

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

M.A. No. 70/2023
In
Original Application No. 105/2023

ML Dhiman

Applicant

Versus

Union of India & Ors.

Respondent(s)

Date of hearing: 15.10.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondents: Mr. Raj Panjwani, Senior Advocate with Mr. Shikher Deep Aggarwal, Mr. Faisal Sherwani, Mr. Aditya Vikram & Ms. Sanjukta Kaushik, Advs. for R
- 3
Ms. Sunieta Ojha, Adv. for Punjab PCB
Mr. Naveen Kumar, Adv. for MoEF & CC

ORDER

1. This M.A. has been registered on the basis of the report filed by the Joint Committee in pursuance to the order of the Tribunal dated 16.03.2023 passed in O.A. No. 105/2023.

2. In O.A. No. 105/2023, the grievance was against discharge of industrial chemical effluents by the project proponent-AKUMS Life Science Ltd., village Sundran, Tehsil Dera Bassi, District Mohali, Punjab and the allegation was that it had led to death of many animals and had become a source of diseases.

3. The Tribunal by order dated 16.03.2023 while disposing of the OA had directed the State PCB and District Magistrate, Mohali to jointly look

into the matter particularly with reference to mode of disposal of effluents as per Consent to Operate (CTO) and take remedial action following due process. The said Joint Committee was required to submit the report before the Registrar General of the Tribunal within two months and it was further directed that if found necessary the matter will be listed for consideration before the Bench.

4. In terms of the above direction, the State PCB submitted the action taken report on 11.05.2023 based on which the present M.A. was registered. The Tribunal had considered the report of the Joint Committee submitted through State PCB and on 01.09.2023 had found certain contradictions therein. Accordingly, the notices in the M.A. were issued. The State PCB had filed the report dated 22.01.2024 which was duly considered by the Tribunal in the proceedings dated 25.01.2024 and certain anomalies were noted therein. Therefore, the State PCB was directed to file a fresh report. The Tribunal on 05.04.2024 had considered the report so filed and had constituted a joint Committee with a direction to the Committee to visit the site, collect all the information relating to the compliance of requisite norms by the project proponent and submit the report before the Tribunal.

5. The Joint Committee has filed the report on 15.07.2024 and has found that the unit was substantially complying with all the norms. The Joint Committee accordingly made the following suggestions:

- “1. It is suggested to the industry that they shall carry out a detailed ground water monitoring of the unit area by reputed institutions to assess the ground water quality.*
- 2. The unit shall improve proper operation & Maintenance of the ZLD based ETP system so as to achieve the norms and further to extent possible reuse/recycle in the system.*
- 3. The unit shall install pressure gauge device at filtration system of ETP as well as STP to check the performance of filters and avoid chocking.*

4. *The unit shall be made proper approach to reach STP units i.e. Flocculation Tank, Bio-reactor (MBBR Tank), Clarifier and Surge Tank.*
5. *The unit shall enhance the capacity of mechanical sludge dewatering system to reduce the volume and weight of the ETP sludge.*
6. *The unit shall ensure regular maintenance and operation and calibration of the online system so as to obtain continuous accurate results.*
7. *The unit shall make proper furrows and ridges for the developed plantation area as per Karnal Technology.”*

6. Responding to the above suggestions, the additional counter Affidavit dated 11.09.2024 has been filed by Respondent No. 3-Project Proponent. Learned Counsel for Respondent No. 3 has pointed out that so far as the suggestions at serial no. 3, 4, 6 and 7 are concerned they have already been complied with and in respect of other suggestions Respondent No. 3 has initiated action. The additional Affidavit dated 11.09.2024 filed by Respondent No. 3 reflects the compliance of the suggestion of the Committee as under:-

“xxx.....xxx.....xxx

8. *On last date of hearing i.e., 15.07.2024, the Respondent No. 3 had received the report and accompanying Suggestions submitted by the committee. The Respondent No. 3's plant operates on a Zero Liquid Discharge (ZLD) concept, ensuring that no processed water is released onto the ground. As stated in the report:*

“Para 13: At the time of visit, committee observed that no effluent is being discharged outside and hence claimed as Zero Liquid Discharge (ZLD).”

The Respondent No. 3, as a responsible organization committed to environmental protection, hereby formally accepts all the Suggestions provided by the committee. That in response to the specific suggestions made by the committee, the Company states as follows:

8.1 Ground Water Monitoring: Respondent No. 3 is actively addressing the concern of ground water quality in the unit area. To this end, we have initiated a comprehensive ground water survey in collaboration with Indian Institute of Technology (IIT) Ropar to conduct a

thorough assessment of the ground water quality in our operational area. A Joint Research and Development (R&D) project agreement has been finalized and executed between IIT Ropar and Pure and Cure Healthcare Pvt. Ltd. on August 5, 2024. This collaboration aims to provide an independent and scientifically rigorous evaluation of the ground water conditions. The survey is designed to be comprehensive, covering various aspects of ground water quality and potential impacts from industrial activities. While the exact timeline for the completion of the survey is subject to the research protocols established by IIT Ropar, we anticipate receiving preliminary results within the next few months. A copy of the Joint R&D project agreement with IIT Ropar is annexed herewith, and marked as ANNEXURE R3/5.

