Authority is unable to process the application in time, No Objection Certificate shall be deemed to be extended till the date of renewal of No Objection Certificate."

As the direction levying the EC was issued by the UPPCB, therefore, CPCB vide its letter dated 12.11.20 **(Annexure-V)** asked UPPCB to provide an opportunity to the unit for personal hearing to deliberate on the above said issues raised by the unit. Subsequently, UPPCB vide letter dated 19.11.2020 **(Annexure-VI)** requested CPCB to organize a meeting of the Joint Committee along with representatives of the unit to give opportunity of hearing to the unit. In reply, CPCB vide its letter dated 27.11.2020 **(Annexure-VII)** asked UPPCB to grant personal hearing to the unit in which CPCB may participate if required. The matter is pending with UPPCB.

Also, the unit has filed a Writ petition No. 9908 of 2020 in the High Court of Allahabad against the EC levied on the unit. Order of High Court dated 18.11.2020 **(Annexure-VIII)** is as follows:

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"until further orders of the Court the respondent –UP Pollution Control Board is restrained from taking any coercive action against the petitioner to recover the demand made under the order dated 3.06.2020 provided the petitioner furnishes solvent security for the amount of Rs. 16,03,00,000/- (Sixteen Crore Three Lakh) to the satisfaction of Chief Environmental Officer, Circle-7, Lucknow within two weeks from today and also submit an undertaking for depositing the compensation amount with interest in the event of dismissal of instant petition for writ."

CPCB has no information about the status of the solvent security to be deposited by the unit.

In pursuance to Hon'ble NGT order, inspection of the unit was carried out on 16.09.2020 by a team of officials from UPPCB and CPCB. Also, in order to finalize the report of the joint committee, two meetings were held on 17.11.2020 and 04.12.2020 with representatives from CPCB and UPPCB. Final Inspection report was forwarded to RO-Binor, UPPCB and SDM, Amroha for their consent and signature vide email dated 07.12.2020. After incorporating the comments raised by the UPPCB, updated final joint inspection report was forwarded to RO-Bijnor, UPPCB and SDM, Amroha for their consent and signature vide email dated 14.12.2020 followed by reminder emails dated 14.12.2020 and 17.12.2020. Subsequently, joint inspection report with signature was received from RO-Bijnor on 24.12.2020 and SDM Amroha on 25.12.2020.

Inspection Report of the Joint Committee is annexed at **Annexure-IX,** wherein following recommendations have been made:

15. *"**Recommendations based on observations by Joint Committee***

15.1 Water and Wastewater management

1. *The unit shall obtain NOCs from CGWA for withdrawal of groundwater at earliest for all the groundwater abstraction sources, as the CGWA NOCs have already been expired on 04.04.2019.*
2. *Fresh water consumption in cooling towers (28 nos.) is reported around 4 MLD. It is recommended to take measures for further reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.*
3. *The unit shall provide proper display boards at each piezometer wells.*

15.2 Distillery Plant

- *Performance assessment of the installed spent wash management systems at 38.6% running load cannot be guaranteed for consented production capacity of 183 KLD. However, the main conclusions that can be drawn from the sample analysis results and observations made by joint inspection team are as follows:*
  a. *The unit's 16.8 acres covered bio-compost area is inadequate, if RO and incinerator are not operated at designed capacity on regular basis. Therefore, production capacity has to be restricted to 133.01 KLD ~133 KLD.*
  b. *The unit has a storage tank of 22,325 m3 for raw spent wash which is in violation to CPCB direction dated*

07.12.2015 wherein storage is permitted only for concentrated spent wash equivalent of 30 days' production.

In view of the above, the following recommendations have been made:

1. *The unit has 16.80 acres covered Bio-compost area against the requirement of 23.1 acres; thus*

   *-During monsoon season, permissible operational capacity of distillery unit works out to be 133.01 KLD (183KLD*16.8/23.1) ~133 KLD of ethyl alcohol production.*

   - During non- monsoon season, the unit can operate at consented capacity 183KLD.

   Production capacity should be restricted to 133.01 KLD ~133 KLD in monsoon season; accordingly, the consent to operate of the distillery unit shall be modified.

2. *Based on findings of last two inspections, incineration boiler needs retrofitting/replacement to operate at its designed capacity 11.5 KL/hr.*
3. *The unit shall dismantle the storage tank of 22,325 m3 used for raw spent wash in compliance to CPCB direction dated 07.12.2015.*
4. *The unit shall also install online mass flow meter with totalizer at outlet of MEE after 3rd stage and the same should be utilized for bio-composting. Connectivity of the same shall be established with CPCB and SPCB server.*
5. *The unit shall restrict storage capacity of concentrated spent wash in lagoon equivalent to 30 days' volume for use in bio-composting.*
6. *The pipeline carrying concentrated spent wash (CSW) directly to bio-compost yard should be dismantled to stop direct use of CSW having more than 40% total solids for bio-composting, CSW should be stored in existing lagoon and the same shall be used for bio-composting.*
7. *The Unit shall use MEE concentrate after 3rd stage having 30 % total solids for bio- composting while MEE concentrate after 5th stage may be used for incineration (slop boiler) having total solids concentration beyond 50 %.*
8. *Considering the distance (4.36km-measured using google earth, refer Fig. 21) between unit and lagoon; in order to cross check, monitor the CSW volume transferred into the lagoon and detect leakages during the conveyance from MEE to lagoon, the unit shall install online mass flow meter on pipeline of concentrated spent wash going to the lagoon.*
9. *The unit shall provide additional covered area for storage of ready bio-compost and press mud.*

15.3 Sewage Treatment Plant

- *In order to control fecal coliform within 1000 MPN/100 ml, the unit shall install disinfection system after biological treatment before utilizing the same in horticulture."*

3

Oversight committee in its meeting No. 68 held on 02.11.2020 directed CPCB and UPPCB to examine and provide comments on documents submitted by the unit annexed as Annexures 1 & 2 of Minutes of meeting **(Annexure X)** of the oversight committee. Comments of CPCB and UPPCB on the aforementioned documents is attached as **Annexure XI.**

Now, this Compliance Report is submitted in compliance of Hon'ble NGT order dated 26.08.2020.

(5) ANNEXURE - I

Item No.07 Court No. 1

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

(By Video Conferencing)

Original Application No. 107/2019

(With reports dated 16.6.2020 & 24.08.2020)

Shah Alam Applicant(s)

Versus

State of Uttar Pradesh Respondent(s)

Date of hearing: 26.08.2020

CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

Respondent(s): Mr. Pradeep Misra and Mr. Daleep Dhyani, Advocates for UPPCB
Mr. Atif Suhrawardy, Advocate for CPCB

ORDER

1. The matter has been taken up for consideration in continuation of order dated 05.02.2020 wherein this Tribunal considered the report of the joint Committee comprising of CPCB, UPPCB, Health Department, District Admin., U.P. Jal Nigam, Horticulture Department and the Krishi Vigyan Kendra, Amroha, finding serious violation of law by M/s Jublient group of Industries at Gajraula, District Amroha, U.P.

2. It was observed:

> *"9. Accordingly, a further action taken report has been filed by the CPCB on 28.01.2020 to the effect that a meeting was held on 04.12.2019 to discuss the execution of the order already passed*

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after considering the reply of the unit in response to the show cause notice dated 31.10.2019 issued by the State PCB. ***Compensation amount of Rs. 6,19,00,000/- was assessed for various violations except the illegal withdrawal of ground water. The CGWA was asked to assess the compensation for such illegal drawl and the State PCB was asked to take similar action. Learned counsel for the State PCB states that the State PCB has calculated the compensation at Rs.9.84 crores and a show cause notice has been issued to the industry on 30.10.2019 for which opportunity of hearing has been given to the unit.***

10. In view of the above, let further action be taken in accordance with law. It is not necessary to give any hearing to unit at this stage by this Tribunal as the action has to be taken by the statutory regulators in exercise of their statutory powers and in the process, the unit has to be heard. There is a further remedy of appeal for the unit against any such order. Hearing cannot be sought to preempt a direction to the statutory regulator to perform its statutory duties, based on objective material showing violations of environmental norms subject to remedy of appeal of the affected party. If the Tribunal grants hearing at this Stage, there will be no relevance hearing by the Regulator. We take note of the observations in the report of the CPCB that the TPA report by the IIT Delhi is unwarranted. Even according to the IIT Delhi, it is a dry report based on information provided by the industry and was given inadvertently.

11. A further report may be furnished jointly by the CPCB and the UPPCB by email at judicial-ngt@gov.in. The CPCB will be the nodal agency for compliance and coordination."

3. Accordingly, further report has been filed by CPCB on 16.06.2020 as follows:

"6. ***It was evident that UPPCB has neither taken any decision in respect of their show cause notice dated 30.10.2019 along with environmental compensation of Rs. 9.84 crores nor has taken any further statutory actions to ensure compliance and recovery of Environmental Compensation (EC) and inordinate delay has already been made by UPPCB.***

7. Therefore, CPCB issued directions dated 14.05.2020 (Annexure-IV) under section 18(1) (b) of the Water (Prevention and Control of Pollution) Act, 1974 to UPPCB to comply with the following:

1. UPPCB shall issue appropriate directions to ensure compliance of observations and recommendations made in the joint inspection report dated 13.09.2019 furnished by the joint committee and decisions of the meeting held on 04.12.2019 & 15.04.2020 in a time bound manner including recovery of Rs. 6.19 crores calculated as EC by the joint committee.

2. *UPPCB shall take further statutory actions in response of their issued show cause notice dated 30.10.2019 along with levying EC amount of Rs. 9.84 crores (Calculated by UPPCB in issued SCN) within 15 days.*

3. *UPPCB shall take appropriate legal actions which may include closure and prosecution in respect of Distillery unit which was found non-complying with respect to ZLD norms.*

The action taken report by Uttar Pradesh Pollution Control Board shall be furnished to CPCB within 15 days of recipient of this direction.

8. M/s Jubilant Life Sciences Ltd. through email dated 26.05.2020 and 31.05.2020 (Annexure-V) has requested CPCB give them opportunity to represent their case personally. In response CPCB vide letter dated 10.06.2020 (Annexure-VI) forwarded their request to UPPCB for appropriate and necessary action considering directions of Hon'ble NGTs.

9. UPPCB issued closure directions dated 03.06.2020 (Annexure-VII) under section 33 (A) of the Water Act, 1975 to the unit and levied EC of Rs. 9.84 crores for illegal extraction of ground water and EC Rs. 6.19 crores calculated by the committee for violation of environmental norms, in compliance of Hon'ble NGT order dated 05.02.2020 in O.A. No. 107/2019.

In the closure direction dated 03.06.2020 issued to the unit, it has been mentioned that a joint inspection of the unit by RO, Bijnor, UPPCB and member of NMCG was undertaken on 1st June, 2020 and ***it was observed that slop boiler was under maintenance, pipeline to carry spent wash to bio-composting yard was found broken at many places and spent wash was found discharged at the nearby fields and drain along the railway line which is in violation of consent conditions. Also, concrete lining of the lagoon A and Lagoon B has not been done as recommended in the inspection report of the inspection undertaken on 17.07.2019 and 18.07.2019. Therefore, UPCB has issued closure direction to the unit as above.***

10. UPPCB vide their letter no. H49877/c-7/18/20, dated 11.06.2020 disposed the representation of M/s Jubilant Life Sciences Limited (Distillery Unit), Gajraula, Amroha (which was forwarded to UPPCB by CPCB vide letter dated 10.06.2020) and directed the unit to comply with UPPCB closure directions dated 03.06.2020. UPPCB letter dated 11.06.2020 is annexed as Annexure-VIII.

11. As per the information received from the UPPCB through email, the unit has filed a writ petition in the High court of judicature at Allahabad i.e. Civil Misc. Writ Petition (Diary No. 10515 of 2020) (under article 226 of Constitution of India), M/s Jubilant Life Sciences Limited (Distillery Unit), Gajraula, Amroha, Uttar Pradesh-

244223 Vs. Central Ground Water Authority of India and 03 Ors. with prayer to pass an ad-interim stay order on UPPCB's closure notice dated 03.06.2020 levying environmental compensation as well as the sealing order of UPPCB dated 06.06.2020. Copy of the Writ petition is annexed as Annexure-IX."

4. Report dated 24.08.2020 has also been filed by the Oversight Committee constituted by this Tribunal, on suggestion of UP Government to oversee compliance of environmental norms. The Committee has examined the compliance status and made recommendations as follows:

"Short Compliance report:

Issues	***Status***	***Remarks***
Water consent of SPCB	*On 03.06.2020: consent was withdrawn by the SPCB.* *On 30.06.2020: consent was restored conditionally upto 31.12.2020 subject to quantity of 125 KL/day. It will start working on full capacity after 15.7.20 after the Slop Boiler starts functioning.*	*The unit has not received the CGWA Permission to extract groundwater so far.*
Environmental Compensation: *Rs. 6.19 Crores for violation of environmental conditions* *Rs 9.84 Crores for illegal drawl of groundwater without CGWA permission*	*So far not paid*	*Not-complied*
Spent wash was limited to 17800 MT	*As per the maximum approved storage capacity*	*To be verified in joint inspection of CPCB and SPCB*
Permission of extraction of Groundwater	*Permission had already lapsed on 04.04.2019. Recommendation from Regional Director to CGWA has been made*	*There needs to be a clear-cut policy of CGWA in the light of Hon'ble Supreme Court and Hon'ble NGT*

	on 26.11.2019 *No permission has been given yet by CGWA*	*orders.*
Compliance of recommendations of Joint committee	*SPCB has done inspections on 23.06.2020,30.06.2020 (The inspection report is annexed as Annexure 2) and 18.08.2020 (The inspection report is annexed as (Annexure 3). As per the inspection reports, most of the recommendations have been complied.*	*To be verified by the joint inspection of CPCB and SPCB*

Issue of Ground Water:

The Unit had ground water extraction permission which lapsed on 04.04.2019. The unit had applied for renewal of this permission. The Regional Office of CGWA has sent their recommendations to their Head Office on 26.11.2019. The application for renewal is pending with the CGWA Head Office. The Unit has been drawing ground water without permission of CGWA since 4.4.19 till the closure order on 03.06.2020.

- ***Hon'ble NGT on 20.7.20 in OA 176/2018 had directed that there must be no general permission for withdrawal of groundwater, particularly to any commercial entity, without environment impact assessment of such activity on individual Assessment units in cumulative terms covering carrying capacity aspects by an expert committee. Such permission should be as per Water Management Plans to be prepared in terms of this order based on mapping of individual assessment units.***

- ***A perusal of the recommendation sent by the Regional Office shows that the NGT directions have not been complied with. No environment impact study has been done, nor any water management plans appear to have been prepared.***

- *CGWA must come out with a clear policy on water permission renewals in the light of orders of Supreme Court and NGT.*

Recommendations:

1. The Unit has so far not paid EC of Rs 6.19 Crores for violation of environmental conditions, nor has it paid EC of Rs 9.84 Crores for illegal drawl of groundwater without CGWA permission.

It has also not yet obtained CGWA permission for groundwater drawl however their application along with the recommendation to renew is pending before CGWA. Unit is extracting ground water on the ground that their application is pending. Pendency of application with CGWA cannot be treated as their consent. We have also gone through the order of SPCB dated 30.06.2020 regarding conditional restoration. It needs further clarification that the restoration will be effective from the date these conditions have been fulfilled. The fulfillment can be verified by a Joint inspection of CPCB and SPCB.

2. NGT also had directed that a joint report of CPCB and SPCB may be filed. The plea of CPCB as expressed in their letter dated 18.08.2020 declining to conduct the joint inspection of the unit on the ground that the case is subjudice in High Court (The letter is Annexed as Annexure 6) does not appear to be acceptable as there is no stay on inspection and no order has been passed yet by Hon'ble High Court. CPCB and SPCB may be directed to conduct a joint inspection once the unit has complied with the conditions as mentioned in the conditional revocation order of SPCB dated 30.08.2020.

3. CGWA may be directed to consider all relevant factors and decide on the groundwater permission issue in the light of orders of Hon'ble Supreme Court and Hon'ble NGT on the subject."

5. In view of the above, to uphold the rule of law, the State PCB needs to take further prompt action of not allowing the activities of the unit unless assessed compensation is paid and further remedial action is taken in the light of the CPCB and the oversight Committee report.

6. Let a further compliance report be filed by the joint Committee as well as Oversight Committee before the next date of hearing 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.

7. A copy of this order be sent to the joint Committee and the Oversight Committee by e-mail for compliance.

List again on 16.10.2020.

(11)

Adarsh Kumar Goel, CP

S. P. Wangdi, JM

Dr. Nagin Nanda, EM

August 26, 2020
Original Application No. 107/2019
SN

7 11

(12) ANNEXURE - II 1764

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD

संदर्भ संख्या– 132489 / सी-7/जल-18/2020 दिनांक 7/9/2020

for MS 23/9/20

DH Law

Central Pollution Control Board

सेवा में,

मै0 जूबिलेन्ट लाइफ साइन्सेज,
डिस्टलरी यूनिट, गजरौला,
अमरोहा।

विषयः– बोर्ड के पत्र संख्या एच 50470/सी–7/जल–18/वाल्यूम–2/2020 दिनांक 30.06.2020 द्वारा उद्योग के विरूद्ध अधिरोपित पर्यावरणीय क्षतिपूर्ति धनराशि 15 दिन के अन्दर बोर्ड मे जमा किये जाने हेतु जल (प्रदूषण निवारण तथा नियत्रंण) अधिनियम 1974 की धारा –33ए के अन्तर्गत कारण बताओ नोटिस।

यह कि मै0 जूबिलेन्ट लाइफ साइन्सेज, डिस्टलरी यूनिट, गजरौला, अमरोहा द्वारा कच्चे माल के रूप में शीरे का प्रयोग कर ईथाल एल्कोहल के उत्पादन हेतु उपरोक्त वर्णित स्थल पर कार्यरत है जो कि जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा–47 के अन्तर्गत एक कम्पनी है।

यह कि कि मै0 जूबिलेन्ट लाइफ साइन्सेज, डिस्टलरी यूनिट, गजरौला, अमरोहा के सम्बन्ध में माननीय राष्ट्रीय हरित अधिकरण द्वारा ओ0ए0 संख्या 107/2019 शॉह आलम बनाम उत्तर प्रदेश मे पारित आदेश दिनांक 26.08.2020 के मुख्य अंश निम्नवत् है–

5. In view of the above, to uphold the rule of law, the State PCB needs to take further prompt action of not allowing the activities of the unit unless assessed compensation is paid and further remedial action is taken in the light of the CPCB and the oversight Committee report.
6. Let a further compliance report be filed by the joint Committee as well as Oversight Committee before the next date of hearing 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.

यह कि बोर्ड के पत्र सं0–एच 49556/सी–7/जल–18/ वाल्यूम–2/2020 दिनांक 03.06.2020 द्वारा मै0 जूबिलेन्ट लाइफ साइन्सेज, डिस्टलरी यूनिट, गजरौला, अमरोहा के विरूद्ध जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 यथासंशोधित की धारा–33ए के अन्तर्गत आदेश जारी किया गया था।

यह कि बोर्ड के पत्र संख्या एच 50470/सी–7/जल–18/वालूयम–2/2020 दिनांक 30.06.2020 द्वारा उक्त बन्दी आदेश को निम्न शर्तो के साथ निक्षेपित किया गया–

1. यह कि उद्योग के पक्ष में बोर्ड के पत्र संख्या 31991/UPPCB/Bijnore (UPPCBRO)/CTO/water/JYOTIBA PHULE NAGAR/2018 दिनांक 28-11-2018, पत्र संख्या 55851/UPPCB/Bijnore (UPPCBRO)/CTO/water/ JYOTIBA PHULE NAGAR/2019 दिनांक 19-08-2019 तथा पत्र सं0–एच41774/सी–7/जल–18 दिनांक 24.09.2019 द्वारा दिनांक 31.12.2020 की वैधता तक निर्गत सशर्त सहमति जल 125 कि0ली0/दिन उत्पादन क्षमता हेतु पुर्नजीवित की जाती है। उद्योग द्वारा दिनांक 15.07.2020 के उपरान्त स्लोप ब्वायलर संचालन की स्थिति में उद्योग का संचालन पूर्ण उत्पादन क्षमता पर स्वतः अनुमन्य हो जाएगा। सहमति जल की समस्त शर्ते पूर्णतया प्रभावी होंगी। उद्योग द्वारा पूर्ण उत्पादन क्षमता पर संचालन प्रारम्भ करने के पूर्व बोर्ड को सूचित किया जाएगा।

Maybe forwarded to DH, WQM II for further n/a submitted please. K P Gupta 22/09/2020

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DH Law Anand Kumar 22/09/2020 12

24/09/20 RO(SK) 25/9/20

DH - WQM-II

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2. बोर्ड के पत्र सं0–एच49556/सी–7/जल–18 /वाल्यूम–2/2020 दिनांक 03.06.2020 में आदेश सं0–4 एवं 5 के अनुरूप अधिरोपित पर्यावरणीय क्षतिपूर्ति यथावत् प्रभावी होगी। उद्योग द्वारा पर्यावरणीय क्षतिपूर्ति धनराशि राज्य बोर्ड में विलम्बतम् 02 माह में जमा किया जाना सुनिष्चित किया जाए अन्यथा की स्थिति में उद्योग के विरूद्ध पत्र सं0–एच49556/सी–7/जल–18 /वाल्यूम–2/2020 दिनांक 03.06.2020 द्वारा जारी बन्दी आदेश स्वतः प्रभावी हो जाएगा तथा बन्दी की अवधि में संचालानार्थ सहमति स्वतः निरस्त हो जाएगी।
3. उद्योग में भण्डारित सान्द्रित स्पेन्टवाष की मात्रा किसी भी परिस्थिति में अनुमन्य भण्डारण सीमा 17800 घन मीटर से अधिक नहीं होनी चाहिए। उक्त सीमा 17800 घन मीटर से अधिक भण्डारण की स्थिति में उद्योग द्वारा स्वतः उत्पादन प्रक्रिया बन्द कर राज्य बोर्ड को सूचित किया जाए।
4. उद्योग द्वारा भूजल दोहन हेतु केन्द्रीय भूजल प्राधिकरण से नवीनीकृत अनापत्ति प्रमाण पत्र प्राप्त कर राज्य बोर्ड में प्रस्तुत किया जाए अन्यथा की स्थिति में उद्योग के विरूद्ध नियमानुसार बंदी एवं पर्यावरणीय क्षतिपूर्ति अधिरोपण की कार्यवाही की जाएगी।
5. मा. राष्ट्रीय हरित अधिकरण द्वारा स0–107/2019 शाह आलम बनाम स्टेट ऑफ यू0पी0 के अन्तर्गत गठित संयुक्त समिति की संस्तुतियों का अक्षरषः अनुपालन सुनिष्चित किया जाए।

यह कि उद्योग द्वारा उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड के पत्र दिनांक 30.06.2020 द्वारा जारी बन्दी निक्षेपण आदेश की शर्त संख्या 02 के अनुपालन मे निर्धारित समयावधि 30.08.2020 तक पर्यावरणीय क्षतिपूर्ति रूपये 9.84 करोड़ एवं 6.19 करोड़ बोर्ड मे जमा नही किया गया है।

यह कि उद्योग के पत्र दिनांक 14.08.2020 द्वारा उद्योग द्वारा किये गये अनुपालन के दृष्टिगत उद्योग का संयुक्त निरीक्षण किये जाने एवं उद्योग पर अधिरोपित पर्यावरणीय क्षतिपूर्ति पर पुनः विचार किये जाने हेतु प्रत्यावेदन प्रस्तुत किया गया है।

यह कि उद्योग के उक्त प्रत्यावेदन के क्रम में क्षेत्रीय कार्यालय उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड बिजनौर के अधिकरियों द्वारा दिनांक 18.08.2020 को उद्योग की समस्त इकाईयों निरीक्षण किया गया।

यह कि बोर्ड द्वारा अधिरोपित पर्यावरणीय क्षतिपूर्ति के विरूद्ध उद्योग द्वारा माननीय उच्च न्यायालय इलाहाबाद मे वाद दायर किया गया है, जोकि माननीय उच्च न्यायालय इलाहाबाद के समक्ष विचाराधीन है।

यह कि उद्योग के पत्र दिनांक 17.08.2020 द्वारा उक्त प्रकरण माननीय उच्च न्यायालय इलाहाबाद एवं माननीय अधिकरण के समक्ष विचाराधीन होने के दृष्टिगत बोर्ड द्वारा अधिरोपित पर्यावरणीय क्षतिपूर्ति को बोर्ड मे जमा किये जाने हेतु निर्धारित समय सीमा 30.08.2020 को अग्रिम बढ़ाते हुए अतिरिक्त समय प्रदान किये जाने हेतु प्रत्यावेदन प्रस्तुत किया गया है।

अतः उपरोक्त को दृष्टिगत रखते हुए सक्षम अधिकारी के अनुमोदानोपरान्त बोर्ड के पूर्व पत्र दिनांक 30.06.2020 द्वारा पर्यावरणीय क्षतिपूर्ति रूपये 9.84 करोड़ एवं रूपये 6.19 करोड़ को बोर्ड मे जमा किये जाने हेतु पूर्व निर्धारित समय सीमा 30.08.2020 के अनुक्रम में 15 दिन की अधिकतम समय सीमा मे उक्त पर्यावरणीय क्षतिपूर्ति धनराशि बोर्ड मे जमा किये जाने हेतु उद्योग मै0 जूबिलेन्ट लाइफ साइन्सेज, डिस्टलरी यूनिट, गजरौला, अमरोहा के विरूद्ध जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा–33ए के अन्तर्गत निम्नानुसार कारण बताओ नोटिस जारी किये जाते है–

1. यह कि उद्योग द्वारा बोर्ड के पत्र संख्या एच 50470/सी–7/जल–18/वाल्यूम–2/2020 दिनांक 30.06.2020 द्वारा उद्योग के विरूद्ध अधिरोपित पर्यावरणीय क्षतिपूर्ति रूपये 9.84 करोड़ एवं 6.19 करोड़ के सम्बन्ध में उद्योग को निर्देशित किया जाता है कि उक्त पर्यावरणीय क्षतिपूर्ति धनराशि को उ0प्र0 प्रदूषण नियंत्रण बोर्ड के यूनियन बैंक आफ इण्डिया, विभूतिखण्ड, गोमतीनगर, लखनऊ स्थित बैंक के खाता सं0–701502010002104 आई0एफ0एस0 कोड–UBIN0570150 में विलम्बतम 15 दिन के अन्दर जमा कर, जमा की गयी धनराशि का साक्ष्य क्षेत्रीय कार्यालय एवं बोर्ड मुख्यालय में प्रस्तुत करना सुनिश्चित करें।

13

.....3/–

2. यह कि उद्योग द्वारा 15 दिन के अन्दर उक्त पर्यावरणीय क्षतिपूर्ति धनराशि जमा न किये जाने की दशा मे माननीय राष्ट्रीय हरित अधिकरण द्वारा ओ0ए0 संख्या 107/2019 शॉह आलम बनाम उत्तर प्रदेश राज्य एवं अन्य मे पारित आदेश दिनांक 26.08.2020 के अनुपालन मे उद्योग के विरूद्ध बन्दी की कार्यवाही प्रारम्भ कर दी जायेगी, जिसका सम्पूर्ण उत्तरदायित्व स्वंय उद्योग एवं उद्योग स्वामी का होगा।

भवदीय,

(अमित चन्द्रा)
मुख्य पर्यावरण अधिकारी, (वृत्त–7)

प्रतिलिपि :

1. जिलाधिकारी, अमरोहा को सूचनार्थ प्रेषित।
2. सदस्य सचिव, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली को सूचनार्थ।
3. सदस्य सचिव, केन्द्रीय भूजल प्राधिकरण, 18/11, जामनगर हाउस, मान सिंह रोड, नई दिल्ली को सूचनार्थ।
4. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर को उपरोक्त के अनुपालन के संबंध में आवश्यक कार्यवाही हेतु प्रेषित।

मुख्य पर्यावरण अधिकारी, (वृत्त–7)

14

ANNEXURE-III

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD

(15)

संदर्भ संख्या ...../ सी-7/जल/18/20 दिनांक .....

सेवा में,

मै0 जूबिलेन्ट लाइफ साइन्सेज,
डिस्टलरी यूनिट, गजरौला,
अमरोहा।

विषयः–बोर्ड के पत्र संख्या एच 50470/सी–7/जल–18/वाल्यूम–2/2020 दिनांक 30.06.2020 द्वारा उद्योग के विरूद्ध अधिरोपित पर्यावरणीय क्षतिपूर्ति धनराशि जमा किये जाने हेतु समय प्रदान किये जाने के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक पत्र सं0–JLL/EHS/ENV/2020/186 दिनांक 03-09-2020 का सन्दर्भ ग्रहण करें जिसके द्वारा बोर्ड मे प्रस्तुत प्रत्यावेदन मे उद्योग के प्रस्तावित संयुक्त निरीक्षण तथा केन्द्रीय भूजल प्राधिकरण मे विचाराधीन उद्योग के आवेदन पत्र के दृष्टिगत बोर्ड के पत्र दिनाक 01.09.2020 द्वारा जल (प्रदूषण निवारण तथा नियत्रण) अधिनियम, 1974 की धारा–33ए के अन्तर्गत निर्गत कारण बताओ नोटिस के अनुक्रम मे अतिरिक्त समय प्रदान किये जाने का अनुरोध किया गया है।

मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा ओ0 ए0 सं0–107/2019 शाह आलम बनाम स्टेट ऑफ यू0पी0 दिनाक 28.07.2019 द्वारा निर्देश जारी किये गये–

"*5. In view of the above, to uphold the rule of law, the State PCB needs to take further prompt action of not allowing the activities of the unit unless assessed compensation is paid and further remedial action is taken in the light of the CPCB and the oversight Committee report.*

6. Let a further compliance report be filed by the joint Committee as well as Oversight Committee before the next date of hearing 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."

मा0 अधिकरण द्वारा जारी उक्त निर्देशो के अनुक्रम मे बोर्ड के पत्र दिनाक 01.09.2020 द्वारा बोर्ड द्वारा पूर्व मे अधिरोपित पर्यावरणीय क्षतिपूर्ति रू 9.84 करोड़ एवं रू 6.19 करोड़ को बोर्ड में जमा किये जाने हेतु 15 दिन की समयावधि प्रदान करते हुए जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा–33ए के अन्तर्गत निम्नानुसार कारण बताओ नोटिस जारी किये गये–

1. यह कि उद्योग द्वारा बोर्ड के पत्र संख्या एच 50470/सी–7/जल–18/वाल्यूम–2/2020 दिनांक 30.06.2020 द्वारा उद्योग के विरूद्ध अधिरोपित पर्यावरणीय क्षतिपूर्ति रूपये 9.84 करोड एवं 6.19 करोड के सम्बन्ध में उद्योग को निर्देशित किया जाता है कि उक्त पर्यावरणीय क्षतिपूर्ति धनराशि को उ0प्र0 प्रदूषण नियंत्रण बोर्ड के यूनियन बैंक आफ इण्डिया, विभूतिखण्ड, गोमतीनगर, लखनऊ स्थित बैंक के खाता सं0–701502010002104 आई0एफ0एस0 कोड–UBIN0570150 में विलम्बतम 15 दिन के अन्दर जमा कर, जमा की गयी धनराशि का साक्ष्य क्षेत्रीय कार्यालय एवं बोर्ड मुख्यालय में प्रस्तुत करना सुनिश्चित करें।
2. यह कि उद्योग द्वारा 15 दिन के अन्दर उक्त पर्यावरणीय क्षतिपूर्ति धनराशि जमा न किये जाने की दशा मे माननीय राष्ट्रीय हरित अधिकरण द्वारा ओ0ए0 संख्या 107/2019 शॉह आलम बनाम उत्तर प्रदेश राज्य एवं अन्य मे पारित आदेश दिनांक 26.08.2020 के अनुपालन मे उद्योग के विरूद्ध बन्दी की कार्यवाही प्रारम्भ कर दी जायेगी, जिसका सम्पूर्ण उत्तरदायित्व स्वंय उद्योग एव उद्योग स्वामी का होगा।

.....कृ0पृ0उ0

T.C. 32 - V, Vibhuti Khand
Gomti Nagar, Lucknow – 226010
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Email: info@uppcb.com वेबसाइट: www.uppcb.com

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15

अतः उद्योग द्वारा प्रस्तुत प्रत्यावेदन एवं केन्द्रीय प्रदूषण नियंत्रण बोर्ड तथा राज्य प्रदूषण नियंत्रण बोर्ड की संयुक्त टीम द्वारा उद्योग के प्रस्तावित निरीक्षण के दृष्टिगत सक्षम अधिकारी के अनुमोदन से उद्योग मै0 जूबिलेन्ट लाइफ साइन्सेज, डिस्टलरी यूनिट, गजरौला, अमरोहा को निर्देशित किया जाता है कि बोर्ड के पत्र सं0–एच52489/सी–7/जल–18/2020 दिनांक 01.09.2020 द्वारा जल (प्रदूषण निवारण तथा नियंत्रण) अधिनियम, 1974 की धारा–33ए के अन्तर्गत जारी कारण बताओ नोटिस के अनुपालन में कृत कार्यवाही की सूचना सहित अनुपालन आख्या 15 दिन में प्रस्तुत करें अन्यथा की स्थिति में कारण बताओ नोटिस के अन्तर्गत जारी निर्देशों की पुष्टि किये जाने सम्बन्धी कार्यवाही कर दी जाएगी।

उपरोक्त तथ्यों तथा यह दृष्टिगत रखते हुए कि मा0 अधिकरण द्वारा जारी आदेश दिनांक 26.08.2020 के कम में उद्योग का संयुक्त निरीक्षण प्रस्तावित है, उक्त संयुक्त निरीक्षण के उपरान्त उद्योग द्वारा किये गये अनुपालन की स्थिति स्पष्ट हो जाएगी। अतः उद्योग के प्रत्यावेदन दिनांक 03.09.2020 को निस्तारित करते हुए उद्योग को उक्त पर्यावरणीय क्षतिपूर्ति रू 9.84 करोड़ एवं रू 6.19 करोड़ को बोर्ड में जमा किये जाने हेतु 15 दिन का अतिरिक्त समय प्रदान किया जाता है।

भवदीय,

(अमित चन्द्रा)
मुख्य पर्यावरण अधिकारी
वृत्त–7

प्रतिलिपि :

1. जिलाधिकारी, अमरोहा को सूचनार्थ प्रेषित।
2. सदस्य सचिव, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, परिवेश भवन, ईस्ट अर्जुन नगर, दिल्ली को सूचनार्थ।
3. सदस्य सचिव, केन्द्रीय भूजल प्राधिकरण, 18/11, जामनगर हाउस, मान सिंह रोड, नई दिल्ली को सूचनार्थ।
4. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, बिजनौर को उपरोक्त के अनुपालन के संबंध में आवश्यक कार्यवाही हेतु प्रेषित।

मुख्य पर्यावरण अधिकारी
वृत्त–7

16

(17) ANNEXURE-IV

Gmail megha chauhan <chauhan.megha350@gmail.com>

Fwd: Regarding the matter of O.A. No. 109/2017 Shah Alam Vs Govt of UP being heard before the Hon'ble NGT. Request for a VC meeting urgently please.

2 messages

Anu Chetal <chetalanu@gmail.com> Tue, Nov 10, 2020 at 11:24 AM
To: megha chauhan <chauhan.megha350@gmail.com>

Anu Chetal,
Scientist- B
Central Pollution Control Board
MoEFCC,
New Delhi.
M.No. 8800460606, 9416435353

---------- Forwarded message ---------
From: **Ajit Vidyarthi** <akvidyarthi@gmail.com>
Date: Mon, Nov 9, 2020 at 11:05 AM
Subject: Fwd: Regarding the matter of O.A. No. 109/2017 Shah Alam Vs Govt of UP being heard before the Hon'ble NGT. Request for a VC meeting urgently please.
To: Anu Chetal <chetalanu@gmail.com>, Reena Satavan <reena.hsw@gmail.com>, reenasatawan.cpcb@nic.in <reenasatawan.cpcb@nic.in>

---------- Forwarded message ---------
From: **Member Secretary CPCB** <mscb.cpcb@gov.in>
Date: Mon, 9 Nov 2020 at 10:57 AM
Subject: Fwd: Regarding the matter of O.A. No. 109/2017 Shah Alam Vs Govt of UP being heard before the Hon'ble NGT. Request for a VC meeting urgently please.
To: Ajit Vidyarthi <akvidyarthi@gmail.com>

From: ramangk@icloud.com
To: "Chairman CBEC" <chmn-cbec@nic.in>
Cc: "Member Secretary CPCB" <mscb.cpcb@nic.in>, ms@uppcb.com, "Mr Pradeep Kumar Sinha" <pksinha.pmo@gov.in>
Sent: Thursday, November 5, 2020 6:25:23 PM
Subject: Regarding the matter of O.A. No. 109/2017 Shah Alam Vs Govt of UP being heard before the Hon'ble NGT. Request for a VC meeting urgently please.

Dear Sir,

This is regarding the matter of O.A. No. 109/2017 Shah Alam Vs Govt of UP being heard before the Hon'ble NGT.

The Joint inspection team constituted under the CPCB has undertaken an inspection in July 2019 of the site to assess the alleged damage caused to a Mango Orchard located about 2.5 Kms form chemical complex at Gajraula. After a comprehensive inspection, the JIT did not find any damage to crop nor evidence of the any impact from our chemical complex at Gajraula. However, the JIT recorded multiple observations on plant operational gaps and recommended remedial measures.

We have complied with all the recommendations of the JIT and the same was verified during a re-inspection by the JIT on 16/09/2020.

The UPPCB had imposed an Environment Compensation of Rs. 30 lakhs for the Operational gaps observed by the JIT vide its letter Dt. 30/10/2019 and another Rs.9.84 Cr towards ground water

extraction without the renewal of the GW NoC that was pending before the CGWA due to various NGT orders on the matter. We complied by depositing the Rs. 30 lakhs on 30/12/2019 and requested for waiver of EC for GW extraction as the matter was pending with CGWA as above.

However, the CPCB, on 05/02/2020, submitted before the NGT for imposing Rs. 6.19 Cr as EC and the NGT confirmed the same. We raised objections to EC as well as its calculations, but NGT directed that we should raise these before the regulator and be given an opportunity of being heard. We have made multiple request before the CPCB and also a personal hearing before the MS, UPPCB on 14/10/2020 explaining that the issues on which the EC is calculated by CPCB are arbitrary and also the factors used in the calculation presented before the NGT is not in line with the CPCB's guideline for calculating the EC. Further, even if the issues on which the EC imposed is considered as valid, a correct application of the formula as defined by the CPCB would result in an EC of about Rs. 1.00 Crore as against the Rs. 6.19 Cr assessed. We have deposited as additional Rs. 70 Lakh on 28/09/2020 as EC and thus a cumulative EC of Rs. 1.0 Crore has been deposited to UPPCB.

Also, with the revised NoC guidelines for GW Extraction notified by the CGWA on 24/09/2020, our GW NoC renewal is deemed renewed from the date of its expiry. Thus the Rs. 9.84 Crore imposed as EC for GW extraction without NoC also needs to be considered for withdrawal.

