



Rajasthan State Pollution Control Board

Headquarter, 4, Institutional Area, Jhalana Doongri, Jaipur-302004

Phone: 0141- 2711263 e-mail: member-secretary@rpcb.nic.in

No. F-05(Gen-64) RPCB/Textile/1880-1895

Date: 17/09/26

ORDER

The Hon'ble Supreme Court of India has passed an order on 07.08.2026 in the matter of Suo Moto Writ Petition (Civil) No. 08/2025 titled "2 Million Lives at Risk, contamination in Jojari River, Rajasthan" and directed to progressively promote decentralized treatment facilities of industrial effluent. The Hon'ble Court has also directed to the State Government to examine the feasibility of encouraging industrial units generating industrial effluent 100 KLD or more to establish and operate Captive Effluent Treatment Plants (ETPs); wherever technically and economically feasible and subject to regulatory safeguards as may be considered appropriate.

In compliance of the directions of the Hon'ble Court, the State Board has examined the technical feasibility and economic viability of Captive Effluent Treatment Plants with a view to promoting decentralized treatment of industrial effluents generated in textile sector. The State Board has drafted guidelines for Captive ETP-ZLD units, which were subsequently presented and discussed during the stakeholder consultation held on 09.09.2026 at the Regional Offices of Pali, Balotra, and Jodhpur. The State Board has reviewed all feedback/suggestions received from the Stakeholders and incorporated into the final order, accordingly.

After due deliberation with stakeholders and the committee constituted by the State Board, it has been decided that, in supersession of the State Board's previous office orders No. F.05 (Gen-118) RPCB/T/590-596 dated 08.06.2017, F.05 (Gen-11) RPCB/Textile/1148-1200 dated 24.07.2023, and F.12 (Admin-5)/RPCB/3521-3527 dated 13.02.2024, the following guidelines for the establishment and operation of captive ETP units are hereby issued. These guidelines shall be applicable only to the textile processing clusters of Pali, Balotra, Jodhpur and Sanganer (Jaipur):-

- i. These guidelines pertain to installation of captive Effluent Treatment Plant (ETP) with ZLD in the textile processing industries having quantum of trade effluent generation 100 KLD and more.
- ii. The new captive ETP shall be permitted only in the units having integrated processing facilities within their own premises or the units having total capital investment (without depreciation) in Plant and Machinery >3 Crores, including cost of the captive ETP.
- iii. The block printing, screen printing, tie & dye and other micro scale units engaged in textile processing activities shall be dealt separately (irrespective of effluent generation quantum) and cases of such units for installation of captive ETP may be considered, only after approval of the scheme of effluent treatment plant from Technical Evaluation Committee (TEC) of RSPCB. These units will be free to avail beneficial options/schemes of the State Government, including incentives under RIPS, MSME schemes or any other applicable scheme.



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- iv. The State Board will consider Consent to Operate applications of these units, only after verification and assessment as per the prescribed guidelines.

Additionally, in partial modification of State Board's order No. F-05(Gen-64) RPCB/Textile/1635-1641 dated 19.03.2026, it is hereby clarified that units operating their own ETP and located adjoining to CETP connected industry, shall be required to furnish a performance guarantee in the form of a Bank guarantee or Demand draft, for the amount specified in the table at page-4, with provision for partial forfeiture and with validity which will be coterminous with the consent to operate.

The detailed technical guidelines for Captive ETP units applicable on Pali, Balotra, Jodhpur and Sanganer (Jaipur) are attached as annexure-A. This order shall come into force with immediate effect for the proposed/upcoming captive ETP-ZLD units.

This bears approval of competent authority.

Encl: As above.

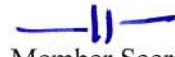

Member Secretary

No. F-05(Gen-64) RPCB/Textile/ **1880-1895**

Date: **17/09/26**

Copy to following for information and necessary action please-

1. DS to Chief Secretary, Government of Rajasthan.
2. P.S. to Chairperson, RSPCB, Jaipur.
3. PS to Additional Chief Secretary, Department of Environment and Climate Change, GoR.
4. PS to Member Secretary, RSPCB, Jaipur.
5. Nodal Officer, High-Level Ecosystem Oversight Committee, Jodhpur.
6. District Collector, Pali/Balotra/Jodhpur/Jaipur.
7. Group In-Charge, CETP/Textile, RSPCB, Jaipur.
8. Regional Officer, Regional Office, RSPCB-Balotra/Pali/Jodhpur(U)/Jodhpur (R)/Jaipur(S)- with directions to ensure compliance of the order and decide pending consent applications accordingly.
9. ACP (IT), with request to upload on Board's website.


