

**BEFORE NATIONAL GREEN TRIBUNAL
SOUTHERN BENCH AT CHENNAI
Original Application No. 15 OF 2022**

IN THE MATTER OF:
GUMMI NARENDAR REDDY..... **...Applicant**

Versus

UNION OF INDIA & ORS **...Respondents**

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PLACE: Chennai

DATE: 26.1.2023

ANNEXURE R1

BEFORE THE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE, CHENNAI

Original Application No. 97 OF 2021 (SZ)

IN THE MATTER OF:

Ravula Lingaswamy, Yadadri Bhuvanagiri District and 3 Ors.

..... Applicant(s)

Vs

Union of India & 5 Ors.

..... Respondents

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Place: Chennai
Date: 24.08.2022



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DEPONENT

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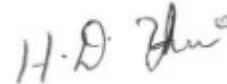
REPORT OF THE CENTRAL POLLUTION CONTROL BOARD (CPCB)
IN THE MATTER OF OA No. 97/2021 IN CASE OF RAVULA
LINGASWAMY, YADADRI BHUVANGIRI DISTRICT AND 3 OTHERS
Vs. UNION OF INDIA, AND 5 OTHERS IN COMPLIANCE TO THE
ORDER DATED 03.03.2022

I Preamble

The grievance in this application is regarding the operation of the 6th respondent Pharmaceutical Unit M/s Hazelo Labs Pvt. Ltd., near outskirts of the Hyderabad Town in violating the conditions imposed by the concerned authorities. It is also alleged that the industry is causing severe odour, air, soil and ground water pollution in Pochampally Mandal in Yadadri Bhuvanagiri District of Telangana State. The Hon'ble National Green Tribunal, Southern Zone, Chennai in its order dated 09.04.2021 directed Telangana State Pollution Control Board (TSPCB) to submit the status report regarding the functioning of the industry to conduct soil, water and Ambient Air Quality (AAQ) test, so as to ascertain as to whether the pollution control mechanism provided by the unit are sufficient to protect environment and whether unit had violated any of the conditions imposed and also to ascertain as to whether they have expanded their activity without obtaining any necessary environment clearance as required under the EIA Notification, 2006. It was also directed to ascertain the ground water quality from the neighboring areas, so as to ascertain as to whether the activities of the unit had affected the water quality in that area.

As directed by NGT, TSPCB submitted its report on 24.06.2021, the NGT in its order dated 27.08.2021 directed the High Level Expert Committee of the Telangana State Pollution Control Board to inspect the area in question and submit a further report on the basis of the allegations made in the application as well as the observation made by this Tribunal, so that the apprehension of the applicant regarding the alleged pollution that is being caused on account of the operation of the unit can be considered in its entirety.




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TSPCB submitted a memo to Hon'ble NGT on 01.02.2022 stating that the High Level Committee was constituted by the Board during September 2011 with limited scope and role of recommending suitable Zero Liquid Discharge (ZLD) technology for small scale Bulk Drug & Drug Intermediate industries in the erstwhile Nalgonda District. The High-Level Committee after its study and inspections submitted recommendations and on that basis, the Board has issued directions dated 23.06.2012 to the Bulk drug industries to comply with the recommendations. Thereafter, the High Level Committee became inoperative and they are not now functioning as well. Hence Hon'ble NGT in its order dated 03.03.2022 directed CPCB Regional Directorate Chennai to inspect the unit and to submit the factual report.

II Orders of the Honorable Tribunal

The Honorable NGT in its order dated 03.03.2022 directed as below and the copy of the NGT order is enclosed as Annexure 1:

“The Integrated Regional Office of the Central Pollution Control Board, Chennai to inspect the unit in question and submit a factual as well as action taken report, if there is any violation found and if the mechanism provided are not sufficient to control the odour and other pollution alleged, then what are all the methodology to be adopted for the purpose of resolving the issue. The Integrated Regional Office of the Central Pollution Control Board, Chennai is directed to verify the Terms of Reference already issued by this Tribunal directing the State Pollution Control Board to look into the issue for the purpose of filing the report. They are directed to submit the report to this Tribunal on or before 31.03.2022 by e-filing.”

III Task assigned by Hon'ble NGT:

The Hon'ble NGT directed CPCB RD Chennai to inspect the unit in question and vested with the following tasks as per the order dated 03.03.2022:

1. To submit a factual as well as action taken report, if there is any violation found



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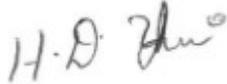
2. If the mechanisms provided are not sufficient to control the odour and other pollution alleged, then what are all the methodology to be adopted for the purpose of resolving the issue.
3. To verify the Terms of Reference already issued by this Tribunal directing the State Pollution Control Board to look into the issue for the purpose of filing the report.
4. The Terms of References issued to the Telangana State Pollution Control Board (TSPCB) by Hon'ble NGT in its order dated 09.04.2021 is as follows:
 - i. To submit a status report regarding the functioning of the 6th respondent unit (M/s Hazelo Labs Pvt. Ltd.)
 - ii. For conducting necessary soil, water and Ambient Air Quality (AAQ) test, so as to ascertain as to whether the pollution control mechanism provided by the 6th respondent are sufficient to protect environment.
 - iii. Whether 6th respondent had violated any of the conditions imposed and also to ascertain as to whether they have expanded their activity without obtaining any necessary environment clearance as required under the EIA Notification, 2006.
 - iv. To ascertain the ground water quality from the neighbouring areas, so as to ascertain as to whether the activities of the 6th respondent had affected the water quality in that area.

IV Inspection by CPCB Regional Directorate Chennai

In compliance to NGT order dated 03.03.2022, CPCB Regional Director – Chennai constituted a team comprising of following officials for inspection of unit in question i.e. M/s Hazelo Labs, Pvt. Ltd.

1. Sh. R Rajkumar, Scientist D
2. Smt. Poornima B M, Scientist D
3. Sh. K Karunagaran, Senior Technical Supervisor
4. Sh. Chandan Kumar Rao, Junior Laboratory Assistant




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The team finalised inspection schedule and action plan to carry out inspection. The team inspected the unit during March 23-24, 2022 and collected samples from ETP, ground water & soil samples in & around the unit, ambient air and VOCs from the source as well as fugitive.

V Interactions with the Applicants

The CPCB team on the day inspection (March 23, 2022) met the applicants and other peoples from the Anthammagudem Villages and heard their grievances. They informed that the unit is discharging untreated effluents through the flexible pipes into the adjacent agricultural field and polluting the groundwater as well as soil. They also alleged that due to operation of the unit a strong odour nuisance is faced by the nearby residents and people of Anthammagudem Villages. They also informed that nearby agricultural fields are been polluted and they are unable to grow/cultivate any crops in that fields. It was also informed that they were unable to cultivate in fields and sustained crop losses for the last few years due to pollution.

The CPCB team collected ground water and soil samples from the nearby agricultural fields and the fields identified by the applicants and other peoples.

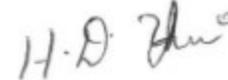
VI To submit a factual as well as action taken report, if there is any violation found and to submit a status report regarding the functioning of the 6th respondent unit (M/s Hazelo Labs Pvt. Ltd.)

1. About M/s Hazelo Lab Pvt. Ltd., Dothigudem Village, Pochampally Mandal, Yadadri Bhuvanagiri District.

A. General Information

The unit was established in the year 2002 in the name of M/s Venlar Labs (P) Ltd. and involved in recovery of Piperzine Mother Liquor's. The unit obtained consent for manufacturing of active pharma ingredient intermediates from TSPCB dated 23.12.2005. The unit was taken over by M/s Hazelo Lab Pvt. Ltd. in 2015. M/s Hazelo Lab Pvt. Ltd., obtained consent for establishment (CFE) for change in product mix from TSPCB vide order dated 22.12.2016 and subsequently obtained consent for operation (CFO) vide order dated 30.05.2017 valid till 31.01.2022.




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B. Location and area of the unit

The unit is located at Sy. Nos. 240, 242, 247, 248 and 249, Dhotigudem Village, Pochampally Mandal, Yadadri Bhuvanagiri District, Telangana with 170 17' 17" (N) latitude and 780 50' 46" (E) longitude at an elevation of 407m above mean sea level. The unit is surrounded by

North – M/s Anasia Lab Pvt. Ltd (proposed unit)

South – Open lands & Agricultural lands

East – three industries namely M/s Optimus Drugs, M/s SVR Labs & M/s VJ Sai Chem

West – Open lands & Agricultural fields

The total area of the unit is 20 acres and the plant built area is 13 acres, the unit has developed green belt in an area of 4.5 acres.

C. Distance from Nearest Habitation and Water bodies

The nearest habitation to the unit is Anthammagudem Village located at a distance of 0.65km in east direction and Dhotigudem Village at 1.3Km in west direction. There are no water bodies present near to the unit, however Chinna Musi River is flowing at a distance of 5.8Km in NW direction of the unit.

2. Observations during inspection of M/s Hazelo Labs Pvt. Ltd.

- i. On the day of inspection (March 23, 2022) the unit was operational and manufacturing three products from Group B i.e. Bis-(2-Chloroethyl) Amine Hydrochloride, N-Acetyl Cytosine and N-Phtaloyl, D,L Glutamic acid anhydride. It was learnt during inspection that TSPCB issued 50% production direction on March 2, 2022 after the inspection of task force committee for violations.
- ii. During inspection the stagnation of water was observed behind the unit (in between the M/s Hazelo Labs and M/s Optimus). The appearance of the soil condition indicated the untreated effluent, hence water & soil samples were collected for confirmation. The analysis results (Table 3) confirms the discharge of untreated effluent.



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- iii. During inspection the area near the gate of the unit inside the premises, the stagnated water and accumulation of sludge was observed. It was informed by the unit representative that during monsoon season, since the unit is located in the downstream side the rain water was filled in the unit front gate premises and the water was allowed to percolate into ground. Hence soil samples were collected to verify the possibility of untreated effluent discharge and analysis results for VOCs (Table 10) of the sediment sample collected confirms the discharge of untreated effluent from M/s Hazelo Labs and other industries in the area.
- iv. The unit has three production blocks namely Block A, Block A extension and Block B. During inspection Block B was not in operation and informed that, TSPCB issued direction for the 50% production, hence it was not operational.
- v. During inspection, Block A & Block A extension were operational, The High TDS effluent generated from the Block A is collected in tank and pumped to the HTDS collection tank located at the 2nd floor of the effluent treatment plant (ETP).
- vi. It was observed that there was no provision made for collecting the HTDS effluent generated from the Block A extension and to pump to ETP. However one HTDS effluent collection tank and three stages scrubber with online pH meter is been provided. The scrubber was not operational but the pH meter reading was showing 8.33 showing the malpractice of the unit. This indicates the illegal discharge of the untreated effluent and analysis results confirms the same.
- vii. The unit has ETP for treating Low TDS and High TDS effluent generated from the process. The reactors washed water is collected as HTDS effluent and is treated in stripper, MEE and ATFD. Whereas the LTDS from boiler blow down, cooling tower blow down and the domestic waste water from washrooms and canteen is collected as LTDS and treated in aeration tank and RO. The RO reject is taken into MEE and RO permeate is used for boiler feed and cooling tower make up.




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viii. The unit informed that HTDS is generated in tune of 4- 5KLD and LTDS -1-2 KLD, hence the MEE and RO is operated weekly twice. During inspection, the samples from LTDS & HTDS collection tanks, aeration tank, stripper, MEE condensate, concentrate, RO reject and permeate samples were collected. The analysis results (Table 2) indicates that the performance of RO & MEE is poor to achieve ZLD.

3. Action taken by TSPCB in the Dhotigudem and Anthammagudem industrial area

During rainy season, there was accumulation of rain water along with the effluents in the low lying area (opposite to M/s Hazelo Lab Pvt. Ltd.,) TSPCB after inspection & monitoring issued notice on February 5, 2022 to eight industries namely M/s Hazelo Lab Pvt. Ltd., M/s V J Sai Chem, M/s Ravoos Laboratories (unit III), M/s Optimus Drugs (P) Ltd., M/s Archimedis Laboratories (P) Ltd., M/s SVR Laboratories (P) Ltd., M/s Chemic Life Sciences (P) Ltd., M/s Brundavan Laboratories (P) Ltd., to clear the contaminated water and to send to CETP for further treatment to avoid ground water contamination. The copy of the notice is enclosed as *Annexure 2*.

The Rolling Task Force Team constituted by TSPCB inspected the industries located at Dothigudem & Malkapur Villages based on the public complaints and collected the samples. The samples were also collected in the same location as Between M/s Hazelo & M/s Optimus Compound Walls and West Side of M/s Chemic Life Science based on the finger analysis results for VOCs, M/s Optimus & M/s Chemic Life Sciences & other nearby pharmaceutical industries were issued closure directions on March 2, 2022 for the discharge of untreated effluent. The copies of the directions are enclosed as *Annexure 3*.

