

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE
BENCH AT CHENNAI**

Appeal No. 68 of 2021

BETWEEN:

1. M/s. Sri Mahalakshmi Hatcheries
Represented by its proprietor
Mr. D. Sagar Reddy
S/o D. Venkata Ramana Reddy
Office at Srinivasa Satram, Kothapatnam Village,
Kota Mandal, Sidavaram Post,
Nellore - 524 411
Email: sagar.duvvuru@gmail.com
Ph +91 8978374567
2. Mr. Pernati Shyam Prasad Reddy
S/o Pernati Chenchurama Reddy
Residing at Allampadu Village, Molanganuru ost,
Kota Mandal, SPSR Nellore District
Andhra Pradesh - 524 411
Email: syampernati@gmail.com
Ph 91 9449275554

... Appellants

And

1. State Environment Impact Assessment Authority (SEIAA)
Represented by its Chairman
No.33-26-14, D/2 Near Sunrise Hospital,
Pushpa Hotel Centre,
Chalamvari Street, Kasturibaipet,
Vijayawada 520010,
Email: chairman@appcb.gov.in
Ph 0866 2463200.
2. Andhra Pradesh Pollution Control Board
Represented by its Member Secretary,
D.No.33-26-14, D/2 Near Sunrise Hospital,
Pushpa Hotel Centre,
Chalamvari Street, Kasturibaipet,
Vijayawada 520010,
Email: membersecy@appcb.gov.in
Ph 0866 2463200.
3. M/s. Divi's Laboratories Limited
Represented by its Managing Director
303, DIVIs towers,
Cyber Hills, Gachibowli,
Hyderabad 500 032.
Email: mail@divislaboratories.com
Ph +91 40 23786300

... Respondents



ADDITIONAL AFFIDAVIT FILED ON BEHALF OF THE 3RD RESPONDENT

I, K. Subba Rao, aged about 57 years, representing the answering respondent, having office at 1-72/23(P)/DIVIS/303, Divi Towers Cyber Hills, Gachibowli, Hyderabad, Telangana, 500032, India, having temporarily come down to Chennai, do hereby solemnly affirm and sincerely state as follows:

1. I am the General Manager (erstwhile Deputy General Manager) of the answering Respondent herein and as such well acquainted with the facts of the case and competent to swear to the present Affidavit.
2. I state that during the hearing on 02.09.2022, this Hon'ble Tribunal heard brief submission on behalf of all parties and is setting out the factual position. The answering respondent seeks to provide its response to each of these issues hereinbelow:

A. The significant steps in the approval process.

- i. The answering respondent states that Environmental Impact Assessment (EIA) studies was carried out by M/s. Ramky Enviro Services Pvt Ltd., an accredited EIA consultant by National Accreditation Board for Education and Training (NABET), Quality Council of India (QCI), Ministry of Environment Forest and Climate Change (MoEF&CC), for its manufacturing unit.
- ii. The Marine Environmental Impact Assessment ("Marine EIA") Studies were also carried out by Indomer Hydraulics (P) Limited, Chennai which is an empanelled accredited body of the MOEF&CC along with Indian Remote Sensing (IRS), Anna University, Chennai as an authorised agency of Ministry of Environment, Forests and Climate Change for demarcation of Coastal Regulation Zone (CRZ) area including High Tide Line (HTL), Low Tide Line (LTL) duly superimposing the activities on the map of approved Coastal Zone Management Plan (CZMP) who examined the environmental and social impacts and proposed the mitigation measures for identified impacts.



- iii. The answering Respondent had submitted an online application along with EIA report in Parivesh portal on 01.07.2020 for obtaining Environmental Clearance (EC) from State Level Expert Appraisal Committee / State Environment Impact Assessment Authority (SEAC/SEIAA), Andhra Pradesh (AP) for the proposed bulk drug manufacturing unit at Kota Mandal, Nellore, AP (hereinafter referred to as the "*proposed bulk drug manufacturing unit*"), under the B2 project category as per the OM released by MoEF & CC, Government of India vide its notification in S.O. NO. 1223(E) dated 27.03.2020 and Office Memorandum dated 13.04.2020 issued by MoEF & CC, wherein "*All proposals for projects or activities in respect of Active Pharmaceutical Ingredients (API), received up to the 30th September 2020, shall be appraised, as Category 'B2' projects provided that any subsequent amendment or expansion or change in product mix, after the 30th September 2020, shall be considered as per the provisions in force at that time*" were extended further with various amendments.
- iv. The answering Respondent had further submitted an application along with the Marine EIA Report on 25.08.2020 to Andhra Pradesh Costal Zone Management Authority (APCZMA) for CRZ Clearance (CRZ - NOC) for Discharge of Treated effluent by laying of treated effluent discharge pipeline for the Proposed Bulk Drug Manufacturing unit. It is relevant to state that as per the CRZ Notification rules 2011, the CRZ clearance is required to lay the pipeline for discharge of Treated effluent into Sea after meeting sea discharge standards.
- v. As such, the answering Respondent submitted an application on 26.09.2020 for obtaining Consent for Establishment (CFE - NOC) from Andhra Pradesh Pollution Control Board (APPCB) for Marine Outfall to discharge treated effluent by laying of treated effluent discharge pipeline for the proposed bulk drug manufacturing unit



since the same is a pre-requisite as per the CRZ Notification rules, 2011.