Our repeated request for a personal hearing to explain our position, as a Principle of natural Justice and also the Hon'ble NGT direction in its order Dt. 05/02/2020, is not offered to us causing us grave injustice and immense loss of reputation with risk of other legal consequences.

In pursuance to our meeting with the MS, UPPCB on 14/10/2020, we were assured of an opportunity for personal hearing and reconsideration of the EC imposed. We continue to await for the opportunity of personal hearing and reassessment of the EC imposed.

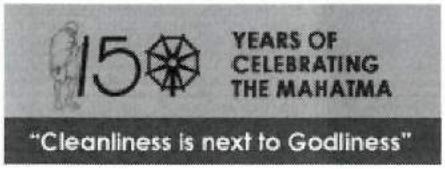
We therefore seek your intervention and appropriate direction for reassessment of the EC imposed and also a personal hearing to put forth our explanation on the observations of environmental violation in the JIT report.

Thanking you

G K Raman

Sr. Vice President

Jubilant Lifesciences Limited



--
(A. K. Vidyarthi)
Additional Director,
Central Pollution Control Board,
'Parivesh Bhawan', East Arjun Nagar, Delhi-110 032
Tel. 011-43102445

Anu Chetal <chetalanu@gmail.com> Mon, Dec 28, 2020 at 4:49 PM
To: megha chauhan <chauhan.megha350@gmail.com>, meghachauhan451@gmail.com

Regards,
[Quoted text hidden]

(19) ANNEXURE-V

By Speed Post/Email

B-190198/NGRBA (RG)/CPCB/Distillery/2017-18 10114 **Date: 12.11.2020**

To,

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

Subject: Representation received from M/s Jubilant Group of Industries, Gajraula, Amroha, UP vide e-mail dated 05.11.2020 seeking personal hearing/opportunity to represent their case-reg.

Ref.: 1. Hon'ble NGT orders dated 01.11.2019 (corrected order dated 20.11.2019), 05.02.2020 and 26.08.2020 in O.A. no. 107/2019 in the matter of Shah Alam Vs State of Uttar Pradesh

2. Your letter dated 10.11.2020 with no. H54783/C-7/Jal-18/2020

Sir,

I am directed to forward herewith representation received from M/s Jubilant Group of Industries, Gajraula, Amroha, UP vide e-mail dated 05.11.2020 **(Annexure-1)**, which is self-explanatory.

I am directed to request you to examine the representation of the unit and take appropriate actions including personal hearing as desired by the unit at your end in accordance with the above referred Hon'ble NGT orders. Details of EC calculated by the Joint Committee vide meeting dated 04.12.2019 is enclosed **(Annexure-2)** which is already communicated as part of the Minutes of Meeting vide email dated 6.12.2019.

Encl: As above

Yours faithfully,

Avyarthi 12/11/20

(A.K.Vidyarthi)
Scientist 'E' & Divisional Head
WQM-II Division

Copy to:

1. **Regional Officer, Bijnor** : For kind information & necessary action.
   Uttar Pradesh Pollution Control Board, 108/11, Avas Vikas Colony, Bijnor, U.P.
2. **M/s Jubilant Group of Industries,** : Since directions dated 3.06.2020 under section 33(A) of the Water Act, 1974 levying EC to your unit was issued by UPPCB; in view of this you may approach UPPCB for redressal of your grievance.
   Gajraula, Amroha-244223, U.P.

NSIP 12/11/2020

O/C

Avyarthi 12/11/20

(A.K.Vidyarthi)
Scientist 'E' & Divisional Head
WQM-II Division

19

(20) ANNEXURE – VI

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD

संदर्भ संख्याः H 55099/सी-7/जम-18/2020 दिनॉकः 19.11.2020

सेवा में,

डा0 ए0के0 विद्यार्थी
साइन्टिस्ट 'ई' एण्ड डिवीजनल हेड,
डब्लूक्यूएम–II डिवीजन,
केन्द्रीय प्रदूषण नियंत्रण बोर्ड,
परिवेश भवन, पूर्वी अर्जुन नगर,
दिल्ली–110032।

विषयः–मै0 जुबिलेन्ट ग्रुप आफ इण्डस्ट्रीज, गजरौला, अमरोहा द्वारा ई–मेल दिनांक 05.11.2020 द्वारा प्रेषित प्रत्यावेदन के निस्तारण के संबंध में।

महोदय,

कृपया उपरोक्त विषयक अपने पत्र सं0–B-190198/NGRBA(RG)/CPCB/Distillery/2017-18 दिनांक 12.11.2020 का संदर्भ ग्रहण करने का कष्ट करें जिसके द्वारा उद्योग मै0 जुबिलेन्ट ग्रुप आफ इण्डस्ट्रीज, गजरौला, अमरोहा के ई–मेल दिनांक 05.11.2020 द्वारा प्रेषित प्रत्यावेदन को संलग्न कर बोर्ड मुख्यालय प्रेषित किया गया है।

उक्त के संबंध में सूचित करना है कि उद्योग मै0 जुबिलेन्ट ग्रुप आफ इण्डस्ट्रीज, गजरौला, अमरोहा (डिस्टलरी यूनिट) के विरूद्ध रू0 6.19 करोड़ की पर्यावरणीय क्षतिपूर्ति धनराशि का आंकलन दिनांक 04.12.2019 को केन्द्रीय प्रदूषण नियंत्रण बोर्ड, दिल्ली में आहूत संयुक्त समिति की बैठक में किया गया था।

उद्योग द्वारा केन्द्रीय प्रदूषण नियंत्रण बोर्ड को प्रेषित ई–मेल दिनांक 05.11.2020 द्वारा उक्त पर्यावरणीय क्षतिपूर्ति रू0 6.19 करोड़ की गणना में कतिपय त्रुटि होने तथा इस संबंध में इकाई द्वारा व्यक्तिगत सुनवाई हेतु अवसर प्रदान करने हेतु प्रत्यावेदन प्रेषित किया गया है।

इकाई के उक्त प्रत्यावेदन के संबंध में आपके पत्र दिनांक 12.11.2020 के परिप्रेक्ष्य में दिनांक 17.11.2020 को दूरभाष पर आपसे हुई वार्ता के अनुक्रम में अवगत कराना है कि उक्त पर्यावरणीय क्षतिपूर्ति की गणना संयुक्त बैठक (जिसमें केन्द्रीय प्रदूषण नियंत्रण बोर्ड भी सम्मिलित था) के द्वारा की गयी थी अतः इसमें किसी प्रकार का संशोधन मात्र उ0प्र0 प्रदूषण नियंत्रण बोर्ड द्वारा किया जाना संभव नहीं है एवं इस हेतु एक संयुक्त बैठक आहूत कर इस पर निर्णय लिया जाना आवश्यक है।

अतः इकाई के प्रत्यावेदन दिनांक 05.11.2020 के निस्तारण हेतु समिति की संयुक्त बैठक (जिसमें उद्योग प्रतिनिधि भी सम्मिलित हो) हेतु तिथि एवं समय निर्धारित करते हुए उक्त बैठक मे लिये गये निर्णय को माननीय अधिकरण के आदेश दिनांक 26.08.2020 के अनुपालन मे उद्योग के किये गये निरीक्षण संयुक्त दिनांक 16.09.2020 की रिपोर्ट में सम्मिलित करने का कष्ट करे।

भवदीय

(आशीष तिवारी)
सदस्य सचिव

All examine & mail-up 19/11/20

प्रतिलिपिः–निम्नलिखित को सूचनार्थ।

1. सदस्य सचिव, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली–110032।
2. मै0 जुबिलेन्ट ग्रुप आफ इण्डस्ट्रीज, गजरौला, अमरोहा–244223।

सदस्य सचिव

SEE 23/11/20 Sc-B(AC)

टी.सी 12 वीं, विभूति खण्ड,
गोमती नगर, लखनऊ–226010
दूरभाषः 0522– 2720831,2720828,2720691,2720681
ई–मेलः info@upnab.com

TC. 12 v. Vibhuti Khand,
Gomti Nagar, Lucknow-226010
Phone: 0522-2720831,2720828, 2720691, 2720681

20

(21) ANNEXURE – VII

By Speed Post/Email

B-190198/NGRBA /CPCB/Distillery/11/2016-17 2860 **Date: 27.11.2020**

To,

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

Subject: Representation received from M/s Jubilant Group of Industries, Gajraula, Amroha, UP vide e-mail dated 05.11.2020 seeking personal hearing -reg.

Ref: Your letter dated 19.11.2020 with no. H55099/C-7/Jal-18/2020

Sir,

This has reference to your letter dated 19.11.2020 with no. H55099/C-7/Jal-18/2020 on the above mentioned subject. I am directed to state that UPPCB may grant personal hearing to the unit. CPCB may be invited to participate in the aforementioned meeting if required.

Yours faithfully,

27/11/20
(**A.K.Vidyarthi**)
Scientist 'E' &
Divisional Head, WQM-II Division

Copy to:

1. Regional Officer, Bijnor : For kind information & necessary action.
   Uttar Pradesh Pollution Control Board, 108/11, Avas Vikas Colony, Bijnor, U.P.

27/11/20
(**A.K.Vidyarthi**)
Scientist 'E' &
Divisional Head, WQM-II Division

O/C
SCB(AC)

केन्द्रीय प्रदूषण नियंत्रण बोर्ड
निर्गत..... D1519.....
दिनांक 02/12/2020

21

Chief Justice's Court

Case :- WRIT - C No. - 9908 of 2020

Petitioner :- M/S Jubilant Life Sciences Ltd.
Respondent :- Central Ground Water Authority Of India And 3 Others
Counsel for Petitioner :- Sujeet Kumar,Chhaya Gupta,Pinaki Mishra (Sr. Advocate),Shashi Nandan (Sr. Advocate)
Counsel for Respondent :- A.S.G.I.,Hari Nath Tripathi,Krishna Agarawal,Manoj Kumar Singh,Manoj Kumar Sinha,Ravindra Kumar Srivastava,Shambhu Chopra(Senior Adv.),Vikas Mani Srivastava

Hon'ble Govind Mathur,Chief Justice
Hon'ble Piyush Agrawal,J.

It is brought to our notice that a writ petition of similar nature i.e. Writ C No. 16844 of 2020 (M/s Amit Granites Vs. State of UP and 4 others) is pending consideration before this Court.

Learned counsel appearing on behalf of UP State Pollution Control Board does not dispute this fact.

Let this writ petition be listed along with Writ C No. 16844 of 2020 (M/s Amit Granites Vs. State of UP and 4 others).

Until further orders of the Court the respondent- UP State Pollution Control Board is restrained from taking any coercive action against the petitioner to recover the demand made under the order dated 3.6.2020 provided the petitioner furnishes solvent security for the amount of Rs. 16,03,00,000/- (Sixteen Crore Three Lakh) to the satisfaction of Chief Environmental Officer, Circle -7, Lucknow within two weeks from today and also submit an undertaking for depositing the compensation amount with interest in the event of dismissal of instant petition for writ.

Order Date :- 18.11.2020
Rahul Dwivedi/-

(Piyush Agrawal,J.) **(Govind Mathur,C.J.)**

Digitally signed by JUSTICE GOVIND MATHUR
Date: 2020.11.19 16:32:32 IST
Reason: Document Owner
Location: High Court of Judicature at Allahabad

Digitally signed by Justice Piyush Agrawal
Date: 2020.11.19 16:33:21 IST
Reason: Document Owner
Location: High Court of Judicature at Allahabad

ANNEXUR- IV

70

JOINT INSPECTION REPORT

(16.09.2020)

BY

JOINT INSPECTION COMMITTEE

CONSTITUTED BY

HON'BLE NATIONAL GREEN TRIBUNAL

(ORDER DATED 26.08.2020)

IN THE MATTER OF

SHAH ALAM VS. STATE OF UTTAR PRADESH

[O.A. NO. 107/2019]

PREPARED BY

JOINT COMMITTEE OF CPCB AND UPPCB

(71)

Contents

1. Subject Matter 6
2. Order of Hon'ble NGT dated 26.08.2020 6
3. M/s Jubilant Group of Industries at Gajraula 6
4. Joint Inspection for compliance verification 7
5. Samples Collection 7
6. Fresh Water Consumption 7
   6.1 Sources of Fresh Water: 7
   6.2 Piezometer wells and Hand pump Detail 8
   6.3 Freshwater Consumption 9
   6.4 Characteristics of the Ground Water 9
   6.5 Observations on freshwater withdrawal, piezometer wells installations and analysis results of ground water samples 10
7. Captive Power Plant (48 MW as per Consent to Operate) 11
   7.1 Observations 11
8. Molasses based Distillery (Ethyl Alcohol) 12
   8.1 Observations on Molasses based Distillery and analysis results of samples collected from distillery 12
   8.2 Characteristics of samples collected from Distillery unit 16
   8.2.1 Observation on the basis of Analysis Results 17
   8.3 Observations on Lagoon for Concentrated Spent wash 17
   8.4 Observations on Bio-composting facility 18
   8.5 Observations on Slop Boiler 19
   8.6 Computation of allowable operational capacity of Distillery Unit 20
   8.7 Comparison of non-compliances observed during previous inspection and status observed during current inspection 20
9. Chemical Effluent Treatment Plant (CETP) 21
   9.1 Observations 21
   9.2 Characteristics of samples collected from the Chemical Effluent Treatment plant 21
   9.2.1 Observation on Analysis Results 22
10. Common Cooling Tower Reverse Osmosis Plant (CTRO) 22
   10.1 Characteristics of samples collected from CTRO 22
   10.2 Observation on Analysis Results 22
11. Sewage Treatment Plant (Capacity-400 KLD) 22
   11.1 Characteristics of samples collected from STP 23
   11.2 Observations on STP and Analysis Results 23
12. Emission Monitoring of M/s Jubilant Industries Ltd. (Complex) 23
   12.1 Stack Emission Monitoring Result 23
   12.2 Observation on Stack Monitoring Results 25
   12.3 Ambient Air Quality Monitoring Results 25

73

12.4 Observations on the Ambient Air Quality Monitoring Result 25
13. Hazardous Waste Management and Secured Landfill Site (SLF) 26
13.1 Characteristics of Samples collected from Secured Landfill site 27
14. Ponding observed outside of premises 27
15. Recommendations based on observations by Joint team..... 28
15.1 Water and Wastewater management..... 28
15.2 Distillery Plant..... 28
16. Point wise compliance status of recommendations of previous inspection report 29
17. Photographs with comparison of previous condition (Inspection dated 17 &18th July, 2019) and current condition (Inspection dated 16.09.2020)..... 36
8. Signature of the inspecting officials 41

73

List of Tables

Table 1:Sources of Ground Water 7
Table 2:Details of permissible bore wells as per CGWA NOCs 8
Table 3:Piezometer wells locations 8
Table 4:Hand pump locations 8
Table 5:Quantity of fresh water consumption 9
Table 6:Characteristics of Ground water samples of the Complex 9
Table 7:Characteristics of the ground water sample collected from hand pump-mango orchard 10
Table 8:Installed Power Generation Capacity 11
Table 9:Details of Fly ash management for Year 2020 12
Table 10: Details of Consent to Operate (CTO) under Water Act, 1974 and Air Act 1981 13
Table 11:Details of the installed spent wash management systems. 14
Table 12:Analysis results of samples collected from Distillery unit 16
Table 13: Bio-compost covered area requirement (5 cycles) calculation for 183KLD Molasses based Distillery 20
Table 14: Comparison of non-compliances observed during previous inspection and status observed during current inspection 20
Table 15: Analysis result of samples collected from CETP 21
Table 16: Analysis results of the samples collected from CTRO 22
Table 17: Analysis results of samples collected from STP 23
Table 18:Stack detail as per valid consent 24
Table 19: Stack Emission monitoring results 24
Table 20:Ambient air quality monitoring results 25
Table 21:Waste disposal to Secured Landfill Site, Year: 2020 26
Table 22:Analysis results of samples collected from the landfill site 27
Table 23 : Analysis results of samples collected from ponding, observed outside of premises 27
Table 24:Analysis results of samples collected from bore well near ponding 27
Table 25: Compliance Status of the unit w.r.t recommendations of previous inspection report 29

75

74

ANNEXURES

Annexure-1	Hon'ble NGT order dated 26.08.2020
Annexure-2a	Consent to operate under Water Act, 1974 - Coal based Captive Co-Generation Power Plant
Annexure-2b	Consent to operate under Air Act, 1981 - Coal based Captive Co-Generation Power Plant
Annexure-3a	Consent to operate under Water Act, 1974 - M/s Jubilant Life Sciences Ltd. (Distillery Unit)
Annexure-3b	Consent to operate under Air Act, 1981 - M/s Jubilant Life Sciences Ltd. (Distillery Unit)
Annexure-4a	Consent to operate under Water Act, 1974 M/s. Jubilant Life Sciences Ltd. (Chemical Unit I)
Annexure-4b	Consent to operate under Air Act, 1981 - M/s. Jubilant Life Sciences Ltd. (Chemical Unit I)
Annexure-5a	Consent to operate under Water Act, 1974 - M/s. Jubilant Life Sciences Ltd. (Chemical Unit II)
Annexure-5b	Consent to operate under Air Act, 1981 - M/s. Jubilant Life Sciences Ltd. (Chemical Unit II)
Annexure-6a	Consent to operate under Water Act, 1974 - M/s. Jubilant Agri & Consumer Products Ltd. (Fertilizer Unit)
Annexure-6b	Consent to operate under Air Act, 1981 - M/s. Jubilant Agri & Consumer Products Ltd. (Fertilizer Unit)
Annexure-7a	Consent to operate under Water Act, 1974 - M/s. Jubilant Agri & Consumer Products Ltd. (Polymer unit)
Annexure-7b	Consent to operate under Air Act, 1981 - M/s. Jubilant Agri & Consumer Products Ltd. (Polymer unit)
Annexure-8	Hon'ble NGT order dated 20.11.2019
Annexure-9	CGWA NOC Renewal Application copy-Power Plant
Annexure-10	CGWA NOC Renewal Application copy-Distillery unit
Annexure-11	CGWA NOC Renewal Application copy-Chemical unit-1
Annexure-12	CGWA NOC Renewal Application copy-Chemical unit-2
Annexure-13	CGWA NOC Renewal Application copy-Fertilizer unit
Annexure-14	CGWA NOC Renewal Application copy-Polymer unit
Annexure-15	Agreement with M/s Shree Cement Ltd. (SCL)
Annexure-16	Agreement with M/s. Ultra Tech Cement Ltd.
Annexure-17	Quarterly report of Fly ash management data submitted to UPPCB from Jan-2020 to September-2020
Annexure-18	Point wise comments on draft joint inspection report submitted by RO-Bijnor, UPPCB through mail dated 26.11.2020
Annexure-19	Unit's data for FY 2019-20 (April 2019 to March 2020) w.r.t CSW generated from MEE
Annexure-20	Unit's data for FY 2019-20 (April 2019 to March 2020) w.r.t CSW consumed in slop (incineration) boiler
Annexure-21	List of flowmeters at (11nos.) treated effluent recycling points
Annexure-22	Copy of calibration certificate of flow meters provided at borewell-1 to borewell-8, condensate to raw water header and CETP outlet
Annexure-23	Copy of fresh water consumption details from April-2020 to July-2020
Annexure-24	Ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit submitted to UPPCB from Jan-2020 to Sept-2020
Annexure-25	Date wise and monthly records of quantity and category of hazardous waste disposed in the captive SLF from July-2020 to Sept.-2020
Annexure-26	Monthly record of leachate generation from captive SLF and disposal for Year: 2018-19

76

JOINT INSPECTION REPORT OF M/S JUBILANT INDUSTRIES LTD., GAJRAULA, DIST. AMROHA, UP AS PER HON'BLE NGT ORDER DATED 26.08.2020, CARRIED OUT BY JOINT TEAM ON 16.09.2020

---

1. Subject Matter

Matter: Shah Alam Vs. State of Uttar Pradesh, O.A. No. 107/2019

Subject: Pollution caused by M/s Jubilant Group of Industries Ltd., Gajraula, Amroha, U.P.

2. Order of Hon'ble NGT dated 26.08.2020

The Hon'ble Tribunal in the said matter passed the following directions on 26.08.2020 which is placed as under: -

> *"6. Let a further compliance report be filed by the joint Committee as well as Oversight Committee before the next date of hearing 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."* (NGT order dated 26.08.2020 is placed at **Annexure-1**)

3. M/s Jubilant Group of Industries at Gajraula

- Jubilant Group of Industries is located in an integrated complex at Gajraula, Amroha, UP consisting of the following manufacturing units and all units are operating with valid consents:
  1) Coal based Captive Co-Generation Power Plant (48 MW capacity-as per consent to operate) (Consent to operate under Water Act, 1974 is valid up to 31.10.2023 & Air Act, 1981 is valid up to 31.12.2023, are placed at **Annexure-2a & Annexure-2b** respectively)
  2) M/s Jubilant Life Sciences Ltd. (**Distillery Unit**), Bharatigram, Gajraula, District – Amroha, UP (Ethyl Alcohol) (Consent to operate under Water Act, 1974 & Air Act, 1981 are valid upto 31.12.2020, placed at **Annexure-3a & Annexure-3b** respectively)
  3) M/s. Jubilant Life Sciences Ltd. (**Chemical Unit I**), Bharatigram, Gajraula, District – Amroha, UP (Formaldehyde, Acetaldehyde, Ethyl Acetate, Acetic Acid, Acetic Anhydride, etc,) (Consent to operate under Water Act, 1974 & Air Act, 1981 are valid upto 31.12.2023, placed at **Annexure-4a & Annexure-4b** respectively)
  4) M/s. Jubilant Life Sciences Ltd. (**Chemical Unit II**), Bharatigram, Gajraula, District – Amroha, UP (Pyridine & Fine Chemicals) (Consent to operate under Water Act, 1974 & Air Act, 1981 are valid upto 31.12.2023, placed at **Annexure-5a & Annexure-5b** respectively)
  5) M/s. Jubilant Agri & Consumer Products Ltd. (**Fertilizer Unit**), Bharatigram, Gajraula, District – Amroha, UP (Single Super Phosphate, Granulated SSP, Sulphuric Acid) (Consent to operate under Water Act, 1974 & Air Act, 1981 is placed at **Annexure-6a & Annexure-6b** respectively)
  6) M/s. Jubilant Agri & Consumer Products Ltd. (**Polymer unit**), Bharatigram, Gajraula (Solid PVA & derivatives, Polyurethane derivatives, Wood Finish, Estergum) ((Consent to operate under Water Act, 1974 & Air Act, 1981 are valid upto 31.12.2023, placed at **Annexure-7a & Annexure-7b** respectively)
- This industrial complex has common utility services catering to the auxiliary and process support requirement such as:
  i. Water Management System (DM Water, Process steam, Spent Solvent Recovery systems)

ii. Common Cooling Tower Reverse Osmosis Plant (CTRO) for blowdown effluent management system- 1200 KLD
iii. Chemical Effluent Treatment Plant (CETP) - 700 KLD
iv. Sewage Treatment Plant (STP) - 400 KLD
v. Incinerators - 3 nos. for Liquid - 288 KLD &
2 nos. for Gaseous/Thermo Oxidizer - 1500 kg/hr.
vi. Secured landfill - 11000 MT
vii. Hazardous waste management

4. Joint Inspection for compliance verification

- Previously, joint inspection of the industrial complex was carried out on 17th& 18th July, 2019 and submitted inspection report was considered by Hon'ble NGT vide order dated 01.11.2019 (corrected order dated 20.11.2019) (Order dated 20.11.2019 placed at **Annexure-8**)
- To comply with the Hon'ble NGT order dated 26.08.2020 for verification of compliance of the unit w.r.t. observations and recommendations, which were made in the previous joint inspection report (Inspection dated 17th& 18th July, 2019), inspection of the unit was carried out on 16.09.2020 by a joint team comprising the officials from UPPCB (RO, Bijnor), District Administration (SDM, Amroha) and CPCB Delhi.
- Joint inspection team also verified compliance status of the recommendations made in previous joint inspection (17th& 18th July, 2019) report.

5. Samples Collection

- The joint team collected samples from the same points, from where the samples were collected during last joint inspection dated 17.07.19 & 18.07.19 and duplicate samples were provided to the unit (**Fig. 1**). Samples have been analyzed in CPCB laboratory w.r.t the notified parameters relevant to that particular sector of the manufacturing unit.
- Team from RO Moradabad, UPPCB has monitored ambient air quality of the complex including monitoring of stacks.

Detail of the samples collected and analysis results are mentioned in the following relevant sections.

6. Fresh Water Consumption

6.1 Sources of Fresh Water:

- The unit has total of 8 nos. of bore wells located at different places within the campus. Meter reading (Totalizer) and Flow rate observed during inspection are mentioned in table 1.

Table 1:Sources of Ground Water

S. No.	Borewell No.	Meter reading (Totalizer) (m^3)	Flow rate (m^3/hr)	Location	Co-ordinates
1	Borewell No. 1	203503.1886	65.6933	Near medical Centre	28.8214620, 78.2352147
2	Borewell No.2	138718.7405	0	Near fire and safety department	28.8220959, 78.2349180
3	Borewell No.3	199525.5279	0	Near material gate	28.8217293, 78.2370463

4	Borewell No.4	1398404.106	58.5496	Near SRP plant	28.8242531, 78.2381534
5	Borewell No.5	1638970.804	0	Near railway siding	28.8255649, 78.2389282
6	Borewell No.6	88916.37391	0	Near 3CP plant	28.8268271, 78.2353525
7	Borewell No.7	2063233.403	132.3072	Near Guest house	28.8203848, 78.2331973
8	Borewell No.8	825187.5538	0	Near residential colony	28.8204409, 78.2308450

- The unit has permission for total 10nos. bore wells. The details of bore wells as per CGWA NOCs (although expired on 04.04.2019) are as below:

Table 2: Details of permissible bore wells as per CGWA NOCs

Sr. No.	Sector	Permission for number of Tube well from CGWA (Nos.)	Max. Abstraction Permission from CGWA (KLD)	Not exceeding (KL/Year) by CGWA	Date of CGWA permission	Valid up to
1.	Distillery	02	3000	10,65,000	19.04.2017	04.04.2019
2.	Chemical unit-1	02	2300	08,16,500	07.04.2017	04.04.2019
3.	Chemical unit-2	01	2600	09,23,000	07.04.2017	04.04.2019
4.	Power Plant	02	4700	16,68,500	18.04.2017	04.04.2019
5.	Fertilizer	02	1400	04,97,000	07.04.2017	04.04.2019
6.	Polymer	01	250	90,000	07.04.2017	04.04.2019
	Total	**10 nos.**	**14,250 (14.25MLD)**	**50,60,000**		

6.2 Piezometer wells and Hand pump Detail

- The Unit has 05 nos. of Piezometer wells for measurement of groundwater depth at the following locations around Bio-compost yard and all the piezometer wells were physically verified during inspection:

Table 3: Piezometer wells locations

Piezometer wells Locations around Bio-compost yard				
S. No.	**Piezometer well No.**	**Location**	**Latitude**	**Longitude**
1	Piezometer well No. 1	Near Bio-compost Office	28.8192	78.2133
2	Piezometer well No. 2	Near Bio-compost yard	28.8190	78.2130
3	Piezometer well No. 3	Opposite of old Ash pond and near bio-compost open area	28.8229	78.2140
4	Piezometer well No. 4	Near Old ash pond	28.8239	78.2149
5	Piezometer well No. 5	Near Lagoon No. 28-towards Shahbajpur door village	28.8131	78.2139

- There are 03 nos. of hand pumps as mentioned in Table 4. Samples were collected from all three hand pumps and analysis result of the same is described in Section 6.4.

Table 4: Hand pump locations

S.No.	Hand pump locations	Latitude	Longitude
1.	Besides bio-compost yard	28.8186	78.2099
2.	Besides concentrated spent wash storage Lagoon/Mango orchard	28.8107	78.2118
3.	Near railway line	28.8227	78.2083

6.3 Freshwater Consumption

- Flow meters have been installed in all the 8 bore wells and as per log book record provided by the unit, details freshwater consumption by entire complex from April-2020 to July-2020 is as below:

Table 5:Quantity of fresh water consumption

Bore well No.	Location	Month	Fresh water consumption (KL)
1	Near Medical Center (dedicated to Chemical Unit-2)	April-2020	16,196
		May-2020	28,725
		June-2020	29,521
		July-2020	18,590
2	Near Fire and Safety Department	Data not provided by the unit	Data not provided by the unit
3 & 4	Near Material Gate & Near SRP Plant (dedicated to Chemical Unit-1)	April-2020	48,846
		May-2020	55,487
		June-2020	52,301
		July-2020	51,787
5 & 6	Near Railway Siding & Near 3CP Plant (dedicated to Distillery unit)	April-2020	60,797
		May-2020	79,432
		June-2020	65,279
		July-2020	59,028
7 & 8	Near Guest House & Near Colony (dedicated to Power Plant unit)	April-2020	72,546
		May-2020	83,813
		June-2020	59,118
		July-2020	53,852
Total fresh water consumption by the complex from April-20 to July-20			**8,35,318**
Average freshwater consumption per month			**2,08,829.5**
Fresh water consumption per day			**6846.87 KL. ~ 6847 KL**

6.4 Characteristics of the Ground Water

- The analysis results of ground water samples collected from the unit are as below:

Table 6:Characteristics of Ground water samples of the Complex

Parameters / Sampling location	Bore well No.1 (Near Main Gate)	Hand pump (Near Railway Lining)	Bore well No.8 (Near Residential Colony)	Hand pump besides compost yard	Piezometer no.2 (At entrance of compost yard)	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
pH	8.1	7.8	7.8	8.1	7.7	6.5-8.5
Conductivity (µmho/cm)	505	736	1135	343	480	
Colour (colour units)	BDL	BDL	BDL	BDL	BDL	15
COD (mg/l)	BDL	BDL	BDL	BDL	14	-
TDS (mg/l)	344	504	746	226	307	2000
Total hardness as $CaCO_3$ (mg/l)	214	329	471	103	202	600
Total alkalinity as $CaCO_3$ (mg/l)	226	149	357	191	221	600
Chloride (mg/l)	46	22	129	6	10	1000
Sulfate (mg/l)	10	97	85	BDL	BDL	400
Fluoride (mg/l)	BDL	BDL	BDL	0.2	BDL	1.5
NO_3-NO_3 (mg/l)	2.4	132.5	35.6	BDL	4.3	45

As (mg/l)	BDL	BDL	BDL	-	-	0.05
Cd (mg/l)	BDL	BDL	BDL	-	-	0.003
Co (mg/l)	BDL	BDL	BDL	-	-	-
Cr (mg/l)	BDL	BDL	BDL	-	-	0.05
Cu (mg/l)	BDL	BDL	BDL	-	-	1.5
Fe (mg/l)	0.03	0.72	0.04	-	-	0.3
Mn (mg/l)	0.04	BDL	0.49	-	-	0.3
Ni (mg/l)	BDL	BDL	BDL	-	-	0.02
Pb (mg/l)	BDL	BDL	BDL	-	-	0.01
Sb (mg/l)	BDL	BDL	BDL	-	-	-
Se (mg/l)	BDL	BDL	BDL	-	-	0.01
V (mg/l)	BDL	BDL	0.01	-	-	-
Zn (mg/l)	0.02	0.37	0.02	-	-	15

- The analysis result of samples collected from the hand pump of the Mango Orchard is as below:

Table 7:Characteristics of the ground water sample collected from hand pump-mango orchard

Parameters	Hand pump-Mango Orchard	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
pH	8.1	6.5-8.5
Conductivity (µmho/cm)	384	-
Colour (colour units)	BDL	15
COD (mg/l)	BDL	-
TDS (mg/l)	266	2000
Total hardness as $CaCO_3$ (mg/l)	119	600
Total alkalinity as $CaCO_3$ (mg/l)	208	600
Chloride (mg/l)	10	1000
Sulfate (mg/l)	BDL	400
Fluoride (mg/l)	0.2	1.5
NO_3-NO_3 (mg/l)	BDL	45
As (mg/l)	BDL	0.05
Cd (mg/l)	BDL	0.003
Co (mg/l)	BDL	-
Cr (mg/l)	BDL	0.05
Cu (mg/l)	BDL	1.5
Fe (mg/l)	0.90	0.3
Mn (mg/l)	0.03	0.3
Ni (mg/l)	BDL	0.02
Pb (mg/l)	BDL	0.01
Sb (mg/l)	BDL	-
Se (mg/l)	BDL	0.01
V (mg/l)	BDL	-
Zn (mg/l)	0.24	15

6.5 Observations on freshwater withdrawal, piezometer wells installations and analysis results of ground water samples

1. As per the fresh water consumption data from April-2020 to July-2020, provided by the unit, fresh water consumption of the complex is 6.85 MLD, whereas as per the previous inspection report (inspection dated 17 & 18 July, 2019), fresh water

consumption from January-2019 to June-2019 was found 7.84 MLD against the CGWA permission of 14.3 MLD (which was valid up to 04.04.2019).

2. The unit is yet to receive NOCs from CGWA for withdrawal of groundwater. The NOCs have been expired on 04.04.2019. The unit has applied for renewal of CGWA NOC on 03.01.2019 and it is pending before the CGWA New Delhi. (Renewal Application copies placed at **Annexure-9 to Annexure-14** for Power plant, Distillery unit, Chemical unit-1, Chemical unit-2, Fertilizer unit and Polymer unit respectively).
3. As per CGWB report "National Compilation on Dynamic Ground Water Recourses Assessment of India, 2017" (Page No. 146) Gajraula, District Amroha is in Over Exploited category.
4. Nitrate (as NO_3) in sample collected from borewell-8 (near Residential colony) is found 25.6 mg/l against BIS-IS 10500:2012 standards of 45 mg/l. During previous inspection it was observed as 52.4 mg/l.
5. The ground water samples collected from Piezometer well no.-2, shows COD 14 mg/l against 15 mg/l observed in earlier occasion whereas as per BIS standards, ground water shall not have COD.

7. Captive Power Plant (48 MW as per Consent to Operate)

The integrated chemical complex has a coal-based co-generation power plant for its captive requirement of power and steam. It has 02 x 90 TPH (High-Pressure Boiler) for turbine operation. The released low-pressure steam from turbine operation is used to meet the process and heating requirements for the industrial units situated within the industrial complex of Jubilant. There are 2 nos. of Medium Pressure Boilers (24 TPH and 34 TPH) reported as standby. The detail of the installed capacity of CPP as reported by the unit, is mentioned below:

Table 8:Installed Power Generation Capacity

Sr. No.	Details	Installed Capacity, MW
1	TG-3, Ext. Cum Condensing turbine	5.5
2	TG-4, Back Pressure Turbine	12
3	TG-5, Back Pressure Turbine	16.42
4	DG sets (2 nos) (Standby)	10.5
	Total	**44.42**

7.1 Observations

1. The power plant is coal-based facility and has power generation as well as steam generation facility.
2. The power and steam supply requirement of all units/process in the industrial complex are made from Captive Power Plant.
   Steam generated from the power plant is utilized for Captive power generation and used steam from Power plant & other sources are utilized again in various manufacturing activities of all other units i.e.: Chemical units I & II ..
3. As per the agreement with M/s Shree Cement Ltd. (SCL), having its registered office at Bangur Nagar, Post Box No.33, Beawar-305901, Rajasthan, M/s Jubilant has agreed to supply entire quantity of fly ash (8500-9000 MT per month) generated by its captive power/boiler plant at Bhartiagram Gajraula to SCL, and SCL has also agreed to lift the entire quantity on day to day basis at their own cost (Agreement with M/s Shree Cement Ltd. (SCL) is placed at **Annexure-15**).

4. In addition to the agreement with M/s. Shree Cement Ltd., the unit has also obtained agreement with M/s. Ultra Tech Cement Ltd., having its registered office at Mumbai, for supplying 75-80 % of fly ash generated per day at its captive power plant at Gajraula, which is valid from 18.05.2020 to 17.05.2021. (Agreement with M/s. Ultra Tech Cement Ltd. is placed at **Annexure-16**).
5. As informed during inspection, ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation.
6. During last inspection on 17 & 18 July, 2019, ponding of spent wash was found on the old ash pond (Refer **Fig. 2(a)**) and now the same has been reclaimed and leveled by filling it with soil (Refer **Fig. 2(b)**). The new ash pond was found fully lined.
7. The unit is maintaining records of coal consumption, ash generation, ash disposal to cement industries and ash utilization for land reclamation/ash pond. Also quarterly report is being submitted to UPPCB on regular basis by the unit. Quarterly report submitted to UPPCB from Jan-2020 to Sept-2020 is placed at **Annexure-17**.
8. Details of Fly Ash management for Year-2020 as provided by the unit is as below:

Table 9:Details of Fly ash management for Year 2020

Sr. No.	Month	Ash Generated (MT)	Disposal to Cement Industry (MT)	Land Reclamation/Ash Pond (MT)
1.	Jan-2020	9869	7005	2864
2.	Feb-2020	9629	6720	2909
3.	March-2020	9854	5202	4652
4.	April-2020	9136	2597	6539
5.	May-2020	9718	8797	921
6.	June-2020	6423	6072	351
	Total	**54629**	**36393**	**18236**

9. As informed by the unit, bottom ash (18236 MT in 06 months) has been generated which was utilized for landfilling of their own ash ponds. Fly ash generated (36393 MT in 06 months) is sold to cement industry(s).
10. As per the ash management data of Year-2019 (From Jan-2019 to June-2019) compared to the data of Year-2020 (From Jan-2020 to June-2020), average ash generation has increased from 8415.5 MT in 2019 to 9104.8 MT in 2020. Quantity of ash sent to cement industry is increased from 5209.16 MT in Year-2019 to 6065.5MT in year 2020. Ash sent to land reclamation/ash pond is reduced from 3206.33 MT in year 2019 to 3039.33 MT in year 2020.
11. Stack monitoring results are given in Section 12 of this report.

8. Molasses based Distillery (Ethyl Alcohol)

8.1 Observations on Molasses based Distillery and analysis results of samples collected from distillery

1. The unit is involved in the manufacturing of Ethyl Alcohol using molasses as a raw material.
2. Consent to Operate (CTO) under Water Act, 1974 and Air Act 1981, has been issued and modified by UPPCB. The date of issue, CTO validity, allowed production capacities and type of products are mentioned in Table-10.