It was informed by TSPCB that, due to repeated public complaints on 11 pharmaceuticals industries located in the Dothigudem & Anthammagudem Villages and based on the recommendations of the TSPCB, District Collector, Yadadri-Bhuvanagiri constituted a Joint Committee in the year 2017, comprising of officials from Department of Revenue, District Industries Centre (DIC), Agriculture, Mines & Geology, Ground Water and TSPCB to verify the pollution problems & assessment of crop damage.



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Based on the analysis results of the soil & ground water samples, the Joint Committee recommended compensation of Rs. 77,55,800 to the effected farmers who cultivated paddy crops in 149.15 acres of agriculture fields in Dothigudem & Anthammagudem Villages of Pochampally Mandal. The eleven industries located in the vicinity of the villages. In this M/s Hazelo Lab Pvt. Ltd., paid an compensation of Rs. 11,83,348/ towards crop damages.

VII The mechanisms provided by unit to Prevent Pollution

1. Effluent generation and its treatment

As per the Consent to Operate order dated 30.05.2017, the unit is consented for consumption of 13.46 KLD water for process & washings (8.6KLD), Floor washings (1.0KLD), boiler feed (1.5KLD), cooling tower make up (2.0KLD) and domestic purposes (1.2KLD). The source of water is through tankers and there are no water meters at each point for the verification of water consumed per day.

The unit is consented to generate 8.02KLD of effluent from process effluent (4.52KLD), washings (1.0KLD), boiler blow down (1.0KLD), cooling tower blow down (0.5KLD) and domestic (1.0KLD). The unit is segregating High TDS and Low TDS effluents depending upon the concentration of TDS in effluent. The LTDS & HTDS effluents are treated separately in ETP.

The LTDS effluent (3.5KLD) generated is collected and pumped to the collection tank located at the 2nd floor of the ETP area. The LTDS effluent generated from floor washings, boiler blow down, cooling tower blow down and domestic wastewater (overflow from septic tank) is treated in ETP of 25KLD capacity. From the collection tank, the effluent is pumped to equalization tank and then it is pumped to aeration tank of capacity 20 KLD (2 nos) followed by activated carbon & sand filter and then finally treated in RO plant of 20 KLD (1 KL/hr) capacity. The RO permeate is used for cooling tower & boiler make up and RO rejects is sent to MEE for further treatment.




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The HTDS effluent (4.52KLD) generated is collected in HTDS collection tank and pumped to holding tank located at the 2nd floor of the ETP area. Then it is pumped to stripper of 10KLD capacity for recovery of organic chemicals/compounds, stripper condensate is pumped to solvent recovery plant and stripped effluent is pumped to three stages MEE of 10KLD capacity for forced evaporation followed by ATFD (5KLD capacity). The condensate of MEE & ATFD is treated at LTDS treatment system.

2. Source emissions

- i. The unit has 2TPH coal fired boiler and provided bag filter followed by Mechanical dust collector as Air Pollution Control Device (APCD) followed by stack of height 30m.
- ii. The unit has connected all process vents to the double condenser followed by two stages scrubber system for production block A and three stages scrubber system for Production Block A extension. The scrubbers are connected with online pH meter and connected to TSPCB server.
- iii. As per the CTO order dated 30.05.2015, the process vents are required to monitor for HCL vapor & mist concentration, however no provisions are made in the process vents for monitoring of HCL.
- iv. Caustic soda lye and water is used for scrubbing and the scrubbed water is sent to LTDS treatment system.
- v. The unit has 250KVA DG set with acoustic enclosures and provided with stack of 3m height.

3. Facilities provided for solvent storage tanks

- i. The unit has 10 number of 40KL capacity Mild Steel (MS) bulk solvent storage tanks.
- ii. The industry has provided nitrogen blanketing system, breather valves and vent condensers to MS bulk solvent storage tanks to control odour. However no facilities are provided for day storage tanks to control odour pollution.



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4. Solvent Recovery Plant /Distillation column

- i. The unit has installed two solvent recovery column of 20 KL and 15 KL capacity for recovery and reuse of solvents.
- ii. It was informed that, the columns has been provided with double condenser and circulation of chilled water. The condenser vents are connected to two stages scrubbers and recovery efficiency is 95%.

5. Hazardous waste generation and disposal

- i. TSPCB has granted hazardous waste authorization under Hazardous & other wastes (management & Transboundary movement) Rules, 2016 for collection, storage, treatment, transport and disposal of following hazardous wastes:

S. No.	Name of HW	Stream	Quantity of HW	Disposal option
1	Spent carbon	28.3 of Schedule-1	33.33 kg/day	Authorized cement plants
2	Distillation organic residue	20.3/36.1 of Schedule-1	752.3 kg/day	for co-processing or TSDf for incineration




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3	Spent mixed solvents	28.6 of Schedule-1	20KLPM	For recovery/reuse within the unit premises. Excess spent solvents for disposal to Authorized cement plants for co-processing or TSDF for incineration. The unit shall not dispose spent solvents/mixed spent solvents to traders/recyclers
4	MEE salts	35.3 of Schedule-1	502.4kg/day	TSDF, Dundigal, RR District for secured landfill
5	Dilute sulphuric acid	28.1 of Schedule-1	100KLPM	Sent to cement industries
6	Dilute HCL	28.1 of Schedule-1	50 KLPM	Reused within premises
7	Spent solvent	28.6 of Schedule-1	30KLPM	Recovered within premises and reuse in the process
8	Detoxified	33.1 of Schedule-1	50 no. per month	After complete detoxification, shall be disposed to outside agencies.

- ii. The unit for the financial year ending 2020-21 has disposed distillation residue of 193 tons to four cement industries for co-processing and MEE salts of 134.23 tons to TSDF & cement industries as per the form IV submitted to TSPCB.



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- iii. The unit has sent spent carbon along with organic distillation residue, hence no records is available for the disposal of spent carbon.
- iv. As per the records verified, during the last 6 months period from August, 2021 to January, 2022, the unit has disposed MEE salts – 552.05 Kg/day (avg) as against 502.4 Kg/day to M/s. TSDF & Cement industries and Organic residue – 370.16 Kg/day (avg) as against 752.3 Kg/day to Cement industries for co-processing.
- v. During the inspection, about 80 Nos of Drums containing Organic waste were observed under the shed.

The unit has provided separate room for storage of MEE salts, spent carbon and separate storage shed for organic residue / Distillation residue. Around 5 tons of MEE salts and 1.5 tons of spent carbon were stored in the shed.

VIII For conducting necessary soil, water and Ambient Air Quality (AAQ) test, so as to ascertain as to whether the pollution control mechanism provided by the 6th respondent are sufficient to protect environment and to ascertain the ground water quality from the neighboring areas, so as to ascertain as to whether the activities of the 6th respondent had affected the water quality in that area.

CPCB RD Chennai is a newly established office operating at Chennai from November 2020, the laboratory is yet to be established. Hence RD, Chennai has empanelled EPA recognised & NABL accredited laboratory M/s. G Lens Innovation Labs Pvt. Ltd., Chennai for the analysis of samples. In compliance to NGT directions services of G lens Labs were utilized for sampling and analysis.



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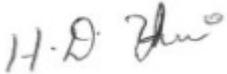
1. Details of ETP Samples and analysis results

During inspection, the samples from LTDS & HTDS collection tanks, aeration tank, stripper, MEE condensate, concentrate, RO reject and permeate samples were collected to verify the performance efficiency of the ETP. The analysis results are depicted in the table 1 & 2, the stagnated water observed near the adjacent compound wall and near West Side of M/s Chemic Life Science were also collected and analysed, the results are depicted in table 3 below.

Table 1: Effluent samples from LTDS & HTDS collection tank

S. No.	Parameters	Sample location	
		Low TDS collection tank	High TDS from Rampline
1	pH	8.29	12.8
2	EC ($\mu\text{s}/\text{cm}$)	4260	100900
3	TDS (mg/L)	2472	67608
4	TSS (mg/L)	07	1780
5	Oil and grease (mg/L)	BDL (DL:4.0)	BDL(DL:4.0)
6	Phosphate as PO_4 (mg/L)	1.06	0.16
7	Phenolic compounds as $\text{C}_6\text{H}_5\text{OH}$ (mg/L)	BDL (DL:0.001)	BDL (DL:0.001)
8	Sulphide as S (mg/L)	BDL (DL:1.0)	BDL (DL:1.0)
9	COD (mg/L)	34	126891
10	BOD (mg/L)	11	35532




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VOCs using finger print analysis in raw effluent

S. No.	VOCs (mg/L)	LTDS	HTDS
1	1,1-dichloroethylene	BDL	BDL
2	Dichloromethane	1.72	83.59
3	Chloroform	3.19	25.17
4	Benzene	0.69	1.74
5	1,2-dichloroethane	0.26	0.35
6	Trichloroethylene	BDL	0.02
7	1,2-dichloropropane	BDL	BDL
8	Toluene	0.07	1.01
9	1,1,1,2-tetrachloroethane	BDL	BDL
10	Tetrachloroethene	BDL	BDL
11	Chlorobenzene	BDL	0.33
12	O-xylene	0.11	0.23
13	Ethylbenzene	0.12	0.28
14	M-XYLENE	0.17	0.20
15	P-XYLENE	0.11	0.11
16	Styrene	BDL	0.02
17	Isopropylbenzene	BDL	BDL
18	1,1,2,2-tetrachloroethane	0.27	0.30
19	Bromobenzene	BDL	0.06
20	Propylbenzene	BDL	BDL
21	2-chlorotoluene	BDL	BDL
22	1,3,5-trimethylbenzene	0.04	0.06
23	4-chlorotoluene	BDL	BDL
24	1,2,4-trimethylbenzene	0.35	0.59
25	1,4-dichlorobenzene	BDL	BDL
26	1,3-dichlorobenzene	0.02	0.04
27	P-isopropyltoluene	BDL	BDL
28	1,2-dichlorobenzene	BDL	0.03
29	1,2,4-trichlorobenzene	BDL	BDL
30	Naphthalene	0.33	0.36
31	Methanol	BDL	BDL
32	Dimethyl Formamide	4.90	8.6
33	Acetone	1045.35	894.1

Note: The value of BDL is 0.1mg/L



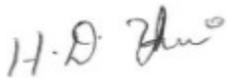

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Table 2: ETP samples from each unit

S. No.	Sample Location	Parameters				
		pH	EC (µs/cm)	TDS (mg/L)	TSS (mg/L)	COD (mg/L)
1	Aeration Tank	6.47	119700	77824	-	-
2	RO Feed tank	7.76	2870	1697	20	-
5	RO Permeate	7.85	1901	1132	12	21.0
6	RO Reject	7.53	41200	25586	10	-
7	MEE Inlet	12.86	90400	58795	1640	-
8	MEE Condensate	7.98	64.7	37.5	1.0	437
9	MEE Concentrate	12.93	106300	72296	2490	-

During inspection, RO, MEE, Stripper & ATFD were not operational, it was informed that RO, MEE & ATFD are operated for thrice in a week. The RO feed, permeate & reject samples were collected from the storage tanks. The flow meters of the RO are installed at the storage tank outlets, so that the actual performance could not be accessed. From the analysis results of TDS, it is evident that MEE (5.8 % to 7.2%) performance is very poor and needs to be upgraded for better performance.



