



# TAMIL NADU POLLUTION CONTROL BOARD

## Abstract

TNPCB – EXTENDING THE TIME GRANTED IN B.P.NO.37, DATED: 14.08.2020 TO SWITCH OVER TO MECHANICAL EVAPORATOR FOLLOWED BY AGITATED THIN FILM DRYER FOR DISPOSAL OF FINAL RO REJECTS FOR FURTHER PERIOD OF SIX MONTHS AS A FINAL CHANCE FOR THE IETPS/CETPS OF TEXTILE PROCESSING UNITS (BLEACHING, DYEING AND PRINTING) AND TANNERY UNITS HAVING EFFLUENT GENERATION QUANTITY OF 100 KLD AND ABOVE – REG.

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**B.P.No. 23**

**Dated: 08.12.2021**

- Ref:
1. Board Proceeding No.31, dated : 30.07.2018
  2. Board Proceeding No.01, dated : 22.01.2019
  3. Board Proceeding No.13, dated: 22.04.2019
  4. Board Proceeding No.63, dated: 26.11.2019
  5. Board Proceeding No.37, dated: 14.08.2020
  6. Representations received from the Associations of All Textile Processors and Tanners & Exporters of finished leathers
  7. Board Resolution No. 285-2-9, dated 30.11.2021

## **ORDER**

Based on various Court directions, the TNPCB mandated that all the Textile processing units and Tannery units operating in Tamil Nadu to install Zero Liquid Discharge (ZLD). Accordingly, the Textile processing units and Tannery units in Tamil Nadu have provided ZLD plant either by way of Individual Effluent Treatment Plants (IETPs) or Common Effluent Treatment Plants (CETPs).

Zero Liquid discharge (ZLD) system completely eliminates the liquid discharge from a system besides reducing the volume of wastewater that requires for treatment and resulting clean stream flow suitable for reuse and reducing the pollution in land and water bodies. The trade effluents generated from industries after primary, secondary and tertiary treatment is sent to Reverse Osmosis, Nano-Filtration, Mechanical Vacuum Re-compressor Evaporator/Multiple Effect Evaporator, Agitated Thin Film Dryer / Solar Evaporation Pan so as to meet ZLD.

In the ZLD plants, the treatment of Reverse Osmosis (RO) plant rejects which is having high concentration of Total Dissolved Solids (TDS) is the major concern of disposal. The CETPs and large scale IETP units have provided Mechanical Evaporators (ME) followed by Solar Evaporation or Agitated Thin Film Dryer (ATFD) to recover salts in crystal form. This ensures zero liquid discharge of effluent.

Whereas, majority of small scale units and some of medium/large scale units who are having IETPs are discharging the final RO rejects having high TDS into solar evaporation. It requires a minimum of 2220 sq.m area of evaporation pan for the disposal of 10 KL of RO reject and thus requires huge land area.

Moreover, during the rainy season, the solar pan overflows and the high TDS effluents pollute the ground water and the nearby water bodies. In some cases, it came to notice that there are cracks in the solar pan/damages in HDPE liner allowing seepage of high TDS effluents into the ground and in either case the restoration of water quality may take long time. Frequent complaints are in receipt about the ground water pollution due to stagnation of high TDS effluents near solar pan, posing threat to the water bodies and subsurface water.

The subject was discussed in the review meeting conducted by the Hon'ble Minister for Environment along with all the JCEEs (M) and all the DEEs at Head Office. In the meeting, it was unanimously recommended for directing all the textile bleaching, dyeing and printing units to go for ME & ATFD to meet ZLD and avoid usage of solar evaporation pan.





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Subsequently, the subject was placed before the Board and in the Board Resolution No. 274-1-19, dated 26.07.2018, B.P. No. 31 dated 30.07.2018 stated as follows:

“All the existing IETPs of textile bleaching, dyeing and printing units generating effluent of more than 100 KLD who have now provided solar evaporation pan for disposal of final RO reject to switch over to mechanical evaporator followed by Agitated Thin Film Dyer within six months and to dismantle the existing Solar Evaporation Pan completely after commissioning of mechanical evaporator followed by Agitated Thin Film Dyer”. The time given also expired on 31.03.2019.