vi. Consequent to the application, APPCB had conducted a CFE meeting via Video Conference on 30.09.2020 and the agenda circulated by APPCB Project titled "*M/s. Divi's Laboratories Limtied, Krishnapatnam Industrial Area (KIA), Kothapatnam Village, Kota Mandal SPSR Nellore District - NOC/CFE for laying pipeline to discharge treated wastewater through marine outfall*" was considered. The following were the Committee Members:

1. Chairman Sri B.S.S. Prasad, IFS APPCB Vijayawada, with following members and officers of PCB Members.

2. Dr. V.V. Narayana Reddy, Deputy Director (Scientist), (Retd.), CSIR-Indian Institute of Chemical Technology, Hyderabad.

3. Dr. V. Ranga Rao, Dept of Civil Engineering, K.L University, Guntur.

4. Dr. A. Gangagni Rao, Senior Principal Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad.

The following officers of APPCB were also present:

5. B. Siva Prasad, JCEE (UH-1)

6. K. Sree Rama Murthy, SEE (UH-1)

7. PVBLG Sastry, EE (UH-1)

8. A. Sujala, AEE (UH-1)

Along with the above committee members, APPCB Regional Office, Executive Engineer had also joined the meeting.

vii. During the meeting, the above APPCB officers placed all the representations and letters from various stakeholders, remarks from the Fisheries Department, All India Shrimp Hatcheries Association, Joint Committee report dt. 07.03.2020, representations from nearby Hatcheries, suggestions from APPCB Regional Office, Executive Engineer for discussion before the APPCB Committee members and the answering Respondent for suggestions and recommendations.



viii. Based on the above, the Committee members suggested the answering Respondent to provide clarifications on the remarks of the RO and Joint Inspection Report. Accordingly, a detailed presentation about the proposed project and clarifications as sought for were given. Further, the Regional Office, Executive Engineer requested the committee members to conduct a review meeting with All India Shrimp Hatcheries Association. After detailed discussions, the committee recommended that *"A meeting shall be convened with the President and Secretary of All India Shrimp Hatcheries Association, Members of the joint inspection committee and representatives of the industry before the CFE committee to discuss the above issue and to take a decision. The EE RO Nellore shall coordinate for the meeting."* The minutes of this meeting dated 30.09.2020 is filed herewith.

ix. Accordingly, APPCB conducted another online CFE meeting via Video Conference on 22.10.2020 and the agenda circulated by APPCB Project *"M/s Divi's Laboratories Limited, Krishnapatnam Industrial Area (KIA), Kothapatnam Village, Kota Mandal SPSR Nellore District - NOC/CFE for laying pipeline to discharge wastewater through marine outfall"* was considered and placed as Item no. 25. The following were the Committee Members:

1. Chairman Sri B.S.S. Prasad, IFS APPCB Vijayawada, with following members and officers of PCB Members.
2. Dr. V.V. Narayana Reddy, Deputy Director (Scientist), (Retd.), CSIR-Indian Institute of Chemical Technology, Hyderabad.
3. Dr. V. Ranga Rao, Dept of Civil Engineer, K.L University, Guntur.
4. Dr. A. Gangagni Rao, Senior Principal Scientist, CSIR-Indian Institute of Chemical Technology, Hyderabad.

The following officers of APPCB were also present:

5. B. Siva Prasad, JCEE (UH-1)
6. PVBLG Sastry, EE (UH-1)



7. A. Sujala, AEE (UH-1)

- x. As per the recommendations in the earlier CFE Committee meeting held on 30.09.2020, the concerned representatives of the All-India Shrimp Hatcheries Association, Members of Joint Inspection Committee and the answering Respondent's representatives were invited to participate in the CFE Committee meeting through Video Conference. It is pertinent to note that the Joint Director - Fisheries, the Deputy Director - Industries Department, and representatives of the All-India Hatcheries Association including the Appellant, Mr. D. Sagar Reddy attended the meeting through video conference from Regional Office Nellore, APPCB.
- xi. During meeting, APPCB requested all stakeholders to place their remarks on the proposed industry to the Committee members and the answering Respondent's representatives. The answering Respondent provided clarifications on the remarks, explained about the marine discharge process, and provided the basis to demonstrate to the committee members and stakeholders that there is no scope for any pollution due to the manner the effluent treatment and discharge has been proposed and that they shall follow all the procedure stipulated in the APPCB Marine discharge SOP and discharge the treated water which is essentially saline water, after meeting the sea discharge standards stipulated by APPCB and CPCB/ MOEF&CC in presence of APPCB officials. All of the other effluent / discharge would actually be sent to the TSDF. Hence, there are no impacts to environmental due to the proposed bulk drug manufacturing unit.
- xii. Based on the remarks represented by the above stake holders, APPCB chairman provided detailed clarification about Antibiotics not being present in the processed aqua products, APPCB SOPs for marine discharge, Dilution factor of treated waste water in the



sea by the answering Respondent, Periodic Assessment of National Institute of Oceanography (NIO), Council of Scientific & Industrial Research, Ministry of Science and Technology, Govt of India for detail study the impacts of coastal areas due to the Industries treated effluent discharge by APPCB in Andhra Pradesh. In addition to the above, the Chairman also stated that *"The Industries Department is competent to declare specific areas for specific type of industries Ex: GOs issued by the Industries Department, A.P., restricting red category industries around M/s. KIA Motors, Anantapuram district. The APPCB will permit only such industries in the designated areas. Then there will not be any apprehension among the people or farmers. So far, the industries department of A.P. not yet declared this area for restricting certain types of industries."*