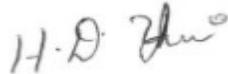
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Table 3: Stagnated water near the unit

S. No.	Parameters	Between M/s Hazelo & M/s Optimus Compound Walls	West Side Of M/s Chemic Life Science
1	pH	6.64	6.14
2	EC ($\mu\text{s}/\text{cm}$)	26300	9290
3	TDS (mg/L)	15256	5485
4	TSS (mg/L)	45	418
5	Oil and grease (mg/L)	BDL (DL:4.0)	BDL (DL:4.0)
6	Phosphate as P (mg/L)	1.14	2.39
7	Hexavalent Chromium (mg/L)	BDL (DL:0.01)	BDL (DL:0.01)
8	Phenolic compounds as $\text{C}_6\text{H}_5\text{OH}$ (mg/L)	BDL (DL:0.001)	BDL (DL:0.001)
9	Sulphide as S (mg/L)	BDL (DL:1.0)	BDL (DL:1.0)
10	Ammonical Nitrogen as $\text{NH}_3\text{-N}$ (mg/L)	6.3	BDL (DL: 1.0)
11	COD (mg/L)	67	112
12	BOD (mg/L)	20.5	32
13	Chromium (mg/L)	BLQ[LOQ:0.002]	BLQ[LOQ:0.002]
14	Copper (mg/L)	BLQ[LOQ:0.002]	BLQ[LOQ:0.002]
15	Zinc (mg/L)	BLQ[LOQ:0.002]	BLQ[LOQ:0.002]
16	Arsenic (mg/L)	BLQ[LOQ:0.002]	0.009
17	Mercury (mg/L)	BLQ[LOQ:0.002]	0.292
18	Lead (mg/L)	0.117	0.141




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VOCs using finger print analysis for stagnated water near the unit

S. No.	VOCs (mg/L)	Between M/s Hazelo & M/s Optimus Compound Walls	West Side Of M/s Chemic Life Science
1	1,1-Dichloroethylene	BDL	BDL
2	Dichloromethane	BDL	BDL
3	Chloroform	BDL	BDL
4	Benzene	BDL	BDL
5	1,2-Dichloroethane	BDL	BDL
6	Trichloroethylene	BDL	BDL
7	1,2-Dichloropropane	BDL	BDL
8	Toluene	BDL	BDL
9	1,1,1,2-Tetrachloroethane	BDL	BDL
10	Tetrachloroethene	BDL	BDL
11	Chlorobenzene	BDL	0.66
12	O-Xylene	0.17	0.18
13	Ethylbenzene	0.13	0.17
14	M-XYLENE	0.16	0.15
15	P-XYLENE	0.10	0.11
16	Styrene	BDL	BDL
17	Isopropylbenzene	BDL	0.10
18	1,1,2,2-Tetrachloroethane	0.33	0.25
19	Bromobenzene	BDL	BDL
20	Propylbenzene	BDL	BDL
21	2-Chlorotoluene	BDL	BDL
22	1,3,5-Trimethylbenzene	BDL	BDL
23	4-Chlorotoluene	BDL	BDL
24	1,2,4-Trimethylbenzene	0.38	0.33
25	1,4-Dichlorobenzene	BDL	BDL
26	P-Isopropyltoluene	BDL	BDL
27	1,3-Dichlorobenzene	BDL	BDL
28	1,2-Dichlorobenzene	BDL	BDL
29	1,2,4-Trichlorobenzene	BDL	BDL
30	Naphthalene	0.34	0.27
31	Methanol	BDL	BDL
32	Dimethyl formamide	14.47	11.85
33	Acetone	1675.35	1744.77

Note: The value of BDL is 0.1 mg/L



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According to the analysis results (Table 3), the presence of TDS, BOD, Lead, Mercury and VOCs (Acetone & Dimethyl formamide) in the stagnated water samples confirms discharge of untreated effluent from M/s Hazelo.

2. Details of source emissions monitoring

The monitoring of stack attached to 2TPH coal fired boiler, scrubbers vents attached to production Block A and Block A extensions were monitored. The fugitive emissions for Volatile Organic Compounds (VOCs) were also carried out at two locations near the process area. The analysis results are shown in table 4 & 5 respectively.

Table 4: Stack monitoring attached to boiler

S. No.	Parameters	Locations	TSPCB Standard (mg /Nm ³)	Industrial boiler standard notified in 2018 in mg/Nm ³
		Boiler Stack		
1	Particulate Matter (mg /Nm ³)	86.04	115	—
2	Oxides of Nitrogen (mg /Nm ³)	426.4	-	300
3	Sulphur dioxide (mg /Nm ³)	1121.59	-	600

The particulate emission for the boiler is meeting the prescribe standard of 115 mg /Nm³ by TSPCB as mentioned in the consent conditions. However, the emission from boiler is not meeting the standards w.r.t NO_x and SO₂. The copy of the Gazettee notification dated January 29, 2018 for industrial boilers is enclosed as *Annexure 4*.




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Table 5: Scrubber outlets for VOCs

S. No.	Parameters (all units are in mg/m ³)	Locations of scrubbers		
		Scrubber attached to stripper in ETP	Production block A	Production block A extension
1	Dichloromethane	68.6	85.8	131
2	Benzene	BDL	0.16	0.35
3	Toluene	32.1	48.9	56.8
4	1,2,4-trimethylbenzene	36.9	57.9	64.5
5	Naphthalene	2.6	14.0	17.6
6	Methanol	BDL	BDL	BDL
7	Dimethyl formamide	10.5	9.4	5.6
8	Acetone	945.6	1021.2	1085.3

Note: The value of BDL is 0.1 mg/m³

From the analysis results, many solvents are released into the environment. The scrubbers installed by the unit are not sufficient and not working effectively to control the release of solvents into environment. The unit shall change/augment the scrubber so that high concentrations of solvents are not released into environment. The efficiency of the condensers connected to the reactors shall be improved to reduce the VOCs emissions.



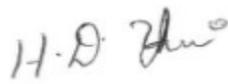

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Table 6: Fugitive monitoring of VOCs in the unit premises

S. No.	Parameters (all units are in $\mu\text{g}/\text{m}^3$)	Locations of monitoring		
		Near ETP	Production block A	Production block A extension
1	Dichloromethane	13.5	8.2	23.9
2	Benzene	BDL	BDL	BDL
3	Toluene	8.9	6.4	13.3
4	1,2,4-trimethylbenzene	42.4	0.2	25.3
5	Naphthalene	0.63	0.2	0.73
6	Methanol	BDL	BDL	BDL
7	Dimethyl formamide	9.3	5.6	15.3
8	Acetone	1025.6	978.6	1324.3

Note: The value of BDL is $0.1\mu\text{g}/\text{m}^3$

The team carried out fugitive monitoring using handy air sampler. From the results (table 6) it is observed that solvents/ VOCs are released into the environment. Fugitive emission from pipelines, centrifugal separation, filtration, vacuum, solvent recovery and drying equipments are potential sources that can leak due to seal failure. Hence the unit may take Leak Detection and Repair (LDAR), test so that the leakages from the above source may be rectified and to minimize the fugitive emissions.

3. Details of Ambient Air Quality Monitoring (AAQM) monitoring

The ambient air quality and VOCs monitoring was carried out at four locations and stations were installed depending upon the prevailing wind directions at those locations during inspection. Two stations were placed at Anthammagudem village, one station at the compound wall of M/s Optimus and one station unit premises. The analysis results are depicted in table 7 & 8 respectively.



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Table 7: Ambient air quality monitoring

S. No	Parameters	Locations				National Ambient Air Quality Standards for 24 hours
		Anathamma gundem -01	Anathamma gundem -02	Near Oil Baby Boiler	Optimus Drugs Pvt Ltd	
1	Particulate Matter (PM ₁₀) µg/m ³	53.3	49.7	54.4	47.3	100
2	Nitrogen dioxide (NO ₂) µg/m ³	20.4	26.4	17.4	18.3	80
3	Sulphur dioxide (SO ₂) µg/m ³	17.7	20.2	12.9	16.3	80
4	Ammonia (µg/m ³)	BDL (DL:20)	BDL (DL:20)	BDL (DL:20)	BDL (DL:20)	400

From the above analysis report it is observed that PM₁₀, SO₂, NO₂ and Ammonia concentration were found within the prescribed standards of National Ambient Air Quality Standards.

Table 8: VOCs monitoring in the ambient air

S. No	Parameters (µg/m ³)	Locations of monitoring			
		Anathamma gundem -01	Anathamma gundem -02	Near Oil Baby Boiler	Optimus Drugs Pvt Ltd
1	Dichloromethane	13.8	21.1	12.4	21.1
2	Benzene	5.9	6.7	0.3	BDL
3	Toluene	20.3	8.5	28.3	15.1
4	1,2,4-trimethylbenzene	30.9	3.9	0.8	0.6
5	Naphthalene	90.4	7.6	0.9	1.6
6	Methanol	BDL	BDL	BDL	BDL
7	Dimethyl formamide	66.9	6.4	7.3	8.3
8	Acetone	1512.9	1657.7	1520.4	1233

Note: The value of BDL is 0.1µg/m³



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The unit is using Benzene, Toluene, Methanol, Acetone, Dimethyl formamide. From the ambient results it is seen that the unit is emitting dichloromethane, toluene, Dimethyl formamide, acetone, 1,2,4-trimethylbenzene into ambient air which causes odour pollution. Other VOC's like Xylene, naphthalene that are not used by M/s Hetero Labs are also observed in upwind direction which implies that other industries in that region are also contributing to ambient air.



Picture 1: Locations of ambient air quality monitoring stations

4. Details of soil and ground water samples

During inspection, CPCB officials had a meeting with the applicants and other peoples from the Anthammagudem village and heard their grievances. The agricultural fields and the open land behind the unit were inspected and observed the stagnation of water and the appearance of the water was like effluent. The soil and ground water samples from those locations were collected and also from the agricultural fields identified by the applicants who were facing problems to cultivate. Hence nine ground water and ten soil samples were collected during inspection and the analysis results are depicted in table 9 & 11, the analysis results of VOCs is depicted in table 10 below.



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Picture 2: Locations of soil samples collected from agricultural fields and reference samples



Picture 3: Locations of bore well samples collected from agricultural fields

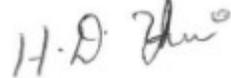


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Table 9: Soil samples collected from the nearby agricultural fields with reference sample

S. No.	Parameter s	A	B	C			D			E		F			G	H	I	J
				0-1 feet dept h	3-4 feet dept h	6-7 feet dept h	0-1 feet dept h	3-4 feet dept h	6-7 feet dept h	0-1 feet dept h	3-4 feet dept h	0-1 feet dept h	3-4 feet dept h	6-7 feet dept h				
1	pH	7.7	7.2	7.7	7.6	8.3	8.6	8.6	8.7	8.6	8.8	8.2	8.1	8.4	7.7	7.5	7.6	7.4
2	EC	504	584	366	274	231	76	88.7	74	93.6	80.4	56.6	46	47	710	14.6	14 89	1289
3	Moisture	18	12.7	9.7	11.1	21.6	9.9	17	17.9	14.8	13.7	11.3	8	5.2	27.4	2.1	9.6	54.8
4	TOC (%)	0.5	1.4	0.5	BDL (DL: 0.2)	0.7	0.4	BDL	BDL	0.4	BDL	BDL	BDL	BDL	0.9	0.4	0.9	BDL
5	Calcium as Ca (mg/kg)	533	656	913	781	375	549	682	806	782	612	535	442	704	728	400	41 89	1035
6	Magnesium as Mg (mg/kg)	139	177	139	95	136	143	138	267	475	139	232	179	332	398	437	11 5	449
7	Total Nitrogen (mg/kg)	106	777	901	742	1074	430	227	135	320	138	421	247	180	276	145	23 8	471




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8	Sodium as Na (mg/kg)	935	192	2010	585	2551	232	451	536	256	94	224	108	129	1577	309	2876	5702
9	Potassium as K (mg/kg)	1791	182	7574	3281	1377	572	961	710	805	8	1760	557	1017	3140	918	1230	11207
10	Sodium Absorption ratio	7	1	12	4	22	2	3	3	2	1	2	1	1	9	2	8	30
11	Phosphate as PO ₄ (mg/kg)	15	21.1	88.8	63.4	10.9	5.6	7.5	5.2	17	5	1	1	0.3	19.6	96	13	20
12	Sulphur (mg/kg)	73	25.1	60.4	49.9	74.2	13.5	88.8	33	16	14	12	7	13	13	21	37	70.4

A: Between Hazelo & Optimus compound walls; **B:** Narendra Reddy Farm land; **C:** Opposite to Main gate; **D:** Vasupari to main gate; **E:** Narendra Reddy farm land; **F:** Valluri Nagayya land; **G:** Inside plant besides main gate; **H:** Venkatarreddy Land (Reference Soil sample) **I:** Nagayya Ramulu Agricultural Land; **J:** South east corner of Hazelo Lab, adjacent to compound wall



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Table 10: Analysis results of VOCs in soil samples

S. No.	Parameter s (mg/kg)	A	B	C			D			E		F			G	H	I	J
				0-1 feet dept h	3-4 feet dept h	6-7 feet dept h	0-1 feet dept h	3-4 feet dept h	6-7 feet dept h	0-1 feet dept h	3-4 feet dept h	0-1 feet dept h	3-4 feet dept h	6-7 feet dept h				
1	Dichloromethane	4.81	BDL	14.6	3.1	6.3	48.1	2.9	22.4	BDL	BDL	BDL	BDL	BDL	24.8	BDL	BDL	BDL
2	Benzene	1.73	1.5	4.4	1.4	1.2	1.3	1.4	1.3	1.2	1.3	1.3	1.1	1.1	0.7	1.2	0.7	0.6
3	Toluene	0.26	0.16	1.56	1.2	0.2	0.17	0.2	0.2	0.2	1.0	0.2	0.09	0.08	0.09	0.09	0.07	0.07
4	1,2,4-trimethylbenzene	1.17	1.17	0.87	0.9	0.8	0.78	0.7	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4
5	Naphthalene	0.98	0.9	0.9	0.8	0.8	0.6	0.6	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4
6	Methanol	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	Dimethylformamide	6.4	BDL	8.8	5.2	1.5	6.1	4.1	3.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.75
8	Acetone	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

A: Between Hazelo & Optimus compound walls; B: Narendra Reddy Farm land; C: Opposite to Main gate; D: Vasupari to main gate; E: Narendra Reddy farm land; F: Valluri Nagayya land; G: Inside plant besides main gate; H: Venkatarreddy Land (Reference Soil sample) I: Nagayya Ramulu Agricultural Land; J: South east corner of Hazelo Lab, adjacent to compound wall

Note: The value of BDL is 0.1mg/kg



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The results of soil samples collected from the stagnated water in between Hazelo & Optimus compound walls (sample A, Opposite to Main gate at different depths, Vasupari to main gate at different depths and inside plant besides main gate confirms the discharge of untreated effluent from the M/s Hazelo Labs and other units located (M/s Optimus, M/s Chemical life sciences, M/s Brudavan Laboratories etc.). The impact of pollution was observed where the untreated effluent is been discharged and other agricultural fields were not affected as per the analysis results.