Table 10: Details of Consent to Operate (CTO) under Water Act, 1974 and Air Act 1981

CTO issued under	Reference No.	CTO validity	Allowed production capacities and type of products	Industrial Effluent Discharge Condition
Water Act 1974 dated 19.08.2019	50299	09.08.2019 to 31.12.2019	Ethyl alcohol (94%) 183 KLD during non-monsoon and 91 KLD during monsoon season; or Anhydrous alcohol (99.5 %)-180 KLD	Zero Liquid Discharge (ZLD)
Water Act 1974 dated 19.08.2019	55851	09.08.2019 to 31.12.2019	Ethyl alcohol (94%) 183 KLD during non-monsoon and 183 KLD during monsoon season; or Anhydrous alcohol (99.5 %)-150 KLD	Zero Liquid Discharge (ZLD)
Amendment to CTO (dt. 19.08.2019) under Water Act 1974 dated 24.09.2019	H41774	09.08.2019 to 31.12.2020	Ethyl alcohol (94%) 183 KLD during non-monsoon and monsoon season; or Anhydrous alcohol (99.5 %)-180 KLD	Zero Liquid Discharge (ZLD)
Air Act 1981 dated 19.08.2019	50284	09.08.2019 to 31.12.2019	Ethyl alcohol (94%) 183 KLD during non-monsoon and 91 KLD during monsoon season; or Anhydrous alcohol (99.5 %)-180 KLD	Zero Liquid Discharge (ZLD)
Air Act 1981 dated 19.08.2019	55715	09.08.2019 to 31.12.2019	Ethyl alcohol (94%) 183 KLD during non-monsoon and 183 KLD during monsoon season; or Anhydrous alcohol (99.5 %)-150 KLD	Zero Liquid Discharge (ZLD)
Amendment to CTO (dt. 19.08.2019) under Air Act 1981 dated 24.09.2019	H41773	09.08.2019 to 31.12.2020	Ethyl alcohol (94%) 183 KLD during non-monsoon and 183 KLD during monsoon season; or Anhydrous alcohol (99.5 %)-180 KLD	Zero Liquid Discharge (ZLD)

As per amendment in Consent to Operate, issued to the unit, vide UPPCB letter no. H-41774/ C-7/ Jal-18/19 dated 24.09.2019 and H-41773/ C-7/ Wayu-120/19 dated 24.09.2019, the unit has been allowed to undertake production of 183 KLD of Ethyl Alcohol (94 %) during non-monsoon and monsoon seasons, i.e., throughout the year and while production of anhydrous alcohol (99.5 %) was enhanced from 150 KLD to 180 KLD.

3. The unit had applied to CGWA on 03.01.2019 for renewal of extraction of groundwater NOC which had been expired since 04.04.2019.
4. On the day of inspection, the distillery unit was found operational at **70.63KLD capacity, i.e. @38.6%** of the consented capacity (183 KLD), whereas, the maximum production in Sept.2020 was 143.15KLD.
5. The unit has fed-batch fermentation along with atmospheric distillation. The unit has installed re-boiler at the analyzer column.
6. Considering monthly data submitted by the unit from April-2020 to Sept-2020, average spent wash generation rate is 9.36 KL/KL of Ethyl Alcohol production.

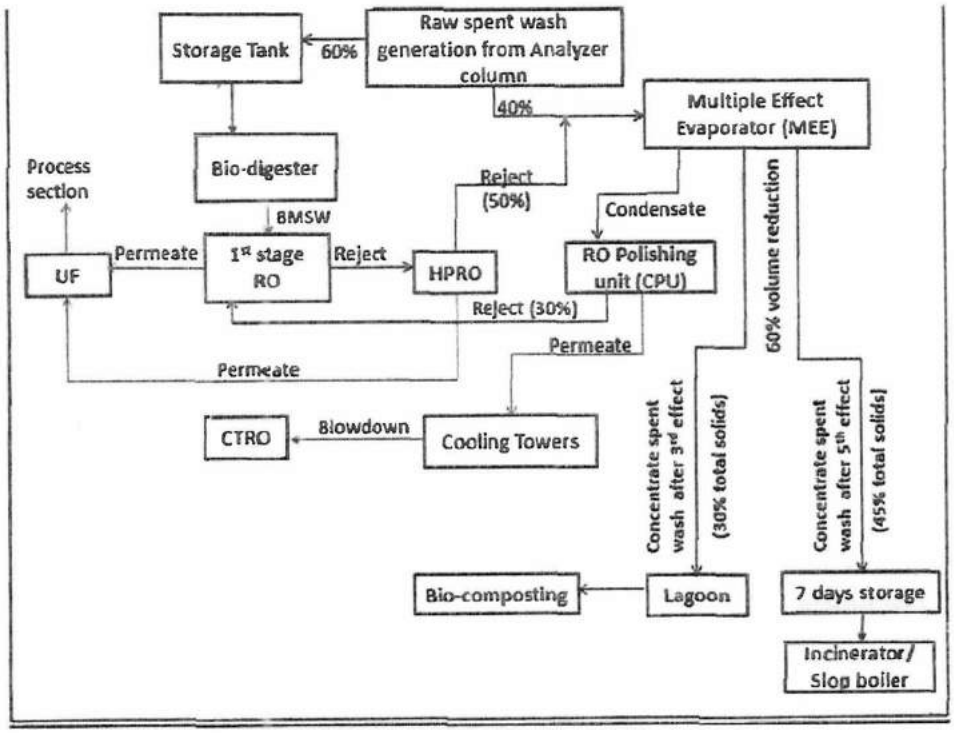
7. The unit is having the following infrastructure for management of spent wash to achieve Zero Liquid Discharge (ZLD) by combining both the options i.e., Bio-composting & Incineration.

Table 11: Details of the installed spent wash management systems.

S. No.	Unit Name	Nos.	Designed Feed Capacity
i.	Bio-digesters	12 (03 BCCR* & 09 MUR*)	It varies from 2200 to 1190 m^3.
ii.	RO Plant-1 and RO Plant-2	02	1200 m^3/d (RO-1) & 600 m^3/d (RO-2)
iii.	MEE (06 stage-Forced Circulation, 01 stage stand by)	01	Feed capacity- 1740 m^3/day
iv.	RO Polishing Unit (Condensate Polishing Unit)	01	800 m^3/day
v.	Incineration (Slop boiler)	01	276 m^3/day

*BCCR-Biological conditioning & control reactor, MUR-Methane Up-flow Reactor

Flow diagram of spent wash management system is as below:



8. As per information submitted by UPPCB (placed at **Annexure-18**); the unit has one pre-aeration tank and 02 nos. clarifiers as pre-treatment facility before two stage RO for concentration of bio-methanated spent wash (BMSW). However, Adequacy Assessment Report (year 2017) submitted by the unit does not mention regarding RO pre-treatment facility.
9. During inspection, all spent wash management facilities of the distillery unit viz. Bio-digester, Reverse Osmosis plant, Multiple Effect Evaporator (6 stage), Bio-composting and Incinerator were found operational.
10. For Ethyl alcohol production **at consented capacity of 183 KLD**, the raw spent wash generation work out to 1712.88KLD (183 KLD*9.36 Kl./KL of alcohol production).

11. Out of total 1712.88 KLD spent wash generation, 60% (1027.73 KLD) of spent wash is subjected to Bio-methanation process for recovery of energy. The bio-methanated spent wash (BMSW) is passed through two stage RO (designed capacity 1200 KLD) and 600 KLD (2nd stage RO also known as HPRO). Reject from the first stage RO is passed to 2nd stage RO (HPRO), final HPRO reject (about 50%) is subjected to Multi Effect evaporation (MEE) section after mixing with 40% (685.15 KLD) of raw spent wash(RSW) while RO permeate (about 50%) is returned to process for molasses dilution and make-up water for cooling towers after ultrafiltration (UF).
12. The unit has provision to use MEE concentrate after 3rd stage (at ~ 30% Total solids) for bio-composting and MEE concentrate after 5th stage (at ~ 50% Total solids) for use in slop Boiler.
13. Concentrated spent wash after 3rd stage of MEE is stored in lagoon-A (18000 m^3 capacity) for Bio-composting and concentrated spent wash after 5th stage of MEE called as 'slop' is stored in tank of 350 m^3 capacity to feed in slop (incineration) boiler. At the time of inspection, the slop storage tank was under repair and slop was being directly fed into the incinerator. No slop was stored in storage tank and therefore sample could not be taken.
14. MEE condensate is treated through condensate polishing unit (CPU) RO of 800 m^3/day capacity. CPU reject after mixing with BMSW, is treated through two stage RO (designed capacity 1200 KLD) and 600 KLD (2nd stage RO also known as HPRO).
15. Mass flow meter with totalizer has been installed at MEE feed, MEE condensate and MEE outlet after 5th stage; however, mass flow meter with totalizer has not been installed at MEE outlet after 3rd stage. The unit has provided mass flow meter or flow meter on pipeline of concentrated spent wash going to the lagoon and one sub totalizer flow meter is also installed on concentrated spent wash used for bio-composting.
16. Mass flow meter readings (Totalized and Flow rate) observed during inspection are as follows-
    i. MEE feed reading - 4638.83 Metric Tons having mass flow rate 30.5 MT/hr (28.77 m^3/hr, considering Sp.Gr.1.06);
    ii. MEE concentrate (Slop, after 5th stage)- 339963 MT having mass flow rate 9.75MT/hr (8.40 m^3/hr, considering Sp.Gr.1.16);
    iii. MEE condensate -21380.71 MT having mass flow rate of 19.6 m^3/hr

    Thus, the above mass flow meter readings indicate that MEE is achieving an efficiency of 67.4%. As per information provided, the unit has provision to use MEE concentrate after 3rd stage for bio-composting, it should have installed mass flow meter with totalizer at outlet of MEE after 3rd stage.

18. Unit has installed volumetric flow meters at feed to slop boiler and on pipeline of concentrated spent wash directly utilized for bio-composting. The flow meter readings (totalized and flow rate) observed at the time of inspection are as follows:
    i. Feed to Slop (Incineration) Boiler -287.04 m^3 (totalized) having flow rate of 4.96 m^3/hr;
    ii. Spent wash feed to bio-composting totalized reading 90803.04 m^3 having flow rate of 11.39 m^3/hr.

From observed data, it can be deduced that at the time of inspection, unit was operating at 70.62 KLD capacity hence 661 KLD of raw spent wash (RSW) was generated (@9.36 KL/KL), based on the unit's spent wash management system, 60% of RSW i.e., 396.60 KLD is bio-methanated while 40% RSW i.e., 264.4 KLD plus 50% of bio-methanated spent wash i.e.,

86

198.3 KLD as RO reject is fed in to MEE. Therefore, concentrated spent wash (CSW) generation should be 7.63 KL/hr [(264.4+198.3)*0.33=152.69KLD=7.63 KL/hr]; but the observed flow rate of spent wash utilized in bio-composting was 11.39 m^3/hr and flow rate of feed to slop boiler was 4.96 m^3/hr.

19. The unit is having a storage tank of 22,325 m^3 (calculated using dimensions provided) for storage of raw spent wash inside the unit premises (Latitude:28.826795, Longitude:78.231763). The storage tank was found filled with raw spent wash approx. 11,950 m^3**(Fig. 3)**
20. During the inspection, the CPU RO inlet flow rate 19.60 m^3/hr (470.4 KLD) was observed. Since the unit was operating at 38.6% capacity, the condensate generation at consented capacity of 183KLD, would be 719.4 KLD against the CPU RO capacity of 800 KLD.
21. UPPCB issued closure direction dated 03.06.2020 under section 33 (A) of the Water Act, 1975 to the unit and levied EC of Rs. 9.84 crores for illegal extraction of ground water and EC of Rs. 6.19 crores calculated by the committee for violation of environmental norms.

    Till date the unit has not submitted the imposed EC amount, however as per Hon'ble high court order of dated 18.11.2020, "Until further orders of the court the respondent-UP State Pollution Control Board is restrained from taking any coercive action against the petitioner to recover the demand made under the order dated 03.06.2020 provided the petitioner furnishes solvent security for the amount Rs. 16,03,00,000/- (Sixteen Crore Three Lakh) to the satisfaction of Chief Environmental Officer, Circle-7, Lucknow within two weeks from today and also submit an undertaking for depositing compensation amount with interest in the event of dismissal of instant petition for writ."

8.2 Characteristics of samples collected from Distillery unit

Table 12:Analysis results of samples collected from Distillery unit

Distillery Plant								
Sr. No.	**Sample Location**	**pH**	**COD (mg/l)**	**BOD (mg/l)**	**TS (mg/l)**	**TSS (mg/l)**	**TDS (mg/l)**	**Color (Hazen)**
1.	Raw Spent Wash i.e. Feed to lagoon, inside the premises (Before bio-digester, before settling)	5.27	165280	63000	211340	-	-	76048
2.	Feed to Bio-digester (after settling in lagoon)	5.18	187840	66667	197460	-	-	82634
3.	Bio-digester outlet	8.52	87680	14166	114070	-	-	93413
4.	RO Feed (After bio-digester)	7.55	43680	12867	57640	-	-	44311
5.	RO Permeate (After bio-digester)	6.96	244	136	-	BDL	236	152
6.	RO reject i.e. HP RO Feed	7.73	86240	-	107060	-	-	-
7.	MEE Inlet	7.17	127440	-	160120	-	-	-
8.	MEE Concentrate (5th stage)	6.88	415200	-	456020	-	-	-
9.	MEE Condensate	9.08	5568	4073	-	75	228	54
10.	Spent Lees	4.81	1659	958	-	BDL	520	16
11.	RO (CPU) Permeate	9.84	234	160	-	BDL	96	64
12.	RO (CPU) Reject	8.81	25040	16250	-	123	2800	2335
13.	UF Permeate	7.34	315	138	-	BDL	332	383
Compost Yard								

87

14.	Spent wash spray at Bio-compost yard	7.08	313200	-	405430	-	-	-
Conc. Spent Wash Lagoon (18000 m^3)								
15.	Inlet of Lagoon-A	7.16	246400	-	289030	-	-	-
16.	From Lagoon-A	7.18	240800	-	336470			

8.2.1 Observation on the basis of Analysis Results

1. The pH and total solids of sample collected from outlet of bio-digester is 8.52 and 114070 mg/l respectively while RO feed has pH and total solids of 7.55 and 57640 mg/l. As per the process followed by unit, spent wash from outlet of bio-digester is directly fed to RO so the pH and total solids of spent wash from bio-digesters outlet and RO feed should be the same or comparable but analysis result shows otherwise. Reduction of total solid content from 11.4% at bio-digester outlet to 5.76 % at RO feed and change in pH from 8.52 in bio-methanated spent wash to 7.55 in RO feed is due to installation of pre-treatment of RO feed having pre aeration tank, poly dosing tank, 2 nos. clarifiers and sludge storage tank and decanter and pH adjustment tank as informed by RO, UPPCB.
2. The total solids of sample collected from the feed (inlet) of HPRO is 107060 mg/l which is lower than the total solid concentration at bio-digester outlet (114070 mg/l).
3. Sample collected after 5th stage of MEE has total solid content of 456020 mg/l which is lower than desired solid content of 50-55% to meet the calorific value to achieve self-sustaining incinerator and therefore not practically feasible for optimum burning in slop fired boiler.
4. The characteristics of spent wash (pH-7.08, TS-405430 mg/l) being sprayed on bio-compost yard and characteristics of concentrated spent wash collected after 5th stage of MEE (pH-6.88, TS-456020 mg/l). It indicates that unit is also utilizing 5th stage MEE concentrate (slop) instead of 3rd stage MEE concentrate for bio-composting. This deduction is corroborated by the fact that unit has not installed any flow meter at outlet of 3rd stage of MEE.
5. The unit was observed utilizing concentrated spent wash having total solid concentration of 40.54% in bio-composting which is much higher than the recommended solid concentration of 30% as per the "SOP for bio-composting operation in molasses based distilleries". In case of high solid concentration, the ratio of conc. spent wash to press mud shall deviate from the prescribed ratio of 1.6:1 and lead to culture mortality and disruption in bio-compost process.
6. Spent wash being sprayed on bio-compost yard has total solid concentration of 40.5% whereas spent wash sample collected from inlet of lagoon A (which is used for storage of conc. spent wash) has solid concentration of 28.9% to 33.6%. Thus there is an evident mismatch. Also, sample of spent wash stored in the lagoon indicates that the unit generally operates MEE upto 3rd stage and concentrated spent wash of about 30% is stored in lagoon. Incineration is operated rarely which is also evident from logbook data that shows yearly average CSW (slop) fed to incineration boiler is less than 9%. (This explained in detail in Section 8.5 of this report.)
7. The analysis result and mass flow meter data indicate that unit may be utilizing the concentrated spent wash from MEE outlet (after 5th stage) in bio-composting thereby minimizing/bypassing the operation of incinerator boiler.

AEE UPPCB

87

8.3 Observations on Lagoon for Concentrated Spent wash

1. During earlier inspection carried out on 17.07.2019-18.07.2019, the joint inspection team observed that, the unit had made partition in one lined lagoon of 44,000 m^3(dedicated for storing concentrated spent wash) and converted that one lagoon into two parts i.e., Lagoon 'Á' and Lagoon 'B'. The total capacity of both the lagoons (Lagoon 'Á' and Lagoon 'B') was 32,000 m3 (Refer **Fig. 4 (a)**).
   - However, during current inspection, it was observed that, Lagoon 'B' does not exist as the same has been filled and levelled using soil (Refer **Fig. 4 (b)**).
2. Currently, the unit has one lagoon of 18,000 m^3 capacity i.e. Lagoon 'A' (Latitude: 28.808744, Longitude: 78.219666) for storage of concentrated spent wash i.e. after 3 stage MEE for bio-composting. Approximately 12,000 m^3 of spent wash was present in the lagoon against the allowable capacity of 15,900 m^3.
3. Analysis result of sample collected from lagoon-A (having total storage capacity of 18,000 m^3) have pH-7.18, total solids- 33,6470mg/l (33.6 %) and COD-2,40,800 mg/l.

8.4 Observations on Bio-composting facility

1. The unit is having total Bio-composting area of 30.0 Acres. Out of which covered area is 16.8 acre & remaining 13.2 acres is uncovered. It was observed that, ready bio-compost was stored inside (under) covered bio-compost area.
2. The unit is having 08 numbers aero tiller machines for spraying of spent wash, mixing, turning of bio-compost material. The unit has installed web camera at bio-compostyard.
3. The joint team visited the bio-compost yard (Latitude: 28.8197919, Longitude: 78.2130499) and observed that unit was carrying out composting on the covered compost area of 16.8 acres only and remaining 13.2 acres bio-compost yard is uncovered and were not being used for composting.
4. Before bio-compost yard, the CSW carrying pipeline is divided into two pipelines, one goes up to the lagoon and the other goes directly up to bio-compost yard. However, analysis result of samples collected from both the pipelines during inspection showed different characteristics - spent wash being sprayed on bio-compost yard has total solid concentration of 40.5% and pH 7.08 whereas spent wash sample collected from inlet of lagoon A (which is used for storage of conc. spent wash) has solid concentration of 28.9% and pH- 7.18.
5. Bio-compost yard is located 1.63 KM (measured using Google Earth) away from CSW storage lagoon. CSW pipeline has provision of valves for flow rate control. CSW having major flow (11.39m^3/hr) was diverted towards bio-compost yard and reduced flow (4.96 m^3/hr) sent to the incineration (Slop boiler), therefore higher concentration of total solids i.e., 40.5 % from 5th stage of MEE have been observed at spray of bio-compostyard.
6. The flow meter has been provided on pipeline of concentrated spent wash utilized for bio-composting and the reading was observed as 90803.04 m^3 (Totalized) and flow rate of 11.39m^3/hr. However, the unit has not provided flow meter on pipeline of concentrated spent wash sent to the lagoon.
7. It was observed that concentrated spent wash from MEE having total solid content of 40.6% and high temperature was directly being sprayed on bio-compost yard. The high temperature is bound to kill the microbial culture thereby resulting in improper bio-composting.
8. Slurry of press-mud and spent wash was observed between the windrow number 10/11. **(Fig. 5)**.The unit representative has informed that this particular area is dedicated for sludge collection only, which include digester and fermenter sludge.

89

9. As informed by the unit representative, they are storing finished bio-compost in the active bio-compost area itself (**Fig. 6**) and no separate area is provided for storage of press mud as well as for ready bio-compost which are in violation of SOP for Bio-Composting Operation for Molasses Based Distilleries.
10. The unit has provided leachate collection pit and pumping arrangement at bio-compost yard. (**Fig. 7**)
11. Analysis result of spent wash sample collected from the spray at bio-compost yard have pH-7.08, COD-3,13,200 mg/l, total solids- 4,05,430mg/l (40.5%). Based on six months logbook data, the ratio of concentrated spent wash to press mud is 1.56:1. However, bio- composting of CSW with solid content up to 30% is suggested with CSW to press mud ratio of 1.6:1 as per SOP. Bio-composting of concentrated spent wash with total solid content of 40.5% to press mud ratio of 1.56:1 is not proper as per SOP for Bio- Composting Operation for Molasses Based Distilleries.

8.5 Observations on Slop Boiler

1. Unit has a incineration boiler of 276 KLD (slop feed) capacity for 25 TPH steam generation, which is using crushed coal as a supporting fuel. The percentage ratio of Slop to Coal feed, as informed by unit officials, is maintained at 70-80% and 30-20% respectively. Ash generated from the slop boiler is collected and disposed to the fly-ash dump yard as reported.
2. As per the unit's data for FY 2019-20 (April 2019 to March 2020), CSW generated from MEE is 115262.0 MT/ year (**Annexure-19**) and CSW consumed in slop (incineration) boiler is 8334.0MT/ year (**Annexure-20**), which is only 7.23% of the total CSW generated from MEE.
3. As per the unit's data for last 6 months (April 2020 to Sept.2020), CSW generated from MEE is 55899.0MT and CSW consumed in slop (incineration) boiler is 4998.0MT, which is only 8.94% of the total CSW generated from MEE.
4. From the above points; it is established that slop (incineration) boiler is operated rarely. Therefore, the welghtage of slop (incineration) boiler can be given maximum 9.0% for CSW utilization and the rest 91% shall have to be utilized through bio-composting.
5. As per the designed capacity of the slop boiler, unit can incinerate 11.5 KL/hr (276 KLD) of CSW but during inspection the unit was operating at a reduced feed rate of 4.96 Kl./hr. However, mass balance carried out considering MEE feed rate of 30.5 MT/hr (28.77 m^3/hr) and MEE concentrate feed rate of 9.75 MT/hr (8.40 m^3/hr), MEE condensate feed rate of 19.6 MT/hr (19.6 m^3/hr) and flow meter reading at compost yard of CSW transported directly from plant MEE is 11.39 m^3/hr, indicate that feed to incinerator was negligible. It appears that incinerator was operated with mostly coal. Similar observation was made during Joint Committee inspection dated 17-18th July,2019 when slop feed rate was observed to be 3.2 KL/hr.
6. Further, as per analysis result, total solids of concentrated spent wash at MEE outlet after 5th stage was 45.6% which is much less than the desired level of concentration i.e., 55-60%. Therefore, the unit may not be able to operate its slop incinerator at optimal capacity. Further, slop could be burnt with 45% total solids however coal consumption will increase drastically in that case i.e., slop and fuel ratio will have to be 50:50 instead of 70:30 as reported by the unit officials.
7. The unit has one storage tank (pump sump) of capacity 350 KL for storage of MEE concentrate generated from the MEE for further use in incinerator. Same was found under

maintenance hence, sample could not have collected.

8.6 Computation of allowable operational capacity of Distillery Unit

Raw spent wash 40% is fed directly into the MEE while 60% bio-methanated spent wash is treated through RO and MEE.

Table 13: Bio-compost covered area requirement (5 cycles) calculation for 183KLD Molasses based Distillery

S. No.	Particulars	Unit	Value
1.	Consented Capacity of Molasses based distillery (as per consent to operate)- 183KLD Alcohol production for 350 days operation per year.	KL/Annum	64050.0
2.	Raw Spent Wash generation (Calculated from monthly data submitted by the Unit)	KL per KL of Alcohol	9.36
3.	Calculated Spent Wash generation at 183KLD	KL/Annum	599508.0
4.	Raw Spent Wash 40% feed direct in to MEE (A)	KL/Annum	239803.2
5.	Balance 60% Bio-digested Spent Wash (B)	KL/Annum	359704.8
6.	CPU Reject = 30% of Condensate Gen. (Calculated at 183KLD production) =(C)	KL/Annum	80423.4
7.	Total Feed to SW RO = (B) +(C) =(D)	KL/Annum	440128.2
8.	Spent Wash after 50% reduction in volume (of D above) through RO and HPRO (as per operational data) =(E)	KL/Annum	220064.1
9.	Total Feed to MEE = (A) +(E) =(F)	KL/Annum	459867.3
10.	Concentrated Spent Wash (CSW = 40% of F above) after MEE =(G)	KL/Annum	183946.9
11.	Average Quantity of CSW fed in to Slop boiler (Calculated from monthly data submitted by the Unit) =(H)	KL /day	89.25
12.	Total CSW feed in slop boiler (considering 300days per annum) =(I)	KL/Annum	26775.0
13.	Net Quantity of Concentrated Spent Wash to be used in Bio-composting	KL/Annum	157171.9
14.	KL of spent Wash application per MT of Press mud.	KL / MT per cycle	1.6
15.	Press mud Requirement corresponding to installed capacity	MT/Annum	98232.5
16.	Number of Cycles Permitted for Bio-composting (Covered Yard)	Nos	5.0
17.	Standards for Press mud application	MT / Acre per cycle	850.0
18.	Required Covered Area of Bio-compost Yard	Acres	23.1
19.	Available Covered Area of Bio-compost Yard	Acres	16.8

Out of total 30 acres area, the unit has **16.80 acres covered area** of Bio-compost Yard, against the **requirement of 23.1 acres**, therefore, allowable operational capacity of Distillery Unit works out to be **133.01 KLD ~ 133 KLD during monsoon season** (183KLD*16.8/23.1). However, as the Unit has open (uncovered) bio-compost area 13.2 Acres also, the unit can operate at consented capacity 183KLD during non-monsoon season. The alcohol production capacity 183 KLD (monsoon season) of the unit was assessed by UPPCB on the basis of the capacity of the plant & machinery installed for ZLD. However, the joint committee assessment is done on the basis of actual performance data (April 2020 to September 2020) of plant and machinery installed for ZLD.

8.7 Comparison of non-compliances observed during previous inspection and status observed during current inspection

Table 14: Comparison of non-compliances observed during previous inspection and status observed during current inspection

Non-compliances observed during previous inspection dated 17 & 18 July, 2019	Situation observed during current inspection dated 16.09.2020
Spent wash was found stored in the old ash pond area and lining of old ash pond bund was found damaged (Refer **Fig 2(a)**)	Old ash pond has been reclaimed by filling with soil and no ponding of spent wash has been observed (Refer **Fig.2(b)**) The unit has consumed/utilized all the spent wash found stored in old ash pond area through RO followed by MEE followed by bio-composting. The same has been verified through MEE operation logbook from July-2019 to July-2020, submitted by the unit.
Ponding of leachate spent wash near covered compost area (Refer **Fig 8 (a)**)	The unit has reclaimed that area by filling with soil and no ponding has been observed (Refer **Fig. 8 (b)**) The unit has consumed/utilized all the leachate spent wash found as ponding near compost yard, through RO followed by MEE followed by bio-composting. The same has been verified through MEE operation logbook from July-2019 to July-2020, submitted by the unit.
Roof of covered compost yard found damaged (Refer **Fig 9(a)**)	Covered shed of bio-compost yard found repaired (Refer **Fig. 9(b)**)
Press mud found stored in open area (Refer **Fig 10(a)**)	Press mud found stored under shed (Refer **Fig. 10(b)**)
Rain water harvesting channel found filled with leachate from compost yard (Refer **Fig 11 (a)**)	Rain water harvesting channel found dismantled (Refer **Fig. 11 (b)**)
The unit was operating its slop boiler at a reduced feed rate of 3.2 m^3/hr against designed feed rate of 11.5 m^3/hr due to plugging of tubes of the boiler.	The unit was still operating its slop boiler at reduced feed rate of 4.96 m^3/hr against designed feed rate of 11.5 m^3/hr.

*The unit has consumed/utilized all the spent wash/leachate spent wash found stored in old ash pond area and as ponding near compost yard, through RO followed by MEE followed by bio-composting. The same has been verified through MEE operation logbook from July-2019 to July-2020 submitted by the unit.

9. Chemical Effluent Treatment Plant (CETP)

9.1 Observations

1. The CETP was found operational during visit.
2. The unit has Chemical Effluent Treatment Plant (CETP) having designed capacity of 700 KLD for treatment of effluent generated from Chemical Unit -1 & Polymer Unit.
3. CETP is comprising of receiving chamber, equalization tank, physiochemical treatment, biological treatment, tertiary treatment and RO plant for recycling and reuse of effluent into the process.
4. CETP consists of two stage aeration system (ASP) followed by clarification & tertiary treatment (which includes Pressure Sand Filter and Activated Carbon Filter).
5. The treated waste water from CETP is being used for cooling tower make-up /Chemical solution preparations /horticulture purposes. The unit should stop discharge of effluent for horticulture and entire effluent should be recycled/reused in process.
6. Outlet of CETP is feed to the RO plant (CTRO). RO permeate is reused for cooling towers water requirement.
7. The unit has installed OCEMS and provided connectivity to CPCB/SPCB servers.
8. Electromagnetic flow meters were installed at inlet and outlet of CETP for flow measurement. At the time of inspection, flow meter totalizer at inlet showing 256313 m^3 (Flow rate-13.9 m^3/hr) and flow meter totalizer at outlet displayed696646 m^3 (Flow

rate-16.43 m^3/hr).

9.2 Characteristics of samples collected from the Chemical Effluent Treatment plant

- Effluent samples were collected from the Inlet, outlet and aeration tank of CETP to assess the performance of the same.
- The characteristic of the collected samples are as below;

Table 15: Analysis result of samples collected from CETP

Chemical Effluent Treatment Plant							
Sr. No.	Sample Location	pH	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	TDS (mg/l)	Color (Color units)
1.	Inlet	5.07	8668	4566	31	816	58

Chemical Effluent Treatment Plant							
Sr. No.	Sample Location	pH	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	TDS (mg/l)	Color (Color units)
2.	Outlet	7.44	33	4.8	14	1588	BDL
3.	Aeration Tank-1	MLSS - 5300 mg/l ; MLVSS - 5014 mg/l					
4.	Aeration Tank-4	MLSS - 1766 mg/l ; MLVSS - 1590 mg/l					

9.2.1 Observation on Analysis Results

1. Analysis results of outlet (treated effluent) of the Chemical Effluent Treatment Plant, indicate that it is amenable for treatment through RO Plant, which is already adopted by the unit.

10. Common Cooling Tower Reverse Osmosis Plant (CTRO)

- Unit has a 1200 KLD CTRO system for treatment of wastewater received from DM plant, Boiler Blow down, Cooling Tower blow down and treated effluent from CETP.
- CTRO is comprising of three-stage RO system. Outlet of CETP is feed to the RO plant (CTRO). RO permeate is reused in plant i.e., for cooling towers water requirement and RO reject is sprayed on coal.
- At the time of inspection, flow meter totalizer provided at feed to CTRO, permeate of CTRO & reject of CTRO displayed 1356678 m^3 (Flow rate-55 m^3/hr), 679586.49 m^3 (Flow rate-41.42 m^3/hr) and 340408.24 m^3 (Flow rate-12.56 m^3/hr) respectively.

10.1 Characteristics of samples collected from CTRO

- Characteristics of the samples collected from the Common Cooling Tower RO are as shown in the following table.

Table 16: Analysis results of the samples collected from CTRO

Cooling Tower RO (CTRO)							
Sr. No.	Sample Location	pH	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	TDS (mg/l)	Color (Colour units)
1.	CTRO Holding Tank	8.60	328	208	39	2240	93
2.	CTRO Feed (Pre-treated)	11.40	249	110	262	2896	BDL
3.	CTRO Permeate	6.48	155	70	20	1492	BDL
4.	CTRO Reject	6.38	552	181	35	6608	12

10.2 Observation on Analysis Results

1. The analysis result of sample collected from CTRO permeate indicates that, the same

93

can be utilized in cooling tower.

2. Analysis result of CTRO reject showed pH-6.38, BOD-181 mg/l, COD-552 mg/l, TSS-35 mg/l, TDS-6608 mg/l and Colour-12 Hazen.

11. Sewage Treatment Plant (Capacity-400 KLD)

1. The unit has one sewage treatment plant of 400 KLD for treatment of domestic effluent generated from the staff quarters, worker's colony, guest houses, canteens, bathrooms, kitchen and laundry.

   The unit has consent to operate, issued (dated19/08/2019) by UPPCB, having permission to discharge 15KLD of treated sewage through Septic Tank with prescribed standards COD-250 mg/l, BOD-30 mg/l and O&G-10mg/l.
2. The STP consist of Holding tank, Screen Chamber, Oil & Grease removal tank and Collection/Equalization tank as Primary treatment units, Aeration tank and Clarifier as Secondary Treatment units, Pressure Sand Filter and Activated Carbon Filter as Tertiary Treatment units.
3. The STP does not have disinfection for control of TC / FC in treated sewage.
4. The treated effluent is utilized for horticulture and watering of plants within premises.

11.1 Characteristics of samples collected from STP

- Samples were collected from the collection/equalization tank (Inlet) and final outlet of STP and the analysis results are as follows:

Table 17: Analysis results of samples collected from STP

Sewage Treatment Plant										
Sr. No.	Sample Location	pH	COD (mg/l)	BOD (mg/l)	PO_4-P (mg/l)	TSS (mg/l)	TDS (mg/l)	Color (Colour units)	O&G (mg/l)	NH_3-N (mg/l)
1.	STP Inlet	7.09	128	63	2.01	29	468	79	BDL	20
2.	STP Outlet	7.26	41	17	0.88	12	368	93	BDL	22
3.	STP Inlet (TC/FC)	Total Coliforms -$17x10^7$MPN/100ml Fecal Coliforms -$49x10^6$MPN/100ml								
4.	STP Outlet (TC/FC)	Total Coliforms -$17x10^5$MPN/100ml Fecal Coliforms -$14x10^4$MPN/100ml								

11.2 Observations on STP and Analysis Results

1. At the time of inspection, flowmeter reading at STP inlet and outlet observed as 207520.0937 m^3 (Flow-10.34856 m^3/hr) and 207880.3831 m^3 (Flow-10.24443 m^3/hr) respectively.
2. As per logbook data of STP submitted by the unit from April-2020 to September-2020, average 244.23 KLD of domestic effluent is treated in STP and average-242.70 KLD of treated domestic effluent is utilized in gardening/horticulture, which means land application
3. Raw sewage sample collected from the inlet of STP has pH-7.09, COD-128 mg/l, BOD-63 mg/l, TDS-468 mg/l, TSS-29 mg/l, Colour-79 Hazen, O&G-BDL and NH_3-N-20 mg/l; which indicate dilution with fresh water.
4. Treated sewage sample collected from the outlet of STP has pH-7.26, COD-41 mg/l, BOD-17 mg/l, TDS-368 mg/l, TSS-12 mg/l, Colour-93 Hazen, O&G-BDL and NH_3-N-22 mg/l, Total Coliforms $17x10^5$MPN/100ml and Fecal Coliforms $14x10^4$MPN/100ml. In case of treated sewage disposal on land, Total and Fecal Coliforms norms are less than 1000 MPN/100 ml. Since fecal coliform value is $14x10^4$MPN/100 ml, which is more than prescribed norms of 1000 MPN/100 ml. Therefore, STP of the unit is non- complying w.r.t fecal coliform.

TREE UPPCB

12. Emission Monitoring of M/s Jubilant Industries Ltd. (Complex)

12.1 Stack Emission Monitoring Result

1. As per the valid consents, the complex is having stacks as mentioned in the following Table.

Table 18:Stack detail as per valid consent

Sr. No.	Name (as mentioned in valid Consent)	Stack No. (as mentioned in valid Consent)
Captive Power Plant		
1.	Boiler (90 TPH)- 2 Nos.	01
2.	Stand by Boiler (25 TPH)	04
3.	03 DG sets	05
4.	Stand by Boiler (35 TPH)	02
5.	Stand by Boiler (34 TPH) & Boiler (25 TPH)	03
Distillery division		
1.	Boiler-25 TPH	01
2.	Incinerator (waste)	02
Chemical Unit-1		
1.	Incinerator (biomass)	02
2.	Ketene Heaters (2 Nos.)	01
Polymer Unit		
1.	Thermic Fluid Heater (10 lac KCal)	01
Chemical Unit-2		
1.	02 Boilers of 90 TPH & 90 TPH, 04 Boilers of 35 TPH, 34 TPH, 25 TPH & 25 TPH-as stand by	01
2.	D.G. set of 10.5 MW	02
3.	Thermal Oxidizer	03
4.	Incinerator (diesel/biogas)	04
Fertilizer Unit		
1.	Sulfunc Acid Plant (15000 MT/Month)	01
2.	GSSP Plant (15000 MT/Month)	02

2. Team of official from Regional office, UPPCB, Moradabad carried out monitoring of 07 operational stacks as mentioned in Table-19, however one stack of Incinerator no. 3 located in chemical unit-2 could not be monitored since the same was found non-operational at time of monitoring. The stack wise emission results are given below;

Table 19: Stack Emission monitoring results

Sr. No.	Name of the Plant/ Stack Identification	SPM* Result	Std. limit for SPM	Acid mist (H_2SO_4) Result	Std. Limit for Acid mist including SO_3 (as H_2SO_4) as per CTO	SO_2	Std. for SO_2	Oxide of Nitrogen (as NO_2)	Std. for NO_2
1	Captive Power Plant (2*90 TPH), Boiler Stack	44.66	50	-	-	223.08	600	194.75	300
2	Slop Fired Boiler Stack at distillery unit (25 TPH)	108.33	150	-	-	121.8	-	-	-
3	Sulphuric Acid Plant (SAP)	-	-	34.88	50	2.06 Kg/ton**	2.5 Kg/ton	-	-
4	Incinerator No. 1 in Chemical Unit-2	46.44	50	-	-	145.86	200	-	-

5	Liquid Waste Incinerator No. 2	45.33	50	-	-	109.25	200	-	-

Sr. No.	Name of the Plant/ Stack Identification	SPM* Result	Std. limit for SPM	Acid mist (H_2SO_4) Result	Std. Limit for Acid mist including SO_3 (as H_2SO_4) as per CTO	SO_2	Std. for SO_2	Oxide of Nitrogen (as NO_2)	Std. for NO_2
6	Thermal Oxidizer	21.11	50	-	-	42.9	200	-	-
7	GSSP Plant (Granulator)	88.22	150	-	-	70.5	300	139.2	300

Note: (-) indicates not applicable. All values are in mg/Nm³ if not specified otherwise
*SPM-Suspended Particulate Matter
** 2.06 kg/ton = 1208.88 mg/Nm³, Std.: 2.5 kg/ton = 1370 mg/Nm³

12.2 Observation on Stack Monitoring Results

As per the analysis report of stack monitoring report the following observations are made;

1. During last inspection (Inspection dated 17.07.19 & 18.07.19), emission from Captive Power Plant (90 TPH), Boiler Stack, was found non-complying w.r.t NO_2 as it showed NO_2-459.99 mg/Nm³ against the standards limit of 300 mg/Nm³. However, during current inspection all the parameters i.e., SPM, SO_2 and NO_2 are found complying w.r.t notified standards.
2. During last inspection (Inspection dated 17.07.19 & 18.07.19), emission from stack at sulphuric acid plant, was found non-complying w.r.t SO_2 as it showed SO_2-2572 mg/Nm³ against the standards limit of 1370 mg/Nm³. However, during current inspection all the parameters i.e., Acid mist and SO_2 found complying w.r.t notified standards.
3. All the Stack emission analysis report i.e. of Captive Power Plant (2*90 TPH), Boiler Stack, Slop Fired Boiler Stack at distillery unit (25 TPH), Sulphuric Acid Plant (SAP), Incinerator No. 1 in Chemical Unit-2, Liquid Waste Incinerator No. 2, Thermal Oxidizer and GSSP Plant found complying with CPCB standards.