- xiii. Further, the Committee observed that the proponent (the answering Respondent) requires the approval from APCZMA, which comprises of about 14 members of higher level officials and domine expert scientists of Government i.e., Principal Secretary to Government (or) Special Commissioner (Disaster Management); Principal Secretary to Government (or) Commissioner of Fisheries, Fisheries Department; Principal Secretary to Government (or) Commissioner of Industries, Industries & Commerce Department, experts from different fields etc. where the apprehensions expressed by the hatcheries' association will also be examined.
- xiv. After detailed discussions, the committee recommended to issue NOC to the project proponent (the answering Respondent) for establishment of marine outfall, after duly considering the apprehensions received from All India Shrimp Hatcheries Association and the Joint Inspection report of the officials of various departments, submitted to the District Collector and



magistrate, SPSR Nellore Districts. The minutes of this meeting dated 22.10.2020 is filed herewith.

- xv. Subsequently, APPCB issued the CFE – NOC on 28.10.2020 to the answering Respondent for Marine Outfall to discharge of Treated effluent by laying of treated effluent discharge pipeline for its Proposed Bulk Drug Manufacturing unit. A copy of the CFE NOC dated 28.10.2020 is filed herewith.
- xvi. The answering Respondent thereafter, submitted a copy of the CFE NOC issued by the APPCB to APCZMA for considering its CRZ Clearance NOC application already submitted on 25.08.2020. Moreover, based on the EC application submitted by the answering Respondent to SEIAA, AP on 01.07.2020, the proposal was appraised in the SEAC meeting held on 09.12.2020, and in SEIAA meeting held on 15.12.2020. The SEIAA referred the proposal to SEAC to examine the proposal after the receipt of CRZ clearance (NOC from APCZMA).
- xvii. Consequently, APCZMA conducted a CRZ NOC meeting via Video Conference on 30.12.2020 and the agenda circulated by APCZMA Project titled "M/s Divi's Laboratories Limited, Krishnapatnam Industrial Area (KIA), Kothapatnam Village, Kota Mandal SPSR Nellore District – CRZ NOC for laying of outfall pipeline to treated effluent marine discharge" was considered and placed as Item no 1. All aspects of the project are contained herein. A copy of the APCZMA meeting agenda and minutes of the meeting dated 30.12.2020 are filed herewith. The answering Respondent states that the Chairman, APCZMA initiated the discussion on the projects included in the agenda and the Chief Environmental Engineer (FAC) of APPCB explained the details of projects included in the agenda. All the members of CZMA and representatives of the project proponent participated in the meeting through video conference. After detailed deliberation on



the agenda, the Chairman opined those comments/suggestions on each project may be obtained from the Members of APCZMA for taking suitable decisions. The members of APCZMA communicated the comments/suggestions on each agenda items.

- xviii. The answering Respondent's Project was listed as Item no. 1 in the agenda. As per the list, APCZMA members and Chief Environmental Engineers of APPCB had discussed the details of the projects as per the Marine EIA study report information provided on the agenda, APCZMA members had also noted that the answering Respondent has obtained the CFE - NOC from APPCB vide order dated 28.10.2020 and has applied for EC under B2 Category to SEIAA, AP. The members of APCZMA considered the CFE NOC issued by APPCB and discussed the remarks and suggestions of the APPCB Chairman. Further, the Technical team of M/s. Indomer Hydraulics (P) Limited, Chennai also explained the identified impacts of the project on the environment and mitigations suggested to industry. The APCZMA members further discussed about the Marine Impacts identified and Proposed mitigation measures as per the Marine EIA and further noted that the studies show that the impacts due to the discharge of treated effluent from the industry on the marine environment would be insignificant. Hence, it recommended that the treated effluent from industry can be discharged into the open sea after meeting Marine Discharge Standards.
- xix. After examining all remarks, comments/suggestion received from the members, the Authority decided to send the recommendation of No Objection to SEIAA, AP regarding the proposal of the answering Respondent for discharge of treated effluent (1727 KLD) by laying of treated effluent pipeline under CRZ Notification 2011 with specific and general conditions.