Table 11: Bore well samples collected from the agricultural fields

S. No.	Parameters	A	B	C	D	E	F	G	H	I
1	pH	8.3	6.6	7.7	6.8	7.8	6.8	7.1	7.4	7.6
2	EC ($\mu\text{s}/\text{cm}$)	3800	3390	2920	3460	2460	3570	1271	1469	887
3	Colour (Hazen)	<1	<1	<1	Brick red	5	Light yellow	<1	5	<1.0
4	Turbidity (NTU)	<0.1	<0.1	<0.1	1097	<0.1	207	<0.1	<0.1	<0.1
5	Chloride as Cl (mg/l)	1015	855	705	865	505	925	180	195	80
6	Sulphate as SO_4 (mg/l)	16	26	82	44	210	79	48	54	24
7	TDS (mg/l)	2280	1966	1667	2008	1451	2123	743	887	546
8	TSS (mg/l)	BDL (DL:1.0)	BDL	BDL	964	10	38	28	2	BDL

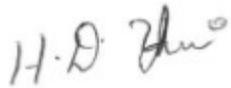


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9	Fluoride as F (mg/l)	0.14	0.19	0.13	0.2	0.2	0.2	0.1	0.11	0.13
10	Iron as Fe (mg/l)	0.52	BDL (DL:0.05)	0.85	340	0.9	2.3	0.9	0.7	0.5
11	Total hardness (mg/l)	1606	548	526	533	354	526	197	218	329
12	Calcium as Ca (mg/l)	389	348	251	453	206	296	174	105	77
13	Magnesium as mg (mg/l)	155	329	418	181	235	363	59	172	42
14	Total Alkalinity (mg/l)	316	463	419	407	328	384	294	429	305
15	Nitrate as NO ₃ (mg/l)	28	15.8	11	11.3	34	6.8	18	23	29
16	Total Ammonia (mg/l)	BDL (DL:0.01)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
17	Cyanide as CN (mg/l)	BDL (DL:0.01)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
18	Sulphide as S (mg/l)	BDL (DL:1.0)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
19	Boron (mg/l)	0.16	0.44	0.13	0.16	0.09	0.19	0.05	0.18	0.09
20	Aluminium (mg/l)	BDL (DL:0.002)	BDL	0.004	7.13	BDL	BDL	0.04	0.04	BDL
21	Chromium (mg/l)	BDL (DL:0.002)	BDL	BDL	0.03	BDL	BDL	BDL	BDL	BDL
22	Manganese (mg/l)	0.02	0.37	0.07	2.58	0.01	3.73	0.08	0.042	0.03

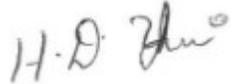



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23	Nickel (mg/l)	BDL (DL:0.002)	BDL	BDL	0.037	0.003	BDL	BDL	0.006	BDL
24	Copper (mg/l)	BDL (DL:0.002)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
25	Zinc (mg/l)	BDL (DL:0.002)	BDL	BDL	0.01	BDL	0.003	BDL	0.005	BDL
26	Cadmium (mg/l)	BDL (DL:0.002)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
27	Mercury (mg/l)	BDL (DL:0.0005)	BDL	BDL	BDL	BDL	0.15	BDL	BDL	BDL
28	Lead (mg/l)	0.016	0.004	BDL (DL:0.002)	0.05	BDL	BDL	BDL	BDL	BDL

A: Bore well at Valluri Nagayya land, Jiblakpalli village, Pochampally mandal; B: Bore well at Kandillachi Reddy, Yellagiri Village; C: Mandhadi Balreddy Land, Jibalpally, Pochampally Mandal; (A, B & C used for agricultural purpose) D: Vasupari Ramulu Land; E: Mohan Reddy Land Bore well 1; F: Mohan Reddy Land Bore well 2; G: Bore well at G. Janga Reddy land; H: Bore well near Masana ground, Anthammaguda village; I: Bore well near Birappa Temple, Anthammagudem (D to I are unused bore wells)




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VOCs in mg/L	A	B	C	D	E	F	G	H	I
Dichloromethane	BDL	BDL	10.07	BDL	BDL	BDL	BDL	BDL	1.60
Chloroform	BDL	BDL	2.70	BDL	BDL	BDL	BDL	BDL	2.35
Benzene	BDL	BDL	0.63	BDL	BDL	BDL	BDL	BDL	0.55
1,2-Dichloroethane	BDL	BDL	0.19	BDL	BDL	BDL	BDL	BDL	0.17
Toluene	0.39	0.09	0.07	0.32	1.16	0.30	0.26	0.15	0.07
O-Xylene	0.17	0.10	0.09	0.09	0.09	0.08	0.07	0.08	0.07
Ethylbenzene	0.16	0.18	0.18	BDL	0.10	0.09	0.08	0.10	0.09
M-XYLENE	0.18	0.15	0.14	BDL	0.13	0.12	0.11	0.11	0.11
P-XYLENE	0.10	0.09	0.09	0.08	BDL	0.07	0.07	0.07	0.07
Isopropylbenzene	0.07	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	0.35	0.25	0.24	0.24	0.23	0.22	0.20	0.19	0.19
Propylbenzene	0.09	BDL	BDL	BDL	BDL	0.01	BDL	BDL	BDL
1,3,5-Trimethylbenzene	0.06	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
1,2,4-Trimethylbenzene	0.41	0.32	0.48	0.32	0.31	0.28	0.26	0.27	0.28
1,3-Dichlorobenzene	BDL	BDL	BDL	BDL	BDL	0.02	BDL	BDL	0.02
Naphthalene	0.41	0.30	0.35	0.30	0.29	0.28	0.26	0.25	0.27
Methanol	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dimethyl formamide	BDL	BDL	BDL	BDL	6.71	7.29	BDL	BDL	BDL
Acetone	BDL	BDL	BDL	BDL	1653.32	1479.034	BDL	BDL	BDL

Note: The value of BDL is 0.1 mg/L

The bore well samples collected from A, B & C are used for irrigation purpose and bore wells D to I are unused for long time, the impact of untreated effluent discharge is observed in the bore well samples of E & F.



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IX Whether 6th respondent had violated any of the conditions imposed and also to ascertain as to whether they have expanded their activity without obtaining any necessary environment clearance as required under the EIA Notification, 2006.

A. Status of statutory permissions/clearances obtained by the unit

The unit has obtained CFO to manufacture products as shown in figure 1 below, the validity of the CFO has been expired, however the unit has applied for renewal of CFO to TSPCB. The unit has taken Environmental Clearance (EC) from MoEF&CC vide order dated 27.02.2020 to expand the manufacturing capacity from 0.35 TPD to 14.2 TPD by acquiring additional land area of 15.675 acres in the same industry premises. TSPCB issued CFE for expansion vide order dated 07.05.2020.

The unit again obtained EC for further Expansion from State Level Environment Impact Assessment Authority (SEIAA), Telangana State vide order dated 13.11.2020 for manufacturing of 35 products with production quantity of 20 TPD and also a Co-Generation Power Plant of 1x2 MW. TSPCB issued CFE for further expansion vide order dated 29.05.2021. Hence the unit has taken statutory clearances from MoEF&CC, SIEAA and TSPCB for the expansions.

During inspection, the expansion work was under progress and the unit representative informed that the expansion work will be completed within two months and will obtain CFO from TSPCB for operation.



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S.No	Product Name	Production per Day (Kg)
GROUP- A		
1	N-(2-Methyl-5-aminophenyl)-4-(3-pyridyl)-2-pyrimidine amine	116.7
2	4-[(4-Methylpiperazin-1-yl)methyl]benzoic acid dihydrochloride	133.3
3	2, 3-Epoxy-2-methyl-N-[4-cyano-3-(trifluoromethyl) phenyl] propanamide	61.1
4	Ethyl-N-phthaloyl-p-amino-L-phenyl alaninate Hydrochloride	16.7
5	2-Deoxy-2,2-Difluoro-D-Erythro-Pentafuranousulose-3, 5-Dibenzoate	22.2
Total production capacity from Group- A		350 kg/day
1	Bis-(2-Chloroethyl) Amine Hydrochloride	83.3
2	N-Acetyl Cytosine	41.7
3	Benzonitrile 4-(1h-1,2,4-Triazol-1-yl Methyl)	55.6
4	N-Phthaloyl, D.L Glutamic acid anhydride	69.4
5	2',3'-Di-O-acetyl-5'-deoxy-5-fluorocytidine	100.0
Total production capacity from Group-B		350 kg/day
Total production capacity on worst combination i.e., for Group-A or Group-B.		350 kg/day

Figure 1: Consented products for manufacturing as per the CFO dated 30.05.2017

X If the mechanisms provided are not sufficient to control the odour and other pollution alleged, then what are all the methodology to be adopted for the purpose of resolving the issue.

1. The unit is claiming to be as a Zero Liquid Discharge industry, however as per the observations, analysis results of the stagnated water between M/s Hazelo & M/s Optimus Compound Walls and no provisions provided in the production block A extension for HTDS effluent suggests that the unit is discharging untreated effluent.
2. The ETP provided by unit for treating LTDS and HTDS effluent is not adequate for meeting the ZLD system. Hence the ETP shall be revamped/augmented for effective performance.



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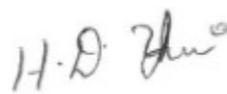
3. The scrubbers provided for productions blocks is insufficient and can be changed /rectified for controlling the VOCs emissions into environment. The scrubber shall be provided with adsorption column system with granular activated carbon specific to gaseous adsorption to control odour nuisance.
4. The soil samples collected in front of the unit, between the compound wall of M/s Optimus, west side of M/s Chemic Life Sciences confirms the discharge of untreated effluent from M/s Hazelo Labs and other adjacent units located in the area. Hence TSPCB shall give directions to all the eight industries to borne the cost for remediation of soil where discharge of untreated effluent was observed.

Hence CPCB Proposes following methodology to be adopted for the purpose of resolving odour and other pollutions

Based on the field observations and monitoring results, it is proposed to issue directions under section 18 (1) (b) of Water and Air Act to TSPCB by CPCB to ensure that the following points are implemented by M/s Hazelo Lab Pvt. Ltd for the prevention of environment pollution:

1. The unit shall provide provision for collecting and treating the HTDS effluent generated from Production Block A Extension and shall ensure that no untreated effluent is discharged outside the unit premises. The online meter connected to the scrubber of the Production Block A extensions shall be rectified and connected to TSPCB server.
2. The unit shall augment MEE & RO, so as to achieve ZLD system. The flow meters attached to RO & MEE should be rectified so that flow rate and cumulative readings can be generated and noted to cross verify the ZLD system. The flow meters at RO & MEE should be installed in the flow line /connection line rather than placing in the storage tanks outlets.




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3. The unit shall provide the adsorption column system with granular activated carbon specific to gaseous adsorption for the scrubbers provided in the production blocks A, A Extension & Block B to control the VOCs emissions as well odour nuisance.
4. The unit shall make proper arrangement for monitoring of HCL mist and VOCs in the vents of the scrubbers attached to production blocks.
5. The unit shall remove all the flexible hose pipes near the productions blocks A & A extension.
6. The industry shall carry out Leak Detection and Repair program at frequent interval of times to assess the solvent losses and shall take appropriate measures to control to arrest the solvent losses and reduce the VOCs in the premises. The records shall be maintained and made available for the inspecting officials.
7. The unit shall ensure that 95% of solvent are recovered from Solvent Recovery Plant (SRP) and shall be reused completely in the process. The day to day generation, recovered and reused may be recorded and made available for the inspecting officials.
8. The unit shall ensure that hazardous wastes shall be disposed within 90 days from the date of generation. Unit shall maintain proper records on disposal of drums.
9. The Agricultural University shall be engaged to determine the extent of pollution and to provide the suitable remediation for effective crop growth.
10. The contaminated soil/ sediment in the untreated effluent discharged land outside the premises as well as inside the unit of M/s Hazelo shall be removed & disposed properly. The cost of removal shall be borne by all the industries located in this area.