12.3 Ambient Air Quality Monitoring Results

- UPPCB, Moradabad team has monitored the ambient air quality at 03 locations as mentioned in Table-20. The monitoring results are as follows;

Table 20:Ambient air quality monitoring results

Sr. No.	Location	Std. for NO_x (µg/m³)	NOx Result (µg/m³)	Std. for SO_2 (µg/m³)	SO_2 Result (µg/m³)	Std. for RSPM (µg/m³)	RSPM Result (µg/m³)
1.	Export Oriented Unit (EOU)	80	44.0	80	39.0	100	92.99
2.	Near CETP plant		45.0		35.0		96.96
3.	Terrace of Admin Building		41.0		32.0		81.19

12.4 Observations on the Ambient Air Quality Monitoring Result

As per the analysis report of ambient air quality monitoring; the following observations are made;

1. The value of NO_x, SO_2, and RSPM at Export Oriented Unit (EOU) shows 44.0 µg/m³, 39.0 µg/m³ and 92.99µg/m³ against standard limit of 80 µg/m³, 80 µg/m³ and 100 µg/m³, respectively.
2. NO_x, SO_2, and RSPM near CETP plant found 45.0 µg/m³, 35.0 µg/m³ and 96.96µg/m³ against standard limit of 80 µg/m³, 80 µg/m³ and 100 µg/m³, respectively.

Near terrace of Admin building, the value of NO_x, SO_2, and RSPM shows 41.0 µg/m³, 32.0 µg/m³ and 81.19µg/m³ against standard limit of 80 µg/m³, 80 µg/m³ and 100 µg/m³ respectively.

3. It may be concluded that ambient air quality was observed within notified standardw.r.t. NO_x, SO_2, and RSPM at all three locations, namely Export Oriented Unit (EOU), near CETP and at terrace of Admin building.

13. Hazardous Waste Management and Secured Landfill Site (SLF)

1. The unit has properly demarcated separate area for storage of hazardous wastes and a shed has been provided for the same.
2. The unit has provided separate waste storage yards for storage of hazardous waste such as used oil, spent solvent, distillation residue, ETP sludge, ethyl acetate waste etc. along with cleaned empty barrels/containers contaminated with hazardous chemicals/wastes and waste scrap. (**Fig. 12**)
3. The unit also has captive Secured Landfill Facility (SLF) for disposal of land fillable hazardous waste and capacity of the same is about 11,000 MT. (**Fig. 13**)
4. As informed by the unit representative, the landfill has clay liner of height 1.5 m (permeability $1x10^{-7}$ cm/sec), 1.5 mm geotextile liner and 1.5 mm HDPE liner from bottom to top. Above HDPE liner 300 mm sand bed is provided, thus leachate from the wastes flow down through sand bed and through geo-pipe it is collected in a leachate collection well.
5. Leachate from landfill is collected in a leachate collection well. As informed by the unit, leachate from leachate collection well is transported to captive incinerator or Agitated Thin Film Dryer (ATFD) through tankers. Arrangement for doing the same was also observed at site. (**Fig. 14**)
6. As per record of Year: 2020 submitted by the unit, following waste is disposed inSLF.

Table 21:Waste disposal to Secured Landfill Site, Year: 2020

Month	Type of Waste					Total disposed in SLF	
	Incinerator Ash /ATFD SALT (Kg)	KMnO4 Sludge (Kg)	CETP Sludge (Kg)	CTRO Sludge (Kg)	Asbestos Sheet(Kg)	In kgs	In Ton
	Cat. 37.2	Cat. 37.1	Cat. 35.3	Cat. B1			
Jul-20	190380	62	3630	3180	1000	198252	198.25
Aug-20	144200	68	5320	3280	0	152868	152.87
Sep-20	193350	58	3730	3570	2500	203208	203.21

7. The unit has provided display board at entrance gate of the unit, displaying haz. waste authorization details, hazardous waste generation quantity (MT/year) and maximum storage capacity for the same. (**Fig. 15& Fig. 16**)
8. The unit has installed manual water sprinkling arrangements, fire alarming systems, manual fire call system and fire extinguishers to control any incidents related to fire outbreak in the hazardous waste storage area. (**Fig. 17& Fig. 18**)
9. M/s. Jubilant Life Sciences Ltd, Gajraula has valid membership with Common TSDF (i.e./M/s Bharat Oil Waste Management Ltd., Kanpur) for disposal of hazardous waste.

96

13.1 Characteristics of Samples collected from Secured Landfill site

➢ Characteristics of the leachate samples collected from the landfill site is as follows:

Table 22: Analysis results of samples collected from the landfill site

Sr. No.	Sample Location	pH	COD (mg/l)	BOD (mg/l)	PO_4-P (mg/l)	TSS (mg/l)	TDS (mg/l)	Color (Color units)
1.	Leachate-General Parameters	8.48	13,690	3,600	12.16	1,953	3,43,360	808
2.	Leachate-OPP (µg/l)	Dimethoate-BDL, Methyl Parathion-BDL, Malathion-BDL, Chloropyriphos-BDL, Ethion-BDL						
3.	Leachate-OCP (µg/l)	α- HCH – BDL; β- HCH – 0.05; γ- HCH – 0.34; Aldrin- 0.84; Dieldrin- 0.08; o- Endosulfan – BDL; β- Endosulfan – 1.39; o.p'- DDT – BDL; p,p'- DDT – 0.06; p,p'- DDE – 0.06						

14. Ponding observed outside of premises

1. During inspection, storage/ponding of red colored effluent was observed in unlined pits (Latitude: 28.8180639, Longitude: 78.2225619, **Fig. 19**) at a distance of 0.95 km (measured using google earth) away from the bio-compost yard of the unit (**Fig. 20**).

   Table 23 : Analysis results of samples collected from ponding, observed outside of premises

Sample Location	pH	COD (mg/l)	BOD (mg/l)	TDS (mg/l)	Color (Hazen)
Ponding of red colored effluent in unlined pits (0.95 km (measured using google earth) away from the bio-compost yard of the unit)	8.42	1920	277	5744	3024

2. The characteristics of red colored effluent sample collected from the ponding outside the unit's premises (0.95 km away from the bio-compost yard of the unit) indicates that, the water collected in the pond is contaminated.
   - Feedback with local persons revealed that about three years back, a person had taken the land on rent and carried out mixing of sludge from various industries. Later, the person closed the operations and left unsold sludge on the same land, which was excavated by unknown persons for want of filling material. The residual sludge at pit bottom got mixed with rain water stored in a large pit.

Table 24: Analysis results of samples collected from bore well near ponding

Parameters	Borewell near ponding	BIS IS 10500:2012 (Permissible limit in absence of alternative source)
pH	7.6	6.5-8.5
Conductivity (µmho/cm)	2540	
Colour (color unit)	18	15
COD (mg/l)	42	-
TDS (mg/l)	1702	2000
Total hardness as $CaCO_3$ (mg/l)	569	600

Total alkalinity as $CaCO_3$ (mg/l)	387	600
Chloride (mg/l)	182	1000
Sulfate (mg/l)	**861**	400
Fluoride (mg/l)	0.4	1.5
NO_3-NO_3 (mg/l)	19.6	45
As (mg/l)	BDL	0.05
Cd (mg/l)	BDL	0.003
Co (mg/l)	BDL	-
Cr (mg/l)	BDL	0.05
Cu (mg/l)	BDL	1.5
Fe (mg/l)	BDL	0.3
Mn (mg/l)	**0.99**	0.3
Ni (mg/l)	BDL	0.02
Pb (mg/l)	BDL	0.01
Sb (mg/l)	BDL	-
Se (mg/l)	BDL	0.01
V (mg/l)	BDL	-
Zn (mg/l)	0.02	15

3. Sample was also collected from bore well near unlined effluent ponding area. As per analysis result of the same, it has **colour-18 Hazen, TDS-1702 mg/l, COD-42 mg/l, Total hardness as $CaCO_3$-669 mg/l and conductivity-2540µmho/cm,** which indicate ground water pollution and values are more than permissible limits in absence of alternate source as prescribed in BIS 10500:2012.

15. Recommendations based on observations by Joint team

15.1 Water and Wastewater management

1. The unit shall obtain NOCs from CGWA for withdrawal of groundwater at earliest for all the groundwater abstraction sources, as the CGWA NOCs have already been expired on 04.04.2019.
2. Fresh water consumption in cooling towers (28 nos.) is reported around 4 MLD. It is recommended to take measures for further reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.
3. The unit shall provide proper display boards at each piezometer wells.

15.2 Distillery Plant

- **Performance assessment of the installed spent wash management systems at 38.6% running load cannot be guaranteed for consented production capacity of 183 KLD.** However, the main conclusions that can be drawn from the sample analysis results and observations made by joint inspection team are as follows:
  a. The unit's 16.8 acres covered bio-compost area is inadequate, if RO and incinerator are not operated at designed capacity on regular basis. Therefore, production capacity has to be restricted to **133.01 KLD ~133 KLD.**
  b. The unit has a storage tank of 22,325 m^3 for raw spent wash which is in violation to CPCB direction dated 07.12.2015 wherein storage is permitted only for concentrated spent wash equivalent of 30 days' production.

In view of the above, the following recommendations have been made:

1. The unit has 16.80 acres covered Bio-compost area against the requirement of 23.1 acres; thus

-**During monsoon season,** permissible operational capacity of distillery unit works out to be **133.01 KLD** (183KLD*16.8/23.1) **~133 KLD** of ethyl alcohol production.

- **During non- monsoon season,** the unit can operate at consented capacity 183KLD.

Production capacity should be restricted to 133.01 KLD ~133 KLD in monsoon season; accordingly, the consent to operate of the distillery unit shall be modified.

2. Based on findings of last two inspections, incineration boiler needs retrofitting/replacement to operate at its designed capacity 11.5 KL/hr.
3. The unit shall dismantle the storage tank of 22,325 m^3 used for raw spent wash in compliance to CPCB direction dated 07.12.2015.
4. The unit shall also install online mass flow meter with totalizer at outlet of MEE after 3rd stage and the same should be utilized for bio-composting. Connectivity of the same shall be established with CPCB and SPCB server.
5. The unit shall restrict storage capacity of concentrated spent wash in lagoon equivalent to 30 days' volume for use in bio-composting.
6. The pipeline carrying concentrated spent wash (CSW) directly to bio-compost yard should be dismantled to stop direct use of CSW having more than 40% total solids for bio-composting, CSW should be stored in existing lagoon and the same shall be used for bio-composting.
7. The Unit shall use MEE concentrate after 3rd stage having 30 % total solids for bio-composting while MEE concentrate after 5th stage may be used for incineration (slop boiler) having total solids concentration beyond 50 %.
8. Considering the distance (4.36km-measured using google earth, refer **Fig. 21**) between unit and lagoon; in order to cross check, monitor the CSW volume transferred into the lagoon and detect leakages during the conveyance from MEE to lagoon, the unit shall install online mass flow meter on pipeline of concentrated spent wash going to the lagoon.
9. The unit shall provide additional covered area for storage of ready bio-compost and press mud.

15.3 Sewage Treatment Plant

- In order to control fecal coliform within 1000 MPN/100 ml, the unit shall install disinfection system after biological treatment before utilizing the same in horticulture.

16. Point wise compliance status of recommendations of previous inspection report

- Point wise compliance status of the unit w.r.t the recommendations made during last joint inspection dated 17.07.19 & 18.07.19 is mentioned below in Table-25:

Table 25: Compliance Status of the unit w.r.t recommendations of previous inspection report

Sr. No.	Recommendations of Previous Inspection Report (Inspection dated 17.07.19 & 18.07.19)	Compliance Status as observed on 16.09.2020
Water and Waste water Management		
1.	M/s. Jubilant Life Sciences Ltd., Gajraula has installed meters at bore wells for withdrawal of raw water, waste water generation, ETP inlet and outlet for measurement of effluent discharge and recycled water consumption	- Flow meter with totalizers have been installed on all 08 nos. bore wells for fresh water abstraction (Refer **Fig. 22 to Fig. 29**) and log book is maintained for the same.

	points. However, all the consumption points are not metered. It is recommended that all fresh water consumption points and effluent recycling points should be metered.	- 11 nos. points for treated effluent recycling are now metered. **(Annexure-21)**
2.	All existing meters should be periodically calibrated and records to be maintained. a. At inlet (make up water separately for fresh water and recycled treated waste water) and outlet (blow down) of cooling towers. b. Condensate generated from each stream and recycled; c. Individual waste water streams at source of generation, effluent treatment plant and recycling points; d. Inlet of STP etc.	- As informed, calibration bench is installed to calibrate the existing meters with traceable source from National Physical Laboratory and calibration has already been started. - Copy of calibration certificate of flow meters provided at borewell-1 to borewell-8, condensate to raw water header and CETP outlet are provided during visit. Placed at **Annexure-22**.
3.	The existing turbine type water flow meters on bore wells should be converted to digital magnetic flow meters for better accuracy.	- Magnetic flowmeters are in place on all bore wells. - As per the fresh water consumption data from April-2020 to July-2020, provided by the unit, fresh water consumption of the complex is 6.85 MLD, whereas as per the inspection report of inspection dated 17 & 18 July, 2019, fresh water consumption from January-2019 to June-2019 was found 7.84 MLD against the CGWA permission of 14.3 MLD (which was valid up to 04.04.2019). - Copy of fresh water consumption details from April-2020 to July-2020, provided during inspection is placed at **Annexure-23**.
4.	All domestic waste water generated from plant and colony should be accounted for and should be sent to STP and metering at STP inlet is to be done.	- Electro-Magnetic flow meters are installed at inlet and outlet of STP. (Photographs **-Fig. 30& Fig. 31**). - Domestic waste water is treated in STP and treated waste water is used for horticulture. - As per logbook data of STP submitted by the unit from April-2020 to September-2020, average 244.23 KLD of sewage is treated in STP and average-242.70 KLD of treated sewage is utilized in gardening/horticulture. - Sample collected from the outlet of STP shows pH-7.26, COD-41 mg/l, BOD-17 mg/l, TDS-368 mg/l, TSS-12 mg/l, Colour-93 Hazen, O&G-BDL and NH3-N-22 mg/l, which indicates that the unit
5.	The unit shall obtain NOCs from CGWA for withdrawal of groundwater at earliest as the CGWA NOCs have already been expired on 04.04.2019.	- CGWA NOCs have already been expired on 04.04.2019. - As informed, they applied for renewal of CGWA NOC in February-2019 & March-2019 (Application copies placed from Annexure-9 to Annexure-14), however pending before the CGWA New Delhi, citing restriction imposed by the NGT. - Yet to receive NOC from CGWA - As per CGWB report **"National Compilation on Dynamic Ground Water Recourses Assessment of India, 2017"** (Page No. 146) Gajraula, District Amroha is in **Over Exploited** category. - UPPCB has issued a show cause notice to distillery division on 16.09.2020 and provide 15days time to the unit to

		submit Environmental Compensation (EC).
6.	Fresh water consumption in cooling towers is around 50% of total fresh water consumption. It is recommended to take measures for further reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment e.g.-	- The Cycle of Concentration (COC) is obtained at its highest level 8-10, based on the process requirement. Further the CT Blow Down is treated through RO thus reducing fresh waterconsumption. - Fresh water conservation is also achieved through recycling of treated effluent, RO Permeate and MEE condensate towards achieving ZLD.
7.	Attempt should be made to reduce the quantity of makeup water to each Cooling Tower by increasing Cycle of Concentration (COC); a. Continuous efforts to be made for reduction in steam consumption and effluent generation thereby reducing fresh water consumption; b. It is recommended to provide Rain Water Harvesting system in non-process areas for water conservation.	
Captive Power Plant		
1.	The plant failed to meet the emission norms with respect to NO_2 (459.9 mg/Nm^3 against the norms of 300 mg/Nm^3), hence the unit shall maintain and operate Air Pollution Control Systems, ESP on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.	- As per the stack monitoring report (sampling dated 16.09.2020) from RO-Moradabad, UPPCB, value of NO_x, SO_2, and SPM shows 194.75 mg/Nm^3, 223.08 mg/Nm^3 and 44.66 mg/Nm^3 against standard limit of 300mg/Nm^3, 600mg/Nm^3 and 50mg/Nm^3, respectively, which is within limit. - Requisite APCS are installed and are operating satisfactorily to meet the prescribedemission norms.
2.	The unit shall submit the ambient air quality report and stack report of all the air pollution sources from MOEF&CC authorized laboratory on quarterly basis, as mentioned in the consent.	- The unit has submitted (to UPPCB) ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit from Jan-2020 to Sept-2020 (Placed at **Annexure-24**). - The monitoring and analysis has been carried out by M/s Newcon Consultants & Laboratories, Ghaziabad.
3.	The unit is having agreement with M/s. Shree Cement Ltd. to supply entire quantity of fly ash (8500-9000 MT per month) generated by its captive power/boiler plant at Bhartiagram Gajraula to SCL, however as per the fly ash disposal data of 2019 provided by the unit, only 5200 MT (average) was sent to SCL. The same may be increased as per the agreement to avoid additional ash disposal on ash pond. This will reduce the water consumption also.	- In addition to the agreement with M/s. Shree Cement Ltd., the unit has also obtained agreement with M/s. Ultra Tech Cement Ltd., having it's registered office at Mumbai, for supplying 75-80 % of fly ash generated per day at it's captive power plant at Gajraula, which is valid from 18.05.2020 to 17.05.2021. - As informed by the unit representative during inspection, entire quantity of generated fly ash is supplied to Shree Cement/Ultra tech Cement as per the agreement. Ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation. - Agreement with M/s. Shree Cement Ltd. and M/s. Ultra Tech Cement Ltd., is placed at **Annexure-15 & Annexure-16.**
4.	The unit shall keep and maintain Ash generation as well as disposal record.	- Unit is maintaining records and it was informed that, quarterly report is being submitted to UPPCB on regular basis by the unit. - As per the ash management data of Year: 2020-21, average ash generation is 8425.67 MT, disposal to cement industry is 5822 MT and ash sent to land reclamation/ash pond is 2603.67 MT.

		- Quarterly report submitted to UPPCB from Jan-2020 to September-2020 is placed at **Annexure-17.**
Distillery Plant		
1.	The unit shall obtain NOC from CGWA for withdrawal of groundwater in distillery plant at earliest as the CGWA NOC have already been expired on 04.04.2019.	- CGWA NOCs have already been expired on 04.04.2019. - As informed, they applied for renewal of CGWA NOC in February-2019 & March-2019 (Application copy placed at Annexure-10), however pending before the CGWA New Delhi, citing restriction imposed by the NGT. - Yet to receive NOC from CGWA - As per CGWB report **"National Compilation on Dynamic Ground Water Recourses Assessment of India, 2017"** (Page No. 146) Gajaula, District Amroha is in Over Exploited category.
2.	The distillery plant should take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production.	- As informed by unit representative, the recommendation is not feasible as atmospheric distillation technology is installed in 1980's and 1900's. - As per monthly data provided by the unit, spent wash generation in KL/KL of alcohol production, in June-2020, July-2020 & August-2020 is 9.47, 9.44 and 9.45 respectively.
3.	The unit made partition in the lagoon by filling it with soil and made two lagoons i.e., Lagoon 'A' and Lagoon 'B'. However, the unit shall make the filled up area lined, by using concrete.	- During earlier inspection, the joint committee observed that, the unit had made partition in one lined lagoon of 44,000 m^3(dedicated for storing concentrated spent wash) and converted that one lagoon into two i.e., Lagoon 'A' and Lagoon 'B'. The total capacity of both the lagoons (Lagoon 'A' and Lagoon 'B') was 32,000 m^3 (16000 each). - During inspection dated 16.9.2020, it was observed that, Lagoon 'B' does not exist, as the same has been filled and levelled using soil (Refer **Fig. 4(a)** and **Fig. 4(b)** for earlier and current condition). - At present, the unit has one lagoon of 18000 m^3 capacity, identified as Lagoon 'A' (Latitude: 28.808744, Longitude: 78.219666) for storage of concentrated spent wash. As per estimate, 12000 m^3 of spent wash was stored in the lagoon.
4.	The unit shall dismantle/fill/level the additional storage capacity of the lagoon in time bound manner.	- As per the CPCB direction dated 07.12.2015, the unit shall restrict its storage capacity of lagoons up to 15869m^3 ~ 15900m^3 for bio-composting and up to 1841.3m^3 ~ 1900 m^3 for incineration through slop fired boiler, making a total of 17800 m^3. - At present, the unit has one lagoon of 18000 m^3 capacity i.e. Lagoon 'A' for storage of concentrated spent wash and one storage tank of 350 m^3 for incineration.
5.	The unit shall restrict the use of excess spent wash in bio-composting so that the situation of generation of diluted spent wash does not arise.	- At the time of inspection, bio-composting operation was found as per "SOP for bio-composting operation for

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6.	The entire covered compost area was found full of wind rows of press mud with high moisture content, hence further composting for utilization of spent wash could not be carried out.	molasses based distilleries" and no excess spent wash usage was found.
7.	The unit shall stop storage of lagoon sludge in open area to avoid further dilution with rain water and shall use the sludge directly for bio-composting.	At the time of inspection, no lagoon sludge was found stored in open area.
8.	As per the Standard Operating Procedure for Bio-composting operation of molasses based distillery, the distillery plant shall provide covered shed having platform for ready compost, which was not available at compost yard.	- The unit is storing ready bio-compost under bio-compost shed in windrows form (**Fig. 6**) and selling it to farmers through open trolleys. - The unit has total Bio-composting area of 30.0 Acres. Out of which Covered area is 16.8 Acres& remaining 13.2 Acres is uncovered. - For utilization of concentrated spent wash generated from 183 KLD molasses based distillery unit (for monsoon season), the total covered area available is 16.8 acres, which is inadequate against requirement of 23.1 acres.
9.	As per the Standard Operating Procedure for Bio-composting operation of molasses based distillery, the entrance of the bio-compost yard should be paved all-weather road for approach of vehicles to bio-compost yard. Accordingly the unit shall take the immediate actions to implement the same.	About 100 meters length of cement concrete road has been made for approach up to Bio-compost yards, however to make connectivity with nearby road, the unit is required to construct all-weather paved road in addition to the existing 100 meters cement concrete road.
10.	The distillery plant shall not be allowed to operate until the stored spent wash in lagoon 'B' (Approx. volume 16000 m^3) get consumed through slop boiler after concentrating through MEE.	- As per detail provided by the unit, unit has consumed 6400 KL of stored concentrated spent wash, through RO followed by MEE followed by bio-composting. - Lagoon 'B' does not exist, as the same has been filled and levelled using soil(**Fig. 4(b)**).
11.	As per the Standard Operating Procedure for Bio-composting operation of molasses based distillery, Bio-compost shall be analyzed for parameters as per the Fertilizer Control order with latest amendments and shall be packed as per the customer requirement. Also, the ready compost must be weighed and records of the same shall be maintained. However, no document was available regarding the sell of ready compost.	- As informed, the unit is selling ready bio-compost to farmers through open trolleys. - Any packaging or weighing machinery was not observed at bio-compost site. - Analysis report of ready Bio-compost has been provided.
Chemical Unit-1		
1.	The effluent from Chemical Unit-I sent to CETP. The treated effluent from CETP is sent to CTRO.	-This is general observation. This has been verified during inspection
2.	Reject of CTRO is used for spray on coal stock and ash for dust suppression. This effluent cannot be used for ash quenching which should be stopped immediately.	As informed by unit representative, they have stopped practice of spray of CTRO reject in ash quenching. CTRO reject is used for spray on coal stock.
Chemical Effluent Treatment Plant (CETP)		
1.	The industrial effluent generated from Chemical unit-I and Polymer plant is treated commonly in CETP for which the unit is having MoU.	- This is general observation. This has been verified during inspection
2.	The unit should stop discharge of effluent for horticulture and entire effluent should be recycled/reused in process and or cooling tower.	-Treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant (CTRO). The permeate is reused in cooling tower makeup. The same was verified during inspection visit.

104

Common Cooling Tower Reverse Osmosis Plant (CTRO)		
1.	CTRO reject has characteristics BOD-1294 mg/l, COD-3189 mg/l, TDS-6032 mg/l and Colour-147 hazen. This effluent can be used for spray on coal yard only and not for ash quenching. The unit should install a dedicated pipeline along with metering arrangement for carrying CTRO reject upto coal yard and spray arrangement exclusively using this effluent.	-A dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard is provided. The same is verified during visit. -The photograph of metering arrangement is at **Fig. 32.**
Stack Emission Monitoring Results		
1.	As per the analysis result of stack at Sulphuric Acid plant, it was found non-complying w.r.t SO_2-2572 mg/Nm^3 against prescribed standard limit of 1370 mg/Nm^3, which indicates violation of norms w.r.to SO_2 emission. Hence, the unit shall maintain the wet scrubber periodically to restrict SO_2 emission within the prescribed norms. To evaluate the performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	- As per monitoring report (sampling dated 20.09.2020) of stack at Sulphuric Acid plant from RO-Moradabad, UPPCB, Acid mist and SO_2 was found 34.88 mg/Nm^3 and 2.06 kg/ton against prescribed standard limit of 50 mg/Nm^3 2.5 kg/ton respectively, which are within the prescribed norms. - As informed, the wet scrubber is maintained and its stack has been regularly being monitored through 3rd party MoEF & CC approved laboratory. - Regular stack monitoring is being done through 3rd party MoEF & CC approved laboratory. - The unit has submitted (to UPPCB) ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit from Jan-2020 to Sept-2020 (Refer **Annexure-24**).
2.	As per the analysis result of stack at Captive Power Plant (90 TPH), Boiler, it was found non-complying w.r.t NO_2-459.99 mg/Nm3 against the standards limit of 300 mg/Nm3, which indicates violation of norms w.r.to NO_2 emission. To restrict the NOx emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	- As per the stack monitoring report, from RO-Moradabad, UPPCB, values of NO_x, SO_2, and SPM are 194.75 mg/Nm^3, 223.08 mg/Nm^3 and 44.66 mg/Nm^3 against standard limit of 300 mg/Nm^3, 600 mg/Nm^3 and 50 mg/Nm^3, respectively, which are within limit. - As informed, bed height is level control is monitored and maintained as a measure for NOx control. - Regular stack monitoring is being done through 3rd party MoEF & CC approved laboratory. - The unit has submitted (to UPPCB) ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit from Jan-2020 to Sept-2020 (Refer **Annexure-24**).
Ambient Air Quality Monitoring Results		
1.	As per the analysis result of ambient air quality monitoring (Refer Table 20) near CDF plant, near ETP area and near terrace of Admin building, PM10 was found 101.2 µg/m^3, 132.1 µg/ m^3 and 120.6 µg/m^3 respectively against notified standard limit of 100 µg/m^3. This indicates the polluting ambient air near CDF plant, near ETP area and near terrace of Admin building in terms of PM10.	As per the analysis result of ambient air quality monitoring near terrace of Admin building, concentration of SO_2, RSPM and NO_x found 32 µg/m^3, 81.19 µg/m^3 and 41.0µg/m^3 respectively against notified standard limit of 80 µg/m^3, 100 µg/m^3 and 80 µg/m^3, which are within limit. As per the analysis result of ambient air quality monitoring near CETP plant, concentration of SO_2, RSPM and NO_x found 35 µg/m^3, 96.96 µg/m^3 and 45 µg/m^3 respectively against notified standard limit of 80 µg/m^3, 100 µg/m^3 and 80 µg/m^3, which are within limit. As per the analysis result of ambient air quality monitoring at Export Oriented

		Unit (EOU), concentration of SO_2, RSPM and NO_x found 32 µg/m³, 92.99 µg/m³ and 44 µg/m³ respectively against notified standard limit of 80 µg/m³, 100 µg/m³ and 80 µg/m³, which are within limit.
2.	Since, the stack emission monitoring results are complying with the norms of PM10, the increased level of PM10 in ambient air quality may be contributed by the other sources like due to crushing and handling of the coal, fly ash handling, vehicular movement in factory premises and heavy vehicular traffic on NH-24 near the factory premises.	-
3.	The unit shall comply with all the consent conditions mentioned in the valid consent related to air pollution including submission of the ambient air quality report of all the air pollution sources from MOEF&CC authorized laboratory on quarterly basis.	- As per the stack monitoring reports of all sources of air pollution, the concentrations of relevant parameters have been found within prescribed norms. - The unit has submitted (to UPPCB) ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit from Jan-2020 to Sept-2020 (Placed at **Annexure-24**). - The monitoring and analysis has been carried out by M/s Newcon Consultants & Laboratories, Ghaziabad.

Hazardous waste		
1.	The unit shall sell caustic lye along with other hazardous waste generated by the unit only to the authorized utilizer/recycler; and shall maintain records and manifest document as required under Rule-19 of the HOWM Rules, 2016.	As informed by the unit representative, end user has all necessary permissions.
2.	The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke /heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes;	- Manual water sprinkling/Firefighting system and Fire extinguishers are available around the storage of incinerable hazardous wastes area. (**Fig. 17& Fig. 18**) - Water sprinkling system was practically checked and found operating satisfactory as it is covering the entire haz. waste storage area. - As informed, following manual firefighting arrangements are available: • Monitors (For water sprinkling arrangement) – 5 Nos.; • Alarm system (MCP) – 1 No.; • Hydrant Point - 4 Nos.; • Hose box with hoses – 2 Nos. • Safety Shower – 1 Nos.; • Emergency display board with communication system – 1 No.; • Dedicated storage of 7000 KL fire water; • Company owned fire tenders – 2 Nos.; • Fire crew - 26 firemen
3.	The unit shall maintain date wise record of quantity and category of hazardous waste disposed in the captive SLF.	The unit is maintaining date wise and monthly records of quantity andcategory of hazardous waste disposed in the captive SLF and submitted record from July-2020 to Sept.-2020 is placed at **Annexure-25.**
4.	The unit shall maintain date wise record of leachate generated from captive SLF.	Monthly record of leachate generation from captive SLF and disposal of the

106

		sameis maintained. Submitted monthly record for Year: 2018-19 is placed at **Annexure-26**.
5.	The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit.	The display board is installed at gate of the unit. Electronic display system has also been installed at entry gate of the unit. (**Fig. 15, Fig. 16, Fig. 33& Fig. 34**)

17. Photographs with comparison of previous condition (Inspection dated 17 &18th July, 2019) and current condition (Inspection dated 16.09.2020)

Fig. 1: Sample sealing in presence of unit representative

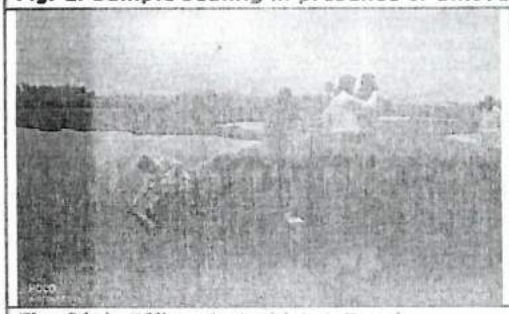


Fig. 2(a): Effluent at old Ash Pond (Previous condition)

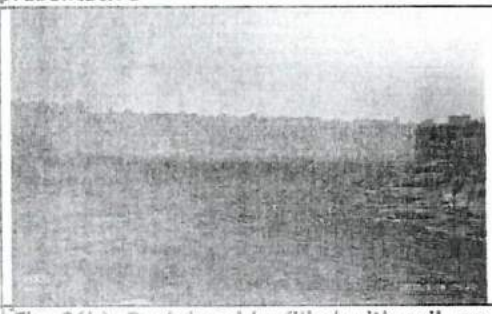


Fig. 2(b): Reclaimed by filled with soil, no ponding observed (Current condition)

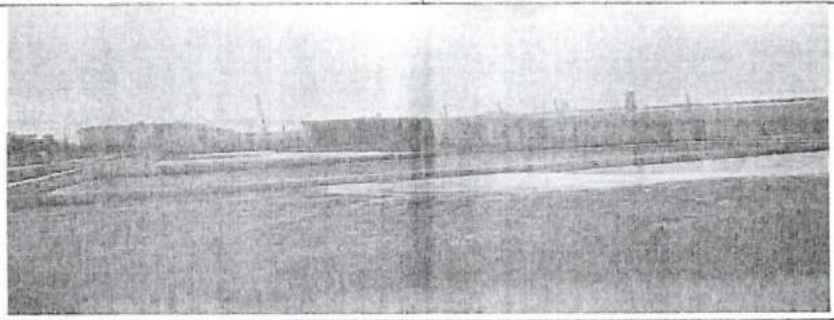


Fig. 3: Storage tank for Raw spent wash located inside unit premises

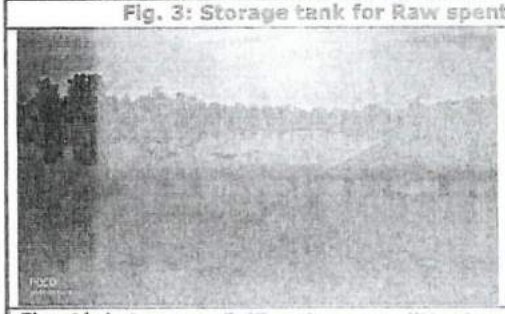


Fig. 4(a): Lagoon-B (Previous condition)

Fig. 4(b): Lagoon-B filled with soil (Current condition)

106

Fig. 5: Slurry formation at Windrows no. 10/11

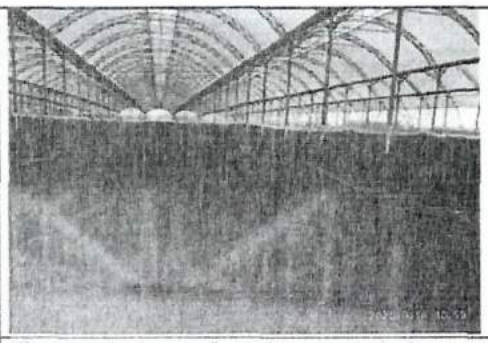


Fig. 6: Windrow of ready compost at present

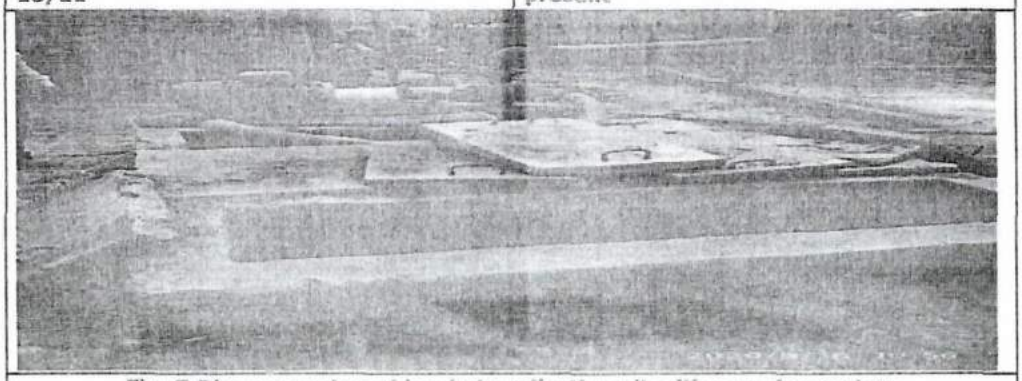


Fig. 7:Bio-compost yard leachate collection pit with pumping system

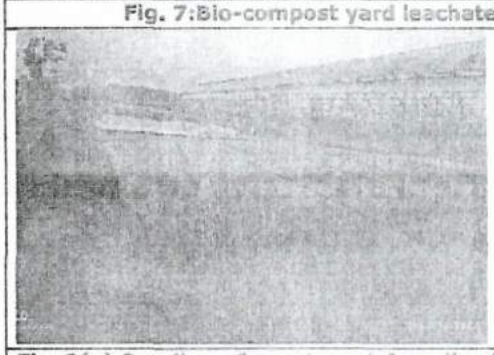


Fig. 8(a):Ponding of spent wash in unlined area (Previous condition)

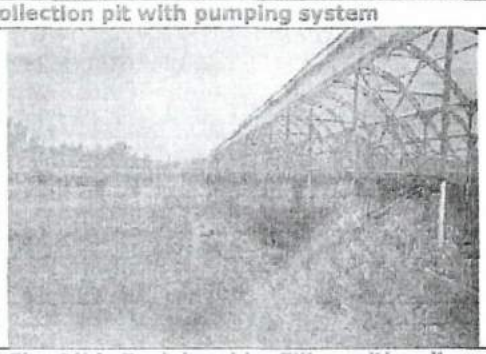


Fig. 8(b): Reclaimed by filling with soil, no ponding observed (Current condition)

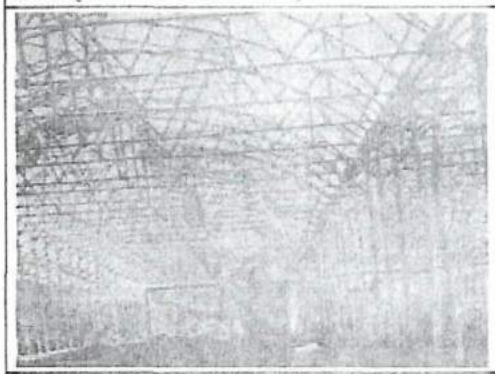


Fig. 9(a): Damaged shed at bio-composting yard (Previous condition)

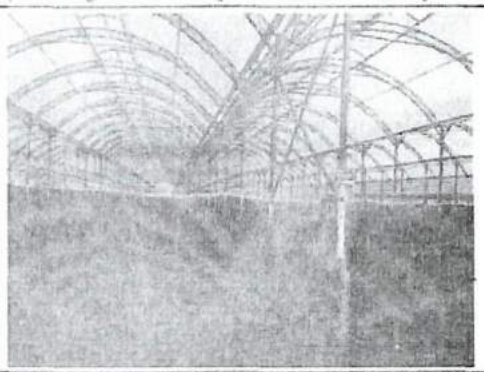


Fig. 9(b): Shed repaired at bio-composting yard (Current condition)

108

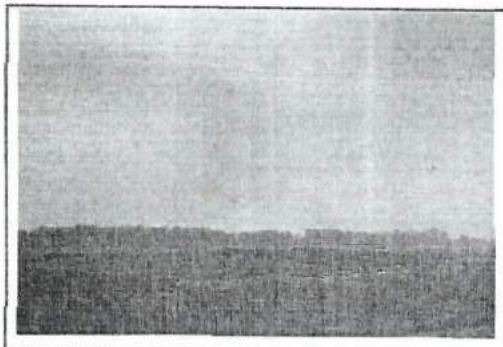


Fig. 10(a): Press mud stored in open area (Previous condition)

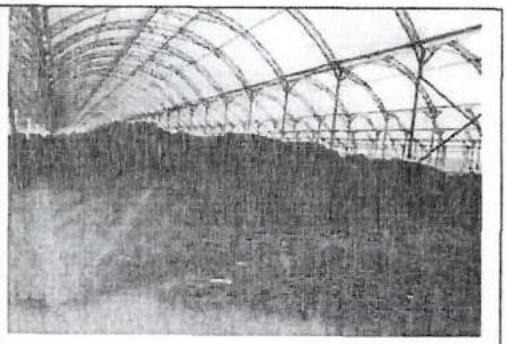


Fig. 10(b): Press mud stored under shed (Current condition)

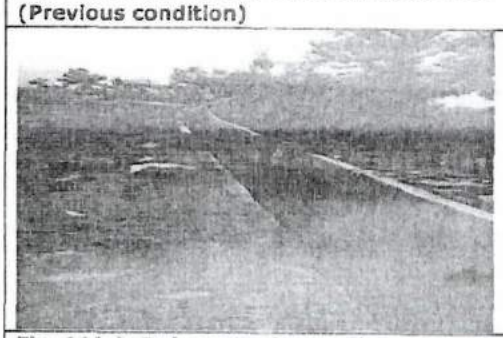


Fig. 11(a): Rain water harvesting channel found filled with leachate from compost yard (Previous condition)