- xx. Thereafter, APCZMA issued the CRZ NOC clearance on 04.02.2021 and communicated the same to SEIAA AP, for the Respondent's proposed bulk drug manufacturing unit – Proposal for discharge of treated effluent (1727 KLD) by laying of treated effluent discharge pipeline. A copy of the APCZMA CRZ NOC dated 04.02.2021 is filed herewith.
- xxi. Based on the APCZMA communication to SEIAA on the CRZ NOC clearance issued to the Respondent, the EC Application of the Respondent was considered during the SEAC Meeting held on 04.03.2021 and 05.03.2021. The Respondent and the Consultant Ramky Enviro Services Pvt. Ltd. provided a detailed presentation on Environmental Impact Assessment, Identified Impacts and mitigation impacts, risk assessment study and detailed Environmental Management Plan. The SEAC Committee examined the EIA Report, Environmental Management Plan (EMP), Prefeasibility report, Information in FORM – 1 and Form – 2 provided by the Respondent. The Committee noted the CRZ clearance from APCZMA vide letter No.223/CRZ/IND/2020 dt. 04.02.2021 issued the NOC for proposal for discharge of treated effluent 1727 KLD into the SEA through proposed pipeline.
- xxii. The Committee, only after examining the project proposal, presentations, MOEFCC Office Memoranda, APCZMA recommendations and detailed deliberations, recommended for issuance of Environmental Clearance to the Respondent, for its proposed project to manufacture of Bulk Drug and intermediates for the production quantity - 10483 TPM and for issuance of CRZ Clearance for the proposal to discharge of treated effluent - 1727 KLD into sea through a proposed pipeline. A copy of the minutes of the SEAC meeting dated 04.03.2021 and 05.03.2021 is filed herewith.



xxiii. It was based on the recommendation from SEAC, the Respondent's proposal was considered by SEIAA in its meeting held on 20.06.2021. The committee noted that the Respondent had submitted all the required documents, including CRZ clearance letter dated 04.02.2021 issued by the APCZMA. After detailed discussions, SEIAA agreed to the recommendation of SEAC, AP and recommended issuance of EC to the Respondent. SEIAA issued EC vide Order No. No. SEIAA /AP /VSP /IND /07 /2020 /1971 /157.09 /153.11-318 dated 28.06.2021. A copy of the same is filed herewith.

B. The steps concerning the discharge / effluent treatment and discharge.

1. The pharmaceutical concentration in the effluents is analysed to ensure that the pharmaceutical concentration in effluents is in line with the applicable standards prior to the discharges. The Respondent is allowed to discharge effluent only if the ratio of PEC (Predicted Environmental Concentration) & PNEC (Predicted No Effect Concentration) is less than 1 ppm and those effluents having >1 ppm will be directly subjected to Forced Evaporation Systems.
2. A pre-analysis of treated effluents will be carried both inhouse and externally by PCB Zonal Laboratory for various parameter prior to discharge. The effluents are treated in the sophisticated facilities until it attains the Dissolved Oxygen (DO) concentration of 4ppm as per the notification issued by MoEF & CC Govt. of India. The Marine Outfall Position (MOP) has been designated by considering various parameters like Dispersion Modelling Study, Rate of Dilution and Marine Impact Assessment through MOEF&CC empanelled agency Indomer Coastal Hydraulics Pvt Limited.
3. The answering Respondent has installed Guard ponds with the storage capacity of 7 days of effluent capacity. The treated effluents are stored in guard ponds. In case of any accidents or damage to the



pipeline, the entire discharge process shall be stopped and issue resolved immediately. Further, the guard ponds outlet pumping is under Double lock & key facility. It is relevant to note that the APPCB officials have one key and industry has another key for the locks.

4. The answering Respondent states that effluent will be discharged only during daytime. The treated effluents in the guard ponds is analysed by APPCB officials for its compliance with board norms and after ensuring that the treated effluents are complying with the marine discharge standards prescribed by the board and the discharge into the sea is carried out in the presence of APPCB officials only.
5. Further, Online Pan Tilt Zoom (PTZ) cameras with night vision focusing the guard ponds are installed and connected to the APPCB and CPCB server for 24x7 surveillance. The toxicity study of the treated effluent from effluent treatment plant is an important study carried out at the Respondent's plants as per MOEFCC/CPCB protocol. The answering Respondent states that fish is the primary bio indicator, as they are very sensitive towards pollution and the overall observations of analysed treated effluents show 100% Survival after 96 hrs. This will ensure that the effect of the Respondent's treated effluents discharge on aquatic life is zero.
6. The answering Respondent will install online Continuous Effluent Quality Monitoring System which are connected to APPCB and CPCB for online monitoring to verify status of the treated effluent being discharged. If any non-compliance in the quality of treated effluent is found, this online system triggers a real time alert to APPCB and CPCB for further action on the Respondent. The Zonal office also deputed special teams for inspection and verification of Online Continuous Effluent Quality Monitoring Systems once in a month for all the industries for calibration.
7. The answering Respondent will install a Display board where the data of marine outfall i.e., quantity and quality of treated effluent



discharged through marine outfall, pH, suspended solids (SS) and COD values on a board installed near the main gate for public access. The APPCB has entrusted the project to National Institute of Oceanography (NIO) to assess the impacts of treated effluent generated through the marine outfall from the industries situated in the coastal region and NIO concluded that there is no impact on the marine Ecosystem as evident in APPCB minutes of the meeting dated 22.10.2020.