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As per the monitoring results, it is found that M/s Hazelo Labs and other adjacent pharmaceutical industries have discharged their untreated/partially treated effluent on land as well as contributing to VOC emission in Ambient Air. **TSPCB shall direct all the pharmaceutical industries in the area to submit the time bound action plan for removal of contaminated sediments/soil and control of VOC emission in Ambient Air as well as adequate pollution control measures to achieve ZLD.** TSPCB shall periodically review their action plan & regularly monitor VOC in the area to ensure the effective implementation.



(R. Rajkumar)
Scientist D



(Poornima. B M)
Scientist D

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

ANNEXURE R2

ORIGINAL APPLICATION No. 238 OF 2021 (SZ)
[Earlier, OA No. 181 OF 2020 (PB)]

IN THE MATTER OF:

Chepuri Ramachandraiah

....

Applicant(s)

Versus

State of Telangana,
rep by its Prl. Secretary,
EFS&T Dept, & Others

....

Respondent(s)

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Place: Hyderabad

Date: 13-05-2022.

Report of the Joint Committee in O.A. No. 238 of 2021 (SZ) | Earlier OA No. 181 of 2020(PB)| in the matter of ChepuriRamachandraiah, Vs State Of Telangana submitted to Hon'ble National Green Tribunal, South Zone, Chennai in Compliance to order dated 8thDecember, 2021.



Submitted To

**Hon'ble National Green Tribunal
South Zone, Chennai**

May, 2022

Report of the Joint Committee in O.A. No. 238 of 2021 (SZ) [Earlier OA No. 181 of 2020(PB)] in the matter of ChepuriRamachandraiah Vs State Of Telangana Submitted to Hon'ble National Green Tribunal, South Zone, Chennai in Compliance to order dated 8th December, 2021.

1. Preamble

Sri ChepuriRamachandraiah, R/o. Veliminedu (V), Chityala (M), Nalgonda District has sent a representation to the Chairman, Hon'ble NGT, Principal Bench, New Delhi. The Hon'ble NGT registered the representation as Original Application (O.A) No.181 of 2020. The main prayer of the applicart is as follows:

The Grievance in this petition of the applicant is against violation of environmental norms by M/s. Hindys Chemical Factory, causing air and water pollution adversely affecting the cattle and crops and public health in VelmineduVillage, Chityala Mandal, Nalgonda District, Telangana.

The Hon'ble NGT heard the matter and passed orders dated 01.12.2020and directed that the State PCB and the District Magistrate, Nalgondaneedto take appropriate action after ascertaining the facts and following due process of Law. The nodal agency for coordination will be the State PCB.

In compliance of the Orders, the District Collector has deputed the Additional Collector & Additional District Magistrate, Nalgondato complete the inspection and submit report. Subsequently, the case was heard before the Hon'ble NGT on 01.12.2020 and the Tribunal has sought a factual and Action Taken Report from the Board and District Collector, Nalgonda. In compliance to the directions of the Hon'ble NGT, the Committee report dated 03.06.2021 filed before the Hon'ble NGT, Principal Branch, New Delhi on 21.10.2021.

2. Orders of the Hon'ble Tribunals

The matter was taken for hearing before the Hon'ble NGT, New Delhi on 18.11.2021 and the relevant extract of the Order of Hon'ble NGT is as follows.

6. Project proponent has filed I.A. No. 212/2021 to be added as a party and inter alia stated that some of the land is under acquisition.

7. We have heard learned counsel for the State PCB as well as the project proponent. Even though the report is not complete on all respects, it is clearly acknowledge that there are

serious violations as noted above resulting in damage to the soil quality and water in the area. The unit has been manufacturing more than the consented capacity and not maintaining record and also not complying with the consent conditions. Only action taken by the State PCB is forfeiting the bank guarantee to the extent to Rs. 2 lakhs.

- 8. In view of the above, further remedial action is necessary, after ascertaining a factual position.
- 9. Accordingly, we constitute a four member joint Committee of MoEF&CC, CPCB, State PCB and the District Collector jointly. Joint meeting of the Committee may be held within two weeks. The joint Committee may undertake visit to the site and interact with the stakeholders and evaluate compliance status in all respects, including air water, soil, ground water, compliance of the consent and EC conditions and the quantum of compensation required to be recovered, in the light of the violations found. The project proponent may be given opportunity of being heard. The Committee may give its report within three months by email to the Southern Bench of this Tribunal.

The CPCB & TSPCB are made as Nodal Agency for coordination and also for providing necessary logistics for this purpose.

Further, the matter was taken by the Hon'ble NGT, Southern Zone, Chennai on 08.12.2021, the interlocutory application [I.A. No. 187 of 2021 (SZ)] is allowed and the applicant in [I.A. No.187 of 2021 (SZ)] is impleaded as additional 4th Respondent and passed an order that;

- 7. If the newly added 4th Respondent wanted to file any reply to the allegations made and also objections (if any) to the report submitted earlier, they are at liberty to file the same before this Tribunal before the next date of hearing date.
- 8. In the meantime the official respondents are also directed to file their independent response regarding the allegations made in the letter petition before the next hearing date, so as to consider the further directions (if any) to be issued in this regard.
- 9. The Joint committee is also directed to file the report if possible or at least file an interim report before the next hearing date
- 10. The joint Committee as well as the respondents are directed to file their respective report as well as independent response before this Tribunal on or before 17.01.2022 by e-filing in the form of searchable PDF/OCR Supportable PDF and not in the form of image PDF along with necessary hardcopies to be produced as per Rules".

Copies of the Hon'ble NGT orders are enclosed as Annexure – 1&2

In compliance to the Hon'ble NGT order dated 18.11.2021 in case of O.A. No. 181 of 2020, the committee was constituted comprising of the following officers:

- i. Sh. V. Chandra Sheker, Additional Collector & Additional District Magistrate, Nalgonda District.
- ii. Smt. H. D. Varalaxmi, Scientist E, CPCB, Regional Directorate, Chennai.
- iii. Dr. E. Arockia Lenin, Scientist C, Integrated Regional Office, MoEF&CC, Hyderabad.
- iv. Sh. G. Hanumantha Reddy, Joint Chief Environmental Engineer, TSPCB, Zonal Office, Ramachandrapuram, Hyderabad.

3. Scope of Committee:

The Hon'ble NGT directed that the meeting of the Joint Committee be held within two weeks and the Committee may undertake visit to the site and vested with the following scope as per the Order dated 18.11.2021:

- i. Interact with the stakeholders and evaluate compliance status in all respects, including air, water, soil, ground water,
- ii. Compliance of the Consent and EC conditions and
- iii. The quantum of compensation required to be recovered, in the light of the violations found. The project proponent may be given opportunity of being heard. The Committee to file its report within three months to the Hon'ble NGT, Chennai.

4. Meeting and preliminary site visit by the Committee :

CPCB convened first joint committee meeting on December 13, 2021 at 5:00 PM through online. All the committee members attended and provided suggestions. Smt. H. D. Varalaxmi, from CPCB welcomed all the members and briefed about the case. She also informed that the case was originally filed at NGT, Principal Bench, Delhi and presently is been transferred to NGT, Southern Zone, Chennai and renamed as O A. No. 238 of 2021 and the case was heard at SZ, Chennai on December 8, 2021. The Hon'ble NGT directed the committee to submit the report or at least the interim report by January 17, 2022 and posted the case for hearing on January 17, 2022.

The committee members had deliberation on NGT order and the following decisions were taken by the committee members for compliance of NGT orders dated 18.11.2021 and 08.12.2021.

(4)

- a. TSPCB officials to provide all previous documents/reports submitted earlier to NGT in this case.
- b. To interact with the project proponent, nearby villagers and other stakeholders during 1st week of January, 2022.
- c. To inspect the industry (M/s Hindys Chemical Laboratory Pvt. Ltd., Nalgonda), monitoring and sampling in and around the industry during third week of January, 2022.
- d. TSPCB to make necessary arrangements for the collection and analysis of samples.
- e. TSPCB to provide logistics arrangements for committee members for compliance of NGT orders dated 18.11.2021 and 08.12.2021.
- f. CPCB for providing technical guidance in report preparation and filing of committee report before NGT, SZ (Chennai).

Minutes of the Meeting of Joint Committee held on 13.12.2022 is enclosed as **Annexure -3**.

As per the Decision taken during the Joint Committee meeting held on 13.12.2021, the Joint Committee visited the industry on 04.01.2022 and interacted with the industry representatives and the Applicant. The attendance of the officials and others is enclosed as **Annexure - 4**.

During the interaction with the Applicant, they have informed that they are having an agricultural land of about 3 Acres, just opposite to the industry and have incurred crop losses due to the pollution of the industry since last 10 years. They are not able to cultivate the land with the ground water as it got polluted and not useful for irrigation. They are having 3 Bore wells in the Agricultural land and out of them, 2 Bore wells are in working condition. They have alleged that the industry indulged in the discharging of effluents into ground through well, but could not provide any evidence. He has also alleged that they are facing chemical odour problem from the industry. He stated that they were not cultivating the land for the last few years due to pollution.

He further stated that other farmers are not that much affected as their lands are situated away from the industry, hence others are not complaining. However, cultivation of paddy and cotton fields were also observed near adjacent to the industry.

Subsequently, the Committee inspected M/s. Hindys Lab Pvt. Ltd., on 03.02.2022 and monitored the Ambient Air Quality, Volatile Organic Compounds (VOC), Ground water quality in the surrounding area in presence of the Applicant and Industry representatives.



5. M/s Hindys Laboratory Pvt. Ltd., Velminedu Village, Chityala Mandal, Nalgonda District.

5(a) General information:

M/s Hindys Laboratory Pvt., Ltd., is located in Sy.No. 289-292, Veliminedu Village, Chityala Mandal, Nalgonda District. The unit spread in an area of 11 acres. The unit was established as M/s. Hychem Laboratories in the year 2009 and engaged in the manufacturing of Drug intermediates & Fine chemicals. There after the unit was taken over by M/s Hetero drugs and the unit name was changed as M/s Hindys Laboratory Pvt., Ltd. The new management (M/s Hindys Laboratory Pvt., Ltd) has started production in the year 2015. The detailed inspection report of the unit is enclosed at **Annexure -5**.

5 (b) Status of permissions/clearances obtained by the unit:

The unit has obtained permission from Telangana Boiler Inspection Department, Dy.Chief Controller of Explosives, MOEF&CC, TSPCB, Dy. Chief Inspector of Factories and Panchayath Raj Department, Department of Fire, PESO,. The details of permissions granted and their validity are as below;

6

Table No. 1: Details of Permissions / Clearances obtained

S. No.	Permissions obtained by the unit	Document/ license no.	Issue date	Valid up to	Name of the Department
1	Boiler License	292/2021-22	09.02.2022	01.02.2023	Boilers department
2	Fire NOC	Not applicable			
3	PESO License	P/HQ/TG/15/3748 (P228047)	18.12.2020	31.12.2025	Petroleum & Explosives Safety Organisation
4	EC Letter	F.No.IA-J-11011/114/2017-IA II(I)	09.04.2020		Ministry of Environment, Forest and Climate Change
5	CFE	Order No.NAL-224/PCB/ZO/RCP/CFE/2006-65, Dt: 28.04.2006.	28.04.2006	NA	Pollution Control Board
		Order No.04/ TSPCB/CFE/RO-NLG/HO/2018-1754, Dt: 30.07.2018.	30.07.2018	NA	
		Order No.08/ TSPCB/CFE/NLG/RO-NLG/HO/2020-774, Dt: 10.09.2020.	10.09.2020	NA	
		Order No.13/ TSPCB/CFE/NLG/RO-NLG/HO/2021-1798, Dt: 27.01.2022.	27.01.2022.	NA	
6	CFO& Hazardous Waste Approval	APPCB/PTN/NLG/ CFO/HO/2011-1696, Dt: 16.09.2011.	16.09.2011	31.07.2012	Pollution Control Board
		APPCB/RCP/NLG/ 13577/CFO&HWM /HO/2013-5930, Dt:24.12.2013	24.12.2013	31.07.2015	
		TSPCB/RCP/NLG/ CFO&HWM/HO/2016-05, Dt:29.03.2016	29.03.2016	31.07.2020	

		CFO (CPM) TSPCB/RCP/NLG/ CFO&HWM/HO/20 19-, Dt:13.03.2019	13.03.2019	31.07.2020	
		210822543295	17.02.2021	31.07.2025	
		220523499495 (Expansion Phase-I)	27.01.2022	31.07.2025	
7	Factory License	32876	23.09.2019		Factories department
8	Panchayath Running License	56/GPV/2006	13.03.2006		

5(c). Status of Compliance/violations against conditions imposed in the consents/clearance:

i. Conditions imposed in Environment Clearances issued by MoEF&CC:

Ministry of Environment, Forest and Climate Change, has accorded Environmental Clearance to M/s. Hindys Lab Pvt Ltd., for expansion o Bulk drug and intermediates manufacturing unit from 5.25 TPM to 150 TPM at Sy. Nos. 289-292, Village Veliminedu, Mandal Chityal, District Nalgonda, Telangana vide letter no. IA-J-11011/114/2017-IA II (I) dated 09.04.2020.