8.2 Operation & Maintenance of ZLD Based ETP System: Respondent No. 3 is enhancing its Zero Liquid Discharge (ZLD) based Effluent Treatment Plant (ETP) system by replacing the Ultra Filtration Membrane and installing a new Reverse Osmosis membrane by September 30, 2024. These upgrades are projected to improve removal efficiencies as follows:

- a) Total Dissolved Solids (TDS): from 81.95% to 90%
- b) Chemical Oxygen Demand (COD): from 79.91% to 90.95%
- c) Biological Oxygen Demand (BOD): from 87.12% to 88.92%

Post-upgrade, the output COD is expected to be below 130 mg/I (limit: 250 mg/I), and BOD will be significantly under the 30 mg/1 limit. These improvements demonstrate our commitment to surpassing environmental compliance standards.

8.3 Gauge Device: Respondent No. 3 has taken measures to improve monitoring and control of its water treatment systems by installing pressure gauge devices at the filtration systems of both the Effluent Treatment Plant (ETP) and the Sewage Treatment Plant (STP). The installed pressure gauges have a least count of 0.1 Kg/cm² and a range of 0-7.0 kg/cm², enabling us to maintain the required pressure for optimal filtration performance. This installation demonstrates our commitment to precise monitoring and efficient operation of our treatment facilities. For verification purposes, we have attached photographic evidence of the installed pressure gauges and their corresponding calibration certificates. The copies of photograph of an installed pressure gauge, along with its respective calibration certificate are annexed herewith, and marked as ANNEXURE R3/6 (Colly).

8.4 Approach to STP Units: Respondent No. 3 has implemented significant improvements in its wastewater treatment processes. Previously, domestic sewage was treated in the effluent treatment plant along with low TDS/COD streams and MEE condensate, with the treated

water being recycled for use in the boiler and cooling tower. Following recommendations from the Punjab Pollution Control Board (PPCB), we have installed a state-of-the-art. Treatment Plant (STP) dedicated to treating sewage separately. This treated water is now being reused for plantation purposes, aligning with our commitment to water conservation. The joint team (MOEF and CPCB) observed that the approach to the STP tank was suboptimal, hence Respondent changed the staircase which is comfortable and safety complied. To illustrate these changes, we have attached the old and new water balance diagrams. The copies of old and new water balance diagrams, along with an explanation, and the copies of pictures of staircase and ladder are annexed herewith, and marked as ANNEXURE R3/ 7 (Colly).

8.5 Enhancement of Mechanical Sludge Dewatering System: Respondent No. 3 is proactively improving its sludge management processes. We are currently consulting with experts to identify state-of-the-art technologies to enhance our mechanical sludge dewatering system's capacity. Our existing multi-screw disc sludge dewatering system produces ETP sludge with 30 to 35% moisture content. To further reduce the volume and weight of this sludge, we are exploring suitable sludge dryer options. We have committed to installing a new sludge dryer by March 31, 2025. The timeline accounts for the equipment's supply time of approximately four months. This upgrade is expected to significantly reduce the sludge's moisture content, thereby decreasing its volume and weight and improving our overall waste management efficiency. The copies of details of the proposed equipment are annexed herewith, and marked as ANNEXURE- R3/8 (Colly).

8.6 Maintenance and Calibration of Online Systems: Respondent No. 3 is diligently following the calibration schedule recommended by the equipment manufacturer for its Online Continuous Emission Monitoring Systems (OCEMS). These systems undergo annual calibration by the Original Equipment Manufacturer (OEM) as per their guidelines. We maintain a comprehensive record of all calibration certificates, which are readily available for inspection by Punjab Pollution Control Board (PPCB) and Central Pollution Control Board (CPCB) officials during their site visits. Furthermore, these calibration certificates are regularly submitted as part of our six-monthly reports to the Ministry of Environment, Forest and Climate Change (MoEF). To demonstrate our compliance with these calibration requirements, we have attached the most recent calibration certificates. The copies of calibration certificates are annexed herewith, and marked as ANNEXURE R3/9 (Colly).

8.7 Furrows and Ridges in Plantation Area: Respondent No. 3 has made significant progress in implementing Karnal Technology for efficient plantation and water conservation. We

have already successfully developed 1.5 acres of green belt using this technology, which includes the creation of proper furrows and ridges. Building on this success, we are committed to extending the Karnal Technology to the majority of our feasible plantation areas. Our plan is to complete this expansion by September 30, 2024, after the monsoon season concludes. This timeline allows us to take advantage of optimal planting conditions while ensuring the effectiveness of the technology. To provide visual evidence of our current implementation and future plans, we have attached relevant photographs and documentation. A copy of photographs of the implementation of Karnal Technology is hereby annexed, and marked as ANNEXURE R3/10.”

7. On the perusal of the report of the Joint Committee, we find that there is some anomaly in respect of the compliance in the norms of ZLD by Respondent No. 3. The steps which have been initiated by Respondent No. 3 for compliance of the suggestions given by the Joint Committee are also required to be monitored and ascertained that the suggestions are fully complied with. Hence, we dispose of the M.A. directing the State PCB to inspect the Respondent No. 3 unit in the Month of March 2025 and submit the Report before the Registrar General of the Tribunal by 30th April, 2025 disclosing the compliance of the suggestions given by the joint Committee and the status of ZLD in the unit.

Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

October 15, 2024
M.A. No. 70/2023 in OA No. 105/2023
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