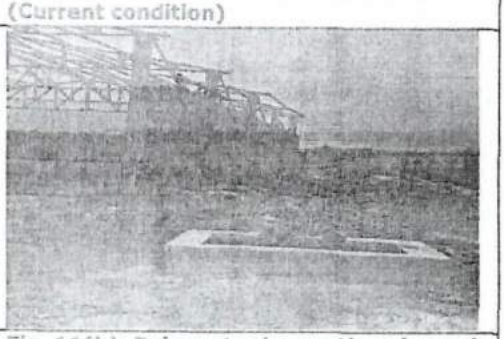


Fig. 11(b): Rain water harvesting channel found dismantled (Current condition)

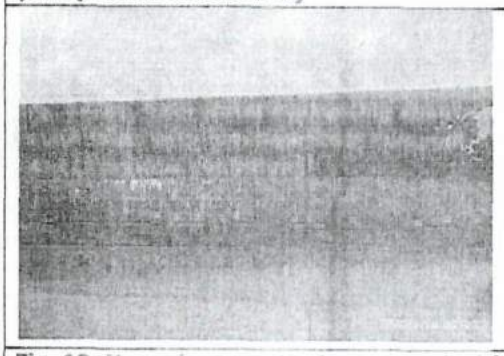


Fig. 12: Hazardous waste storage yard with shed and labeling

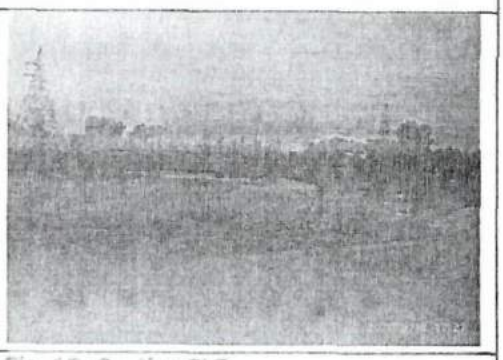


Fig. 13: Captive SLF

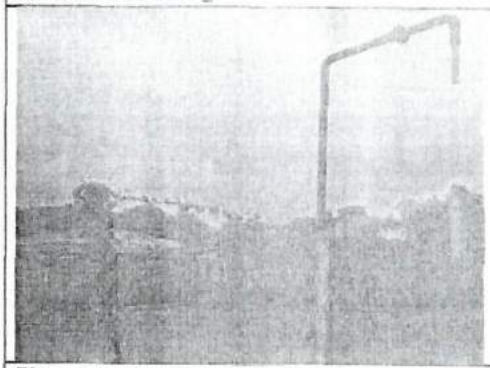


Fig. 14: Leachate collection well with arrangement for transferring leachate through tankers

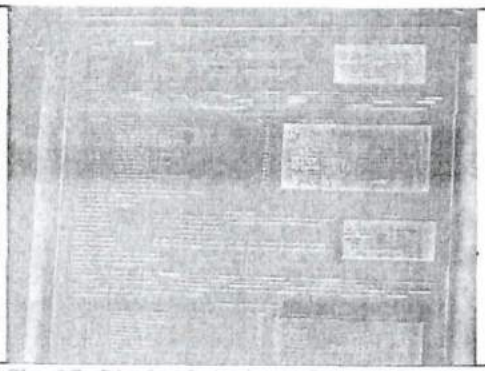


Fig. 15: Display board reg. haz. waste generation & storage capacity

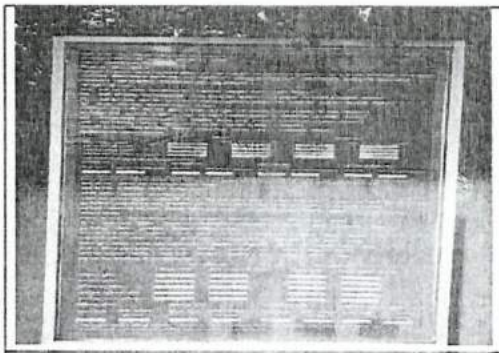


Fig. 16: Display board reg. consent & haz. waste authorization

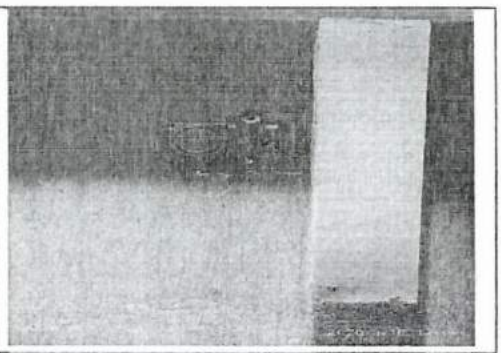


Fig. 17: Manual fire call alarm system

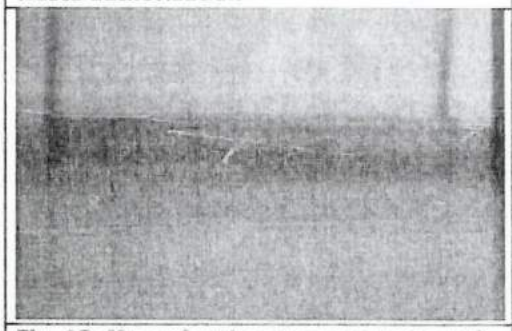


Fig. 18: Manual water spray arrangement

Fig. 19: Ponding of red colored effluent in unlined pit 0.95km away from unit

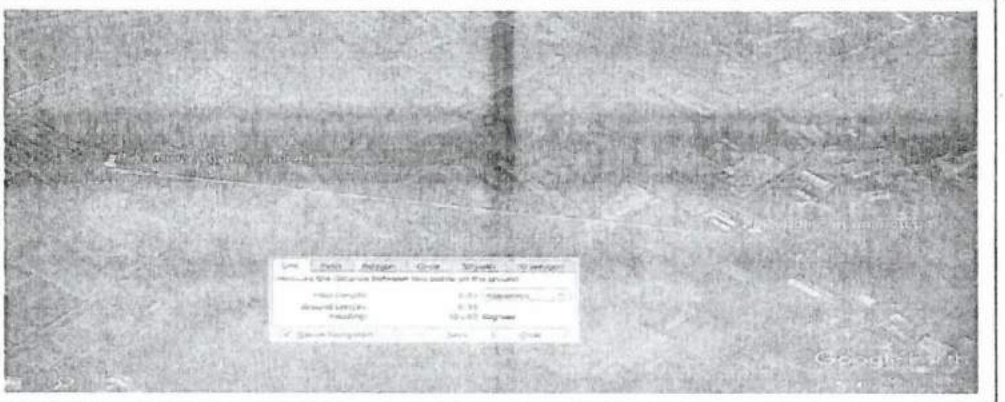


Fig. 20: Ponding of red colored effluent (0.95 km away from bio-compost yard of the unit)

Fig. 21: Distance between the unit and lagoon for concentrated SW (4.36 km away from the unit)

110

Fig. 22: Flow meter on Borewell-1

Fig. 23: Flow meter on Borewell-2

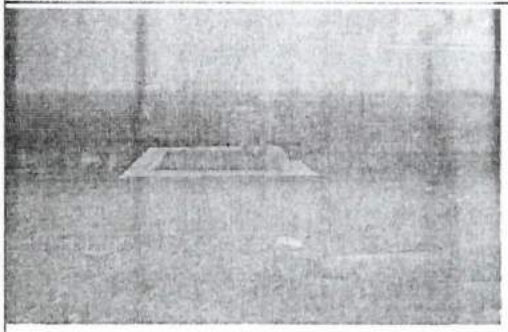


Fig. 24: Flow meter on Borewell-3

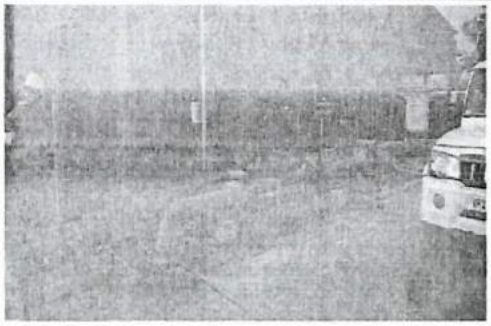


Fig. 25: Flow meter on Borewell-4

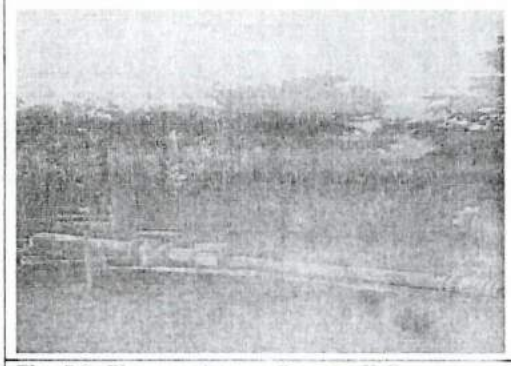


Fig. 26: Flow meter on Borewell-5

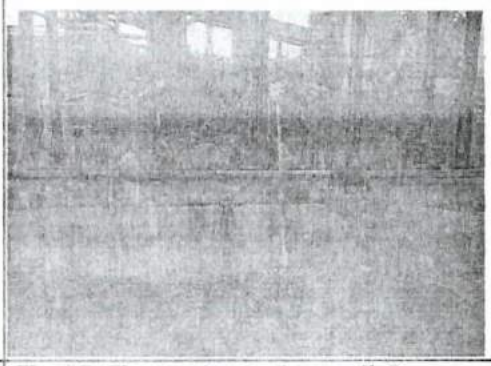


Fig. 27: Flow meter on Borewell-6

Fig. 28: Flow meter on Borewell-7

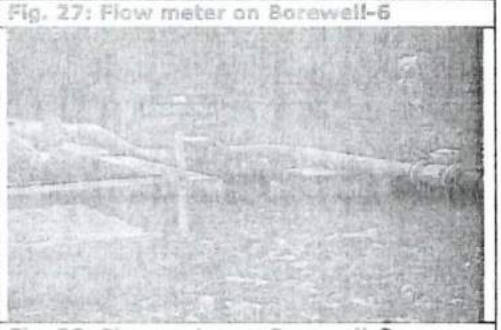


Fig. 29: Flow meter on Borewell-8

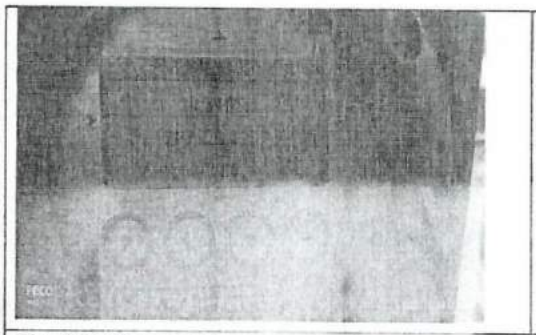


Fig. 30: Flow meter at STP Inlet

Fig. 31: Flow meter at STP Outlet

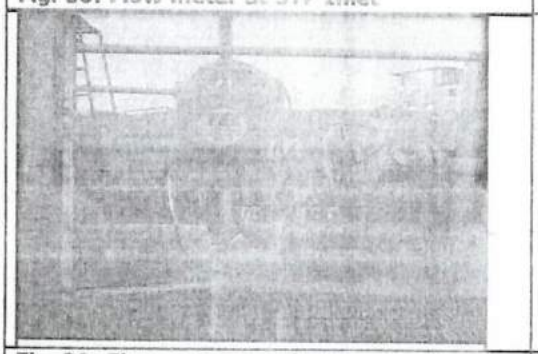


Fig. 32: Flow meter on pipeline carrying CTRO reject to coal yard

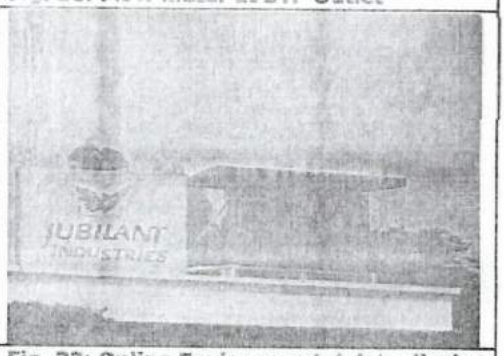


Fig. 33: Online Environmental data display at entrance gate

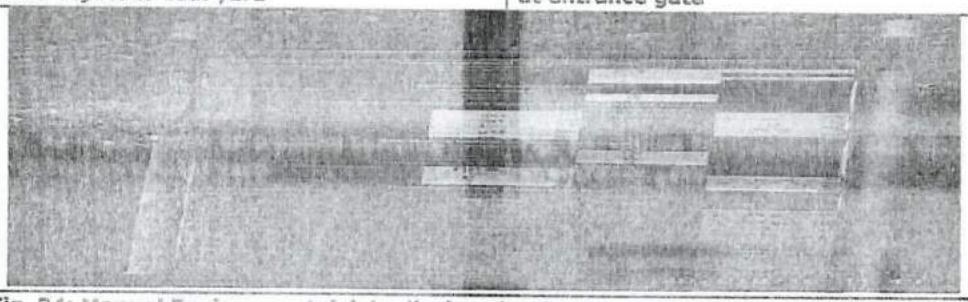


Fig. 34: Manual Environmental data display at entrance gate

18. Signature of the inspecting officials

Sr. No.	Name of the Officials	Signature
1.	Sh. M.K. Biswas, Additional Director CPCB, Delhi	
2.	Sh. C. B Chourasia, Sc.'E', CPCB, Delhi	
3.	Dr. R. K. Singh, Sc.'D', CPCB, Delhi	
4.	Vivek Kumar Yadav, SDM, Dhanaura, District. Amroha	
5.	Sh. J.P. Maurya, Regional Officer UPPCB, RO Bijnor	
6.	Sh. Anil Kumar Sharma, Asst. Env. Engineer, UPPCB, RO Bijnor	
7.	Ms. Anshul Kumari, RA-III, CPCB, Delhi	
8.	Mrs. Shivangi Goswami, RA-II, CPCB, Delhi	
9.	Sh. Ankit Shukla, SRF, CPCB, Delhi	

Meeting No. 68

MINUTES OF MEETING OF NGT OVERSIGHT COMMITTEE, UP LUCKNOW HELD ON 02.11.2020 AT 03-00 P.M IN OA NO. 107 OF 2019 IN RE: SHAH ALAM VS STATE OF UTTAR PRADESH (THROUGH VIDEO-CONFERENCING)

***

Present: **Hon'ble Mr Justice SVS Rathore, Chairman, and Dr Anup Chandra Pandey, Member**

Other dignitaries present:

1. Dr. D. K. Soni, Additional Director CPCB
2. Shri Girish Arya UPPCB
3. Shri Atulesh Yadav, Environment Engineer UPPCB
4. Dr. A. K. Tripathi, CPCB
5. Shri P. K. Tripathi, CGWA
6. Shri V. K. Upadhyay, SGWA
7. Shri Jagdamba Prasad Maurya, RO Moradabad UPPCB
8. Shri N. K. Jain, Representative of Jubilant group of Industries
9. Shri Anant Pande Representative of Jubilant group of Industries
10. Shri G. K. Raman, Representative of Jubilant group of Industries

The meeting held as scheduled.

The Oversight Committee reviewed the progress of implementation of Hon'ble NGT's order dated 26.08.2020 in **OA No. 107 of 2019** in re: *Shah Alam vs State of UP.*

The Committee had called representatives from Central Pollution Control Board, State Pollution Control Board, Central Ground Water Authority and State Ground Water Authority besides the representatives of M/s Jubilant Group of Industries. At the outset, it was made clear to the representatives of the Units that this Committee is not a forum for providing hearing in regard to the orders passed by Hon'ble NGT. This Committee is only a forum to monitor implementation of the

Hon'ble NGT's orders and the Unit had been called specifically to ensure proper and timely implementation of the NGT's orders.

1. Hon'ble NGT vide its order dated 26.08.2020 had directed that the State Pollution Control Board needs to take further prompt action of not allowing the activities of the Unit unless assessed compensation is paid and further remedial action is taken in the light of the Central Pollution Control Board and the Oversight Committee report. It was brought to the notice of the Oversight Committee that State Pollution Control Board had conditionally revoked the closure order dated 30.06.2020 despite the Unit not depositing the Environmental Compensation of Rs 6.19 crore and Rs 9.84 crore respectively. The State Pollution Control Board was asked to inform the Oversight Committee in writing as to how despite the orders of the Hon'ble NGT for not allowing the activities of the Unit until payment of assessed compensation, the Unit had been allowed to function.

2. Hon'ble NGT had also directed that the Central Pollution Control Board and the State Pollution Control Board may conduct the joint inspection of the Unit and file a compliance report. The Central Pollution Control Board mentioned that the joint inspection had been conducted on 16.09.2020 and the report is under preparation. The Central Pollution Control Board was directed by the Oversight Committee to finalise the report immediately and send it to Hon'ble NGT with a copy to the Oversight Committee.

3. Hon'ble NGT had directed the State Pollution Control Board to modify its conditional revocation order dated 30.06.2020 to the effect that the restoration will be effective from the date the conditions have been fulfilled and fulfilment of these conditions would be verified by a joint inspection of Central Pollution Control Board and State Pollution Control Board. However, the State Pollution Control Board has not modified its order dated 30.06.2020. The State Pollution Control Board was asked to modify its order as per Hon'ble NGT's directions.

4. CGWA was directed by Hon'ble NGT to consider all relevant factors and decide on the ground water permission issue in the light of orders of Hon'ble Supreme Court and Hon'ble NGT. CGWA officers mentioned that they have come out with guidelines dated 24.09.2020 and the matter of renewal of content was being considered under these guide-lines. They have mentioned that these guidelines would be applicable only to the case where State Government has not formed their own Ground Water Authority. Director, State Ground Water Board Shri Upadhyay confirmed that there was a meeting held last week under the Principal Secretary, Ground Water and it has been decided in that meeting that after 10th of October, 2020, all the cases of NoC would be dealt with by the State Ground Water Authority. Accordingly, CGWA has given the list of the cases to the State Ground Water Authority. Director, State Ground Water Board has mentioned that the Unit will have to apply afresh to them alongwith all the documents so that they can proceed in the issue of NoC. He also mentioned that there is a deeming provision under their guide-lines whereby the decision of NoC has to be taken within thirty (30) days of receipt of complete application failing which the renewal shall be deemed to have been given. The officers of the Unit were directed to send the relevant papers to State Ground Water Authority to enable them to take a decision regarding groundwater NoC in a time-bound manner. The Oversight Committee also directed the Director, State Ground Water Board to send copies of the guide-lines and relevant GOs on the subject to the Oversight Committee so that it can examine them in the light of NGT directions.

5. The officers of the industry mentioned that they had complied with all the directions of Hon'ble NGT. Their reply to the questionnaire given to them by the Oversight Committee is enclosed herewith as Annexure-1. As per the information provided the total consumption of water by the unit during the month of Jan to Sep 2020 was 1896763 Kl. The industry is using groundwater as source of fresh water aswell as they are treating their waste water and recycling their water to reuse it. However, the unit is not using any treated water from the nearby drains or sourcing treated water from any municipality. The industry has adopted and constructed 259

Rain Water Harvesting Structures (RWHS) within the premises as well as in the nearby villages. The capacity of each RWHS is 500 CuM/day. The industry has also taken initiatives to reduce their fresh groundwater extraction by collecting rainfall runoff from manufacturing plants area and reuse it during monsoon season. Also in future they plan to source treated sewage water from Gajraula municipality as and when STP is installed for sewage treatment. In the industry at major points of water extraction and consumption water meters have been installed to measure their consumption. The industry had also carried an EIA study in 2013 through MoEF&CC accredited consultant i.e. M/s EQMS Consultants, New Delhi. The industry has implemented all the observations made by Hon'ble NGT which was inspected in the joint inspection of UPPCB and CPCB on 16.09.2020..

6. The Oversight Committee mentioned that the Joint Committee of CPCB and SPCB had done a detailed technical inspection and submitted its report dated 13.09.2019. Various violations had been mentioned in detail in Hon'ble NGT's order dated 05.02.2020. The officers of M/s Jubilant Group of Industries mentioned that they had complied with all 52 points raised by the Joint Committee and the compliance is complete. While listening to their compliance, the Committee directed them to file written compliance of these pointed violations separately. The pointwise compliance of industry with regard to the violations mentioned in the order of Hon'ble NGT. The distillery unit was kept closed for over 90 days and was operational under capacity for the period of July and August to handle the rainwater/leachates. The industry concentrated the rainwater leachates in MEE and consumed it. Also, they are adhering to the guidelines for storing spentwash. They are adhering to the SOP for maintaining <50% moisture in windrows and storing the lagoon sludge in covered bio composting shed. They are also complying with the guidelines for Distiller, stipulating minimum 60% vol. reduction and >30% solids. The Air pollution Control Systems and OCEMS have been installed and connected to the CPCB and UPPCB. The industry is maintaining their records and submitting a quarterly report to the UPPCB on regular basis. They are obtaining 8-10 Cycle of Concentration (COC)

based on the process requirements. The industry is using the treated sewage for campus green belt management and had stopped the use of treated effluents for horticulture.The reply of M/s Jubilant Group of Industries pointwise on the violations mentioned by the Hon'ble NGT is enclosed herewith as Annexure-2. In another representation they have mentioned that they have constructed >200 village ponds over 15000 Km^2. The UPPCB had issued a Show cause notice vide letter dated 30/10/2019 with a direction to deposit Rs. 30 Lakhs as EC. The industry had paid the said amount on 30/12/2019. Further in compliance to the EC imposed of Rs 6.19 Cr. The industry had paid Rs. 70 Lakh on 28/09/2020.

- M/s Jubilant Group of Industries made a representation seeking personal hearing against EC imposed on them on the ground that they were complying with all the conditions. However it was made clear to them that Oversight Committee is not the forum for hearing and they have been called to ensure compliance of NGT Order.

7. The Oversight Committee directed CPCB and SPCB to send their joint inspection report to Hon'ble NGT with a copy to the Oversight Committee at the earliest and also consider the technical reply of the Unit as mentioned in **Annexures-1 and 2** and send a report on them to Hon'ble NGT with a copy to the Oversight Committee.

02-11-2020

X Anup Chandra Pandey

Dr Anup Chandra Pandey
Member, Oversight Committee
Signed by: ANUP CHANDRA PANDEY

02-11-2020

X SVS Rathore

Justice SVS Rathore
Chairman, Oversight Committee
Signed by: SURENDRA VIKRAM SINGH RATHORE

Nov 02, 2020

Annexures: As above

Please visit our website: ***oscngt.upsdc.gov.in*** for more information.

Annexure 1

Questionnaire regarding OA No. 107/2019 for Industry:

1. What is the total water consumption of all the units? Provide the details industry-wise.

Response: The total water consumption of the Unit along with Unit wise bifurcation for the Period Jan'20 to Sept'20 is as follows:

Unit wise Water consumption (Jan'20 to Sept'20)

Jan'20 to Sept'20	Unit Name : Water consumption (KL)						Total (KL)
	Chemical unit-1	Chemical Unit-2	Distillery Unit	Power plant Unit	Polymer Unit	Fertilizer Unit	
Jan-20	51128	25508	77699	64501	8538	2469	**229843**
Feb-20	46385	14783	62598	68114	3037	2305	**197222**
Mar-20	51620	17816	54691	65299	5423	3632	**198481**
Apr-20	48846	16196	60797	72546	8438	3351	**210174**
May-20	55487	28725	79432	83813	4593	3947	**255997**
Jun-20	52301	29521	65279	59118	5402	5044	**216665**
Jul-20	51787	18590	59028	53852	4643	6765	**194665**
Aug-20	41018	23158	64510	57740	5978	4068	**196472**
Sep-20	33420	20042	59851	75353	5578	3000	**197244**
Total (KL)	**431992**	**194339**	**583885**	**600336**	**51630**	**34581**	**1896763**

2. Total production at each unit?

Response: The total production from Jan-Sept. 2020 at each unit is as per following table:

Unit Name	Total production Jan'20 to Sept'20	Unit of Production
Jubilant Life Sciences Limited		
Chemical Unit-1	1,13,588.99	MT
Chemical Unit-2	26,422.070	MT

Distillery Unit	21,011.73	KL
Power Plant	1,13,161	MWH
Jubilant Agro Consumer Products Limited		
Polymer Unit	8,265.67	MT
Fertilizer Unit	1,76,035.29	MT

3. What is the water utilisation break from different sources i.e. Surface water, Groundwater, and Reuse of treated water?

Response: The fresh source of water is **Groundwater.** Details of fresh water consumption and recycle/reuse is given below:

Unit Name	Jan-Sept 2020			
	Total Water Consumption KL	**Fresh Water Consumption KL**	**Recycling /Reuse water KL**	**% Recycle /Reuse water**
Jan-20	329132	229843	99289	30.2%
Feb-20	309560	197222	112338	36.3%
Mar-20	318198	198481	119717	37.6%
Apr-20	319090	210174	108916	34.1%
May-20	373598	255997	117601	31.5%
Jun-20	311411	216665	94746	30.4%
Jul-20	276690	194665	82025	29.6%
Aug-20	287405	196472	90933	31.6%
Sept-20	298516	197244	101272	33.9%

4. Are they using water from nearby drains? If yes, how much and how?

Response: No.

5. What is the current status of rain water harvesting? Had any inspection being done for the rain water harvesting system? What is the efficiency of the rain water harvesting system? Whether it is fully functional?

Response: Rainwater harvesting for ground water recharge is constructed inside the company property as well in village ponds adopted from the local government. The details of theRWH structures are as below:

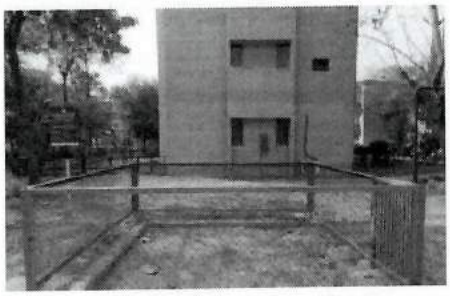
Details	**Total number of RWH structures.**	**Remarks**
Within Premises	5	Photographs are attached below.

Chemical Unit-1	45	Unitwise List of RWHstructure is attached below.
Chemical Unit-2	42	
Distillery Unit	56	
Power Plant	52	
Polymer Unit	9	
Fertilizer Unit	50	
Total	259	

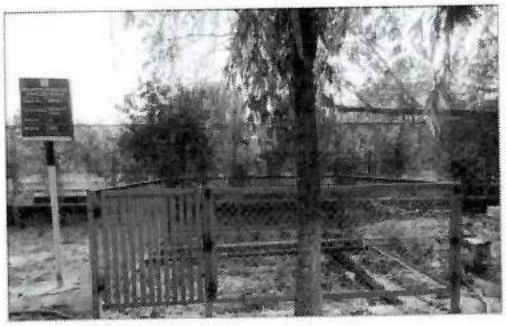
Jubilant Life Sciences Limited, Gajraula

RWH Structures within Premises

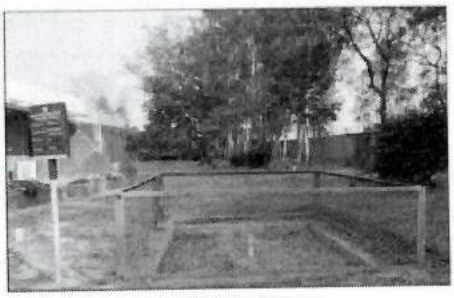
Near Time Office Gate



Back side of Director bungalow – Colony



Outside Canteen



Back Side of Guest House

Near B-13 and B-14 Block Colony

30

(29)

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Chemical Unit - 1)

S.No.	Pond No.	Name of Village	Lattitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	9	Kourai	28°39'08.27"	78°20'46.73"	4050	19190.9	Chemical Unit-1
2	18	Afzalpur Loot	28°53'16.8"	78°18'17.8"	5790	28226.3	Chemical Unit-1
3	19	Lanjhia	28°54'19.8"	78°16'55.8"	7890	30771.0	Chemical Unit-1
4	22	Kimarala	28°50'19.4"	78°12'24.7"	5140	30069.0	Chemical Unit-1
5	28	Kirankhara	28°55'28.5"	78°18'03.7"	40720	238212.0	Chemical Unit-1
6	34	Chucheda Kala	28°39'57.70"	78°15'41.98"	11040	64584.0	Chemical Unit-1
7	75	Sultan Thar	28°47'15.91"	78°13'04.81"	4500	13338.0	Chemical Unit-1
8	86	Jalalpur Kalan	28°50'41.29"	78°19'27.14"	5880	34398.0	Chemical Unit-1
9	105	Dhakiya Bhoor	28 53 13.01	78 15 13.07	11490	36969.1	Chemical Unit-1
10	106	Chandarpur Khadar	28 33 39.87	78 16 43.79	4250	10773.8	Chemical Unit-1
11	115	Chohadpur Salarpur	78°1703.24"	28°49'47.92"	2350	12418.6	Chemical Unit-1
12	117	Dhanori Mafi I	78°33'40.91"	28°81'44.93"	4780	27963.0	Chemical Unit-1
13	2	Moharka	28°48'19.21"	78°11'08.23"	2080	12168.0	Chemical Unit-1
14	3	Moharka	28°48'19.33"	78°11'05.12"	1880	10998.0	Chemical Unit-1
15	178	Mohraka	28°49'18.48"	78°11'16.7892"	1380	8073.0	Chemical Unit-1
16	180	Mohraka	28°48'52.56"	78°11'25.7244"	1040	6084.0	Chemical Unit-1
17	12	Shahpur Farraspura	28°50'45.09"	78°29'06.79"	13190	77161.5	Chemical Unit-1
18	34	Patai Kalan	28°48'26.31"	78°33'41.11"	17250	100912.5	Chemical Unit-1
19	234	Harwatpur Banjara	28°42'47.52"	78°20'1.44"	3600	21060.0	Chemical Unit-1
20	233	Harwatpur Banjara	28°42'57.24"	78°19'26.23"	2430	14215.5	Chemical Unit-1
21	185	Daudpur Jagsar	28°42'42.12"	78°20'1.38"	2630	15385.5	Chemical Unit-1
22	184	Daudpur Jagsar	28°40'36.12"	78°21'8.65"	1650	9652.5	Chemical Unit-1
23	186	Daudpur Jagsar	28°42'40.68"	78°19'41.5128"	14200	83070.0	Chemical Unit-1
24	187	Tolipura Khalsa	28°46'7.32"	78°23'12.63"	7710	45103.5	Chemical Unit-1
25	188	Tolipura Khalsa	28°46'10.56"	78°22'57.44"	10400	60840.0	Chemical Unit-1
26	189	Ghozipura	28°46'58.44"	78°22'31.84"	1900	11115.0	Chemical Unit-1
27	198	Sauda	28°39'20.16"	78°27'59.37"	6080	35568.0	Chemical Unit-1
28	203	Rajha	28°41'44.88"	78°29'10.31"	13590	79501.5	Chemical Unit-1
29	205	Ainchoon Kamboh	28°41'58.20"	78°28'08.82"	4080	23868.0	Chemical Unit-1
30	206	Ainchoon Kamboh	28°41'52.44"	78°28'32.88"	4330	25330.5	Chemical Unit-1
31	207	Ainchoon Kamboh	28°42'22.68"	78°28'17.77"	2350	13747.5	Chemical Unit-1
32	208	Ainchoon Kamboh	28°42'31.68"	78°28'28.02"	3040	17784.0	Chemical Unit-1
33	210	Nehroli	28°43'12.72"	78°28'32.99"	6070	35509.5	Chemical Unit-1
34	211	Nehroli	28°43'12.36"	78°28'32.08"	5140	30069.0	Chemical Unit-1
35	209	Nehroli	28°43'28.92"	78°28'29.7228"	10190	59611.5	Chemical Unit-1
36	213	Aitmadpur Bhatpura	28°43'18.84"	78°29'44.26"	3120	18252.0	Chemical Unit-1
37	214	Ekrotiya	28°42'12.24"	78°30'46.86"	5470	31999.5	Chemical Unit-1
38	219	Kirkeswali	28°37'21.00"	78°30'15.33"	5260	30771.0	Chemical Unit-1
39	220	Kirkeswali	28°37'26.76"	78°30'15.96"	4500	26325.0	Chemical Unit-1
40	221	Kirkeswali	28°38'04.92"	78°30'58.89"	2750	16087.5	Chemical Unit-1
41	166	Basaratiga	29°02'40.32"	78°28'16.20"	12590	73651.5	Chemical Unit-1
42	181	Tokra	28°51'48.6"	78°10'46.6588"	3400	19890.0	Chemical Unit-1
43	182	Tokra	28°51'46.8"	78°10'47.4096"	1780	10413.0	Chemical Unit-1
44	215	Mansi Khera	28°38'35.16"	78°25'33.78"	5470	31999.5	Chemical Unit-1
45	217	Mansi Khera	28°38'27.24"	78°26'35.60"	8370	48964.5	Chemical Unit-1
					Total	1652095.6	

31

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Chemical Unit - 2)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	3	Koural	28°58'41.67"	78°20'37.65"	8410	49198.5	Chemical Unit-2
2	8	Koural	28°59'19.17"	78°20'49.68"	7450	39079.0	Chemical Unit-2
3	534	Rajehda Bahadurpur	28° 43' 42.090" N	78° 21' 30.024" E	12750	57183.8	Chemical Unit-2
4	53	Dhakka	28°41'51.13"	78°22'54.13"	6340	37089.0	Chemical Unit-2
5	64	Katai	28°48'42.87"	78°17'29.60"	8900	49114.7	Chemical Unit-2
6	83	Kuda Mafi	28°57'10.13"	78°20'47.28"	24890	117941.3	Chemical Unit-2
7	72	Agrola Kala	28°45'58.55"	78°14'10.61"	15000	87750.0	Chemical Unit-2
8	116	Aalampur	78°28'12.21"	28°78'53.11"	4080	23868.0	Chemical Unit-2
9	117d	Dhanori Mafi IV	78°33'36.93"	28°81'76.02"	400	2340.0	Chemical Unit-2
10	119	Fhartepur sumali/ Chitra I	78°24'04.94"	28°89'82.10"	3760	21996.0	Chemical Unit-2
11	120	Salempur	78°24'73.15"	28°87'28.41"	3360	13979.3	Chemical Unit-2
12	222	Bhartal Sirsi	28°36'07.56"	78°30'24.55"	4250	24862.5	Chemical Unit-2
13	223	Bhartal Sirsi	28°36'01.44"	78°30'32.14"	4780	27963.0	Chemical Unit-2
14	224	Bhartal Sirsi	28°36'06.12"	78°29'33.61"	4620	27027.0	Chemical Unit-2
15	225	Khagupura	28°36'23.40"	78°31'43.27"	6920	40482.0	Chemical Unit-2
16	236	Dahpa	28°38'30.60"	78°27'24.43"	8090	47326.5	Chemical Unit-2
17	237	Dahpa	28°38'28.14"	78°26'59.27"	6920	40482.0	Chemical Unit-2
18	238	Dahpa	28°38'34.80"	78°26'49.20"	3930	22990.5	Chemical Unit-2
19	239	Dahpa	28°38'48.66"	78°27'12.40"	3760	21996.0	Chemical Unit-2
20	240	Dahpa	28°38'54.44"	78°27'02.43"	2550	14917.5	Chemical Unit-2
21	241	Dahpa	28°38'48.14"	78°26'56.78"	1240	7254.0	Chemical Unit-2
22	90	Rudayan	28°30'02.90"	78°29'37.15"	7710	45103.5	Chemical Unit-2
23	227	Mehrana	28°34'44.76"N	78°27'3.09"E	3280	19188.0	Chemical Unit-2
24	228	Mehrana	28°34'9.84"N	78°28'0.11"E	1090	6376.5	Chemical Unit-2
25	229	Sujadpur	28°34'45.59"N	78°28'4.37"E	1300	7605.0	Chemical Unit-2
26	230	Sujadpur	28°34'36.12"N	78°28'9.70"E	2900	16965.0	Chemical Unit-2
27	231	Sujadpur	28°34'9.84"N	78°28'0.36"E	2830	16555.5	Chemical Unit-2
28	104	Sirsa Kumar	28°54'38.91"	78°31'50.26"	7570	44284.5	Chemical Unit-2
29	149	Imaliya	29°03'53.14"	78°17'55.95"	11630	68035.5	Chemical Unit-2
30	162	Adalpur Samdoo	29°02'26.30"	78°26'03.91"	7200	42120.0	Chemical Unit-2
31	317	Sakatpur	28°44'14.8554"	78°30'25.2354"	20420	119457.0	Chemical Unit-2
32	319	Isapur Shumali/ Musslepur	28°56'54.24"	78°16'42.456"	5300	31005.0	Chemical Unit-2
33	320	Isapur Shumali/ Musslepur	28°56'27.6"	78°15'44.5572"	9260	54171.0	Chemical Unit-2
34	322	Halpura	28°55'44.04"	78°19'52.9176"	6190	36211.5	Chemical Unit-2
35	326	Pheena	29°4'12"	78°21'15.3072"	4810	28138.5	Chemical Unit-2
36	327	Pheena	29°4'1.92"	78°21'19.1772"	6830	39955.5	Chemical Unit-2
37	334	Pali ki Mandaiya	28°38'54.6432"	78°29'54.9996"	9200	53820.0	Chemical Unit-2
38	335	Pali ki Mandaiya	28°38'21.9732"	78°29'38.3604"	6770	39604.5	Chemical Unit-2
39	336	Daudpur Jageer	28°42'47.52"	78°20'1.4316"	2630	15385.5	Chemical Unit-2
40	337	Jiwai	28°48'42.84"	78°35'49.8732"	6480	37908.0	Chemical Unit-2
41	360	Itala mafi	28°47'56.50"	78°38'22.15"	26400	154440.0	Chemical Unit-2
42	398	Barahi Mohammadpur	28°40'12.85"	78°38'39.35"	45200	264420.0	Chemical Unit-2
					Total	1915590.5	

Jubilant Life Sciences Limited, Gajraula

Details of Recharge structure constructed for Over- Exploited condition (Distillery Unit)