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Annexure-A

Technical guidelines for Captive ETP-ZLD textile processing units at Pali, Balotra, Jodhpur and Sanganer(Jaipur) Clusters

A. Introduction:

To ensure uniformity in enforcement and monitoring of captive ETP & Zero Liquid Discharge (ZLD) textile units located in Pali, Balotra, Jodhpur and Sanganer(Jaipur), the State Board is introducing comprehensive technical guidelines for Captive Effluent Treatment Plants (ETPs), Reverse Osmosis systems and Reject Management mechanisms at different operational stages. These guidelines are designed as a tool for inspecting officials, emphasize alignment with Best Available Technology (BAT) and will be periodically revised to incorporate advancements in treatment options and emerging practices, thereby strengthening regulatory consistency and technical capacity.

B. Pre-requisite conditions:

1. The captive ETP shall be capable of functioning strictly upon Zero Liquid Discharge (ZLD) principle by recycling entire treated effluent back into the process.
2. The prior Consent to Establish and Consent to Operate shall be obtained from the State Board, under the provisions of Water (Prevention and Control of Pollution) Act, 1974 and/or Air (Prevention and Control of Pollution) Act, 1981, for establishment and operation of Captive ETPs.
3. There shall be no provision to discharge the treated/untreated/partially treated effluent on land/drain inside or outside the premises of the unit.
4. Electromagnetic flow meters shall be provided on the following locations, mandatorily:-
 - ETP Inlet
 - ETP Outlet
 - RO Inlet (every stage)
 - RO Permeate (every stage)
 - RO Reject (every stage)
 - MEE Feed
 - MEE Condensate
 - MEE Reject (optional)
5. The CCTV cameras shall be installed at multiple locations like production shed, ETP area, MEE, recycling points, sludge handling section etc. and its configuration and connectivity should be ensured with RSPCB server. The backup of CCTV footage shall be retained for a minimum period of 30 days.



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6. The PLC based smart energy consumption meters with data logger and control panel system shall be installed to assess energy consumption of ETP's & ZLD components, separately and its configuration & connectivity with RSPCB's server.
7. The OCEMS shall be installed and connected with RSPCB's server.
8. The concerned Regional Officers shall attach the electricity consumption status with the inspection report, incorporating the installed electricity load for Pollution Control Measures (PCMs) and the actual electricity consumption, in order to assess the operational status of the PCMs.
9. In order to monitor the efficiency of biological treatment the Dissolved Oxygen level shall be monitored on regular basis, preferably online DO meter shall be installed at aeration tanks.
10. The location of the CCTV cameras, PLC based smart energy meters and OCEMS shall be finalized by the Regional Officer and location of DO sensor shall also be finalized by Regional Officer.

C. Technical conditions:

1. The Captive ETP followed by Zero Liquid Discharge (ZLD) system, shall comprise following components:
 - a. Pre-treatment (Bar screen, Coarse Screen, Fine Screen, DAF, pH correction with chiller) or any other advanced technology based on radiation, electrodialysis etc.
 - b. Physico-chemical treatment
 - c. Biological treatment
 - d. Tertiary treatment (Filtration technique e.g. MGF, ACF etc.)
 - e. Ultra filtration (UF)
 - f. Reverse Osmosis section (not less than stage-III)
 - g. Multi Effect Evaporator (MEE)/MVR or any other scientific method to evaporate RO reject
 - h. Salt (Sodium Chloride/Sodium Sulphate) recovery through NF/Chiller (Optional)
 - i. Agitated Thin Film Dryer (ATFD) or any other suitable technology-based system/equipment for handling and management of MEE residue/concentrate.
2. The Technical Evaluation Committee of RSPCB may consider any other advanced technology based Effluent treatment plant comprising primary, secondary and tertiary treatment facilities followed by suitable technology-based ZLD components. Such consideration shall, however, be subject to the achievement of prescribed standards and certification by an independent expert agency/ Institute of Repute (IoR).
3. The adequately designed scientific arrangements shall be provided to maintain optimum temperature after pH correction during pre-treatment.