8. The industry has a dedicated team for Environmental Protection and Management like Environment Health and Safety and Environmental Compliance Division. This team is dedicated towards the Environmental Protection and Safeguard of the industry and surrounding.
9. The industry has a full-fledged Safety system and the Onsite and Off – Site emergency plan is prepared by prior identification of potential hazards in both sites. Emergency Preparedness Plan also prepared with dedicated EHS team as per MSIHC Rules 1989, under Environment (Protection) Act 1986 amended in 2002.
10. The answering Respondent has maintained a blemishless record and is proactive and always upgrades its Onsite and Off-Site emergency plan based on continuous experiences and events globally.
11. The industry's Onsite and Off – Site Emergency plan is audited at regular intervals as an ongoing activity by various stake holders, Clients and Statutory / Regulatory Bodies for Industry Operation and Safety compliance.
12. It is pertinent to point out that the Respondent has a zero-accident record in both the units and an impressive track record of Environment Health and safety (EHS) and achieved various National Awards on Environmental Safety.
13. Recently, the answering Respondent has received The Best EHS Leadership Award by Confederation of Indian Industry – Southern Region (CII-SR) in 2021, SURAKSHA PURASKAR award for Unit - 2



by National Safety Council of India Safety Award – 2021 as “Very good performance in Operational Safety and Health (OSH) during year 2018-20.

14. The answering Respondent has been operating both manufacturing units for more than 20 years without causing any harm to the environment. State PCBs, CPCB and MOEF&CC conducts regular inspections and has not found any non-compliance by the industry. This proves that the answering respondent complies and follows 100% safety measures to comply with the conditions stipulated by State PCBs, CPCB, MOEFCC and other statutory bodies.

C. The possibility of obtaining a ZLD system as other plants of the answering Respondent have ZLD system. Alternatively, looking at discharge on land after treatment.

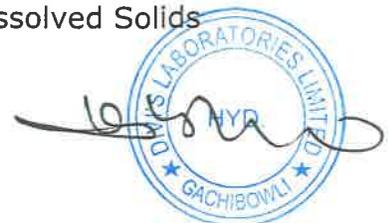
1. At this juncture, it is relevant to explain the effluent treatment process in place at the answering Respondent’s plant. Being one of the pioneers in Pharmaceutical Industry, the answering Respondent always takes responsibility to achieve the sustainable development solution to take care of environment during its operations. The answering Respondent always considers the Best Available Technology (BAT) for its operating industries based on the locations. The answering Respondent presently has two manufacturing facilities, Unit – 1 at Choutuppal Mandal, Yadadri Bhuvanagiri, Telangana and Unit – 2 at Bheemunipatnam Mandal, Visakhapatnam, Andhra Pradesh.
2. As Unit – 1 is in the landlocked location, there is no provision for Sea Discharge. Hence, the answering Respondent has installed World class Zero Liquid Discharge (ZLD) Effluent Treatment Plan (ETP) system. Unit – 2 is located near coastal region and Bay of Bengal is located 1 km in the South East direction and hence, has provision for



Marine discharge. The discharge process is as per MoEF&CC and CPCB guidelines.

3. The answering Respondent is operating two manufacturing units for 20+ years and all the wastewater generated from the manufacturing plant is treated and recycled/reused at the maximum in both units to reduce the freshwater intake. In Unit - 1, superfluous treated water which cannot be reused or recycled is sent to Multi Effect Evaporator (MEE) and Agitated Thin Film Evaporator (ATDF) for converting into Rejected Salts and this salt is further sent to Treatment Storage and Disposal Facility (TSDFs) for Safe disposal in landfill, whereas in Unit - 2, superfluous treated water which cannot be reused or recycled is stored in guard pond and further discharged into Sea after meeting stipulated sea discharge standards by MOEF&CC and CPCB/ APPCB. This treated water contains mixed salts which will gets diluted in few minutes after discharging in sea with the help of Diffuser.
4. Similarly, the effluent from the proposed unit "Marine EIA Study for The Disposal of Effluent into the Sea" studied by Indomer Coastal Hydraulics (P) Ltd, Chennai for the proposed bulk drug manufacturing unit. In this report (as per the MIKE-21 modelling studies) it was reported that the effluent gets diluted to the order of 50 times at 250 metres from the proposed outfall during fair weather. During South - West monsoon and North - East monsoon periods due to combined action of wind and turbulent waves, it is observed that the effluent gets diluted to the order of 50 times within 50 metres from the proposed outfall.
5. In both units, effluent generated from the industry has been categorized in six different streams and specific treatment process for each stream. The six Streams are as below:

- Process High TDS - Effluent with High Total Dissolved Solids



- Process High COD - Effluent with High Chemical Oxygen Demand
- Process High Salts - Effluent with High Salts or NaCl effluent
- Process Low TDS & Low COD - Effluent with Low Total Dissolved Solids and Low Chemical Oxygen Demand.
- Non-Process Low TDS - Effluent with Low Total Dissolved Solids from Boiler, Cooling tower, Demineralization Plant (DM Plant), Raw Water Treatment Plant.
- Domestic Effluent - Effluent from Canteen, Hostels, Washrooms, etc.