S. No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	1	Koural	28°58'12.56"	78°20'19.28"	9060	53001.0	Distillery
2	4	Koural	28°58'41.55"	78°20'37.60"	17890	104656.5	Distillery
3	6	Koural	28°58'37.33"	78°21'08.32"	9630	56335.5	Distillery
4	10	Rahamapur Khasla	28°46'21.84"	78°18'56.55"	12830	75055.5	Distillery
5	11	Sadarpur	28°46'16.51"	78°19'48.62"	13310	77863.5	Distillery
6	24	Soharka	28°44'33.9"	78°14'54.5"	4700	27495.0	Distillery
7	26	Gangeshwari	28°33'14.2"	78°16'51.4"	5950	34807.5	Distillery
8	33	Mohammadabad	28°46'31.98"	78°09'55.62"	11700	45630.0	Distillery
9	36	Chuchela Kala	29°00'01.03"	78°16'09.54"	6280	29757.8	Distillery
10	39	Chuchela Kala	29°00'21.89"	78°16'41.45"	5100	29835.0	Distillery
11	42	Neeli Kheri	29°01'44.44"	78°13'50.48"	4660	19355.3	Distillery
12	43	Neeli Kheri	29°01'35.99"	78°13'41.66"	4030	16979.6	Distillery
13	56	Faiyaj Nagar	28°49'33.48"	78°23'29.96"	6070	35509.5	Distillery
14	57	Faiyaj Nagar	28°49'36.52"	78°23'42.57"	5060	23976.8	Distillery
15	65	Katai	28°48'45.93"	78°17'27.85"	12460	59041.7	Distillery
16	68	Katai	28°48'26.68"	78°17'12.41"	10520	61542.0	Distillery
17	87	Jihal	28°44'35.25"	78°24'14.65"	8220	48087.0	Distillery
18	489	Nagalia	28°52'0.87"	78°10'47.47"	10040	58734.0	Distillery
19	97	Chandarpur Khadar	28°33'47.30"	78°17'32.86"	28530	138353.3	Distillery
20	114	Nawada	78°15'42.13"	28°49'20.38"	4010	19001.4	Distillery
21	117b	Dhamori Mafi II	78°32'81.26"	28°81'03.53"	1170	6844.5	Distillery
22	117c	Dhamori Mafi III	78°33'34.39"	28°81'84.77"	490	2866.5	Distillery
23	118	Fhattepur sumali/ Chitra I	78°24'66.90"	28°90'88.02"	9390	54931.5	Distillery
24	216	Manni Khera	28°38'6.72"	78°25'55.9668"	7350	42997.5	Distillery
25	232	Rajpura	28°41'48.48"	78°21'25.6788"	2060	12051.0	Distillery
26	235	Tuklabad	28°45'31.68"	78°24'50.2524"	1980	11583.0	Distillery
27	242	Asmoli	28°42'2.16"	78°31'44.8716"	4860	28431.0	Distillery
28	251	Hasampur	28°48'4.9968"	78°35'29.8104"	9160	53586.0	Distillery
29	253	Harwa	28°49'11.28"	78°30'15.0624"	1460	8541.0	Distillery
30	254	Harwa	28°49'14.16"	78°30'12.096"	1340	7839.0	Distillery
31	255	Fasnari (Harwa)	28°49'14.16"	78°30'12.1104"	1250	7312.5	Distillery
32	258	Bhikampur Mundha	28°47'29.76"	78°31'9.84"	3360	19656.0	Distillery
33	259	Bhikampur Mundha	28°47'7.8"	78°30'58.5324"	7290	42646.5	Distillery
34	260	Bhikampur Mundha	28°47'13.2"	78°30'58.0716"	2020	11817.0	Distillery
35	261	Bhikampur Mundha	28°47'13.56"	78°30'57.2364"	1300	7605.0	Distillery
36	262	Bhikampur Mundha	28°46'58.08"	78°30'59.472"	1630	9535.5	Distillery
37	263	Bhikampur Mundha	28°47'4.16"	78°30'58.3128"	6720	39312.0	Distillery
38	264	Tikiya	28°48'30.96"	78°30'5.6376"	4050	23692.5	Distillery
39	266	Dulepur band urf Darapur	28°47'5.2056"	78°30'21.1752"	8250	48262.5	Distillery
40	280	Emliya	29°3'55.08"	78°17'54.5928"	10120	59202.0	Distillery
41	281	Emliya	29°4'13.44"	78°17'42.196"	12650	74002.5	Distillery
42	282	Sarakthal	29°3'29.12"	78°20'1.0824"	5310	31063.5	Distillery
43	288	Bhudan pur Bilayat Nagar	28°49'3.16"	78°34'10.6824"	4290	25096.5	Distillery
44	290	Dhaki	28°39'30.48"	78°36'1.6488"	12990	75991.5	Distillery
45	292	Jamuna Khas	29°2'11.4"	78°29'20.1408"	6680	39078.0	Distillery
46	298	Adalpur Samdoo	29°2'48.48"	78°26'20.76"	7210	42178.5	Distillery
47	303	Haripur Milik	28°43'58.5078"	78°27'56.5344"	6960	40716.0	Distillery
48	306	Gyanpur Sisona	28°54'52.9194"	78°19'6.7902"	16680	97578.0	Distillery
49	307	Gyanpur Sisona	28°55'37.1994"	78°19'26.8356"	4700	27495.0	Distillery
50	308	Gyanpur Sisona	28°55'38.2794"	78°19'54.159"	6520	38142.0	Distillery
51	309	Gyanpur Sisona	28°55'44.0394"	78°19'52.9176"	4130	24160.5	Distillery
52	310	Gyanpur Sisona	28°55'16.6794"	78°37'4.4538"	4500	26325.0	Distillery
53	311	Gyanpur Sisona	28°58'50.1594"	78°24'57.7296"	6230	36445.5	Distillery
54	312	Kathna	28°40'57.9354"	78°26'19.734"	4520	26442.0	Distillery
55	313	Chittawali	28°42'20.0772"	77°46'15.7686"	8740	51129.0	Distillery
56	314	Chittawali	28°41'40.5378"	77°46'3.8676"	3720	21762.0	Distillery
					Total	2211538.1	

(32)

Jubilant Life Sciences Limited, Gajraula

Detail: of Recharge structure constructed for Over- Exploited condition (Power Plant)

S.No.	Pond No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	16	Hoshnagar	28°51'47.7"	78°17'52.8"	4820	28197.0	Power Plant
2	17	Nagalia	28°52'10.9"	78°18'01.7"	5180	30303.0	Power Plant
3	25	Karanpur Mafi	28°44'23.1"	78°18'41.1"	19790	115771.5	Power Plant
4	501	Shaikhpur Jakri	28° 43' 56.712" N	78° 19' 3.936" E	33570	196384.5	Power Plant
5	30	Barkhera	29°00'02.3"	78°11'49.5"	5790	33871.5	Power Plant
6	31	Sujnana	28°56'53.0"	78°10'04.0"	10800	63180.0	Power Plant
7	38	Chuchala Kala	29°00'35.55"	78°16'36.58"	5300	31005.0	Power Plant
8	54	Galwa	28°41'13.32"	78°21'53.46"	22780	133263.0	Power Plant
9	88	Bartora	28°34'16.13"	78°14'31.88"	4170	11384.1	Power Plant
10	71	Agrola Kala	28°46'10.82"	78°14'07.96"	38500	225225.0	Power Plant
11	503	Rajheda Bahadurpur	28° 45' 28.332" N	78° 20' 23.964" E	12340	72189.0	Power Plant
12	535	Rajheda Bahadurpur	28° 45' 36.216" N	78° 20' 48.66" E	17000	99450.0	Power Plant
13	323	Pani Kalsa	28°48'5.04"	78°34'28.7256"	4500	26325.0	Power Plant
14	325	Kalsa	28°52'4.44"	78°33'32.7564"	7980	46683.0	Power Plant
15	478	Kadurpur Masti	28°40'29.7624"	78°44'45.564"	6360	37206.0	Power Plant
16	479	Kadurpur Masti	28°40'48.5364"	78°44'35.7"	27680	161928.0	Power Plant
17	480	Harthala	28°42'41.04"	78°35'26.1996"	11520	67392.0	Power Plant
18	481	Harthala	28°42'20.52"	78°36'4.0032"	13470	78799.5	Power Plant
19	482	Harthala	28°42'17.64"	78°36'9.6228"	11640	68094.0	Power Plant
20	483	Harthala	28°41'1.68"	78°36'39.9996"	14410	84298.5	Power Plant
21	491	Sisora Milak	28°42'20.52"	78°36'4.0032"	8740	51129.0	Power Plant
22	492	Tanda	28°48'8.73"	78°18'8.064"	8740	51129.0	Power Plant
23	493	Karanpurmafi	28°44'23.7192"	78°18'40.932"	19790	115771.5	Power Plant
24	496	Sisli Jagir	28°48'1.7352"	78°16'32.736"	7330	42880.5	Power Plant
25	497	Chakeri	28°44'7.2312"	78°20'31.65"	9790	57271.5	Power Plant
26	499	Sukhpur Jhakri	28°43'58.9656"	78°18'2.82"	6640	38844.0	Power Plant
27	504	Rajheda	28°45'35.0388"	78°20'47.9904"	17000	99450.0	Power Plant
28	505	Rajheda	28°45'42.1916"	78°21'29.844"	12750	74587.5	Power Plant
29	506	Brahmawasd	28°42'14.4432"	78°21'26.928"	14000	81900.0	Power Plant
30	508	Badhraula	28°35'34.0872"	78°28'0.084"	6150	35977.5	Power Plant
31	509	Badhraula	28°35'31.8228"	78°28'0.5772"	6720	39312.0	Power Plant
32	27	Rahra	28°32'04.09"	78°18'51.1"	4290	25096.5	Power Plant
33	32	Rahra	28°31'44.41"	78°19'01.08"	11970	70024.5	Power Plant
34	510	Lakheri Jalalpur	28°35'27.9888"	78°29'37.2588"	20920	122382.0	Power Plant
35	511	Lakheri Jalalpur	28°35'7.7532"	78°30'11.7"	12750	74587.5	Power Plant
36	512	Lakheri Jalalpur	28°34'58.3896"	78°29'31.7652"	13960	81666.0	Power Plant
37	513	Lakheri Jalalpur	28°35'39.1128"	78°29'39.8112"	10800	63180.0	Power Plant
38	514	Bhatola	28°33'36.3276"	78°29'4.0524"	8090	47326.5	Power Plant
39	515	Bhatola	28°32'54.8808"	78°28'10.3296"	6560	38376.0	Power Plant
40	516	Jujhalachak	28°59'14.3376"	78°1'22.944"	10720	62712.0	Power Plant
41	517	Chandnagar	28°53'24.4596"	78°22'20.0568"	7090	41476.5	Power Plant
42	518	Chandnagar	28°53'28.29"	78°22'35.22"	7050	41242.5	Power Plant
43	519	Chandnagar	28°53'34.2984"	78°22'58.6452"	7170	41944.5	Power Plant
44	520	Chandnagar	28°53'16.8312"	78°22'44.0076"	6760	39546.0	Power Plant
45	521	Maleziya	28°57'9.3132"	78°1'19.3884"	9000	52650.0	Power Plant
46	523	Sirsa Kunwar	28°54'35.91"	78°3'1'50.26"	7570	44284.5	Power Plant
47	524	Jiwai	28°48'42.84"	78°3'7'49.8732"	6480	37908.0	Power Plant
48	525	Hakampur	28°38'7.4292"	78°16'11.676"	9380	54873.0	Power Plant
49	526	Ambera	28°1'549.179"	78°1'715.1182"	6410	37498.5	Power Plant
50	527	Ambera	28°1'520.6886"	78°16'58.8102"	6450	37732.5	Power Plant
51	494	Bhadora	28°40'20.6886"	78°16'56.82"	5470	31999.5	Power Plant
52	495	Bhadora	28°41'18.6886"	78°18'50.46"	4660	27261	Power Plant
					Total	3372969.6	

34

(32)

Jubilant Agri & Consumer Products,Gajraula

Details of Recharge Structure Constructed for Over- Exploited Condition (Polymer Unit)

S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	Sarkari Azeez	28.8264030	78.4509320	5870.0	35220.0	Polymer Unit
2	Mirpur	28.8258880	78.3128810	4490.0	26940.0	Polymer Unit
3	Karmallipur	28.8638190	78.1978600	5630.0	28177.6	Polymer Unit
4	Karmallipur	28.8647170	78.2001200	2470.0	12362.1	Polymer Unit
5	Redra	28.8699870	78.1893600	5350.0	26776.2	Polymer Unit
6	Redra	28.8674470	78.1928300	5550.0	27777.2	Polymer Unit
7	Nangalia	28.8659340	78.1803360	4980.0	24924.4	Polymer Unit
8	Bhadora	28.7211800	78.3702850	4660.0	23322.8	Polymer Unit
9	Bhadora	28.7077710	78.3761440	4290.0	21471.0	Polymer Unit
10	Bhadora	28.7211800	78.3702850	4660.0	23322.8	Polymer Unit
11	Bhadora	28.7077710	78.3761440	4290.0	21471.0	Polymer Unit
12	Bhadora	28.7152800	78.3604900	5470.0	27376.8	Polymer Unit

35

(34)

Jubilant Agri & Consumer Products,Gajraula

Details of Recharge Structure Constructed for Over- Exploited Condition (Fertilizer Unit)

S.No.	Name of Village	Latitude	Longitude	Actual Pond area, as per Khasra, m2	Recharge Potential Cum	Compliance Unit
1	Sahvajpur Door	28.8053680	78.2085250	15300.0	91800.0	Fertilizer Unit
2	Atali Mundpur	28.8238320	78.2976330	14780.0	88680.0	Fertilizer Unit
3	Faundapur	28.8464250	78.2639570	7120.0	42720.0	Fertilizer Unit
4	Khalakpur Khurd	28.8801960	78.4337450	7140.0	42840.0	Fertilizer Unit
5	Dhera Nikat	28.735.984	78.3931550	5050.0	30300.0	Fertilizer Unit
6	Seetala sarai	28.5326710	78.3963330	2750.0	16500.0	Fertilizer Unit
7	Dhawarsi	28.5791450	78.3861910	8300.0	49800.0	Fertilizer Unit
8	Nanhera	28.5140480	78.3431080	2790.0	13963.7	Fertilizer Unit
9	Maleshiya	29.0259090	78.1814390	5790.0	28978.4	Fertilizer Unit
10	Maleshiya	29.0259110	78.1814320	3040.0	15214.9	Fertilizer Unit
11	Dhaki	28.5930.48	78.36'1.6488	2910.0	14564.3	Fertilizer Unit
12	Sarakthal	29.324.12	78.20'1.0824"	3670.0	18368.0	Fertilizer Unit
13	Gajasthal	28.9806	78.4160364	5060	25324.794	Fertilizer Unit
14	Baserataja	29.02.40.32	78.28.18.20	7460	37336.554	Fertilizer Unit
15	Baserataja	29.02.40.39	78.28.18.36	6400	32031.36	Fertilizer Unit
16	Baserataja	29.02.40.28	78.28.18.39	13280	66465.072	Fertilizer Unit
17	Baserataja	29.02.40.48	78.28.18.35	7460	37336.554	Fertilizer Unit
18	Daurala	28.9147	78.31855271	3680	18418.032	Fertilizer Unit
19	Arola mafi / pethyamafi	28.8061	78.61368957	5020	25124.598	Fertilizer Unit
20	Arola mafi / pethyamafi	28.8087	78.61097037	2500	12512.25	Fertilizer Unit
21	Shiwala	29.0428	78.37020472	3950	19769.355	Fertilizer Unit
22	Brahmawaad	28.710879	78.339912	5710	28577.979	Fertilizer Unit
23	Akbarpur Sihali	28.9995	78.5792	3320	16616.268	Fertilizer Unit
24	Rudayan	28.3002.70	78.2937.30	4170	20870.433	Fertilizer Unit
25	Rudayan	28.3002.85	78.2937.45	3720	18618.228	Fertilizer Unit
26	Bhudan pur Bilayat Naga	28.4953	78.3410.68	3680	18418.032	Fertilizer Unit
27	Sondhan Mohmmadpur	28.5259	78.4427736	4160	20820.384	Fertilizer Unit
28	Sondhan Mohmmadpur	28.5305	78.43788376	2790	13963.671	Fertilizer Unit
29	Bakaina	29.0433	78.49610127	5470	27376.803	Fertilizer Unit
30	Haripur Milak	28.4358.5078	78.2756.5344	4160	20820.384	Fertilizer Unit
31	Haripur Milak	28.4358.5029	78.2756.5370	2790	13963.671	Fertilizer Unit
32	Qutibpur Sikta	28.7292	78.4965	4240	21220.776	Fertilizer Unit
33	Pali ki Mandaiya	28.3854.6460	78.2954.9955	4880	24423.912	Fertilizer Unit
34	Karmallpur	28.863819	78.19786	5630	28177.587	Fertilizer Unit
35	Karmallpur	28.864717	78.20012	2470	12362.103	Fertilizer Unit
36	Redra	28.869987	78.18936	5350	26776.215	Fertilizer Unit
37	Redra	28.867447	78.19283	5550	27777.195	Fertilizer Unit
38	Sehra	28.902397	78.465042	2630	13162.887	Fertilizer Unit
39	Selkhpur Jhakri	28.720451	78.32558	4330	21671.217	Fertilizer Unit
40	Selkhpur Jhakri	28.72416	78.31943	4050	20269.845	Fertilizer Unit
41	Nangalla	28.865934	78.180336	4980	24924.402	Fertilizer Unit
42	Jujhela	29.0471	78.356694	3160	15815.484	Fertilizer Unit
43	Shawabaaz Pur	29.0473	78.304939	3200	16015.68	Fertilizer Unit
44	Burawali	28.6135	78.2811	5630	28177.587	Fertilizer Unit
45	Selkhpur Jhakri	28.435668	78.19938	3200	16015.68	Fertilizer Unit
46	Nangalla	28.5204	78.10479	2510	12562.299	Fertilizer Unit
47	Gajasthal	28.9806002	78.4160364	3640	18217.836	Fertilizer Unit

36

Each rainwater harvesting structure is designed for a recharge capacity of about 500 CuM/day. The recharge structures are inspected and cleaned to remove silt and/or replace with fresh filter media if required, every year prior to monsoon.

The rain water Harvesting Structures were inspected by the office of the Regional Director, CGWB, Lucknow in May 2019 during the NOC renewal and the NoC renewal was recommended to CGWA New Delhi.

6. Is there any agency providing water to the unit?
Response: No

7. Is there any development or planning to reduce the overall water consumption in the Industry? If any, please elaborate.

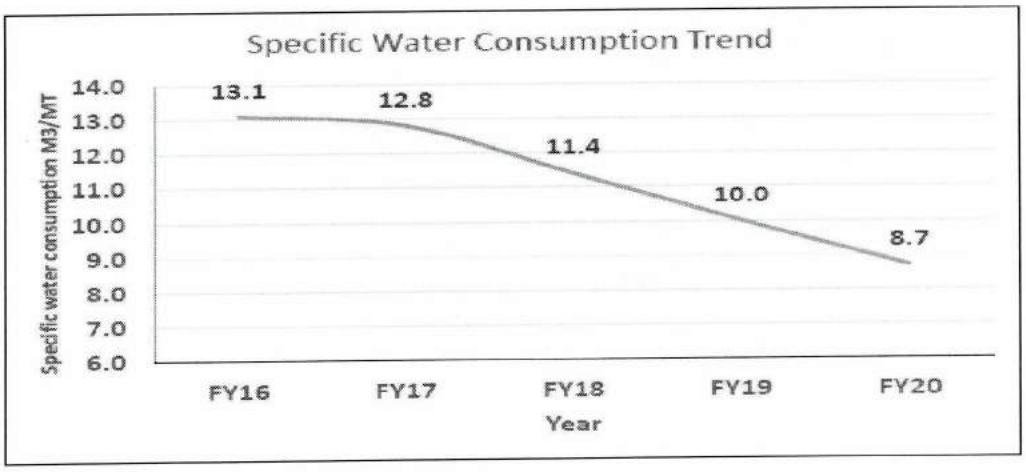
Response: Yes, reduction of water consumption has always been our top most priority. Our specific water consumption trend is attached as figure below that shows decreasing trend in terms of year wise specific water consumption.

Further, additional initiatives are being implemented for reduction in fresh ground water extraction through:

1. Collection of rainwater runoff from manufacturing plant areaand reuse during monsoon season.
2. Sourcing treated sewage from Gajraula municipality as and when STP is installed for sewage treatment,which is presently discharged to Bagad or Oxidation ponds.

Specific Water Consumption trend (FY16-FY20)

For the integrated Captive coal power, Molasses Distillery and Chemical manufacturing complex of M/s Jubilant Life Sciences Limited, Gajraula.



8. Has the water meters being installed in the Industry? If yes, what is the monitoring mechanism and standardisation process being followed?

Response: Yes. Water meters are installed for every ground water extraction well and supply to major consumption points in every unit. The water consumption is metered and records are maintained through daily logbooks/Registers.

The major points of water meter installed are,

1. Water Extraction at each Borewells,
2. Water consumption points,
3. Water recycling/reuse,
   a) RO permeates,
   b) Evaporator Condensate
   c) Treated Sewage Water

Periodic calibration of each meter is carried out by instrumentation department through a Calibration bench setup in-house with tractability from National Physical Laboratory.

9. Had any EIA being conducted for the industry? If any, please provide the details.

Response: Yes. Environment Impact Assessment studies was conducted through MoEF& CC accredited consultants in 2013 for Expansion project for our industry (Synthetic organic chemical) carried by M/s EQMS Consultants, New Delhi for seeking Environment Clearance.

Further, ground water extraction impact assessment study was carried out by M/s NEER, Ghaziabad in June'2020, for all our unitsfor assessing the impact of Ground Water Extraction and was submitted to CGWA in June 2020.

10. What is the future plan of industry to work as per the NGT orders? Has any planning and progress being done to run industry as per the standards laid down by different applicable statutes and also the directions given by Hon'ble NGT:

Response:All observations and recommendations made by the Joint Inspection team of the NGT in the OA No. 107 of 2019 have been implemented and duly verified by the Joint Inspection team in Sept 2020 Re-inspection.

All units are operating in compliance to the standards laid down by different applicable statutes and the directions given by the Hon'ble NGT.

11. Please also attach the photographs wherever it is helpful with the compliance report?

Response: The pointwise compliance to the JIT recommendations along with Photographs showing implementation of the actions recommended by the JIT is attached in **Annexure-1.1**

Annexure 1

Compliance to the Recommendation of Joint Inspection Team visit Dt. 17th -19th July 2019 in the matter of O.A. No. 107/2019 Shah Alam Vs Govt of UP

Point No	NGT Joint Inspection Team Recommendation (17th -19th July 2019)	Status as on 16.09.2020
i.	The unit shall stop its distillery manufacturing process till compliance of the directions issued.	**Complied**. The Distillery unit stopped for Over 90 days during and post monsoon to handle the large volumes of rainwater leachates generated from unprecedented rainfall. Further, it was also was operated at lower capacities for many days. The production data during 01/07/2019 to 31/08/2020 is attached.
ii.	The unit shall consume the already stored spent wash through further concentration for use in the incinerator.	**Complied**. The stored concentrated spent wash diluted with rainwater leachates was concentrated in MEE and consumed.
iii.	The unit shall recycle the stored spent wash from the old ash pond to ensure that no traces of spent wash remain in ash pond.	**Complied**. The spent wash leachate was stored in Old Ash Pond was transferred to Lagoon 28A and further to MEE for concentration and treatment. Rehabilitation of the old ash pond with green belt has been commenced with plantation of 300 tree samplings in 2020 **Photographs of Old pond is attached.**
iv.	The unit shall restrict its storage capacity of concentrated spent wash up to 17800 m3 including 07 days for incinerator and 30 days for bio-composting separately by dismantling (filling /levelling the additional storage capacity of the lagoon within 30 days.	**Complied.** The storage capacity for Spent wash is adhered as per guidelines as 17800m3. Out of two parts of Lagoon 28 (28A and 28B), One-part Lagoon 28A is filled and levelled with Earth/Ash. **Photograph of backfilled Lagoon 28A is attached**.
v.	The unit has made partition in the lagoon by filling it with soil and made two lagoons i.e., Lagoon 'A' and Lagoon 'B'. The unit shall line up the area by using concrete.	

Old Ash Pond

JUBILANT LIFESCIENCES

83
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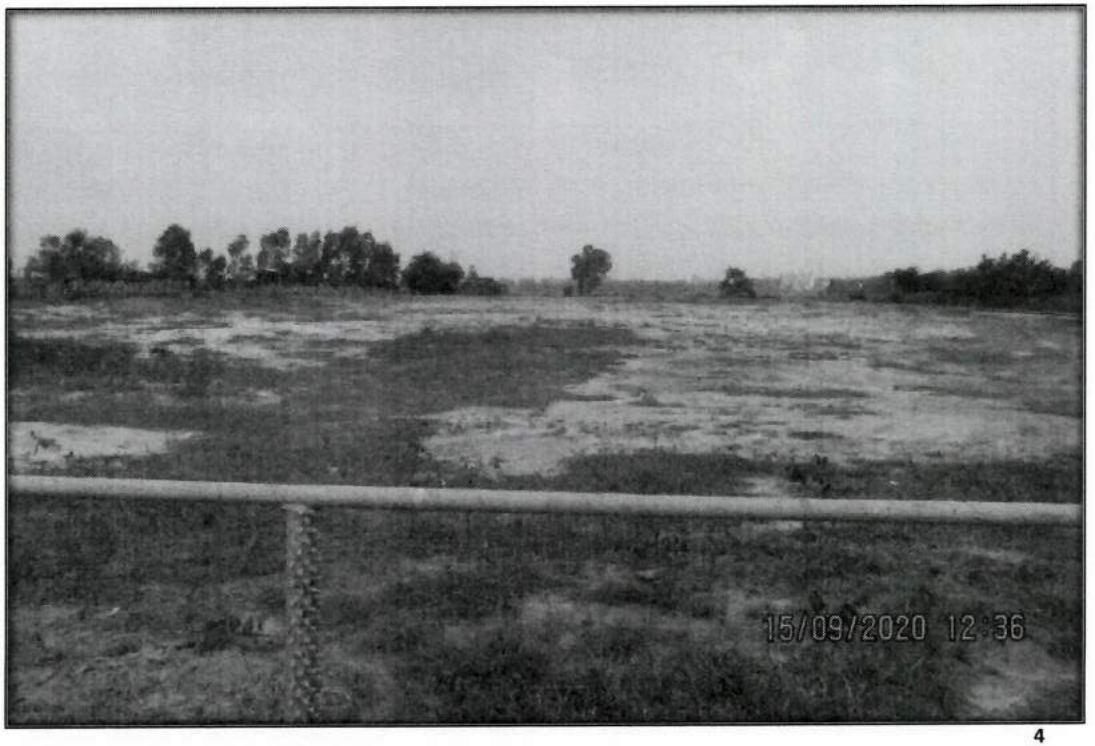
498

Lagoon 28 A Backfilled

JUBILANT LIFESCIENCES



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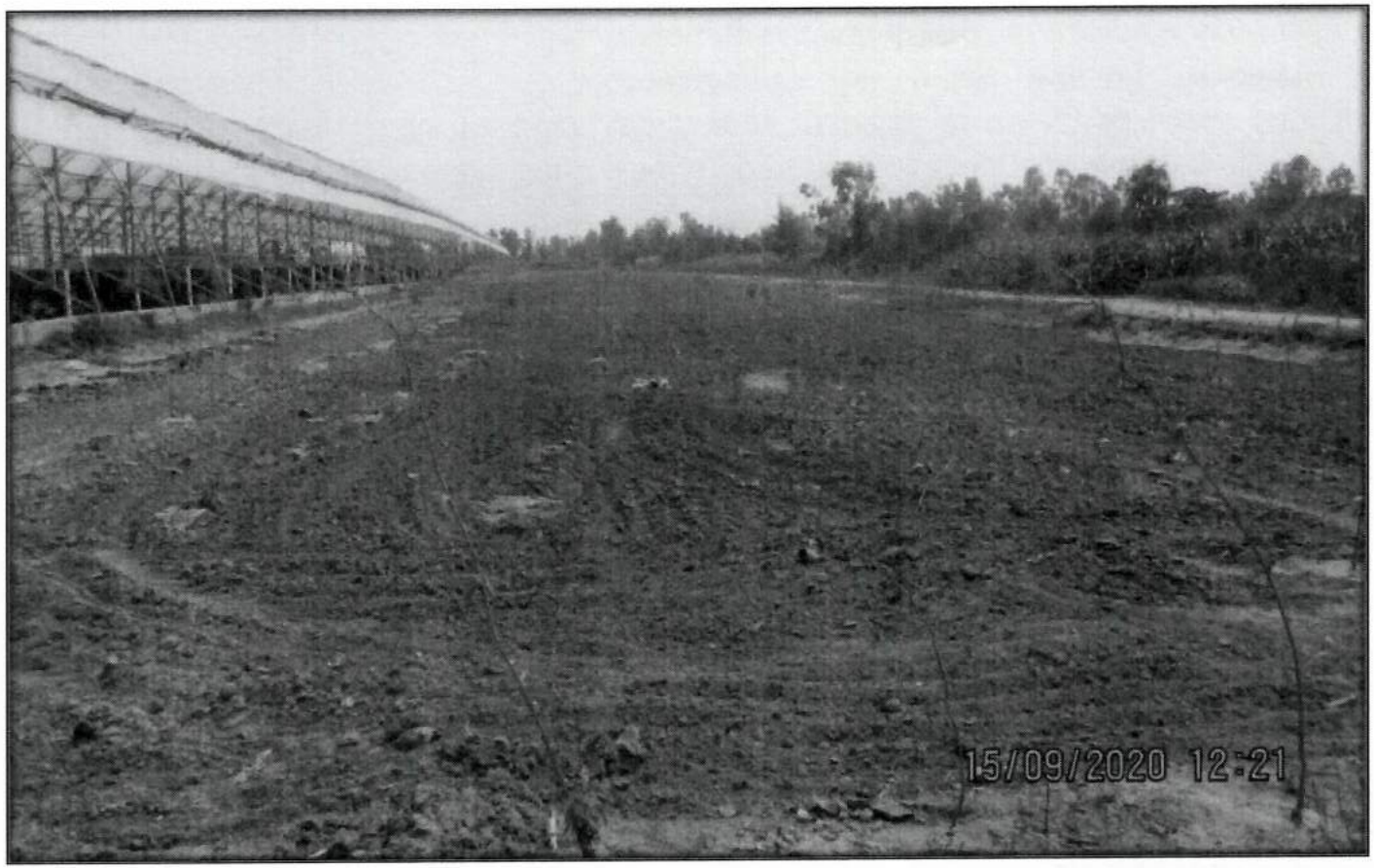
Point No	Recommendation	Status as on 16.09.2020
vi.	To maintain the quality of concentrated spent wash for efficient use in bio composting as well as in incineration the unit shall operate its MEE uniformly.	**Complied.** MEE is operated as per requirement of slop and Bio-composting for reduction in Spent Wash volume by 60% and minimum solids 30% suitable for biocomposting and incineration. Monthly details submitted through NGRBA report.
vii	To avoid the situation of generation of diluted spent, the unit shall restrict the use of excess spent wash in Bio-compost area	**Complied.** The dilute spent wash generation witnessed was due to rainwater ingress from covered shed damaged due to turbulent winds and incessant rains. The SOP for maintaining <50% moisture in windrow is strictly maintained.
viii.	The unit shall stop storage of the lagoon sludge in open area and shall use the sludge directly in bio composting.	**Complied.** The lagoon sludge is stored in covered Bio composting shed and used in Bio composting. Rehabilitation of the sludge storage yard with green belt has been commenced with plantation of 200 tree samplings in 2020 Details of area used for Sludge storage , press mud storage and Bio compost is attached. **Photographs attached.**
ix.	After recycling the stored spent wash from the ash pond, the unit shall dismantle the pipelines for carrying the spent wash to the ash ponds.	**Complied.** The Pipeline has been dismantled.

Dismantled Sludge Storage Yard



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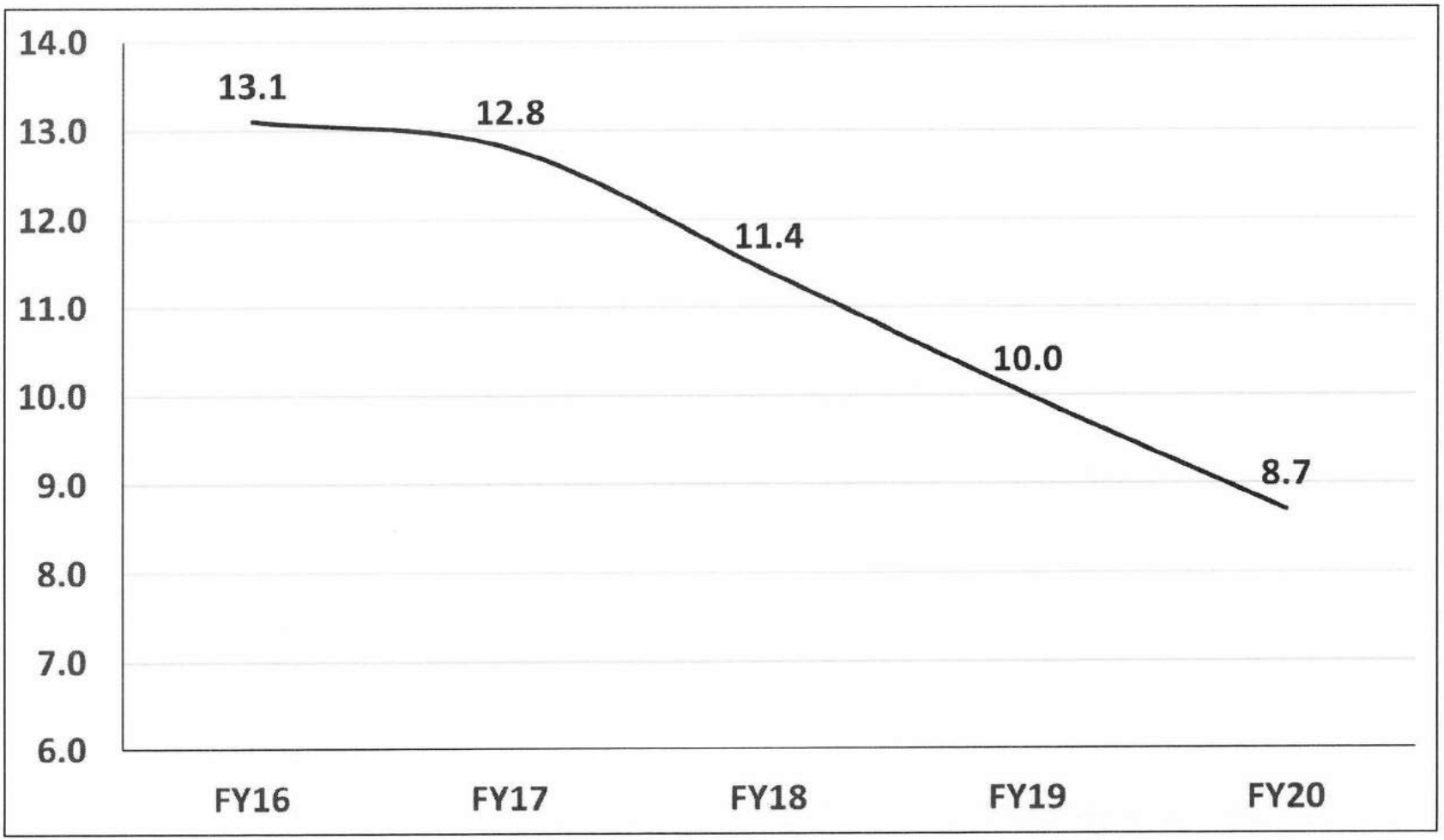
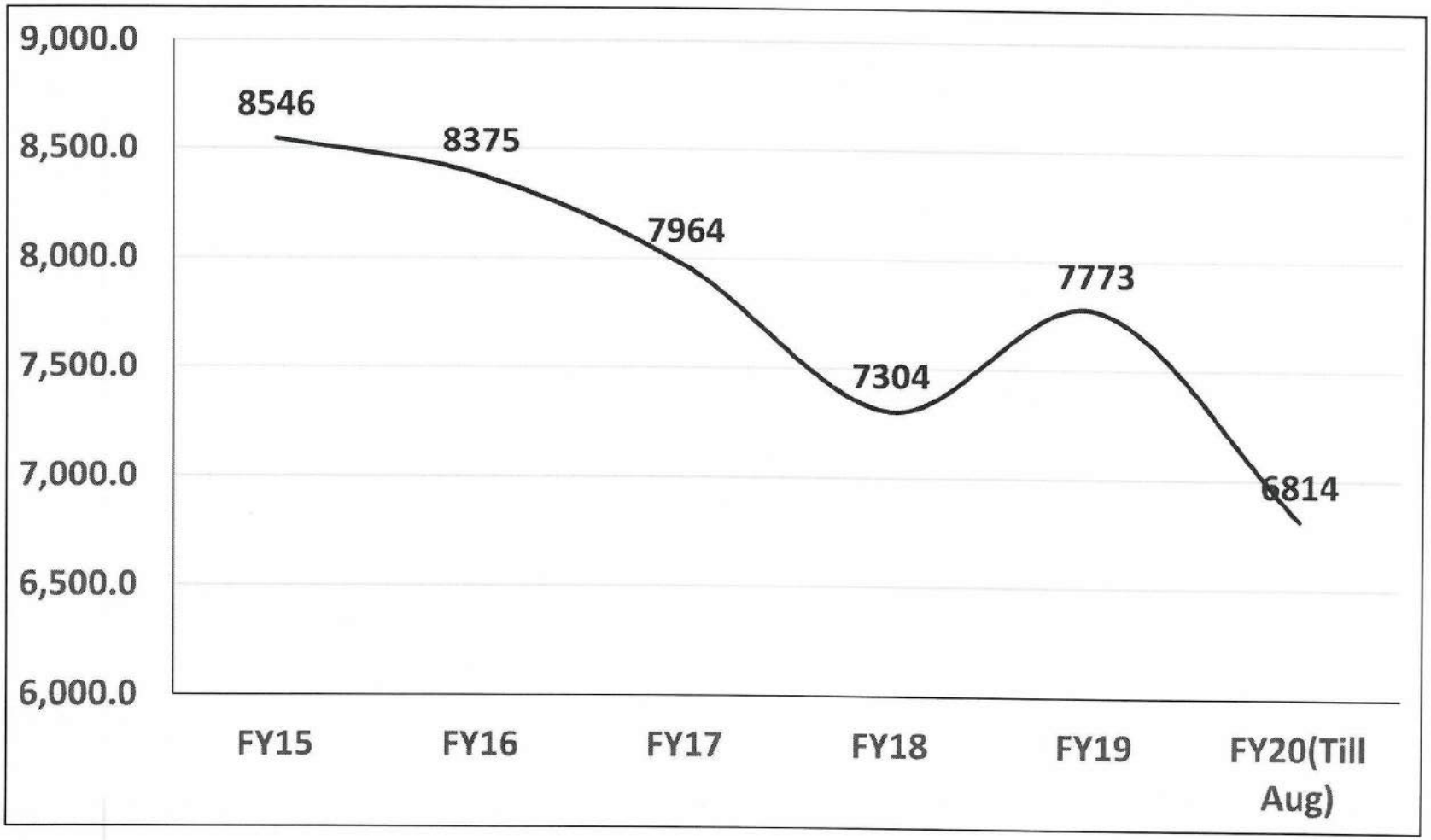
Point No	Recommendation	Status as on 16.09.2020
x.	The unit shall implement the requisite facility as per suggestion of the water audit report so that detailed study may be carried out to reduce the withdrawal of the ground.	**Complied**. Ground Water extraction for the entire complex has been reducing continuously through different water conservation projects, trend since 2014-15 as attached
xi.	To avoid contamination of the ground water with coloured effluent the unit shall close down the rain water harvesting system at bio-composting site.	**Complied**. Rain water harvesting pit in Bio compost area is filled with Soil and rehabilitated with green belt. **Photographs is attached**.
xii.	The unit shall stop bio-composting during rainy season as the covered bio-compost yard was damaged.	**Complied**. The Bio compost operations were stopped and damaged covered shed were repaired before commencement of bio compost operation.
xiii	The unit shall take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production.	The recommendation is not feasible due to atmospheric distillation technology installed in the 1980's and 1900's. Also, this will require changes in the entire effluent treatment system including Bio Methanation, RO & MEE due to increased solid concentration. We have voluntarily reduced the Spent wash from design norms of 11.7 KL/KL norms of 9.13 KL/KL spent for year 2018-19 and 8.76 Kl/KL for FY 2019-20.