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4. The capacity of the ZLD section shall be commensurate with the effluent generation e.g. if the effluent generation is "X" KLD, then the capacity of RO Stage-I shall not be less than "X" KLD.
5. The installation or use of solar evaporation ponds (SEPs) and mist guns/ foggers shall not be permitted for the disposal of RO reject in existing and proposed units having Captive ETP. Such existing units having SEPs as only mode for handling RO reject. shall replace the SEPs within 90 days from the date of issuance of this order.
6. The captive Effluent Treatment Plant (ETP) shall be installed only by a technically competent agency or company having experience of minimum 5 years in the effluent treatment of the textile sector and turnover of the company shall not be less than 10 Cr. and shall have inhouse team headed by M.Tech. (Environment)/MSc (Environment) employees.
7. The unit shall execute a formal agreement with the competent agency having experience of minimum 5 years in the effluent treatment of the textile sector and turnover of the company shall not be less than 10 Cr. or qualified person who on permanent role /inhouse team possesses M.E/M.Tech./M.Sc. degree in the field of Civil Engineering/Chemical Engineering/Environmental Engineering/ Environmental Science/ Chemistry for the operation and maintenance (O&M) of the captive ETP.
8. Existing textile processing units presently connected to CETPs, if intending to shift to captive ETPs, shall submit a certificate/approval of permanent termination of CETP membership duly approved by the District Monitoring Committee (DMC) at the time of application for Consent to Establish.
9. The DMC will take decision on termination of CETP membership keeping in view of CETP's ecosystem and commitment of the industry that it shall not be permitted for re-connectivity with CETP in future.
10. The establishment of textile units with different modes of effluent disposal, i.e. one having its own ETP and another having CETP membership, within the same premises will not be allowed.
11. Captive ETP shall not be allowed to cater effluent from any other industry located outside premise of the industry, in which the ETP is installed.
12. The existing CETP connected unit (in case of switching to captive ETP) shall close the CETP's conduit line outlet completely and it shall be verified by the concerned Regional Officer.
13. The industry shall scientifically store/dispose of the ETP sludge & MEE salt in accordance with the Hazardous & Other Waste (Management & Trans-boundary Movement) Rules, 2016.
14. The unit shall obtain authorization for Hazardous waste i.e. Chemical sludge from wastewater treatment/ETP sludge & concentration or evaporation residues/MEE salt



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separately and maintain record of generation & disposal of Hazardous wastes, manifests and submit copies of logbook and manifests to RSPCB monthly.

15. The unit shall maintain record/logbooks of ETP operations, energy consumption, fresh water consumption, ETP sludge and MEE salt generation.
16. Entire wastewater generated shall be conveyed through a rigid pipeline network up to the ETP. No flexible pipe shall be used for the conveyance of wastewater.
17. Separate color coding shall be provided to the pipelines used for conveyance of fresh water, raw effluent, treated effluent and reject, as follows:-

Fresh water	Raw Effluent	Tertiary Treated Effluent	RO Permeate	RO reject
White	Blue	Green	Red	Black

18. Storage of RO reject or concentrated effluent in lagoons, pits or open areas shall not be allowed inside or outside the premises. The industry shall ensure that all flow meters, energy meters, online monitoring systems, and other instrumentation installed on the captive ETP system shall always remain functional and tamper-free and regular calibration shall be performed by the expert agency.
19. In case of any breakdown/technical failure of the ETP, RO, MEE, MVR, ATFD or any other component of the ZLD system, the operation of the unit shall be stopped immediately and information shall be submitted to the concerned Regional Office.
20. In the case any unit is found violating provisions of Water Act, 1974, Air Act, 1981 & Hazardous Waste Management Rules, 2016 including illegal discharge of untreated/treated effluent, stringent action as per the provisions of the applicable Acts/Rules shall be taken by RSPCB without giving any opportunity of being heard/notice.
21. For adjudging the normal operations of ZLD section, the quantum of RO permeate and reject may be estimated using following criteria :

Stage of RO	Permeate Quantity (%)	Reject Quantity (%)
RO – Stage I	60-65% (Reuse)	30-35% to RO II feed
RO – Stage II	40-45% (Reuse)	50-55% to RO III feed
RO – Stage III	30-35% (Reuse)	60-65% to RO IV feed
RO – Stage IV	20-25% (Reuse)	70-75%

Note- In case of variations, clarification may be asked from the Project Proponent.

22. The ETP sludge and MEE salt generated from captive effluent treatment plants shall have moisture content less than 10% at the time of storage and disposal. Suitably designed sludge dewatering and drying systems shall be installed to maintain moisture content.
23. Vortex Steam Flow meter shall be provided at the inlet of Evaporator and ATFD to measure the steam energy utilized for RO reject management.



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24. To treat the RO reject minimum four stage Evaporator systems with ATFD shall be present. Corresponding capacity of Boiler or Thermic Fluid heater shall be installed for optimum energy efficiency for appropriate disposal of RO reject.
25. For adjudging the normal operations of evaporator at RO reject disposal system, the quantum of Salt generation may be estimated using following criteria: -

$$\text{Total Salt (Kg/day)} = \frac{\text{Feed TDS level into ATFD (mg/l)} \times \text{Total Flow (Lit/day)}}{10^6}$$

26. The following formula based on mass balancing may be used to check performance of membrane components and TDS levels:

$$\text{Feed Qty (Litre/day)} \times \text{Feed TDS (mg/L)} = (\text{Permeate Qty in litre/day} \times \text{Permeate TDS in mg/L}) + (\text{Reject Qty in litre/day} \times \text{Reject TDS in mg/L})$$

27. These guidelines are subject to compliance of the directions and orders passed by the Hon'ble Supreme Court of India in the matter of Suo-Moto Civil Writ Petition No. 08/2025 - "2 Million Lives at Risk contamination in Jojari River Rajasthan".
