



Abstract

TNPCB - 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 on or before 31.03.2021 by the IETPs Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units having effluent generation quantity of 100 KLD and above and 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- Reg.

B.P. No. 37

Dated:14.08.2020

- Ref:
1. B.P. No. 31 dated 30.07.2018
 2. B.P.No.1 dated 22.01.2019
 3. B.P.No. 13 dated 22.04.2019
 4. B.P.No.63 dated 26.11.2019
 5. Representations received from the Associations of Textile Processing units, Jigger Bleaching Owners, Erode Screen Printers, Erode Tannery Owners, Erode and Tiruppur Bleachers Association, Tiruppur
 6. Board Resolution vide item No. 281-2-5 dated: 30.07.2020

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 with Mechanical Evaporators (ME) followed by Solar Evaporation / 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.

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 states 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 agenda 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 agenda 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 agenda No.279-1-12 dated 08.11.2019, B.P. No. 69 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"

Meanwhile, Representations have been received from the Associations of All Textile Processors Erode, Jigger Bleaching Owners Association, Erode and Erode Screen Printers Association, Erode stating that due to prevailing market condition, they could not afford in investing in MEE & ATFD system. Therefore, they requested the Board to exempt them from installing MEE & ATFD.

Further, representations have been received from the Erode Tannery Owners Association stating that they are either looking for exemption or One year time for the installation of MEE & ATFD by their 20 member Tanneries.

Moreover, representation received from Tiruppur Bleachers Association stating that they are limited number of suppliers of ATFD in the market. Hence requested the Board to extend the time limit to install for a period of six months.

The status of installation of MEE followed by ATFD is, 178 numbers of textile units out of 839 numbers of textile units installed ATFD and remaining 668 number of textile units yet to install MEE & ATFD.

Due to COVID-19 pandemic and the lockdown announcement by the State Government under the G.O.(Ms) No.172, Revenue and Disaster Management Department, Dated:25.03.2020, G.O.(Ms) No.217, Revenue and Disaster Management Department, Dated: 03.05.2020 and G.O.(Ms) No.239, Revenue and Disaster Management Department, Dated: 15.05.2020, most of the IETPs installed Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units have not installed ATFD, and the units are also not under operation. Moreover, the Consent to Operate/ Authorisation to all categories of industries in Tamilnadu were also extended vide Board vide Office order No: TNPCB/P&D/2020 dated: 01.04.2020, having the validity period of CTO/Authorization expiring on 31.03.2020 for a period of three months till 30.06.2020. Subsequently, the Board has extended the validity period upto 30.09.2020 vide Office Order No.TNPCB/P&D/2020, dated: 01.07.2020.

In view of the above facts, the subject was placed before the Board on 30.07.2020 to consider the issue of following instructions to the Textile processing units and Tannery units who have implemented ZLD system.

"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



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switch over to Mechanical Evaporator followed by Agitated Thin Film Dryer for disposal of final RO rejects on or before **31.03.2021** 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. The existing solar evaporation pan shall be dismantled completely after installation and commissioning of Mechanical Evaporator followed by Agitated Thin Film Dryer” by the Common Reject Management System.

The Board vide Resolution No. 281-2-5 dated: 30.07.2020 has resolved to approve the proposal for 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 on or before **31.03.2021** by the IETPs Textile Processing units (Bleaching, Dyeing and Printing) and Tannery units having effluent generation quantity of 100 KLD and above and 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.

Sd/-xxx/

**Thiru. A.V.Venkatachalam, I.F.S.,
Chairman.**

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6. PS(T) to Chairman & PA to Member Secretary, Tamil Nadu Pollution Control Board, Chennai-32
7. Computer section
8. File

Rathin
17/8/20

For Chairman

Raj
17/8/20