Fresh Water Specific Consumption Trend, M3/MT

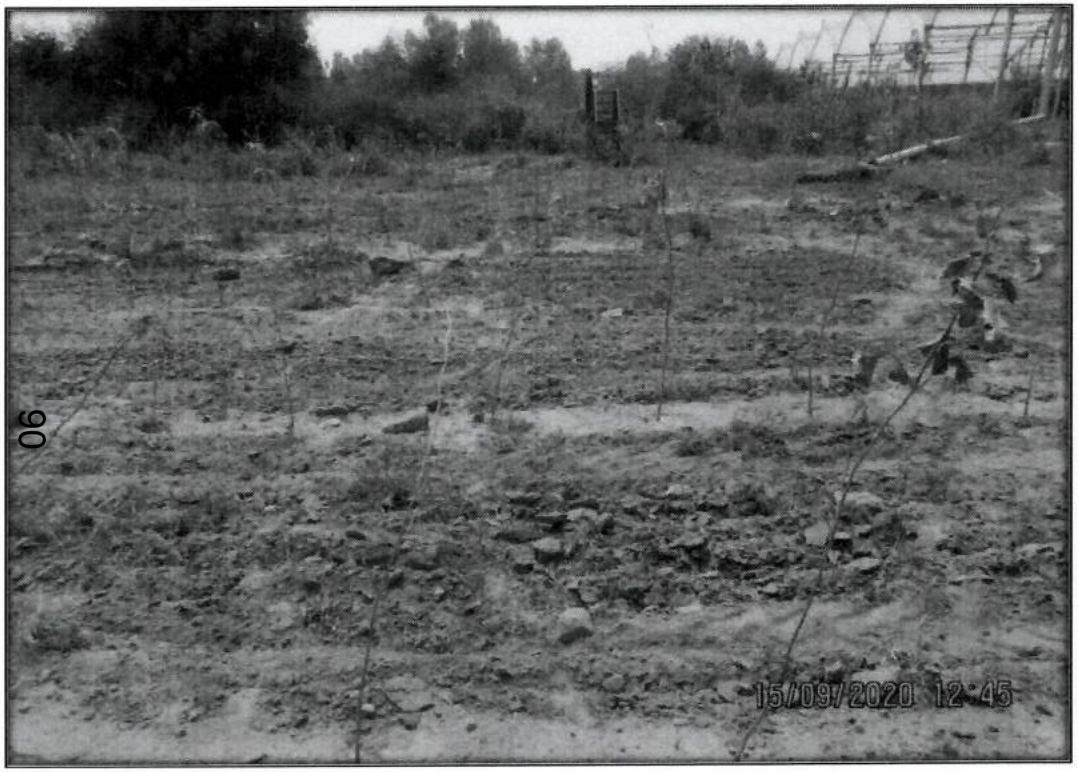


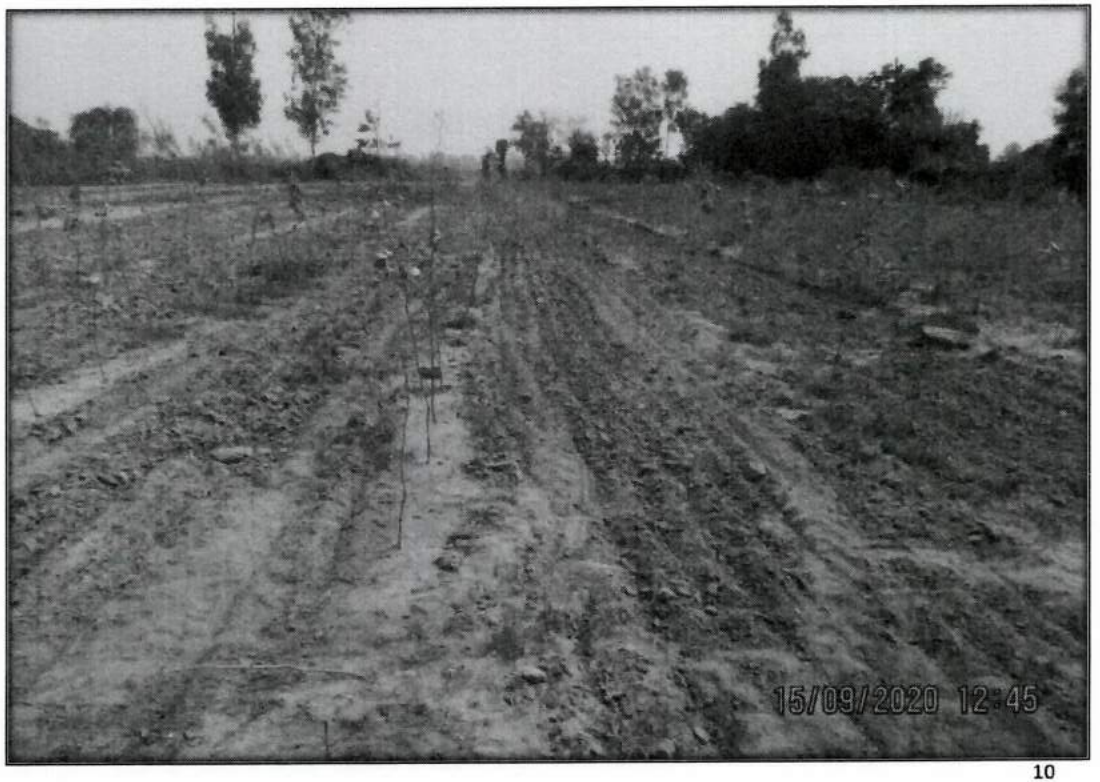
Ground Water withdrawal Trend, M3/Day



BackFilled rainwater Harvesting Structure at Biocompost Area

JUBILANT LIFESCIENCES





10

505

Point No	Recommendation	Status as on 16.09.2020
xiv	The unit shall install additional system to improve the quality of CPU permeate. As per the analysis result, CPU RO Permeate have pH-9.48, COD-2083 mg/l and BOD 1078 mg/l is being utilized in cooling tower, which may not be appropriate at such high pH.	**Complied**. pH is maintained between 7.5 and 8.0 before end use in cooling tower. The operation parameters are technically viable and have been in practice since 24 months. No operational issue or environmental impact encountered due to the practice. We request for exemption from this direction.
xv	The unit shall set up proper and separate systems for concentration of spent wash up to 45 % solids and up to 30 % solids for incineration and for bio-composting respectively.	Complied The unit is in compliance to the guidelines for Distillery, stipulating minimum 60% volume reduction and >30% solids.

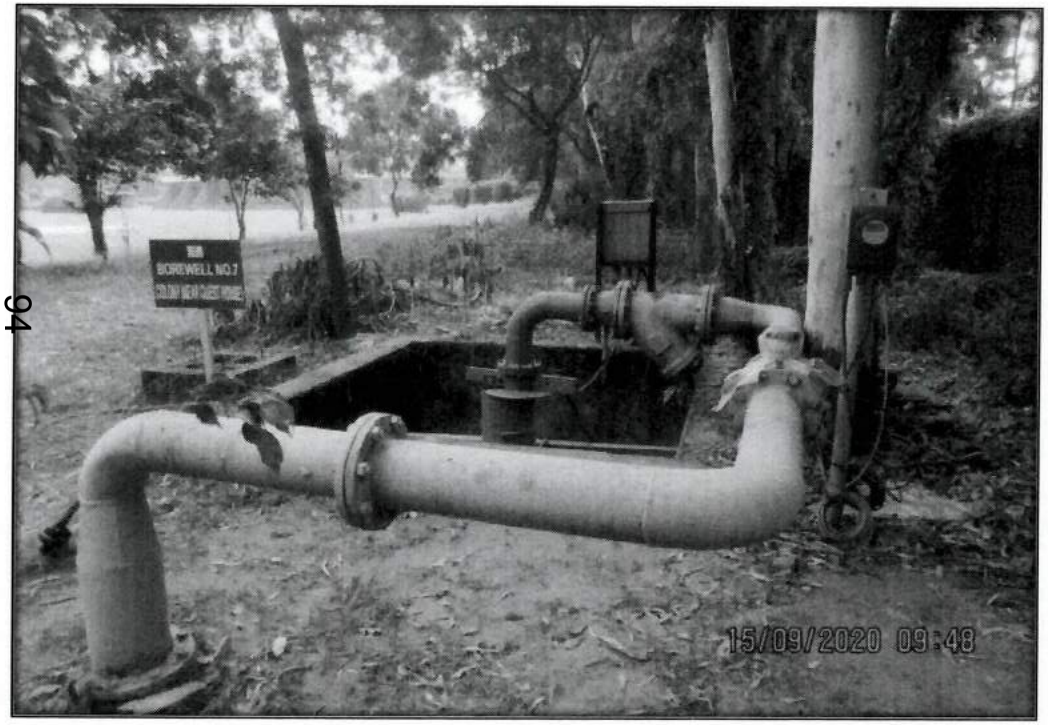
50

Point No	Recommendation	Status as on 16.09.2020
i.	The unit shall maintain and operate Air Pollution Control Systems (ESP) on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.	**Complied** • Requisite APCS are installed and are operating satisfactorily to meet the emission norms. • OCEMS is installed and connected to CPCB and UPPCB.
ii	The unit shall submit time bound action plan for augmentation / retrofitting of ESP.	**Completed**. • ESP of standby 34 TPH & 25 TPH MP Boilers are Replaced during FY-2019. • Monthly compliance report is being submitted to Chairman, CPCB.
iii	The unit shall submit the ambient air quality report and stack report of all the air pollution sources from MOEF&CC authorized laboratory on quarterly basis.	**Complied**. • Report is being regularly submitted to UPPCB as stipulated in the consent.
iv	To avoid additional ash disposal on ash pond, the unit shall ensure and increase the disposal of fly ash as per the agreement.	**Complied** Entire fly ash generated is supplied to Shree Cement/Ultra tech Cement as per the agreement. Ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation. Agreement with Cement companies are provided as Annexure
v	The unit shall keep and maintain Ash generation as well as disposal record.	**Complied** Records are maintained. A quarterly report is being submitted to UPPCB on regular basis. A Copy of report is provided as Annexure.

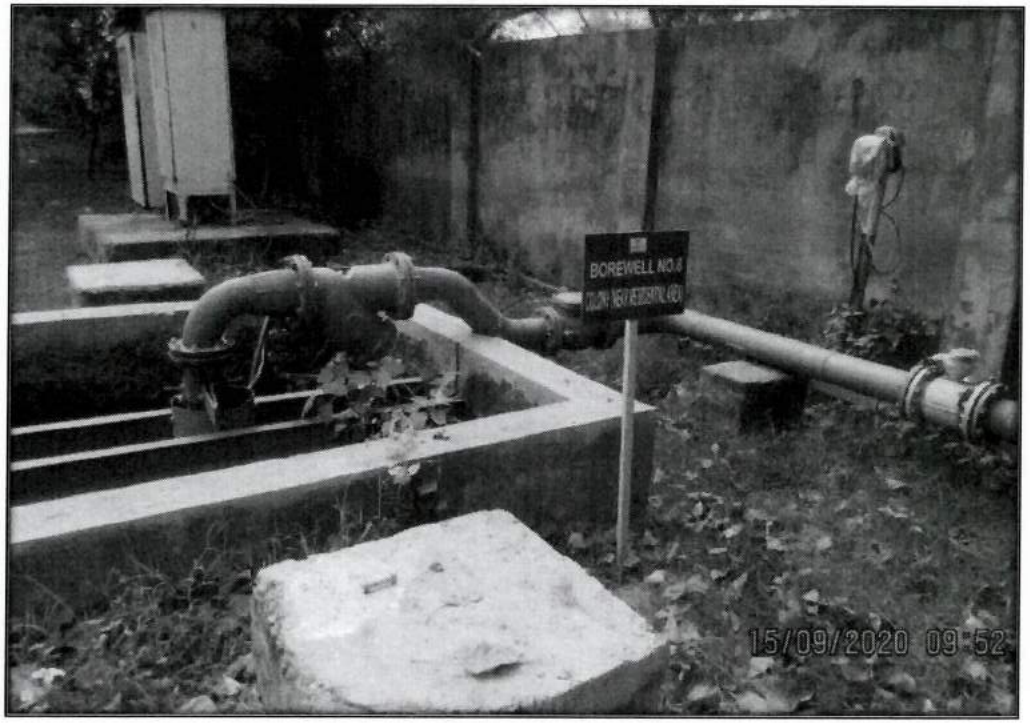
Pt. No.	Recommendation	Status as on 16.09.2020
i.	The unit shall install meter on all fresh 'water consumption and effluent recycling points.	**Complied**. All important fresh water consumption and effluent recycling points are metered and monitored on daily basis. The log book is maintained for the same.
ii	The unit shall calibrate and maintain records of all existing meters periodically.	**Complied** Calibration bench is installed to calibrate the existing meters with traceable source from National Physical Laboratory and calibration started. Copy of calibration certificate are provided during visit.
iii	The unit shall replace the existing turbine type water flow meters on bore wells with digital magnetic flow meters.	**Complied**. **Magnetic flowmeters are in place on all bore wells since 2017.** The daily water meter reading is also being recorded. Copy of water consumption details provided during visit. Also photographs of each water meter was taken in presence of Company representative.
iv	The unit shall send all domestic waste water generated from plant and colony to STP and metering at STP inlet shall be done.	**Complied**. **Magnetic flow meter were in place at inlet and outlet of STP since** 2017 photographs of inlet and outlet meters was taken in presence of Company representative.
v	The unit shall obtain NOCs for withdrawal of groundwater from CGWA at earliest as NOCs already expired on 04.04.2019.	**As per Gazette S.O. 3289(E) issued on 24.09.2020 on Guidelines to regulate and control ground water extraction in India, the renewal of NOC is deemed approved from the date of its expiry**. • Renewal application to CGWA was filed through Manual filing on 04.01.2019 and online on Dt. 28.02.2019. • CGWB Lucknow inspection done Dt. 03.05.2019 to 08.05.2019 and have found us in full compliance. • The CGWB Lucknow forwarded the recommendation for grant of NOC to CGWA New Delhi on Dt. 26.11.2019. • The NoC renewal is pending before the CGWA New Delhi, citing restriction imposed by the NGT

13

Water meter at Bore wells



Bore well No. - 7



Bore well No. - 8

94

509

Magnetic Flow meter at STP Inlet and Outlet

STP Inlet

STP Outlet

CGWB Lucknow recommendation to CGWA New Delhi.

CGWB Lucknow forwarded our recommendation for grant of NOC to CGWA New Delhi.

Speed Post/ Registered
21-4/1181/REN/UP/IND/2016 - 3496
Government of India
Ministry of Water Resources, RD & GR
Central Ground Water Board, NR
Bhujal Bhawan, Sector 'B'
Sitapur Road Yojna, Aliganj
Lucknow 226021
Phone: 0522 – 2363812 Fax: 2732478
Dated: 26 NOV 2019

To,
The Member Secretary
Central Ground Water Authority
Ministry of water Resources, RD & GR
18/11, Jamngar House,
Mansingh Road, New Delhi,
110011.

Sub: Renewal of Ground Water Clearance in respect of M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh-Reg.

Ref: Online Application No: 21-4/1181/REN/UP/IND/2016 dated 28/02/2019.

Sir,

Kindly refer to online application No. 21-4/1181/UP/IND/2016 dated 28/02/2019 for renewal of NOC, received from M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh for ground water abstraction for **2,918 m3/day** i.e. **10,65,070 m3/year,** Which has been examined and is recommended. The hardcopy of duly filled online evaluation proforma and copy of proposal is also being submitted for necessary action. This application has been processed in reference to NGT order dated 1.11.2019 in O.A. No. 107/2019.

Encl. As above

Yours Sincerely

(Y B Kaushik)
Regional Director

Copy to:

✓ M/s Jubilant Life Sciences Limited(Distillery Unit), Bhartiagram, Gajraula, Amroha, Uttar Pradesh 244223

16

Point No	Recommendation	Status as on 16.09.2020
vi.	The unit shall take measures for reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.	**Complied**. The COC is obtained at its highest level 8-10, based on the process requirement. Further the CT Blow Down is recovered through RO thus reducing fresh water consumption. Also, Fresh water conservation is achieved through recycling of treated effluent RO Permeate and MEE condensate towards achieving ZLD.
vii	The unit may reduce the quantity of makeup water used in each Cooling Tower by increasing Cycle of Concentration (COC).	
viii	The unit may make efforts for reduction in steam consumption and effluent generation thereby reducing fresh water consumption.	
ix	The unit shall provide Rain Water Harvesting system in non-process areas for water conservation.	**5 nos. of Rainwater Harvesting structures already provided in non processing area** since 2017. The same is verified by CGWA during inspection.

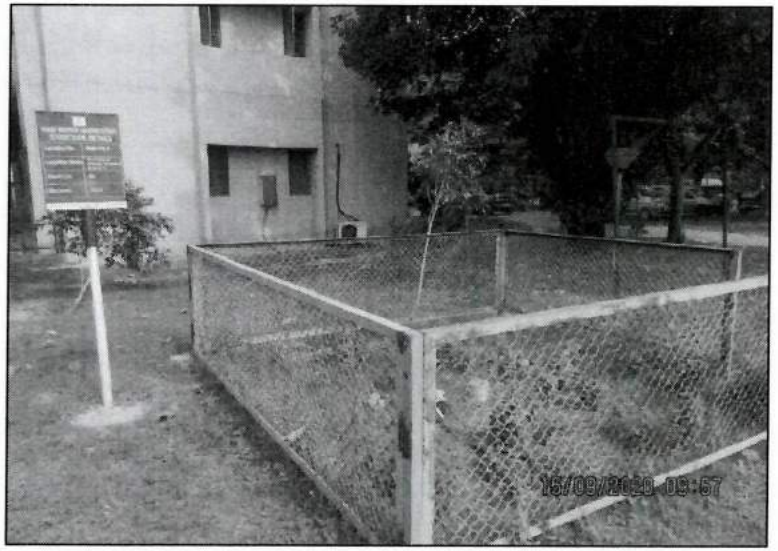
Rain Water Harvesting Structure in Non-Process Area

JUBILANT LIFESCIENCES

Near Time Office Gate

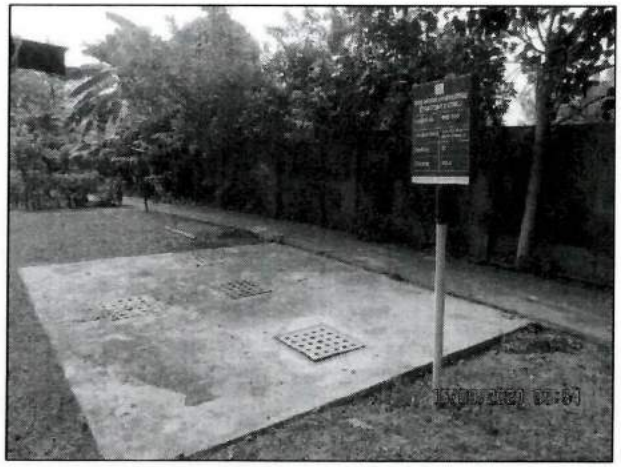
Outside of Canteen

Back side of Director bungalow – Colony



Back Side Of Guest House

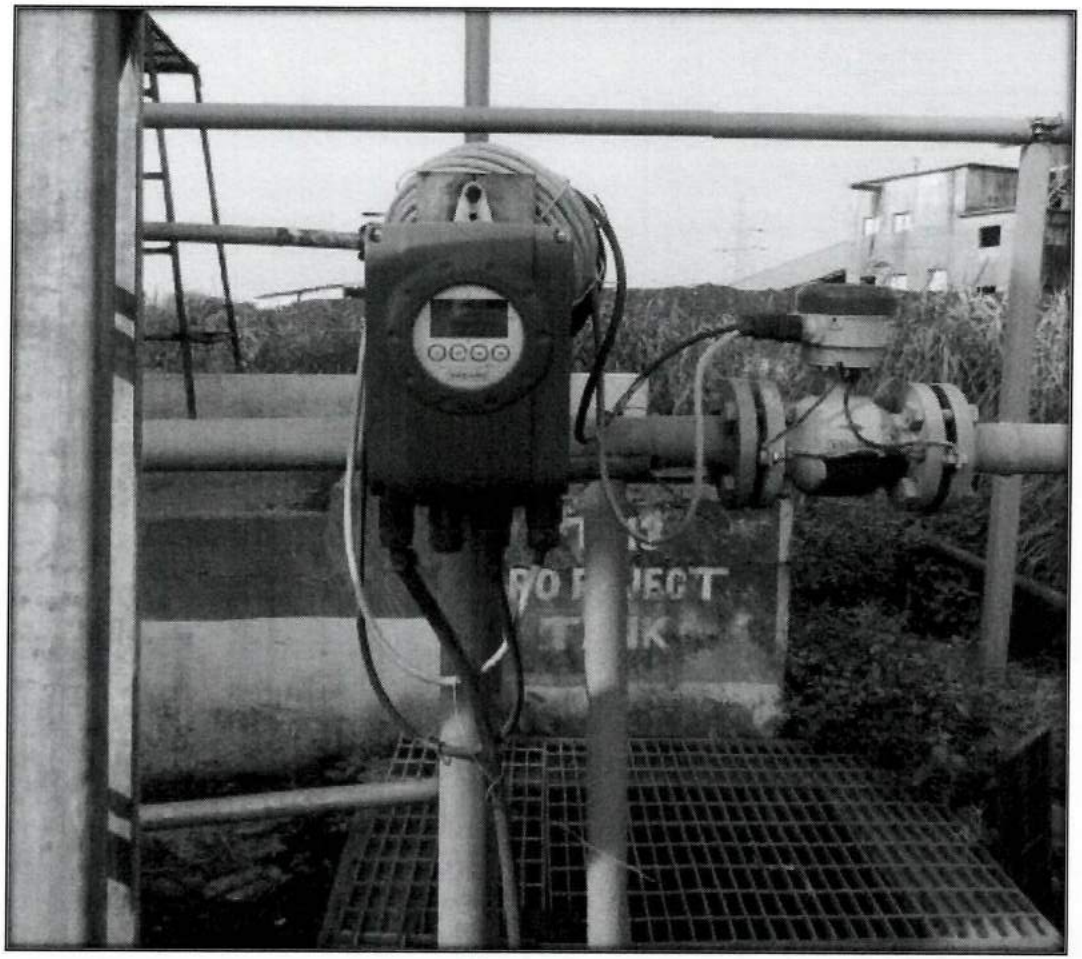
Near B-13 and B-14 Block Colony



57

Point No	Recommendation	Status as on 16.09.2020
i.	The unit shall immediately stop the spray of RO reject on ash for dust suppression.	**Complied** • The RO reject use for dust suppression during ash handling is stopped.
ii	The unit shall set up the incinerator facility to achieve ZLD.	• As Coal storage yard fire quenching water requirement is met with RO reject, no incinerator is proposed for ZLD. • There is no environment damage established with the practice, instead fresh water is conserved. • We may kindly be exempted from implementing this recommendation.
Chemical Effluent Treatment Plant (CETP)		
i.	The unit shall stop discharge of effluent for horticulture purposes and the entire effluent shall be recycle/reuse in process or cooling tower.	**Complied.** Treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant (CTBDRO). The permeate is reused in cooling tower makeup. The same is verified during visit.
Common Cooling Tower Reverse Osmosis Plant (CTRO)		
i.	The unit shall install a dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard and make spray arrangement exclusively for using this effluent.	**Complied.** A dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard is provided. **The photograph of metering arrangement is attached.**

Flow Meter at RO Reject Line



M/s Jubilant Life Sciences Ltd. , Stack Emission Monitoring Results

Point No	Recommendation	Status as on 16.09.2020
Stack Emission Monitoring Results		
i	The unit shall maintain the wet scrubber periodically to restrict SO2 emission within the prescribed norms. To evaluate the performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied.** The wet scrubber was being maintained and its stack has been regularly being monitored through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.
ii	To restrict the NOx emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied.** As bed height is level control is rigorously monitored and maintained as a measure for NOx control. Regular stack monitoring is being done through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.

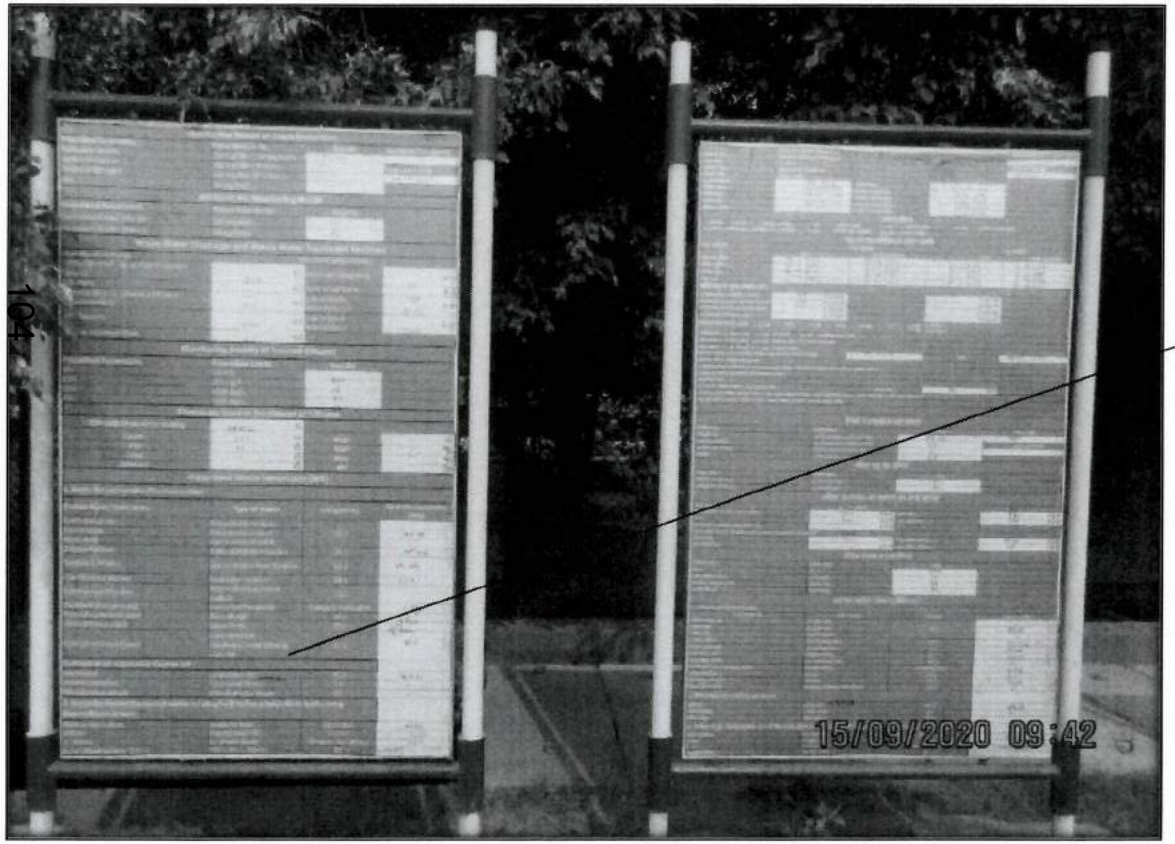
Point No	M/S Jubilant Life Sciences Ltd., Distillery unit	Status as on 16.09.2020
i.	The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke [heat detectors, fire extinguishers and other necessary provisions as stipulated under the Guidelines for storage of incinerable hazardous wastes	**Complied.** Well designed Fire fighting system is available around the storage of incinerable hazardous wastes area. Following fire fighting arrangements are at place which is sufficient for addressing any fire incident :- • Monitors (For water sprinkling arrangement) – 5 Nos.; Alarm system (MCP) – 1 No.; Hydrant Point - 4 Nos.; Hose box with hoses – 2 Nos. • Safety Shower – 1 Nos.; Emergency display board with communication system – 1 No.; Dedicated storage of 7000 KL fire water ;Company owned fire tenders – 2 Nos.; Fire crew - 26 firemen
ii	The unit shall sell caustic lye along with other hazardous waste generated by the unit only to the authorized utilizer/recycler; and shall maintain records and manifest document as required under Rule 9 of the HOWM Rules, 2016	**Complied.** End user have all necessary permissions.
iii	The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit	**Complied.** The display board is installed since 2016. Photographs attached.
iv	The unit shall maintain date wise record of leachate generated from captive SLF.	**Complied.** Record of leachate generation and disposal is maintained.

JUBILANT LIFESCIENCES

Fire fighting arrangements around hazardous waste storage area

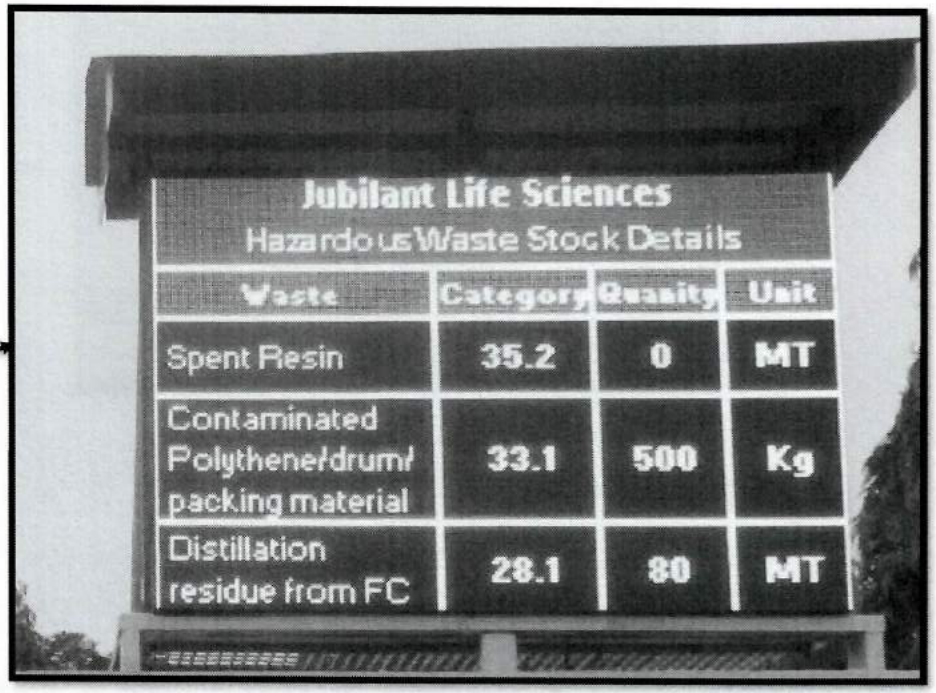
Display board displaying details of hazardous wastes

Display board displaying details of hazardous wastes being handled



Display board displaying details of hazardous wastes

Online Digital Display Board at main gate



Jubilant Life Sciences
Hazardous Waste Stock Details

Waste	Category	Quanity	Unit
Spent Resin	35.2	0	MT
Contaminated Polythene/drum/ packing material	33.1	500	Kg
Distillation residue from FC	28.1	80	MT

105

64

520

Point No	NGT Observation on 05/02/2020	Compliance Status
i	The effluents of chemical unit I and the polymer unit are collectively treated in a chemical effluent treatment plant and both the units have been consented as Zero Liquid Discharge. The treated effluents from the chemical effluent treatment plant should operate on ZLD system and this effluent may not be consented for utilization for horticulture purpose.	**Complied.** • Treated effluent was used for horticulture was as per consent condition and is now stopped. • The treated ETP water is reused in cooling tower makeup after recovery in an RO
ii	The 400 KID of sewage after treatment is utilized for horticulture/agriculture. The treated sewage is not meeting with respect to faecal coliform. After treatment, it can be better utilized for industrial use so to reduce consumption of ground water.	• The treated sewage is analyzed on regular basis by MoEF & CC approved lab and all the results including E-coli found with in limit. • Treated sewage is used for campus green belt management and thus is a Water conservation measure to reduce ground water extraction.

THANK YOU

Annexure 2

1) In compliance to the order of the Hon'bleNGT Dt. 05/02/2020, Para 5, the Unit was to be provided an opportunity of being heard in terms of the principles of natural justice. Accordingly, we have made as many as 3 requests/representations to MS, Central Pollution Control Board ("CPCB") and multiple representations to MS, UP Pollution Control Board ("UPPCB") seeking personal hearing to make our submissions on the observations and recommendations made by the JIT. However, we await to be heard yet.

2) The Joint Inspection Team had made various recommendations from their visit to our site during 17-19 Aug 2019. A pointwise compliance report was submitted to your good office along with the questionnaire vide email on 25/10/2020 as Annexure 5. From the same you would find that we have duly complied with almost all the recommendations of the JIT and await the report of the JIT's re-inspection/verification visit Dt. 16/09/2020.

3) We have been making representation to the UPPCB and CPCB on the observations and the recommendations of the JIT, as below, that need re-consideration and for which we have been seeking personal hearing before the JIT.

i. The JIT, in its report from the visit, has not established any impact caused to Environment nor has established any crop failure to the Mango orchard of the Complainant Mr. Shah Alam.

ii. The report of the JIT has many observation and recommendation that lacks technical feasibility and statutorily basis/validity, which can be explained again and corrected only by granting an opportunity of being heard to us, as detailed below.

iii. The EC of Rs. 6.19 Crore has been incorrectly calculated, both in terms of the factors considered as well the period of violation, if any, and the following considerations.

a) UPPCB, as our environmental regulator, has vide letter Dt. 30/10/2019 issued a Showcause notice with a direction to deposit Rs. 30 lakhs as Environmental Compensation. We complied with the direction and deposited the said amount on 30/12/2019.

b) However, the CPCB submitted to the Hon'bleNGT during the hearing Dt.05/02/2020 that the EC is assessed as Rs, 6.19 Crore.

67

c) The basis of EC calculation as accessed from the reports submitted to the Ho'bleNGT is in large deviation from the guidelines of the CPCB for assessment of EC and is therefore over estimated and incorrect.

d) We have already deposited an additional amount of Rs.70 Lakh on 28/09/2020, making the total EC deposited = Rs. 1 crore, in protest, and have requested for personal hearing to make our submissions.

We have been requesting the CPCB for a hearing to put forth our submission and await an opportunity. In view of the above submission, we humbly request that the Rs. 6.19 Cr EC imposed is not warranted, and needs to be withdrawn/cancelled.

4) With regards to the renewal of the Central Ground Water Authority ("CGWA") NoC for ground water extraction that expired on 04/04/2019 and the Rs.9.84 Crore imposed as Environmental clearance for illegal ground water extraction, we would like to submit that:

i. The CGWA (MoWR) has notified the guidelines for grant of NoC for ground water extraction and the said notification has provided for deemed approval from the date of expiry of NoC, on timely submission of renewal application.

ii. The CGWALucknow inspected our Unit in May 2019 and submitting its supporting recommendation to the CGWA New Delhi in October, 2019.

iii. Accordingly, our renewal applications are now deemed approved.

Notwithstanding the above, even when the NoC renewal was pending before the CGWA, we have constructed artificial recharge structures in >200 village ponds over 15,000 Sq Km area around our unit in May 2019 and thus has helped in augmenting the ground water resources through the monsoon season of 2019 and 2020. The list of all the recharge structures constructed in the village ponds are as in Enclosure 1.

iv. Further, the UP Ground Water Authority ("UPGWA") has constituted the UP Ground Water Rules 2019 for regulation of ground water extraction and has issued the guidelines.

v. As informed by the UPGWB officials during the hearing of the Hon'ble Over-Site committee on 02/11/2020, the online registration of Ground

68

water extraction structures has commenced and would be processed by the UPGWA for grant of NoC from 10/11/2020.

vi. We have filed the application before the UPGWA for grant of NoC. We are herewith enclosing the Ground Water Aquifer Impact Assessment Report (Enclosure 2) and the Water Audit of our plants (Enclosure 3) undertaken at our unit for your ready reference.

In view of the above submission, we humbly request that the Rs. 9.84 Cr EC imposed is not warranted, and needs to be withdrawn/cancelled.

5) The Visit of the Joint inspection team Dt. 17-19 July 2019 was preceded by a force majeure incident of excessive rains of about 260 mm, as in the table below, accompanied with turbulent winds damaging the Covered Sheds of Biocomposting yard. In such an event, the Distillery unit has not let any contaminated water from the Biocompost yard to run away into the River Bagad or anywater body to environment and instead collected it within the available areas like the Lagoon 28, Old ash pond and the Open Biocompost yard (12 Acres) and depleted it through ZLD facilities over a period of time by stopping the distillery operations or operating at much lower capacity.

The effort that was made in the interest of Environment though, the JIT has recorded multiple observations and recommendations as intentional violation to environmental norms, without due acknowledgement of the voluntary efforts even during force Majeure.

Date	Rainfall, mm
05.07.2019	40
09.07.2019	50
10.07.2019	30
11.07.2019	40
15.07.2019	70
16.07.2019	30
Total	**260**

6) The JIT has listed the operation of Distillery Slop boiler at capacity below 11.5 KL/Hr as a violation of Environment condition is based on the original design capacity in 2009. However, since the CPCB issued guidelines for ZLD of distillery in 2015 the operating parameters have changed and we have voluntarily amended our Consent to Operate from 11.5 KL/Hr to 8.0 KL/Hr and also distillery consent from 305

KLD to 183 KLD to comply with the new guidelines and further that operating a facility with lower capacity is not a violation under any environmental law.

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration.

7) The JIT has made an observation that ***"the unit shall set up proper and separate systems for concentration of spent wash up to 45 % solids and up to 30 % solids for incineration and for bio-composting respectively"*** and has recorded it as Environmental violation. We would like to submit that this is beyond the statute as the CPCB guidelines for ZLD of distillery Dt.07/12/2015 stipulates only Volume reduction by 60% and minimum Solids as 30% (Enclosure 4).

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration.

8) The JIT has made an observation ***"the unit shall take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production"*** and has recorded it as Environmental violation. We would like to submit that this is beyond the statute as the CPCB guidelines for ZLD of distillery Dt. 07/12/2015 does not mandatorily imposes this and is an option for the industry which was not opted by us (Enclosure 4).

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration

9) The JIT has made an observation that ***"the unit shall install additional system to improve the quality of CPU permeate. As per the analysis result, CPU RO Permeate have pH-9.48, COD-2083 mg/l and BOD 1078 mg/l is being utilized in cooling tower, which may not be appropriate at such high pH"*** and has recorded it as Environmental violation. We would like to submit that there is no standards stipulated by the Environmental regulator for cooling tower makeup water.

Therefore, the JIT attributing the observation as Environmental violation is beyond statute and needs reconsideration

10) The JIT has made multiple observations as ***"The unit shall install meter on all fresh 'water consumption and effluent recycling points" "The unit shall calibrate and maintain records of all existing meters periodically"; "The unit shall replace the existing turbine type water flow meters on bore wells with digital magnetic flow meters"*** and has recorded it as Environmental violation. We would like to submit that none of the above are statutory requirement under any environmental law.