Present status: Industrial activities are in progress. Products are manufactured as per earlier Consent granted by TSPCB. No products mentioned in the EC are manufactured by PA, at present. They are in the process of the implementation of the activities proposed in the expansion of their project. Out of the EC conditions, 2 non-compliances and 1 partial compliance was observed. The non compliances observed is Odour emission is observed and PA is directed to take necessary action (Condition No. xvi of Specific conditions); The locations of ambient air quality monitoring stations have not been decided by SPCB as on the date of site visit (Condition No. vii of General conditions) & Half yearly compliance reports are not uploaded in the company website (Condition No. xviii of General conditions). Point wise compliance status of EC order dated 09.04.2020 is given as **Annexure – 6**.

ii. Conditions imposed in Consents under Air Act& Water Act and Authorisation under H &OW Rule 2016:

The detailed status of compliance/violations against conditions imposed in the CFO & HWA clearances are Annexed at **Annexure – 7**.

It is observed that the unit has taken steps to comply with 35 out of 44 conditions imposed in the integrated CTO& Authorisation under HW Rules issued by the TSPCB. However, 9 conditions viz. (i) No provision made for monitoring of HCL in the process vent as per the Consent condition, (ii) LTDS and HTDS ETP found inadequate, (iii) the flow meters installed are not indicating the accountability to ensure ZLD system, (iv) Inadequacy of Odour control measures in ETP, (v) Inadequate control measures to process emissions were found partially complying, (vi) non installations of online TDS meter for HTDS effluent and (vii) Odour control at MEE found not complying.

5(d) Status of Pollution Control Measures taken to prevent the pollution:

i. Water & Waste water

- The unit uses water for consumption of 11.35 KLD for all purposes. The unit is generating 4.9 KLD of process & Washings effluents, 0.6 KLD of DM Plant softener regeneration& Scrubber, 0.64 KLD of Boiler blow down& Cooling water blow down and 1.0 KLD of Domestic waste water. During the period from Jan'2021 to Dec'2021, the industry has water consumption of 10.66 KLD.
- As per the CFO, the unit is collecting LTDS effluent @ 1.64 KLD and HTDS @ 5.5 KLD. The LTDS being treated through ETP comprises of Collection tank, aeration system, settling cum separation tank followed by RO system. The RO permeate being utilised in Utilities and RO reject being sent to MEE along with HTDS effluent. The HTDS and RO reject being concentrated through three stage Falling Film: Multi Effect Evaporator(MEE) followed by ATFD to recover salt as final waste. The MEE condensate being sent to LTDS ETP. During the period from Jan'2021 to Dec'2021, the industry has waste water generation of 6.74 KLD (HTDS-5.19 KLD & 1.55 KLD-LTDS).
- As per the monitoring carried out by the Committee, *COD and TDS reduction was observed 35% and 37% respectively in LTDS ETP. As per the COD reduction, the conventional treatment is not adequate, the reduction of TDS indicates the possibilities of dilution because TDS can not be reduced through conventional treatment. The RO efficiency was observed only 21.6 % which indicates the inadequacy of treatment plant to treat the LTDS effluent.*

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- The unit claims that they are achieving 25% TDS Concentration through MEE, from the analysis results the MEE efficiency also observed very poor, the TDS concentration was increased from 2.7% to 9.0 % through MEE and it is inadequate to achieve the desirable limit of 25 % TDS concentration to recover the salt.

ii. Source emission and Process vents:

- The industry has coal fired boilers of capacity 6 TPH, 8 TPH provided with separate Bag filter followed by Mechanical dust collector as APCE followed by common chimney of height 30 mtrs.
- The unit has connected the process vents to the double condenser followed by scrubbing system. As per the Consent issued by TSPCB, the process vent is required to monitor for HCl concentration, however no provision is made in the process vent for monitoring of HCl.
- As per the Monitoring report of source emission from boiler, PM (86 mg/Nm^3), SO_2 (168 mg/Nm^3) and NO_x (220 mg/Nm^3) was found meeting with prescribed Standards of TSPCB which indicates the adequacy of pollution control measures taken by the unit.
- The unit has not provided online emission monitoring system to the boilers.

iii. Compliance under HW Rule :

As per the Authorisation issued by the TSPCB, Authorised quantity of Sludge and ATFD salt is 467.2 kg/day (170.52 MT/Annum). During the period from Jan'2021 to Dec'2021, the industry has Hazardous waste generation (ATFD salt) of 144.85 MT/Annum

iv. Solvents Used & Control measures adopted to control VOCs

- ❖ The industry has 5 Nos of Two stage scrubbers with online pH meters for control of process emissions.
- ❖ *The unit is claiming that they have distillation column with double condenser and circulation of RT water & chilled water, condenser vents are connected to scrubber. The scrubbers are maintained with neutralised agents. The loss through condenser vent is reported in the range of 200 to 432 Ltrs/day, these vents are connected to scrubber. During scrubbing, scrubbed solvent may dispersed in the form of VOCs and causing odour nuisance in the surrounding area.*

5(e) Other observations made during field visit:

- The unit was informed that, M/sHychem Laboratories was established in the year 2009 and engaged in manufacturing of Drug intermediates and Fine Chemicals. The present management i.e M/s Hindys Laboratory Pvt., Ltd., has taken over the unit in 2015 and obtained consent for eight products, but started manufacturing seven Bulk drug intermediates viz Dichlorophenyl Dihydro Naphthalenylidene (DDN), Omeperazole intermediate, Dimethyl Propanamine (DMP), Camphor Sulfonyl Chloride (CSC), CBZ L Valine, Ter-butyl Pyrimidin Acetate(TPA) and Carbamyl Methyl Hexanoic (CMH). Presently, manufacturing 5 products viz DDN, DMP, CBZ L Valine, TPA and CMH.
- The applicant reported the water pollution since 10 years, hence the committee asked the details of products manufactured, Treatment system provided, details of Hazardous waste storage facilities by earlier unit(i.e., before 2015 year), however no details were made available by the present management before the 2015 data.
- The committee has taken reconnaissance survey around the unit, no visible discharge was observed, one more farmer reported the obnoxious smell in the bore well water which is being used for cultivation of paddy.
- During Committee visit, the applicant son Mr. Vishnu submitted reports of Water & Soil quality obtained from Agricultural Department. As per the report dated 17.12.2019, the bore well water sample categorized as C4S1 which states that the water is not suitable for cultivation under normal condition. If this water is used for moderate type of lands under necessary situation, the soil turns salt. This water can be used of light sandy soils by providing proper drainage facility. But, more water taps are used to dissolve salt in the water and proper drainage facility shall be provided to drain out the salt. Saline resisting crops like ragi, paddy, etc shall be used. This water is not suitable for agriculture under normal conditions. As per the soil sample report dated 17.12.2019, the nature of the soil is light, moderate pH, salt index (EC) normal, organic carbon less, available nitrogen is also less (100), available phosphorous is more (27), available potash is less (31). Copy of the report is enclosed as **Annexure - 8**
- Nearby village people reported obnoxious smell in the night time.

6. Assessment of Environmental damage on account of operation of respondent unit:**6(a) Status of Ambient Air Quality and TVOC in the surrounding area of Respondent Unit :**

The Committee monitored the ambient air quality as well as VOC in 3 locations to assess the impact of operation of respondent unit during February 03 -04, 2022. The Results of Analysis of Ambient Air Quality monitored are depicted below:

Table No. 2 (a): Results of Analysis of Ambient Air Quality Monitored

S. No	Location		PM ₁₀ µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	Ammonia
1	AAQ Monitoring carried out at periphery of the industry near Southside compound wall of the industry in Upwind direction of Veliminedu (V), Chityal (M), Nalgonda District. (GPS N 17°13'48.07" &E 79°1'57.16").	I Shift	48	4.2	19	20
				4.1	24	BDL
		II Shift	45	4.0	20	22
				4.4	23	BDL
		III Shift	56	4.3	24	21
				4.5	22	BDL
24 hr average			49.66	4.25	22	21
2	AAQ Monitoring carried on top of the residence of Sri. MettuSaidulu, near Mission Bhagiratha water tank in Downward direction of Veliminedu (V), Chityal (M), Nalgonda District. (GPS N 17°13'41.7" &E 79°1'22.2").	I Shift	55	4.0	18	20
				4.0	22	20
		II Shift	61	4.2	23	BDL
				4.4	24	BDL
		III Shift	66	4.1	20	21
				4.5	23	BDL
24 hr average			60.66	4.20	21.66	20.33
3	AAQ Monitoring carried in the agricultural land of Sri. Ch.Ramachandaraiah, S/o.Durgaiah, Sy no.348/E of Veliminedu (V), Chityal (M), Nalgonda District. (GPS N 17°13'31.6" &E 79°1'45.2").	I Shift	57	4.5	24	BDL
				5.0	26	BDL
		II Shift	48	4.8	25	BDL
				4.6	23	21
		III Shift	67	4.3	24	BDL
				4.9	20	21
24 hr average			57.33	4.68	23.66	21.00
National Ambient Air Quality Standards for 24 hr Average			100	80	80	400

From the above analysis report, it is observed that PM10, SO₂, NO₂ and Ammonia concentration were found within the prescribed standards of National Ambient Air Quality Standards.



Table No. 2(b): Results of Volatile Organic Compounds (VOC)

S. No.	Monitoring Location	Timings	Results
			VOC Average Values (ppm)
1)	Volatile Organic Compounds (VOC) recorded near Southside compound wall of the industry in Veliminedu (V), Chityal (M), Nalgonda District. (GPS N 17°13'48.07" & E 79°1'57.16").	(12:00 PM to 2:00 PM)	0.000
		(2:00 PM to 4:00 PM)	0.000
		(4:00 PM to 6:00 PM)	0.004
		(6:00 PM to 8:00 PM)	0.008
		(8:00 PM to 10:00 PM)	0.000
		(10:00 PM to 12:00 AM)	0.018
		(12:00 AM to 2:00 AM)	0.020
		(2:00 AM to 4:00 AM)	0.016
		(4:00 AM to 6:00 AM)	0.022
		(6:00 AM to 8:00 AM)	0.008
		(8:00 AM to 10:00 AM)	0.004
		(10:00 AM to 12:00 PM)	0.022

S. No.	Monitoring Location	Timings	Results
			VOC Average Values (ppm)
2)	Volatile Organic Compounds (VOC) recorded near the residence of Sri. Mettu Saidulu, near Mission Bhagiratha water tank in Veliminedu (V), Chityal (M), Nalgonda District. (GPS N 17°13'41.7" & E 79°1'22.2").	(12:30 PM to 2:30 PM)	0.000
		(2:30 PM to 4:30 PM)	0.020
		(4:30 PM to 6:30 PM)	0.044
		(6:30 PM to 8:30 PM)	0.008
		(8:30 PM to 10:30 PM)	0.006
		(10:30 PM to 12:30 AM)	0.021
		(12:30 AM to 2:30 AM)	0.004
		(2:30 AM to 4:30 AM)	0.008
		(4:30 AM to 6:30 AM)	0.026
		(6:30 AM to 8:30 AM)	0.024
		(8:30 AM to 10:30 AM)	0.024
		(10:30 AM to 12:30 PM)	0.060

S. No.	Monitoring Location	Timings	Results
			VOC Average Values (ppm)
3)	Volatile Organic Compounds (VOC) recorded near the Sri. Ch. Ramachandaraiah S/o. Durgaiah, Sy. No. 348/E of Veliminedu (V), Chityal (M), Nalgonda District. (GPS N 17°13'31.6" & E 79°1'45.2").	(1:00 PM to 3:00 PM)	0.020
		(3:00 PM to 5:00 PM)	0.008
		(5:00 PM to 7:00 PM)	0.000
		(7:00 PM to 9:00 PM)	0.000
		(9:00 PM to 11:00 PM)	0.040
		(11:00 PM to 1:00 AM)	0.044
		(1:00 AM to 3:00 AM)	0.020

	(3:00 AM to 5:00 AM)	0.060
	(5:00 AM to 7:00 AM)	0.050
	(7:00 AM to 9:00 AM)	0.008
	(9:00 AM to 11:00 AM)	0.022
	(11:00 AM to 1:00 PM)	0.020

As per the VOC monitoring very less concentrations were reported in all three locations, However, the team felt strong VOC odour near to ETP area as well as in the area of solvent recovery system.