Further, based on the Board circulation minutes No. BM/CA/02/2019, dated 22.01.2019, B.P.No. 01 dated 22.01.2019 it was issued that,

“All the existing IETP of Textile processing units (bleaching, dyeing and printing) and Tannery units who have now provided solar evaporation pan for disposal of final RO reject shall switch over to Mechanical Evaporator (ME) followed by Agitated Thin Film Dryer (ATFD) irrespective of quantity of trade effluent generation within three months. The existing solar evaporation pan shall be dismantled completely after commissioning of Mechanical Evaporator followed by Agitated Thin Film Dryer” i.e., expires on 21.04.2019.

Based on the Board Circulation Minutes No. BM/CA/11/2019, dated 11.04.2019, B.P.No. 13 dated 22.04.2019 it was issued that,

“Extending the time granted in B.P.No.31 dated 30.07.2018 & B.P.No.01 dated: 22.01.2019 for switching over to Mechanical Evaporator followed by Agitated Thin Film Dryer for disposal of final RO rejects for a further period of Six months to all the IETPs Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units. The existing solar evaporation pan shall be dismantled completely after commissioning of Mechanical Evaporator followed by Agitated Thin Film Dryer”

Based on the Board Resolution No.279-1-12 dated 08.11.2019, B.P.No. 63 dated 26.11.2019, it was further issued so that,

“Extending the time granted in B.P.No.31 dated 30.07.2018, B.P.No.01 dated: 22.01.2019 and B.P.No.13 dated 22.04.2019 to switch over to Mechanical Evaporator followed by Agitated Thin Film Dryer for disposal of final RO rejects on or before 31.03.2020 by all the IETPs Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units. The existing solar evaporation pan shall be dismantled completely after commissioning of Mechanical Evaporator followed by Agitated Thin Film Dryer”.

Thereafter, based on the Board Resolution No.281-2-5 dated 30.07.2020, B.P.No. 37 dated 14.08.2020 it was further issued so that,

“Extending the time granted in B.P.No.31 dated 30.07.2018, B.P.No.01 dated: 22.01.2019, B.P.No.13 dated 22.04.2019 and B.P.No. 63 dated 26.11.2019 to switch over to Mechanical Evaporator followed by Agitated Thin Film Dryer for disposal of final RO rejects by the IETPs Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units having effluent generation quantity of 100 KLD and above. Further, the existing member units of the proposed Common Reject Management System (CRMS) shall ensure installation ATFD at CRMS facility for their disposal of the RO rejects, till then member units shall operate their individual existing RMS for the disposal of RO rejects”.

Meanwhile, Representations have been received from the Associations of All Textile Processors, Erode stating that due to COVID-19 and subsequent financial constraints, they could not able to install MEE & ATFD system in stipulated time. Therefore, they requested the Board to extend the time period for installing MEE & ATFD.

Also, representations have been received from the M/s.N.M.Zackriah &Co., (Tanners & Exporters of finished leathers) requesting further time extension for installing the ATFD for few more months.





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In view of the above facts, the subject was placed before the Board on 30.11.2021 to consider the above proposal by "Extending the time granted in B.P.No. 37, dated: 14.08.2020 to switch over to Mechanical Evaporator followed by Agitated Thin Film Dryer for disposal of final RO rejects for further period of **SIX MONTHS** by the IETPs/CETPs of Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units having effluent generation quantity of 100 KLD and above.

The Board vide Resolution No. 285-2-9, dated 30.11.2021 resolved to approve the proposal for extending the time granted in B.P.No.37, dated: 14.08.2020 to switch over to Mechanical Evaporator followed by Agitated Thin Film Dryer for disposal of final RO rejects for further period of **six months as a final chance** for the IETPs/CETPs of Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units having effluent generation quantity of 100 KLD and above.

Sd/-  
R.Kannan  
Member Secretary

### To

1. All Joint Chief Environmental Engineers (Monitoring),  
Tamil Nadu Pollution Control Board
2. All District Environmental Engineers,  
Environmental Engineers Flying Squad,  
Tamil Nadu Pollution Control Board

### Copy to

1. The Chief Environmental Engineer,  
Tamil Nadu Pollution Control Board,  
Chennai-32.
2. The Additional Chief Environmental Engineer,  
Tamil Nadu Pollution Control Board,  
Chennai-32.
3. All Joint Chief Environmental Engineers,  
Tamil Nadu Pollution Control Board,  
Chennai-32.

4. BMS Section,  
Tamil Nadu Pollution Control Board,  
Chennai-32.
5. PS to Chairman & PA to Member Secretary,  
Tamil Nadu Pollution Control Board,  
Chennai-32.
6. File

*S. Jayapalan*  
09.12.21  
**For Member Secretary**

*[Signature]*  
09.12.2021