70

Points wise observations of CPCB on Status as reported by the unit to the Oversight Committee:

Previous joint inspection date: 17th and 18th July, 2019, Latest joint inspection date: 16th September, 2020

S. No.	Points mentioned by the unit to the Oversight Committee	Status (dated 16.09.2020) reported by the unit to the Oversight Committee	CPCB Observations on compliance reported by the unit
Distillery Unit			
i.	The unit shall stop its distillery manufacturing process till compliance of the directions issued.	**Complied.** The Distillery unit stopped for over 90 days during and post monsoon to handle the large volumes of rainwater leachates generated from unprecedented rainfall. Further, it was also was operated at lower capacities for many days. The production data during 01/07/2019 to 31/08/2020 is attached.	- Previous joint inspection was carried out on 17th and 18th July, 2019 and non-compliances as mentioned in this table were observed. - Closure direction to the distillery unit was issued by UPPCB vide letter dated 03.06.2020 after the non-compliances w.r.t. Zero Liquid Discharge (ZLD) observed jointly by officials of National Mission for Clean Ganga (NMCG) and RO-Bijnor, UPPCB during inspection dated 01.06.2020. - During inspection dated 01.06.2020, seepage of spent wash was observed due to breakage of pipeline carrying spent wash from lagoon to bio-compost yard. Also, ponding of spent wash was found in nearer farms of the unit. - In the said closure direction, UPPCB also referred the non-compliances, which were observed during previous joint inspection dated 17th and 18th July, 2019. - In compliance of closure direction (dated 03.06.2020, issued by UPPCB), the distillery unit stopped production from 06.06.2020 to 30.06.2020. - Revocation direction was issued on 30.06.2020, by UPPCB, after the compliance observed through inspection by the officials of RO-Bijnor, which was carried out on 23.06.2020 and 30.06.2020. - In compliance of the closure direction dated 03.06.2020, the unit was non-operational for total 25 days i.e., from 06.06.2020 to 30.06.2020. - As per the monthly data (July2019 to Aug.2020) submitted by the unit, alcohol production was carried out for313 days out of total 428 days. - The unit was closed for total 115 days including closure period of 25 days in compliance of UPPCB's closure direction dated 03.06.2020.

AEE UPPCB | RO, UPPCB | SCIENTIST, UPPCB | SCIENTIST, UPPCB

			- As per the monthly data (July2019 to Aug.2020) submitted by the unit, the alcohol production was carried out for 313 days at minimum 70 KL/day (38.25%) and maximum 130 KL/day (71%) against consented capacity of 183 KLD. - It may be concluded that the unit was found non-compliant w.r.t. ZLD in July, 2019 and discharge of spent wash was found on 01.06.2020 due to breakage of spent wash pipe line. On the basis of public complaint received by NMCG and findings observed by UPPCB the closure direction was issued by UPPCB on 03.06.2020. - During earlier inspection by UPPCB on dated 08.05.2020 unit was found complying w.r.t ZLD norms, as informed by UPPCB. - Environmental compensation (EC) should be levied by UPPCB for the period for which violation of ZLD was observed.
ii.	The unit shall consume the already stored spent wash through further concentration for use in the incinerator.	**Complied.** The stored concentrated spent wash diluted with rainwater leachates was concentrated in MEE and consumed.	As per the data submitted by the unit vide mail dated 14.10.2020, the excess total 22937.73 KL of spent wash/spent wash leachate (which was previously found stored at Bio-compost yard, old ash pond and lagoon) has been consumed/utilized through RO→MEE→Bio composting. However, specific time period of this consumption/utilization of spent wash (SW) has not been mentioned by the unit. However, as per monthly data (July-2019 to Aug-2020) submitted by the unit, total 60520.74 KL of excess SW has been fed in MEE; in addition to daily raw spent wash generated. The unit has fed 60520.74 KL of extra concentrated SW (CSW) to MEE against the claimed quantity of 22937.73 KL, which is contradictory and indicates that the difference (60520.74 -22937.73 KL), i.e., 37583 KL that was fed to MEE, was either stored in ponding or in lagoon (dedicated for storage of concentrated SW). However, discharge of spent wash outside the premises was observed on June 01, 2020 as a result of which UPPCB issued closure order dated 03.06.2020 and the unit remain closed from 06.06.2020 to 30.06.2020. During earlier
iii.	The unit shall recycle the stored spent wash from the old ash pond to ensure that no traces of spent wash remain in ash pond.	**Complied.** The spent wash leachate was stored in Old Ash Pond was transferred to Lagoon 28A and further to MEE for concentration and treatment. Rehabilitation of the old ash pond with green belt has been commenced with plantation of 300 tree samplings in 2020 **Photographs of Old pond is attached.**	

			inspection by UPPCB on dated 08.05.2020 unit was found complying w.r.t ZLD norms as informed by UPPCB. During latest inspection dated 16.09.2020, it was observed that, the unit has reclaimed the area near bio-compost yard (where previously ponding of SW leachate was observed) by filling with soil and no ponding has been observed near bio-compost yard. Also, the old ash pond was found reclaimed by filling with soil and plantation has been carried out, where previously spent wash was found stored.
iv.	The unit shall restrict its storage capacity of concentrated spent wash up to 17800 m^3 including 07 days for incinerator and 30 days for bio-composting separately by dismantling (filling/levelling the additional storage capacity of the lagoon within 30 days.	**Complied.** The storage capacity for Spent wash is adhered as per guidelines as 17800 m^3. Out of two parts of Lagoon 28 (28A and 28B), One-part Lagoon 28A is filled and levelled with Earth/Ash. **Photograph of backfilled Lagoon 28A is attached.**	During previous joint inspection dated 17th and 18th July, 2019, it was observed that, the unit had made partition in a lined lagoon of 44,000 m^3 (dedicated for storage of concentrated spent wash) and one lagoon was divided into two parts. The total capacity of both the lagoons was 32,000 m^3. During latest inspection dated 16.09.2020, only one lagoon of 18,000 m^3 capacity was observed for storage of concentrated spent wash used for bio-composting. The other one does not exist, as the same has been filled and levelled using soil. No information/evidence provided on management of concentrated spent wash, how much is incinerated and how much is bio-composted. It may be noted that the incinerator is not operated at designed capacity and bio-composting area is also not adequate.
v.	The unit has made partition in the lagoon by filling it with soil and made two lagoons i.e., Lagoon 'A' and Lagoon 'B'. The unit shall line up the area by using concrete.		
vi.	To maintain the quality of concentrated spent wash for efficient use in bio composting as well as in incineration the unit shall operate its MEE uniformly.	**Complied.** MEE is operated as per requirement of slop and Bio-composting for reduction in Spent Wash volume by 60% and minimum solids 30% suitable for bio composting and incineration. Monthly details submitted through NGRBA report.	As per the monthly data provided by the unit from July-2019 to Aug-2020, total quantities of raw spent wash (RSW) generated, RSW fed to MEE, concentrated SW (CSW) generated from MEE and CSW consumed in slop (incineration) boiler are 266917 KL, 327437.7 KL, 126269 MT and 7040 MT respectively. As per the monthly data submitted by the unit from July-2019 to Aug-2020, out of total 428 days, MEE has been operated for 421 days. During the said time period, MEE has been operated at minimum 562.66 KLD (23.44 KL/hr) to maximum 1012.0 KLD (42.17 KL/hr). As per the monthly data submitted by the unit from July-2019 to Aug-2020, from 01.01.2020 to 30.07.2020, incineration boiler was under maintenance and it has been operated for only 113 days during period of July-2019 to Aug-2020, at CSW feed rate of minimum 34.19 MT/day (1.70 MT/hr) and

AEE UPPCB RO, UPPCB SED CPCB SED, CPCB

			maximum 98.74 MT/day (4.94 MT/hr), considering 20 operating hrs/day. As per analysis result of sample collected during latest joint inspection dated 16.09.2020, total solid content of concentrated spent wash at MEE outlet after 5th Stage was 45.6% which is less than desired solid concentration of >55%. which indicates the incineration is not being operated at its optimum capacity. During latest joint inspection dated 16.09.2020, concentrated spent wash with 40.6% solid content was used for bio-composting, which indicates by-pass of incinerator and also violation of CPCB direction dated 07.12.2015. Unit needs to improve operation of MEE and slop boiler in order to achieve ZLD as well as solid contents. After third and fifth stage of MEE solid contents must meet the norms as per SOP of CPCB.
vii.	To avoid the situation of generation of diluted spent, the unit shall restrict the use of excess spent wash in Bio-compost area	**Complied.** The dilute spent wash generation witnessed was due to rainwater ingress from covered shed damaged due to turbulent winds and incessant rains. The SOP for maintaining <50% moisture in windrow is strictly maintained.	During latest joint inspection dated 16.09.2020, it was observed that, the unit was carrying out composting on the covered compost area of 16.8 acres only and remaining 13.2 acres uncovered bio-compost yard was not being used for composting. Also, the covered shed found repaired during current inspection, which was found damaged during previous joint inspection. However, concentrated spent wash with 40.6% solid as against 30% solid against the CPCB direction dated 07.12.2015 and spent wash was used with press mud to spent wash ratio at average of 1.45 against the SOP of bio-composting.
viii.	The unit shall stop storage of the lagoon sludge in open area and shall use the sludge directly in bio composting.	**Complied.** The lagoon sludge is stored in covered Bio composting shed and used in Bio composting. Rehabilitation of the sludge storage yard with green belt has been commenced with plantation of 200 tree samplings in 2020 Details of area used for Sludge storage, press mud storage and Bio compost is attached.	The unit has 16.8 Acres of covered bio-compost yard. During latest joint inspection dated 16.09.2020, digester sludge, fermenter sludge, press mud and ready bio-compost were found stored in covered compost yard and no sludge was observed in open bio-compost yard. Monthly data submitted by the unit, does not include quantity of sludge generated from settling tanks/clarifiers before spent wash RO. The sludge is generated as a result of TS removal of from 11.4% to 5.7% as per inspection dated 16.09.2020. Record / log-book of disposal of such sludge is not submitted by the unit.

ix.	After recycling the stored spent wash from the ash pond, the unit shall dismantle the pipelines for carrying the spent wash to the ash ponds.	**Complied.** The Pipeline has been dismantled.	During latest joint inspection dated 16.09.2020, the old ash pond was found reclaimed by filling with soil and plantation has been carried out. Pipeline carrying spent wash to old ash pond, which was reclaimed by using soil was found dismantled during latest joint inspection dated 16.09.2020.
x.	The unit shall implement the requisite facility as per suggestion of the water audit report so that detailed study may be carried out to reduce the withdrawal of the ground.	**Complied.** Ground Water extraction for the entire complex has been reducing continuously through different water conservation projects, trend since 2014-15 as attached	Documentary evidence supporting the claim of the unit regarding reducing trend of ground water abstraction data since 2014-2015 is not available with CPCB.
xi.	To avoid contamination of the ground water with coloured effluent the unit shall close down the rain water harvesting system at bio- composting site.	**Complied.** Rain water harvesting pit in Bio compost area is filled with Soil and rehabilitated with green belt. Photographs is attached.	The rain water harvesting pit provided in bio-compost yard was found filled by soil during latest join inspection dated 16.09.2020. Also Rain water harvesting channel, which was previously found filled with leachate, found dismantled during latest joint inspection dated 16.09.2020.
xii.	The unit shall stop bio-composting during rainy season as the covered bio-compost yard was damaged.	**Complied.** The Bio compost operations were stopped and damaged covered shed were repaired before commencement of bio compost operation.	Covered shed of bio-compost yard found repaired during latest joint inspection dated 16.09.2020, which was found damaged during previous joint inspection dated 17th and 18th July, 2019. Details w.r.t specific time period for repairing of damaged covered shed is not shared by the unit.
xiii.	The unit shall take measures to reduce the spent wash generation from 10.69 to 6-8 KL/KL alcohol production.	The recommendation is not feasible due to atmospheric distillation technology installed in the 1980's and 1900's. Also, this will require changes in the entire effluent treatment system including Bio Methanation, RO & MEE due to increased solid concentration. We have voluntarily reduced the Spent wash from design norms of 11.7KL/KL to 9.13KL/KL for FY 2018-19 and 8.76 KL/KL for FY 2019-20.	As per the monthly data submitted by the unit from April 2020 to Sept 2020, average spent wash generation rate is 9.36 KL/KL of Ethyl Alcohol production. The said average spent wash generation rate (as per monthly data submitted by the unit from April-2020 to Sept-2020) has been considered in respective calculations during preparation of joint inspection report.
xiv.	The unit shall install additional system to improve the quality of CPU permeate. As per the analysis result, CPU RO Permeate have pH-9.48, COD-2083	**Complied.** pH is maintained between 7.5 and 8.0 before end use in cooling tower.	Unit has not installed any additional system at Condensate Polishing Unit (CPU) to improve quality of CPU permeate and as per analysis result of sample collected during latest joint

	mg/l and BOD 1078 mg/l is being utilized in cooling tower, which may not be appropriate at such high pH.	The operation parameters are technically viable and have been in practice since 24 months. No operational issue or environmental impact encountered due to the practice. We request for exemption from this direction.	inspection dated 16.09.2020, CPU RO permeate have pH-9.84, COD- 234 mg/L and BOD-160 mg/l. To achieve ZLD, operation of adequate CPU is essential.
xv.	The unit shall set up proper and separate systems for concentration of spent wash up to 45 % solids and up to 30 % solids for incineration and for bio-composting respectively.	**Complied.** The unit is in compliance to the guidelines for Distillery, stipulating minimum 60% volume reduction and >30% solids.	It was observed that concentrated spent wash from MEE having total solid content of 40.6% as against the norms of 30 % (as per CPCB direction dated 07.12.2015) and high temperature was directly being sprayed on bio-compost yard. The high temperature is bound to kill the microbial culture thereby resulting in improper bio- composting. The unit has provided five stage MEE for concentration of spent wash with provision to use MEE concentration after 3rd Stage (~30% solid concentration) for bio-composting and MEE concentrate after 5th Stage (~50% solid concentration) for use in Slop boiler. However, as per analysis result of concentrated spent wash sample collected during latest inspection dated 16.09.2020, from MEE outlet after 5th stage, total solids were 45.6% which is much less than the desired level of concentration i.e., 55-60% for incineration boiler. Therefore, the unit may not be able to operate its slop incinerator at optimal capacity. Further, slop could be burnt with 45% total solids however coal consumption will increase drastically, in that case i.e., slop and fuel ratio will have to be 50:50 instead of 70:30 as reported by the unit officials. In addition, mass flow meter with totalizer has been installed at MEE outlet after 5th stage and not after 3rd stage. The unit has provision to use MEE concentrate after 3rd stage for bio-composting, hence the unit shall install mass flow meter with totalizer at MEE outlet after 3rd stage, the same should be utilized for bio-composting and connectivity shall be established with CPCB and SPCB server.

<table>
<tr><th>Point No</th><th>Points mentioned by the unit to the Oversight Committee</th><th>Status (dated 16.09.2020) reported by the unit to the Oversight Committee</th><th>CPCB Observations on compliance reported by the unit</th></tr>
<tr><td colspan="4">Captive Power Plant/</td></tr>
<tr><td>i.</td><td>The unit shall maintain and operate Air Pollution Control Systems (ESP) on the boilers regularly and ensure that emissions of all the stacks are within the prescribed norms.</td><td>Complied.
Requisite APCS are installed and are operating satisfactorily to meet the emission norms.
OCEMS is installed and connected to CPCB and UPPCB.</td><td>As per the stack monitoring report (sampling dated 16.09.2020& 20.09.2020) from RO-Moradabad, UPPCB, value of NO_x, SO_2, and SPM shows 194.75 mg/Nm^3, 223.08 mg/Nm^3 and 44.66 mg/Nm^3 against standard limit of 300 mg/Nm^3, 600 mg/Nm^3 and 50 mg/Nm^3, respectively, which is within the prescribed norms as per the CTO issued by UPPCB.
As per the stack monitoring report received from RO-Moradabad, UPPCB, sampling was carried out from following stacks and the unit has installed following APCS at the respective stacks:
<table>
<tr><th>Sr. No.</th><th>Mfg. Section</th><th>Stack attached to</th><th>APCS provided</th></tr>
<tr><td>1.</td><td>Power Plant</td><td>2 nos. of 90 TPH coal fired boilers</td><td>Electrostatic Precipitator (ESP)</td></tr>
<tr><td>2.</td><td>Distillery</td><td>Slop boiler (25TPH- slop & coal fired)</td><td>Bag filter house</td></tr>
<tr><td>3.</td><td>Sulfuric Acid plant (Fertilizer unit)</td><td>Sulfuric Acid plant-92 TPH</td><td>Alkali wet scrubber</td></tr>
<tr><td>4.</td><td>Chemical Unit-2</td><td>Incinerator-I (Biogas and Residue fired)-12.5 TPH</td><td>Long stack</td></tr>
<tr><td>5.</td><td>Chemical Unit-1</td><td>Liquid Waste Incinerator No. 2 (Residue fired)</td><td>Long stack</td></tr>
<tr><td>6.</td><td>Chemical Unit-2</td><td>Thermal Oxidizer-4.3TPH</td><td>Stack</td></tr>
</table>
Installed APCS were found operational during inspection.</td></tr>
</table>

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<table>
<tr><td>ii.</td><td>The unit shall submit the ambient air quality report and stack report of all the air pollution sources from MOEF&CC authorized laboratory on quarterly basis.</td><td>Complied.
Report is being regularly submitted to UPPCB as stipulated in the consent.</td><td>The unit has provided copy of ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit being submitted to UPPCB, from Jan-2020 to Sept-2020, the monitoring and analysis of stack and ambient air has been carried out by M/s Newcon Consultants & Laboratories, Ghaziabad, which is MOEF&CC authorized laboratory.</td></tr>
<tr><td>iii.</td><td>To avoid additional ash disposal on ash pond, the unit shall ensure and increase the disposal of fly ash as per the agreement.</td><td>Complied.
Entire fly ash generated is supplied to Shree Cement/Ultra tech Cement as per the agreement. Ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation. Agreement with Cement companies are provided as Annexure.</td><td>The unit has obtained agreement with M/s. Ultra Tech Cement Ltd. for supplying 75-80 % of fly ash generated at its captive power plant at Gajraula per day, which is valid from 18.05.2020 to 17.05.2021, in addition to the agreement with M/s. Shree Cement Ltd.
As informed by the unit representative during inspection, entire quantity of generated fly ash is supplied to Shree Cement/Ultra tech Cement as per the agreement. Ash is disposed to ash pond as a last option only in case of lack of demand from Cement, Brick, Road construction and Land reclamation.
Details of Fly Ash management for Year-2020 as provided by the unit is as below:
<table>
<tr><th>Sr. No.</th><th>Month</th><th>Ash Generated (MT)</th><th>Disposal to Cement Industry (MT)</th><th>Land Reclamation/ Ash Pond (MT)</th></tr>
<tr><td>1.</td><td>Jan-2020</td><td>9869</td><td>7005</td><td>2864</td></tr>
<tr><td>2.</td><td>Feb-2020</td><td>9629</td><td>6720</td><td>2909</td></tr>
<tr><td>3.</td><td>March-2020</td><td>9854</td><td>5202</td><td>4652</td></tr>
<tr><td>4.</td><td>April-2020</td><td>9136</td><td>2597</td><td>6539</td></tr>
<tr><td>5.</td><td>May-2020</td><td>9718</td><td>8797</td><td>921</td></tr>
<tr><td>6.</td><td>June-2020</td><td>6423</td><td>6072</td><td>351</td></tr>
<tr><td></td><td>Total</td><td>54629</td><td>36393</td><td>18236</td></tr>
</table></td></tr>
<tr><td>iv.</td><td>The unit shall keep and maintain Ash generation as well as disposal record.</td><td>Complied.
Records are maintained. A quarterly report is being submitted to UPPCB on regular basis. A Copy of report is provided as Annexure.</td><td>Unit is maintaining records and it was informed that, quarterly report is being submitted to UPPCB on regular basis by the unit.
As per the ash management data of Year: 2020-21, average ash generation is 8425.67 MT, disposal to cement industry is 5822 MT and ash sent to land reclamation/ash pond is 2603.67 MT.
Quarterly report is being submitted to UPPCB by the unit.</td></tr>
</table>

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Pt. No.	Points mentioned by the unit to the Oversight Committee	Status (dated 16.09.2020) reported by the unit to the Oversight Committee	CPCB Observations on compliance reported by the unit
Water and Waste water Management			
i.	The unit shall install meter on all fresh 'water consumption and effluent recycling points.	**Complied.** All important fresh water consumption and effluent recycling points are metered and monitored on daily basis. The log book is maintained for the same.	Flow meter with totalizers have been installed on all 08 nos. of bore wells for fresh water abstraction and log book is maintained for the same. The same were verified during latest joint inspection dated 16.09.2020. In addition to this, the unit has provided flow meters at 11 nos. recycling points of treated effluent.
ii.	The unit shall calibrate and maintain records of all existing meters periodically.	**Complied.** Calibration bench is installed to calibrate the existing meters with traceable source from National Physical Laboratory and calibration started. Copy of calibration certificate are provided during visit.	Copy of calibration certificates of flow meters provided at borewell-1 to borewell-8, condensate to raw water header and CETP outlet were provided by the unit during latest joint inspection dated 16.09.2020.
iii.	The unit shall replace the existing turbine type water flow meters on bore wells with digital magnetic flow meters.	**Complied.** **Magnetic flowmeters are in place on all bore wells since 2017.** The daily water meter reading is also being recorded. Copy of water consumption details provided during visit. Also photographs of each water meter was taken in presence of Company representative.	Magnetic flowmeters are provided on all bore wells. As per the fresh water consumption data from April-2020 to July-2020, provided by the unit, daily fresh water consumption of the complex is 6.85 MLD against the CGWA permission of 14.3 MLD (which was valid up to 04.04.2019).
iv.	The unit shall send all domestic waste water generated from plant and colony to STP and metering at STP inlet shall be done.	**Complied.** **Magnetic flow meter were in place at inlet and outlet of STP since 2017** photographs of inlet and outlet meters was taken in presence of Company representative.	Electro-Magnetic flow meters are installed at inlet and outlet of STP. Domestic waste water is treated in STP and treated waste water is used for horticulture. As per logbook data of STP submitted by the unit from April-2020 to September- 2020, average 244.23 KLD of sewage is treated in STP and average-242.70 KLD of treated sewage is utilized in gardening/horticulture.
v.	The unit shall obtain NOCs for withdrawal of groundwater from CGWA at earliest as NOCs already expired on 04.04.2019.	**As per Gazette S.O. 3289(E) issued on 24.09.2020 on Guidelines to regulate and control ground water extraction in India, the renewal of NOC is deemed approved from the date of its expiry.** Renewal application to CGWA was filed through Manual filing on 04.01.2019 and online on Dt. 28.02.2019.	**Yet to receive NOC from CGWA** CGWA NOCs expired on 04.04.2019. The unit has applied for renewal of NOC, however pending before the CGWA New Delhi, citing restriction imposed by the NGT.

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		CGWB Lucknow inspection done Dt. 03.05.2019 to 08.05.2019 and have found us in full compliance. The CGWB Lucknow forwarded the recommendation for grant of NOC to CGWA New Delhi on Dt. 26.11.2019. The NOC renewal is pending before the CGWA New Delhi, citing restriction imposed by the NGT	
vi.	The unit shall take measures for reduction of fresh water consumption in Cooling Tower through increase in recycling of waste water/condensate after proper treatment.	**Complied.** The COC is obtained at its highest level 8-10, based on the process requirement. Further the CT Blow Down is recovered through RO thus reducing fresh water consumption. Also, Fresh water conservation is achieved through recycling of treated effluent RO Permeate and MEE condensate towards achieving ZLD.	No comments
vii.	The unit may reduce the quantity of makeup water used in each Cooling Tower by increasing Cycle of Concentration (COC).		
viii.	The unit may make efforts for reduction in steam consumption and effluent generation thereby reducing fresh water consumption.		
ix.	The unit shall provide Rain Water Harvesting system in non-process areas for water conservation,	**5 nos. of Rainwater Harvesting structures already provided in non-processing area** since 2017. The same is verified by CGWA during inspection.	Clarification may be sought from CGWA

Point No	Points mentioned by the unit to the Oversight Committee	Status (dated 16.09.2020) reported by the unit to the Oversight Committee	CPCB Observations on compliance reported by the unit
Chemical Unit-I			
i.	The unit shall immediately stop the spray of RO reject on ash for dust suppression.	**Complied** The RO reject use for dust suppression during ash handling is stopped.	The unit has stopped practise of CTRO reject spraying on ash quenching and the same is being used for spraying on coal stock.

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SCD, CPCB

			Same was verified during latest joint inspection dated 16.09.2020.
ii.	The unit shall set up the incinerator facility to achieve ZLD.	As Coal storage yard fire quenching water requirement is met with RO reject, no incinerator is proposed for ZLD. There is no environment damage established with the practice, instead fresh water is conserved. We may kindly be exempted from implementing this recommendation.	As per the analysis result of CTRO reject collected during latest joint inspection dated 16.09.2020, it has pH-6.38, BOD-181 mg/l, COD-552 mg/l, TSS- 35 mg/l, TDS-6608 mg/l and Colour-12 Hazen, which cannot be used for coal storage yard fire quenching as mentioned by the unit, hence the unit shall strictly spray CTRO on coal stocks only or shall ensure ZLD through MEE/Incinerator.
Chemical Effluent Treatment Plant (CETP)			
i.	The unit shall stop discharge of effluent for horticulture purposes and the entire effluent shall be recycle/reuse in process or cooling tower.	**Complied.** Treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant (CTBDRO). The permeate is reused in cooling tower makeup. The same is verified during visit.	Treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant (CTBDRO) and the permeate is reused in cooling tower makeup. The same was verified during latest joint inspection dated 16.09.2020.
Common Cooling Tower Reverse Osmosis Plant (CTRO)			
i.	The unit shall install a dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard and make spray arrangement exclusively for using this effluent.	**Complied.** A dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard is provided. **The photograph of metering arrangement is attached.**	The unit has provided a dedicated pipeline along with metering arrangement for carrying CTRO reject up to coal yard. The same was verified during latest joint inspection dated 16.09.2020.

Point No	Points mentioned by the unit to the Oversight Committee	Status (dated 16.09.2020) reported by the unit to the Oversight Committee	CPCB Observations on compliance reported by the unit
Stack Emission Monitoring Results			
i.	The unit shall maintain the wet scrubber periodically to restrict SO_2 emission within the prescribed norms. To evaluate the	**Complied.** The wet scrubber was being maintained and its stack has been regularly being monitored through 3rd	As per monitoring report (sampling dated 20.09.2020) of stack at Sulphuric Acid plant by RO-Moradabad, UPPCB, Acid mist and SO_2 was found 34.88 mg/Nm^3 and 2.06 kg/ton against prescribed

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	performance of the wet scrubber, the unit shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.	standard limit of 50 mg/Nm^3 2.5 kg/ton respectively, which are within the prescribed norms as per the CTO issued by UPPCB. The unit has provided copy of ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit being submitted to UPPCB, from Jan-2020 to Sept-2020 and monitoring & analysis has been carried out by M/s Newcon Consultants & Laboratories, Ghaziabad, which is MOEF&CC authorized laboratory.
ii.	To restrict the NO_x emission proper bed height & proper fuel to air ratio should be maintained, and shall carry out monitoring of the relevant stack(s) through EPA recognized laboratory quarterly.	**Complied.** As bed height is level control is rigorously monitored and maintained as a measure for NOx control. Regular stack monitoring is being done through 3rd party MoEF & CC approved laboratory. The report is submitted to UPPCB on quarterly basis.	During previous inspection dated 17.07.19 & 18.07.19, emission from Captive Power Plant (90 TPH), Boiler Stack, was found non-complying w.r.t NO_2 as it showed NO2-459.99 mg/Nm^3 against the standards limit of 300 mg/Nm^3. However, during latest joint inspection dated 16.09.2020, values of NOx, SO_2, and SPM found 194.75 mg/Nm^3, 223.08 mg/ Nm^3 and 44.66 mg/ Nm^3 against standard limit of 300 mg/ Nm^3, 600 mg/ Nm^3 and 50 mg/ Nm^3, respectively, which are within the prescribed norms as per the CTO issued by UPPCB. During latest joint inspection dated 16.09.2020, it was informed by unit representative that, bed height is monitored & maintained regularly as a measure for NO_x control. The unit has provided copy of ambient air quality report and stack monitoring report of stacks located in captive power plant and Fertilizer unit being submitted to UPPCB, from Jan-2020 to Sept-2020 and monitoring & analysis has been carried out by M/s Newcon Consultants & Laboratories, Ghaziabad, which is MOEF&CC authorized laboratory.

Point No	Points mentioned by the unit to the Oversight Committee	Status (dated 16.09.2020) reported by the unit to the Oversight Committee	CPCB Observations on compliance reported by the unit
Hazardous Waste			
i.	The unit shall install automatic water sprinkling arrangements, fire alarming systems, flame arresters, smoke [heat detectors, fire extinguishers and other necessary provisions as stipulated	**Complied.** Well-designed Firefighting system is available around the storage of incinerable hazardous wastes area. Following firefighting arrangements are at place which is sufficient for addressing any fire incident: -	During latest joint inspection dated 16.09.2020, it was observed that, manual water sprinkling/Firefighting system and Fire extinguishers were available around the storage of incinerable hazardous wastes area.

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	under the Guidelines for storage of incinerable hazardous wastes	Monitors (For water sprinkling arrangement) - 5 Nos.; Alarm system (MCP) - 1 No.; Hydrant Point - 4 Nos.; Hose box with hoses - 2 Nos. Safety Shower – 1 Nos.; Emergency display board with communication system — 1 No.; Dedicated storage of 7000 KL fire water ;Company owned fire tenders — 2 Nos.; Fire crew - 26 firemen	Water sprinkling system was also practically checked during latest joint inspection and found operating satisfactory as it was found covering the entire hazardous waste storage area. Following manual firefighting arrangements were available: • Monitors (For water sprinkling arrangement) – 5 Nos.; • Alarm system (MCP) – 1 No.; • Hydrant Point - 4 Nos.; • Hose box with hoses – 2 Nos. • Safety Shower – 1 Nos.; • Emergency display board with communication system – 1 No.; • Dedicated storage of 7000 KL fire water; • Company owned fire tenders – 2 Nos.; • Fire crew - 26 firemen
ii.	The unit shall sell caustic lye along with other hazardous waste generated by the unit only to the authorized utilizer/recycler; and shall maintain records and manifest document as required under Rule 9 of the HOWM Rules, 2016	**Complied.** End user have all necessary permissions.	The unit has common Haz. Waste Authorization (Authorization No. 5295, valid upto 01.02.2024) for Power Plant, Distillery unit, Chemical unit-1 and Chemical unit-2 under Hazardous waste Management rules, 2016. The unit has valid membership with Common TSDF (i.e. M/s Bharat Oil Waste Management Ltd., Kanpur) for disposal of following hazardous waste for incineration. 1. Dropp Kettle Residue 2. Spent Catalyst From Pyridine 3. Dist. Residue from fine chemical section 4. Discarded Chemicals from lab 5. Tank sludge 6. Contaminated Polyethylene/ drum/ packing material 7. Contaminated and used glass wool generated after changing the insulation During latest joint inspection dated 16.09.2020, the unit has provided copy of Form-4 (Haz. Waste return) for year 2019-20 as per HOWM Rules, 2016. As per the valid haz. waste authorization (Authorization No. 5295, valid upto 01.02.2024), the unit is directed to dispose spent caustic lye to authorized buyer/end user.

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			As per the form-10 submitted by the unit, it has disposed 24.84 MT of spent caustic lye to the end user i.e., M/s Mohit Paper Mills Ltd., 9th KM stone, Nagina road, Bijnor-248701, UP through tanker dated 14.02.2020.
iii.	The unit shall install display board outside the factory gate displaying details of hazardous wastes being handled by the unit	**Complied.** The display board is installed since 2016. Photographs attached.	Display board and Electronic display system are installed at entry gate of the unit and the same was verified during latest joist inspection dated 16.09.2020.
iv.	The unit shall maintain date wise record of leachate generated from captive SLF.	**Complied.** Record of leachate generation and disposal is maintained.	The unit is not maintaining date wise record of leachate generation from captive SLF, however monthly record of leachate generation from captive SLF and disposal of the same is maintained by the unit. The unit has submitted monthly record for Year: 2018-19. Record for Year 2019-20 is not provided by the unit.

Point No	NGT Observation on 05/02/2020	Compliance Status	
i.	The effluents of chemical unit I and the polymer unit are collectively treated in a chemical effluent treatment plant and both the units have been consented as Zero Liquid Discharge. The treated effluents from the chemical effluent treatment plant should operate on ZLD system and this effluent may not be consented for utilization for horticulture purpose.	**Complied.** Treated effluent was used for horticulture was as per consent condition and is now stopped. The treated ETP water is reused in cooling tower makeup after recovery in an RO	As informed during latest joint inspection dated 16.09.2020, the treated effluent is recovered in Common Cooling Tower Blow Down Reverse Osmosis Plant and the permeate is reused in cooling tower makeup. The same was verified during latest joint inspection dated 16.09.2020.
ii.	The 400 KID of sewage after treatment is utilized for horticulture/agriculture. The treated sewage is not meeting with respect to faecal coliform. After treatment, it can be better utilized for industrial use so to reduce consumption of ground water.	• The treated sewage is analysed on regular basis by MoEF & CC approved lab and all the results including E-coli • Treated sewage is used for campus green belt management and thus is a Water conservation measure to reduce ground water extraction.	Domestic waste water is treated in STP and treated waste water is used for horticulture. As per logbook data of STP submitted by the unit from April-2020 to September- 2020, average 244.23 KLD of sewage is treated in STP and average-242.70 KLD of treated sewage is utilized in gardening/horticulture. As per the analysis result of STP outlet collected during latest joint inspection dated 16.09.2020, it has pH-7.26, COD-41 mg/l, BOD-17 mg/l, TDS-368 mg/l, TSS-12 mg/l, Colour-93 Hazen, O & G-BDL,

			NH_3-N-22 mg/l, Total Coliforms $17x10^5$ MPN/100ml and Fec Coliforms $14x10^4$ MPN/100ml, which is non-complying w.r.t Fec Coliforms, as it is more than prescribed norms of 1000 MPN/100 ml fo treated sewage disposal on land.

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Ground Water Department (Namami Gange & Rural Water

Ministry of Jal Shakti (Government of Uttar Pradesh)

9th Floor, Indira Bhawan, Ashok Marg, Lucknow - 226001

Issuance of NOC & Registration for Well

Block Wise Consolidated Status for Issuance of NOC

UPGWD-05

District Council : ALL **Block Committee :** ALL

Report Period : 02/10/2019 To 08/01/2021 **Report As On :** 08/01/2021

District Council	Block Committee	Submitted Applications	Approved Applications	Rejected Applications	Pending Applications	Application Whose Registration Fee Paid	Application Whose Registration Fee Not Paid
Agra	**Total**	7	0	0	5	5	2
Aligarh	**Total**	10	0	0	6	6	4
Ambedkar Nagar	**Total**	3	0	0	3	3	0
Amethi	**Total**	2	0	0	0	0	2
Amroha (J.P.Nagar)	**Total**	17	0	0	10	10	7
Auraiya	**Total**	1	0	0	1	1	0
Ayodhya	**Total**	3	0	0	2	2	1
Azamgarh	**Total**	1	0	0	0	0	1
Bagpat	**Total**	3	0	0	2	2	1
Bahraich	**Total**	0	0	0	0	0	0
Ballia	**Total**	0	0	0	0	0	0
Balrampur	**Total**	0	0	0	0	0	0
Banda	**Total**	1	0	0	0	0	1
Barabanki	**Total**	19	0	0	8	8	11
Bareilly	**Total**	8	0	0	6	6	2
Basti	**Total**	0	0	0	0	0	0
Bijnor	**Total**	4	3	0	0	3	1
Budaun	**Total**	1	0	0	1	1	0
Bulandshahr	**Total**	31	0	0	24	24	7
Chandauli	**Total**	1	0	0	0	0	1
Chitrakoot	**Total**	0	0	0	0	0	0
Deoria	**Total**	3	0	0	3	3	0
Etah	**Total**	0	0	0	0	0	0
Etawah	**Total**	0	0	0	0	0	0
Farrukhabad	**Total**	1	0	0	1	1	0
Fatehpur	**Total**	1	0	0	0	0	1
Firozabad	**Total**	1	0	0	0	0	1
Gautam Buddh Nagar	**Total**	100	0	0	49	49	51
Ghaziabad	**Total**	46	0	0	28	28	18
Ghazipur	**Total**	6	0	0	0	0	6
Gonda	**Total**	3	0	0	2	2	1
Gorakhpur	**Total**	0	0	0	0	0	0
Hamirpur	**Total**	2	0	0	1	1	1

District Council	Block Committee	Submitted Applications	Approved Applications	Rejected Applications	Pending Applications	Application Whose Registration Fee Paid	Application Whose Registration Fee Not Paid
Hapur	**Total**	8	0	0	7	7	1
Hardoi	**Total**	4	0	0	4	4	0
Hathras	**Total**	1	0	0	1	1	0
Jalaun	**Total**	1	0	0	1	1	0
Jaunpur	**Total**	0	0	0	0	0	0
Jhansi	**Total**	0	0	0	0	0	0
Kannauj	**Total**	1	0	0	1	1	0
Kanpur Dehat	**Total**	8	0	0	2	2	6
Kanpur Nagar	**Total**	43	6	1	22	29	14
Kansganj	**Total**	0	0	0	0	0	0
Kaushambi	**Total**	0	0	0	0	0	0
Kushinagar	**Total**	0	0	0	0	0	0
Lakhimpur Kheri	**Total**	3	0	0	2	2	1
Lalitpur	**Total**	0	0	0	0	0	0
Lucknow	**Total**	29	3	1	8	12	17
Maharajganj	**Total**	0	0	0	0	0	0
Mahoba	**Total**	3	0	0	3	3	0
Mainpuri	**Total**	2	0	0	1	1	1
Mathura	**Total**	0	0	0	0	0	0
Mau	**Total**	0	0	0	0	0	0
Meerut	**Total**	25	0	0	9	9	16
Mirzapur	**Total**	2	0	0	1	1	1
Moradabad	**Total**	17	0	0	4	4	13
Muzaffar Nagar	**Total**	8	0	0	6	6	2
Pilibhit	**Total**	0	0	0	0	0	0
Pratapgarh	**Total**	0	0	0	0	0	0
Prayagraj	**Total**	10	0	0	5	5	5
Raibareli	**Total**	2	0	0	1	1	1
Rampur	**Total**	12	0	0	11	11	1
Saharanpur	**Total**	10	0	0	5	5	5
Sambhal	**Total**	6	0	0	1	1	5
Sant Kabir Nagar	**Total**	0	0	0	0	0	0
Sant Ravidas Nagar	**Total**	2	0	0	1	1	1
Shahjahanpur	**Total**	5	0	0	4	4	1
Shamli	**Total**	7	0	0	4	4	3
Shravasti	**Total**	0	0	0	0	0	0
Siddharth Nagar	**Total**	4	0	0	1	1	3
Sitapur	**Total**	4	0	0	1	1	3
Sonbhadra	**Total**	0	0	0	0	0	0
Sultanpur	**Total**	0	0	0	0	0	0
Unnao	**Total**	14	0	0	8	8	6
Varanasi	**Total**	3	0	0	2	2	1
	Grand	509	12	2	268	282	227