6(b) Status of Ground water quality in the surrounding area of respondent unit:

The Committee collected the water samples in 8 locations to assess the impact of operation respondent units, the Analysis results of samples taken from applicant land and other surrounding areas are depicted in **Table 3:**

Table No. 3: Bore well water samples taken from Applicant land and neighbours land

S. No.	Parameter	Location of sample taken								Drinking water standards
		02070	02071	02072	02073	02074	02075	02076	02077	
1.	pH	6.51	7.13	6.83	6.88	6.7	6.99	6.34	6.95	6.5-8.5
2.	E. Conductivity in $\mu\text{mhos/cm}$	1980	1790	1558	1450	1245	1220	1254	942	--
3.	Total Suspended Solids (TSS) in mg/L	24	54	42	47	16	17	24	12	---
4.	Total Dissolved Solids (TDS) in mg/L	1208	1089	942	890	758	744	770	565	500
5.	Total Fixed Solids (TFS) in mg/L	821	741	641	605	515	506	524	384	---
6.	Chemical Oxygen Demand (COD) in mg/L	32	28	14	15	10	8	9	6	---
7.	Biological Oxygen Demand (BOD) in mg/L	2.9	2.6	BDL	BDL	BDL	BDL	BDL	BDL	--
8.	Total Alkalinity as CaCO_3 in mg/L	336	320	228	204	196	192	212	180	200
9.	Total Hardness as CaCO_3 in mg/L	544	508	356	280	300	288	316	268	200
10.	Calcium as Ca^{2+} in mg/L	102	98	66	53	56	59	63	58	75
11.	Magnesium as Mg^{2+} in mg/L	70	64	47	36	39	34	38	30	30
12.	Chlorides in mg/L	292	268	186	142	148	154	172	132	250
13.	Sulphates in mg/L	53	50	23	18	20	12	16	19	200
14.	Nitrates in mg/L	15	13	9	6	5	3	4	4	45

(15)

15.	Sodium in mg/L	92	87	52	48	43	45	57	42	---
16.	Potassium in mg/L	4	4	2	2	2	2	2	1	----
17.	Fluoride as F ⁻ in mg/L	0.78	0.60	0.63	0.62	0.50	0.37	0.24	0.17	1.0
18.	Phosphate as PO ₄ ⁻³ in mg/L	0.2	0.1	0.1	0.1	0.06	0.04	0.05	0.01	---
19.	Percent Sodium (% Na)%meq/L	26.60	26.79	23.73	26.80	23.46	25.11	28.01	25.18	----
20.	Sodium Absorption Ratio (SAR)	1.71	1.67	1.19	1.24	1.07	1.15	1.39	1.11	----
21.	Boron in mg/L	0.92	0.78	0.12	0.04	BDL	BDL	BDL	BDL	0.5
22.	Cadmium in mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.003
23.	Lead in mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.01
24.	Chromium(total) in mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.05
25.	Copper in mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.05
26.	Nickel in mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.02
27.	Zinc in mg/L	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5.0
28.	Iron in mg/L	0.18	0.20	0.22	0.06	0.04	BDL	0.03	BDL	0.3
29.	Odour	Solvent smell	Solvent smell	Solvent smell	Solvent smell	No odour	No odour	Light Solvent smell		Agreeable

Note: Details of sample locations (agricultural lands Opposite to the respondent unit and behind the unit) :

02070	:	Water sample collected from Bore well – 1 (adjacent to Electrical Pole) in the agricultural land of Sri. Ch. Ramachandaraiah S/o. Durgaiah, Sy. No. 348/E of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'30" & E-79°1'44").
02071	:	Sample collected from Bore well – 1 slime deposit on the bottom of bore well pump of Sri. Ch. Ramachandaraiah S/o. Durgaiah, Sy. No. 348/E of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'30" & E-79°1'44").
02072	:	Water sample collected from Bore well – 2 (adjacent to Custard apple tree) in the agricultural land of Sri. Ch. Ramachandaraiah S/o. Durgaiah, Sy. No. 348/E of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N 17°13'30" & E 79°1'45").
02073	:	Water sample collected from Bore well – 3 (Near to Custard apple tree) in the agricultural land of Sri. Ch. Ramachandaraiah S/o. Durgaiah, Sy. No. 348/E of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'29" & E 79°1'44").

02074	:	Water sample collected from Bore well in the Agricultural land of Sri. Mettu Raju S/o Mallaiah, Sy. No. 344 of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'28" & E-79°1'46").
02075	:	Water sample collected from Bore well in the Agricultural land of Sri. MettuSattaiah S/o Anjaiah, Sy. No. 351 of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'48.07" & E-79°1'57.16").
02076	:	Water sample collected from Bore well in the Agricultural land of Sri. Sama Anji Reddy S/o Gopi Reddy, Sy. No. 293 & 285 of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'24" & E-79°1'31").
02077	:	Water sample collected from Bore well in the House of Sri. J. Narender S/o. Naveen, Sy. No. 286/A of Veliminedu (V), Chityal (M), Nalgonda District. (GPS: N-17°13'48.07" & E-79°1'57.16").

From the above table, it is observed that Bore well water in the applicant land was reported the smell of solvent, presence of COD and BOD indicates the contamination of bore wells. Total dissolved solids, Total alkalinity & Hardness and Magnesium found exceeding the drinking water standards in the Applicant bore wells. Chloride and calcium found high in one well.

6(c) Results of Finger printing Analysis of the Borewell water samples is as follows:

The committee has taken sample for signature analysis to confirm the compounds present in the effluents of Respondent unit and Bore well water samples of Applicant, the analysis reports are depicted in Table No.4:

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Table No. 4 :Signature analysis of effluents and water samples taken from Applicant land and neighbours land

Sl. No.	The compounds identified in the Effluent samples taken from respondent unit		Bore well samples taken from applicant land and other Neighbours land to identify the compounds matching with effluents of respondent unit							
	LTDS effluent	HTDS effluent	Bore well no. 1 of applicant	Slime sample taken from Bore well no. 1 of applicant	Bore well no. 2 of applicant	Bore well no. 3 of applicant	Bore well of Sri. Mettu Raju S/o Mallaiah, Sy. No. 344	Bore well of Sri. MettuSattaiah S/o Anjaiah, Sy. No. 351	Bore well of Sri. Sama Anji Reddy S/o Gopi Reddy, Sy. No. 293	Bore well of Sri. J. Narender S/o. Naveen, Sy. No. 286/A

1	2-Pentanone, 4-methoxy-4-methyl	Benzenamine, 2-(1-methylethyl)-	No compounds							
2	Methanol, Chloro-, acetate	D-Mannitol, 1,2:3,4:5,6-tris-O-(1-methylethylidene)-	matching with effluent							
3	Benzenamine, N-(1-methylethyl)-	Methyl 6-oxoheptanoate	detected							
4	Guanethidine	2-Pentanone, 4-methoxy-4-methyl								
5	D-Mannitol, 1,2:3,4:5,6-tris-O-(1-methylethylidene)-									
6	N,N-Diethylpropionamide									
7	4-Piperidinone, 2,2,6,6-tetramethyl-									

From the above table, it is observed that the no water samples taken were reported any signature compounds present in the effluent. However, the samples taken from the applicant land and Sri Sama Anji Reddy S/o Gopi Reddy, Sy. No. 293 were noticed Odour resembles the VOCs.

6(d) Assessment of Ground water Quality in the Applicant land by Agricultural Department:

The water samples (7 Nos.) taken from agricultural lands of applicant and other neighbor lands were analyzed at the Laboratory of Agricultural Department, Miryalaguda to verify the suitability of quality of water w.r.t agricultural requirement. The analysis reports of 7 samples are depicted in **Table No.5** :



Table No. 5: The analysis reports of water samples w.r.t agricultural requirement

S. No.	Parameter	Location of sample taken						
		Bore well no. 1 of applicant	Bore well no. 2 of applicant	Bore well no. 3 of applicant	Bore well of Sri. Mettu Raju S/o Mallaiah, Sy. No. 344	Bore well of Sri. Mettu Sattaiah S/o Anjaiah, Sy. No. 351	Bore well of Sri. Sama Anji Reddy S/o Gopi Reddy, Sy. No. 293	Bore well of Sri. J. Narender S/o. Naveen, Sy. No. 286/A
1.	pH	6.41	6.68	6.73	6.68	6.78	6.27	6.94
2.	E. Conductivity in mmhos/cm	2.2	1.9	1.7	1.6	1.7	1.4	1.1
3.	Carbonates	0	0	0	0	0	0	0
4.	Bi Carbonates	5	3.4	4.68		3.56	5.72	2.92
5.	Chlorides	Present	Present	Present	Present	Present	Present	Present
6.	Sulphates	Present	Present	Present	Present	Present	Present	Present
7.	Calcium +Magnesium	16.96	15.41	14.23	12.96	13.99	11.11	8.43
8.	Sodium + Potassium	5.04	3.58	2.77	3.04	3.00	2.89	2.56

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9.	Sodium Adsorption Ratio	1.73	1.29	1.03	1.19	1.13	1.22	1.25
10	Residual Sodium Carbonate	0	0	0	0	0	0	0
11	Classification	C3S1						

➤ As per the above analysis report, the borewell water samples are categorized C3S1, which is High Salt content and Low sodium content i.e., this water is suitable for many types of soils and crops in normal conditions. If this water is used for heavy soils, shall be cultivated within a short period of time to obtain crops & while giving water moisture shall provide proper drainage facility. Abundant quantity water is necessary to improve physical condition of the soil and for high production.

➤ The Agriculture Department has opined the following on EC, SAR, RSC and Boron content in the bore well water:

Electrical Conductivity (EC): Result - C3: 0.76 - 2.25, the said water can be used for irrigation purpose in general conditions (duly lifting from Bore wells). Abundant quantity water is necessary to improve physical condition of the soil and for high production. Changeability of EC level in Ground Water cannot be attributed to the industrial pollution, in case of hard rocks where abstraction is high, the water levels will go deep Since the movement of water is very low and water rock interactions are more hence changeability in EC values. And Geography of Nalgonda is having high level of rocks area.

Sodium adsorption Ratio (S.A.R): Result is less than 10, permissible safe.

Residual Sodium Carbonate (R.S.C): Result is less than 1.25 permissible safe.

Boron Concentrations (B): Not Examined in Agriculture lab, concluded with EC, permissible safe.

6(d) Assessment of Soil Quality in the Applicant land by Agricultural Department:

During committee visit, Agricultural Department, Miryalaguda taken 6 soil samples @ 2samples/acres were taken from the applicant land to verify the suitability of soil w.r.t agricultural requirement and the samples were analyzed at the Laboratory of Agricultural Department, Miryalaguda. The analysis reports of 6 samples are depicted in **Table No.6:**

Table No. 6: The analysis reports of Soil samples w.r.t agricultural requirement

S. No.	Parameter	Soil samples taken from applicant land @ 2 samples /acre						Standards
		1	2	3	4	5	6	
1.	Soil Nature	Medium	Medium	Medium	Medium	Medium	Medium	
2.	pH	7.49	7.48	7.52	7.69	7.69	7.63	6-7.5
3.	E. Conductivity in mmhos/cm	0.04	0.04	0.04	0.05	0.04	0.04	For moderate soil upto 1.5 is normal
4.	Organic Carbon in %	0.25	0.25	0.3	0.3	0.35	0.3	Less, if is less than 0.5
5.	Available Nitrogen (N) kg/Ha	50	10	10	10	20	20	Less, if 0-112 kg/acre
6.	Available Phosphorous (P)kg/Ha	8	6	9	9	8	9	Less, if 0-8 kg/acre
7.	Available Potash (K) kg/Ha	20	27	20	15	17	33	Less, if 0-60 kg/acre

As per the report of Department of Agricultural vide letter No. D8/124/Pollution/2022 dated 15.02.2022, it states that the soil is not affected and can be used for cultivation, hence it is recommended that the bore water can be used for irrigation with reclamation measures and soil can be useful for cultivation. Copy of the report is enclosed

Annexure - 9



7. Conclusion of the Committee based on Field observations and monitoring results:

After detailed monitoring, field observations and analysis reports of samples taken, the Committee concluding as below:

A. M/s Hindys Laboratory Ltd.,

- i. The respondent unit M/s Hindys Laboratory Ltd., was taken over in the year 2015 from M/s Hychem Laboratories and started production from the same year. As per the applicant information, the contamination of water was reported since 10 years i.e before starting operation of unit by existing management.
- ii. The unit is having all requisite permissions /clearances from Boiler Inspection Department, Petroleum & Explosives Safety Organisation, MOEF&CC, Factories Department, Panchayath Raj Department and Telangana Pollution Control Board. The list of permissions obtained is tabulated in Table No. 1.
- iii. The unit has valid integrated consent under Water & Air Acts and Authorisation under H&OW Rule 2016. However, 35 out of 44 conditions imposed were found complying and remaining 9 conditions were found partially / non compliance. The major non compliance observed are online monitoring systems installed in the ETP, non-installation of online TDS meter, non installation of online monitoring system in Boiler stack and inadequate control system provided in the process vents and solvent recovery system which is causing odour nuisance in the surrounding area.
- iv. Ministry of Environment, Forest and Climate Change, has accorded Environmental Clearance to M/s. Hindys Lab Pvt Ltd., for expansion of Bulk drug and intermediates manufacturing unit from 5.25 TPM to 150 TPM at Sy. Nos. 289-292, Village Veliminedu, Mandal Chityal, District Nalgonda, Telangana vide letter no. IA-J-11011/114/2017-IA II(I) dated 09.04.2020. Products are manufactured as per earlier Consent granted by TSPCB. No products mentioned

in the EC are manufactured by PA, at present. They are in the process of the implementation of the activities proposed in the expansion of their project.