6. The answering Respondent states that both units have similar types of effluent treatment process for most of the effluent stream. In both units, the answering Respondent treats all the High TDS and High COD Process effluent in Stripper, MEE and ATFD. Therefore, no process effluent of HTDS & HCOD is discharged into the sea. In both units, Process Low TSD & Low COD effluents are treated in ETP in Physical, Chemical and Biological Process and treated water is recycled and reused into the plant based on requirement.
7. The treatment of High Salts effluent in ATFD in unit - 1 and salts from ATFD is sent to TSDF site for disposal in landfill. Whereas in unit - 2, High salt effluent is treated in neutralization process to meet the sea discharge standard and further discharged into sea after meeting marine discharge standards as this reduced the usage of additional coal /fossil fuel for boiler to generate steam for ATDF and additional ATFD salts generated is avoided as it eventually ends up in Landfill. Further, the process could also cut down the Carbon Emission (CO₂) and Green House Gas (GHG) emission from Unit - 2.
8. Reverse Osmosis (RO) Reject in Unit - 1 is treated in MEE followed by ATFD and rejected salts is sent to TSDF for disposal in landfill, whereas in unit - 2, RO rejects are mixed with excess treated Low TDS water for dilution and discharged into sea after meeting marine discharge standards. This reduces the additional use of MEE & ATFD



treatment therefore, avoiding usage of additional coal /fossil fuel for boiler to generate steam for MEE & ATFD and additional mixed salts generated from both MEE & ATFD which eventually ends up in Landfill. Further, the process also cuts down the CO₂ emission and GHG emission from Unit - 2.

9. Pharmaceutical industry is limited to use recycled water for non-process purpose like Boiler, Cooling towers, floor cleaning, etc., and for Process, respondent use pure De-Mineralized (DM) water to achieve 99.99% purity in Bulk Drug and APIs based on the Current Good Manufacturing Practice (cGMP) Regulation which is followed to comply with various Food and Drug Federal agencies like US Food and Drug Administration (US FDA), European Union (EU GMP), Therapeutic Goods Administration (TGA), Central Drugs Standard Control Organisation(CDSCO) etc.,
10. Therefore, excess treated of low TDS & COD water, which is not reused in the process is sent to MEE and ATFD in unit - 1 and in unit - 2 the same is discharged into sea after meeting Marine Discharge standards stipulated by APPCB & CPCB/ MOEFCC.
11. As it is clear from the above process, the answering Respondent has achieved less usage of Coal/Fossil Fuel for generating additional steam for the boiler to operate MEE and ATFD in Unit - 2 for treatment of excess treated effluent. This results in Unit - 2 generating less CO₂ emission, GHG emission and no additional Mixed salts from the ETP process compared to Unit - 1.
12. The answering Respondent states that treated Low TDS and Low COD water discharged from the Unit - 2 has less salts compared to the salt present in the Sea i.e., (TDS < 30,000 mg/l). Further, the effluent discharge in sea take place at a distance of 1.5 km in 8m depth inside the sea and diffuser is installed for proper dilution as per APPCB SOPs. Therefore, the treated effluent attains the maximum dilution in a short duration and hence, there is no impact to the marine ecosystem.



13. In both Units, the answering Respondent has installed Online Effluent Quality Monitoring System (Online EQMS) for its ETP. This system is connected to State PCBs and CPCB servers for monitoring any deviation in the effluent quality. In case of deviation, the system triggers an alert to both APPCB and CPCB for their attention. Therefore, the industry is under the strict surveillance of all Statutory bodies.
14. Based on the above facts, it can be stated that Unit – 2 ETP System is more environmentally sustainable as compared to Unit – 1 ZLD system. Unit – 2 ETP system generates less Carbon Emission (CO₂), Green House Gas (GHG), reduces the usage of additional electricity and Coal/ Fossil fuel, reduces the additional ETP sludge and mixed salts by discharging the excess treated effluent after meeting the Marine Discharge standards stipulated by APPCB, CPCB and MOEF&CC Government of India.
15. Hence, the answering Respondent has proposed a similar type of approach for the proposed manufacturing unit. In proposed unit, the answering Respondent shall install the Best Available Technology for proposed ETP like MEE followed by ATFD to Treat High TDS and COD effluent and no HTDS, HCOD will be discharged into Sea. Low TDS and COD effluent shall be treated in Primary and secondary treatment and reused in the industry as per the requirement. Superfluous treated water will be discharged to Sea in dedicated marine discharge outlet after meeting the Sea Discharge standard stipulated by APPCB, CPCB and MOEF&CC.
16. A tabulation of the treatment process of both the units and its waste generation is set out hereinbelow:



S. No	Effluent Stream	Treatment Process		Waste Generation		Remarks
		Unit - 1	Unit - 2	Unit - 1	Unit - 2	
1	Process – High COD	Treated in Strippers for Organics Recovery Stripped Effluent further sent to MEE and ATFD	Treated in Strippers for Organics Recovery Stripped Effluent further sent to MEE and ATFD	Organic Residue	Organic Residue	Unit -1 & 2: Sent to Cement Industry for Co-processing
2	Process– High TDS			MEE Salts and ATFD Salts	MEE Salts and ATFD Salts	Unit - 1 & 2: Sent to TSDFs for dispose as per State PCBs Norms
3	Process – High Salt Effluent (NaCl Effluent)	Treated in ATFD	Neutralization Treatment	ATFD Salts	Nil No Hazardous Waste	Unit - 1: ATFD Salts sent to TSDFs for disposal Unit - 2: After Neutralization, discharged into sea, treated water contain salts which is less than the Salts present in the Sea water
4	Process – Low TDS & Low COD	Treated in ETP – Physical, Chemical and Biological Treatment process	Treated in ETP – Physical, Chemical and Biological Treatment process	ETP Sludge	ETP Sludge	Unit - 1: Treated water sent to RO Plant for further treatment, ETP Sludge sent to TSDFs for disposal. Unit - 2: as per requirement, treated water sent to RO Plant for further treatment for reuse and excess treated water discharged into SEA after meeting Marine Discharge Standard, ETP Sludge sent to TSDF for Disposal.
5	Non-Process Low TDS & Low COD	Treated in ETP followed by RO Plant	Treated in ETP followed by RO Plant	ETP Sludge	ETP Sludge	Unit 1& 2: Treated water shall be reused, ETP Sludge sent to TSDFs
6	RO Rejects	Treated in MEE & ATFD	Mix with excess / Non-reusable treated Low TDS and COD water for dilution	MEE Salts and ATFD Salts	Nil No Hazardous Waste	Unit - 1: MEE Salts and ATFD Salts sent to TSDFs for Landfill Unit - 2: After dilution, discharged into sea along with excess treated Low TDS & COD
7	Domestic Effluent	Treated in Sewage Treatment Plant (STP)	Treated in Sewage Treatment Plant (STP)	STP Sludge	STP Sludge	Unit 1 & 2: Treated water reused for Gardening / Greenbelt



17. Some of the identified challenges of the ZLD system are:

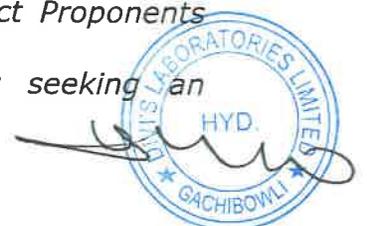
- i. Technology selection: ZLD plants vary from industry to industry. Therefore, technical experts are required for customized design for successful ZLD operations.
- ii. Difficulty in dealing with very complex streams such as petrochemical or pharmaceutical industries.
- iii. Technology short comings i.e., need of integration of suitable technologies to achieve reduce, recycle, recovery, and re-use.
- iv. High Carbon foot print of a ZLD facility is another major concern. The typical power consumption ranges from 8 to 10 kW/m³. The thermal evaporators like MEE and ATFD alone consume about 20-40 kW/m³ which will increase the requirement of additional fuel like Coal to generate additional steam in boiler.
- v. Additional power and fuel requirement for treating in MEE & ATFD of superfluous treated water which will not be reused and forced to convert into salts due to ZLD system.
- vi. ZLD requires usage of higher amount of chemicals in wastewater treatment for treatment to achieve the ZLD process.
- vii. Additional Waste generated in ZLD system like additional MEE Salts, ATDF salts, ETP sludge due to treating of RO rejects, and more chemicals are used to treat the waste water for reusing.
- viii. Backwashing of RO Plants shall also contribute additional Effluent generation to treat in ZLD system.
- ix. Generated MEE & ATFD salts from Pharmaceutical will not be reused due to the complex process. Hence, it will be sent to TSDFs site for safe disposal in landfill.
- x. TSDFs operator will use resources for pre-treatment like use of additional chemicals in Waste Stabilization process for safe disposal in landfill.



- xi. Further, TSDFs have to provide more precautionary steps like impervious liners and reliable monitoring systems are typically required to prevent potential contamination from landfill. This will burden the TSDFs site operators.
- xii. It will also contribute to the additional land requirement for disposing of additional waste in landfill and will spoil the land environment and groundwater quality in India.
- xiii. Landfills are always sleeping monsters, which can contaminate the groundwater especially when the leachate generated from landfill is not treated properly.
- xiv. These generated leachate from landfill will have to be treated in thermal process and again converted into salts and disposed in landfill after treatment and is a never-ending process.
- xv. Due to high risks and consumption of natural resources, which increase the energy consumption, Fuel consumption, transportation for additional waste generation, Chemicals, other risks to operate the complex system, Statutory regulatory bodies are not inclined to adopt ZLD technologies if it is not feasible for a particular industry or process.
- xvi. Implementing the ZLD ETP system for the proposed unit is not a sustainably feasible environmental solution and a hybrid system is adopted.

18. Further, as per the letter dated 29.07.2022, circulated by the Ministry of Chemical and Fertilizer, Government of India, it is not mandatory to install ZLD if the same is not feasible. A copy of the said letter dated 29.07.2022 is annexed herewith. The relevant extract of the letter is reproduced hereinbelow:

- *"In Discussion with MOEF&CC (Ministry of Environment, Forest and Climate Change) and DCPC, the following recommendation are provided to the Industry Association:*
 - *ZLD is not a compulsory condition, Project Proponents (PP) can approach EAC/ MoEF&CC for seeking an*



amendment in EC (Environmental Clearance), if it not feasible for that PP".