- v. As per the monitoring results of ETPs indicates that the ETP installed to treat Low TDS effluent was found not adequate, only 35 % efficiency was observed w.r.t COD reduction through conventional treatment. The RO efficiency (21.6%) also found very poor.
- vi. As per the analysis results of treatment system provided for treating High TDS, the efficiency of MEE was found very poor. The TDS concentration was increased from 2.7% to 9.0 % through MEE and it is inadequate to achieve the desirable limit of 25 % TDS concentration to recover the salt.
- vii. The flow meter installed as a part of online monitoring to ensure ZLD also found not proper and not ensuring the accountability of effluent generated, treated through RO, RO permeate & RO reject, Similarly in MEE section also flow meters installed are not ensuring the achievability of ZLD system.
- viii. The unit has not provided the online monitoring system to stack attached to 6 TPH & 8 TPH coal fired boiler. As per the Consent issued by TSPCB, the process vent is required to be monitored for HCl concentration, however no provision is made in the process vent for monitoring of HCl.
- ix. As per the Authorisation issued by the TSPCB, Authorised quantity of Sludge and ATFD salt is 467.2 kg/day (170.52 MT/Annum). During the period from Jan'2021 to Dec'2021, the industry has Hazardous waste generation (ATFD salt) of 144.85 MT/Annum.
- x. The solvent loss through condenser vent is reported in the range of 200 to 432 Ltrs/day, these vents are connected to scrubber. During scrubbing, scrubbed solvent may dispersed in the form of VOCs and causing odour nuisance in the surrounding area.

B. Environmental Damage including Air, Water & Soil has been caused on account of the operation of respondent unit:

i. Damage to the Air Quality :

As per the ambient air quality monitoring conducted around respondent unit, the PM10, SO₂, NO_x and Ammonia were found within the standards of Ambient Air Quality. *Hence, no Monetary loss attracts w.r.t Ambient Air Quality.*

ii. Damage to the Ground water and Soil in the Applicant Land as well as in Surrounding area :

As per the monitoring conducted by committee, Bore well water in the applicant land was reported the smell of solvent, presence of COD and BOD indicates the contamination of bore wells. Total dissolved solids, Total alkalinity & Hardness and Magnesium found exceeding the drinking water standards. Chloride and calcium concentration also found to be high in one well out of three monitored. Bore well samples taken from neighbouring agricultural land was found to be within the drinking water standards except TDS concentration. The Bore well in Agricultural land located behind respondent unit also observed light smell. Total dissolved solids, Total alkalinity & Hardness and Magnesium found exceeding the drinking water standards.

As per the report of Department of Agriculture vide letter No. D8/124/Pollution/2022 dated 15.02.2022, the borewell water samples are categorized C3S1, which is High salt content and low sodium content i.e., this water is suitable for many types of soils and crops in normal conditions. If this water is used for heavy soils, shall be cultivated within a short period of time to obtain crops & while giving water moisture shall provide proper drainage facility. Abundant quantity water is necessary to improve physical condition of the soil and for high production.

As per the report of Department of Agriculture vide letter No. D8/124/Pollution/2022 dated 15.02.2022, it states that the soil is not affected and

can be used for cultivation hence, it is recommended that the bore water can be used for irrigation with reclamation measures and soil can be useful for cultivation.

iii. Compensation on account of Loss of Soil fertility due to ground water contamination in Applicant land:

As per the bore well monitoring dated 03.02.2022, it is confirmed that slight contamination and high TDS, Total Hardness, Alkalinity and Magnesium. In the year 2019, the agricultural department also certified that the bore well water is not fit for cultivation purpose. The applicant also informed that since no crop is cultivated due to contamination, during committee visit no standing crop was observed in the applicant land, but standing crop was observed in neighbour agricultural land, the water used in that land also collected and observed that except TDS, other parameters were found within permissible limit. Hence, Committee felt to calculate the crop loss due to ground water contamination in applicant land, the following data was obtained from the agricultural department to calculate the compensation to applicant;

The applicant Land: 3 acres

Crops cultivated: Paddy, Cotton

No of Crops per year: Paddy (2 Crops), Cotton (1 Crop)

Crop yield per Acre: Paddy – 4028 Kgs/ Acre / Year, Cotton – 584 Kgs/Acre/Year

Minimum Support Price: Paddy (Rs. 1881=00 per quintal avg);

Cotton (Rs. 5800=00 per quintal avg)

No of years of non cultivation in Applicant land: 10

Compensation to be paid to the Applicant:

For Paddy: Hence, Average for 1 year for 3 acres: Rs.2,27,300.04

For 10 years period (As sought by the applicant): Rs. 22,73,000.40

For Cotton: Hence, Average per 1 year: Rs. 1,01,616.00

For 10 years period (As sought by the applicant): Rs. 10,16,160.00

The committee observed paddy cultivation adjacent to applicant land, hence committee considered paddy crop for compensation, accordingly compensation towards crop loss is worked out is Rs 22,73,000.00.

The detailed calculation of crop loss compensation is enclosed as **Annexure - 10**

iv. Environmental Compensation on account of non-compliances:

The Committee observed major violations of M/s Hindys Lab and the same is recorded in the section 7A. As per the complaint received from the applicant, TSPCB has reviewed the industry on 06.11.2020 and issued directions vide order dated 18.11.2020 and also forfeited Bank Guarantee of Rs.2 Lakhs.

The Board has issued directions to the industry vide order dated: 18.11.2020 observed non compliances for 28 days of period from 18.11.2020 to 15.12.2020. The Board has inspected industry to verify the compliance in connection with CFO (Phase-I) and non compliance observed for a period of 308 days from 17.02.2021 to 20.12.2021. Total days of non-compliance of the industry observed are 336 days.

Hence, the Committee opines to calculate EC as per CPCB formula:

$$EC = PI \times N \times R \times S \times LF$$

Where,

EC = Environmental Compensation in INR

PI = Pollution Index of Industrial sector (**Red – 95**)

N = Number of days of violation took Place (date on which non compliance observed and to till date of rectification)

R = A factor in Rupees for EC (Rs. **250/-** may be assumed)

S = Factor for scale of operation (Large – **1.5**)

LF = Location factor (the unit is located in Veliminedu village, Nalagonda District and population is less than 10 lakh = **1**)

- a. Pollution Index of Industrial sector (PI): TSPCB has categorised this industry into red- large category, average pollution index is **95**.

- b. Number of days of violation (N): **336**. The number of days for which violation took place is considered as the period between the day of violation observed and day of compliance verified by the TSPCB/CPCB. As per the records of the unit, 336 days is considered of period of violation for estimating EC.
- c. Scale of operation (S): The industry is considered as large, thus scale of operation (S) for EC estimation is considered as 1.5.
- d. Location factor (LF): The industry is located in Veliminedu village, Nalgonda District and the total population within village boundary and up to 10 km distance from the municipal boundary of the city is less than 1 million. Thus location factor (LF) is considered as 1 for EC estimation.
- e. Factor in rupees (R): As per the environmental compensation estimation guidelines factor of rupees may be minimum of Rs 100/- and maximum of Rs. 500/-. The factor of rupees is considered as Rs. 250/- for estimating environmental compensation for this industry, considering its pollution potential

Period of non-compliance	PI	S	LF	R (Rs)	N (Days)	Environmental compensation
18.11.2020 to 15.12.2020 & 17.02.2021 to 20.12.2021	95	1.5	1.0	250	336	Rs.1,19,70,000/-

- v. **Total EC recoverable on account of Loss of Soil fertility due to ground water contamination in Applicant land and Non compliance from Respondent unit:**

Compensation on account of loss of crop:

For Paddy: Rs. 2273000.00

Compensation on account of non compliance: Rs.1,19,70,000/-

Total compensation recoverable: Rs.14243000.00/-

The unit shall pay compensation for Paddy Crop Rs. 2273000.4 to the applicant for causing loss of crop and EC of Rs.1,19,70,000/- to CPCB/TSPCB for non-compliances observed by the committee.

8. Mitigations/suggestions to prevent the pollution caused:

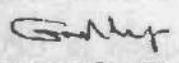
- ✓ As per the conditions of EC and CTO, respondent unit is required to install online monitoring system to stack attached to Boilers and also to make provision of HCl monitoring including online monitoring in the process vent.
- ✓ To take immediate steps for upgradation of ETPs provided to treat Low TDS and High TDS and to take third party (preferable NEERI) assessment of the same to ensure the adequacy to achieve ZLD system.
- ✓ To install Electromagnetic flow meters with rate of flow and cumulative flow at inlet of RO Feed, RO permeate and RO reject generated, separate flow meter for accountability of RO permeate utilised in the process/utility, Flow meter for RO reject taken to MEE. Similarly, Flow meter for MEE feed, MEE condensate generated and feeder to ATFD and to connect all flow meters to TSPCB server. The flow meter at RO Feed, Reject taken to MEE, MEE feeder and ATFD feeder flow meter, PTZ camera with night vision to CPCB server to ensure the operation of ZLD system.
- ✓ To take immediate steps to upgrade the control measures installed in process vent to reduce the VOC emissions and also to improve the efficiency of solvent recovery system as well as to upgrade the control measures provided. The same shall be assessed by the third party (preferable NEERI/IICT) to ensure no odour shall be reported by the surrounding people.
- ✓ A detailed study on the issue of ground water contamination in and around the respondent unit of M/s. Hindys Laboratory Pvt., Ltd., in Veliminedu Village should be carried out by the National Geophysical Research Institution, Hyderabad to address the grievances of the applicant and other farmer regarding ground water contamination and to take follow up action by the TSPCB. The study should be completed by NGRI within six months. The cost of the study

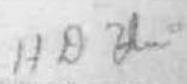
should be given by the M/s. Hindys Laboratory Pvt., Ltd., since the unit has taken modification after taking over the earlier management.

- ✓ The committee opines that bore well water from applicant land can be withdrawn for industrial purpose in order to reduce the contamination.

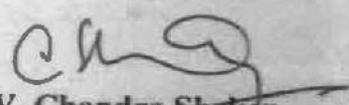
By considering the above facts and observation of the joint committee, the Hon'ble Tribunal may pass appropriate order(s) as deemed fit.

Signature of Committee Members:


Sh. G. Hanumantha Reddy
 JCEE, TSPCB, Zonal Office
 Ramachandrapuram,


H D Varalaxmi
 Regional Director- Chennai,
 Central Pollution Control Board


Dr. E. Arockia Lenin
 Scientist C, IRO, MoEF&CC,
 Hyderabad


Sh. V. Chandra Sheker
 Additional Collector & Additional
 District Magistrate, Nalgonda



sravan kumar <advsravan@gmail.com>

Documents in OA No. 15 o 2022, Gummi Narendar Reddy Vs Uol

1 message

sravan kumar <advsravan@gmail.com> Thu, Jan 26, 2023 at 7:25 PM
To: yasmeen ali <hyasmeenali@gmail.com>, Sai Krishnan <lawsbi@gmail.com>,
"K.S.Viswanathan" <kodivishi@yahoo.co.in>, Dayana Joshwa <dayanajoshwa@gmail.com>,
"Judicial Section, NGTSZ" <judicial-ngtsz@gov.in>, "Kuna,Suryanarayana"
<kuna.suryaifs@gmail.com>

Sir and madam

Kindly find the attached documents filed in the above case.

with regards

Sravan Kumar
Advocate for Applicant
9811237009

 **Documents in OA No. 15 of 2022.pdf**
12968K