19. It is understood that the Industry with ZLD Treatment process can actually achieve the Zero Discharge of treated waste water into the land or River stream/ Local water body for the industry located in landlocked geographical location where there is a chance of contamination of Ground water source due the less dilution factor. On the other hand, ZLD process also contributes additional rejected salts in Landfills, additional use of Fossil fuels for thermal process, additional Green House Gas (GHG) and Carbon emission (CO₂) to the atmosphere. This will prevent India from achieving its pledge on Reduction of total projected Carbon Emissions by One billion Tonnes from now to 2030; Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels; Achieving the target of Net Zero Emissions by 2070 in 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Glasgow, United Kingdom. As on today, India is fourth major contributor of Carbon Emission in the world after China, United States of America (US) and European Unions (EU).

20. With the provision of Sea Discharge, Industry can be allowed to discharge the excess/superfluous treated effluent in to the sea after meeting the standards stipulated by State PCBs & CPCB/MOEFCC, Government of India under CRZ Regulation 2011, the Water (Pollution and Control) 1974 and Air (Pollution & Control) 1981 and Environmental Protection Act 1986 and further amendments instead of burning it in thermal process. This will eventually reduce the generation of additional Rejected/Mixed Salts which are ends in landfill, additional use of Fossil fuel like coal for generating additional steam from Boilers for MEE & ATFD process to treat excess water, which will reduce the GHG emission, Carbon Footprint compare to ZLD process.



21. The answering Respondent submits that it always works to fulfil all stakeholders' policies for better environment and sustainable development of the country. Discharge of Treated effluent is one of the permitted activities as per section 3(i)a, 4(ii) (d), CRZ Rules 2011. The answering Respondent submits that it is in strict compliance with the CZR Rules 2011 and further amendments, Water Act 1974, Air Act 1981 and EPA act 1986. The Respondent has been operating its manufacturing units for more than 20 years without causing any damage to the surrounding environment. The Respondent has also streamlined its objective to safeguard the coastal environment in view of Government of India policies to conserve and protect the unique environment of coastal stretches and marine areas, besides livelihood security to the fisher communities and other local communities in the coastal areas and to promote sustainable development based on scientific principles considering the dangers of natural hazards, sea level rises due to global warming.

Location in Industrial Area

22. The answering Respondent further submits that its proposed unit is surrounded by two developing Industrial Estates/Areas/ Parks. In the North, East, West Directions Krishnapatnam North Industrial Node by Krishnapatnam Industrial City Development Limited, National Industrial Corridor Development and Implementation Trust (NICDIT), Government of India as a part of Chennai Bangalore Industrial Corridor Project (CBIC). In the South direction adjacent to our site upcoming Navayuga Phama City by Krishnapatnam Infratech Limited (KPIL), Industrial area/park proposed specially for Synthetic Organic Chemical Manufacturing Industries, by Government of Andhra Pradesh.

23. Therefore, the site is not located in any eco-sensitive zone or aqua-agriculture zone and is actually located in an Industrial area. Based



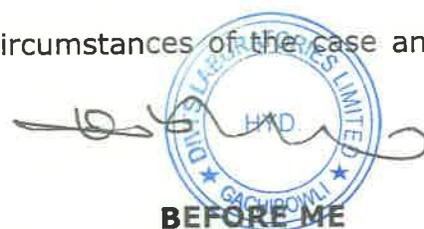
on the site location KML file uploaded by respective industrial estates in Parivesh Portal to obtain Environmental Clearance, the Respondent has prepared a Google Earth Image with marking of proposed industrial area/parks around its unit site as annexed herewith.

24. The Appellants' hatchery sea water intake point is at about 2.2 km from the marine disposal point of the proposed industry. The distance between the proposed site of Respondent & the Appellants' hatchery is about 2.0 km. Two more hatcheries also exist nearer to the Appellants' hatchery which is also located at a distance of about 2.2 Km from the proposed industry site. The remaining hatcheries are located at a distance of about 10 km from the proposed site.

25. As per "Marine Environmental Impact Assessment Study for The Disposal of Effluent into the Sea" studied by Indomer Coastal Hydraulics (P) Ltd, Chennai for the proposed bulk drug manufacturing unit, the effluent gets diluted to the order of 50 times at a distance of 250 mtrs from the proposed outfall during fair weather. During South-West monsoon and North-East monsoon periods due to combined action of wind and turbulent waves, it's observed that the effluent gets diluted to the order of 50 times within a distance of 50 mtrs from the proposed outfall. Therefore, impacts due to the proposed industrial discharge of treated effluent is negligible and will not affect the coastal ecosystem. Therefore, the apprehensions of the Appellants are unreasonable.

It is therefore, humbly prayed that this Hon'ble Tribunal take the above submissions on record and dismiss the present appeal and pass such further order as this Hon'ble Tribunal may deem fit and proper in the facts and circumstances of the case and thus, render justice.

Solemnly affirmed and sincerely stated
at Chennai on this the 11th day of October, 2022
and signed his name in my presence



BEFORE ME

ADVOCATE, CHENNAI

**BEFORE THE HON'BLE NATIONAL
GREEN TRIBUNAL SOUTHERN
ZONE BENCH AT CHENNAI**

Appeal No. 68 of 2021

M/s. Sri Mahalakshmi Hatcheries
And Anr.

... Appellants

And

SEIAA
And 2 Ors.

... Respondents

**ADDITIONAL AFFIDAVIT FILED BY
THE 3RD RESPONDENT**

**M/s. Rahul Balaji 670/95
COUNSEL FOR 3RD RESPONDENT**