

Report of the High-Powered Committee
(Before Hon'ble NGT, PB)

In the Matter of:
Original Application No. 329 of 2015

Gram panchayat ARABA
Vs
State of Rajasthan & Ors.

Report submitted in compliance of
order dated October 23, 2018

Report Submitted by:

1. Dr. AjitPratap Singh, Professor, BITS, Pilani
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15' November, 2016

O.A. No. 329 of 2015

CONTENTS

- 1. The order dated 23rd October, 2018**
- 2. The Committee**
- 3. Issues to be addressed**
- 4. Execution of field visits and Interactions.**
- 5. Finding and observations.**

5.1 Inspection of two Industries:

- (i) M/s Universal Dye stuff**
- (ii) M/s Dauxil products**

5.2 Industries in Industrial Area and out of Industrial Area.

- (i) Textiles**
- (ii) Steel**
- (iii) Other categories**

5.3 Common Effluent Treatment Plant

5.4 RIICO Drains

5.5 Sewage Treatment plants

5.6 River Jojri

5.7 Kayalana Lake

6. Reference and Interaction

7. The Action Plan / Suggestions and recommendations

8. Execution of Action Plan and Monitoring.

9. Annexures.

1. Order

The Hon'ble Tribunal on 23rd October, 2018 in O.A No. 329 of 2015 (Gram panchayat ARABA Vs State of Rajasthan observed the concern on:

- i) Neutralization of acidic effluents having pH in the range of 0.7-1.0 at the inlet of CET",

- ii) Status of underground pipeline carrying acidic effluents; and
- iii) The standards to be met at CETP inlet as Primary / Pre effluent treatment plant (PETP).

Besides, the Tribunal expressed on shutting down M/s Universal Dye stuff and Dauxil products if found to be non-complying/or having no valid consent.

However, Hon'ble Tribunal could not get proper response on the issues raised.

2. The Committee

The Hon'ble Tribunal on 23rd October, 2018 constituted the Committee comprising of:

- i) Dr. Ajit Pratap Singh,
Professor and Dean,
Civil Engineering Department,
BITS, Pilani.
- ii) Professor Akhilendra Bhushan Gupta,
MNIT, Jaipur.
- iii) Dr. A.B Akolkar,
Former Member Secretary,
Central Pollution Control Board.

3. Issues to be addressed :

The Committee was directed to visit Jodhpur to address following:

- i) Inspect Common Effluent Treatment Plant (CETP) Jodhpur and give opinion with regard to standards required for CETP.
- ii) Suggestion on neutralization of acidic effluent at inlet of CETP
- iii) Inspection of two Industries (M/s Universal Dye stuff and M/s Dauxil Products) to verify compliance status.

4. Execution of field visits and interactions. (During 1st -3rd November, 2018)

The Committee first had initial meeting to review existing situation in context of nature of industries operating in RIICO and Non-RIICO Industrial area and operational status of CETP.

The Committee agreed to follow the Report as a base reference document submitted' by Professor Ajit Pratap Singh on 18th May, 2018 to the Hon'ble Tribunal in compliance with the order dated 16.03.2018.

The Committee executed field visits to cover:

- i. Inspection of two Industries (M/s Universal Dye Stuff-F-251, Phase -II, MIA, Basani and M/s Dauxil Products-G-77,78 & 90-91, New Industrial Area, Jodhpur).
- ii. Random inspection of textile and steel industry to check compliance status.
- iii. Inspection of open drains carrying industrial effluents and spillages along the roads.
- iv. Inspection of acidic effluent carrying underground HDPE pipeline and connections made by industries to understand the ground situation.
- v. RIICO drain carrying industrial and sewage effluents in front of CETP.
- vi. CETP run by JPNT (Jodhpur Pradushan Nivaran Trust).
- vii. Status of river Jojri - locations where de-sludging was carried out
- viii. Village Araba, Doli-Bhandu to interact with villagers / gram-panchayat and see Jojririver carrying predominantly sewage and industrial effluent. Inundation of effluents were also seen.
- ix. Two Sewage Treatment Plants.
- x. Lake at Kayalana and inlet of water supply. (Seen by Dr. A.B. Akolkar)

5. Findings and observations

5.1 Two Industries

- i) M/s Universal Dye stuff.
 - a) The Industry was closed. CPCB has directed for closure through its order dated 25 October 2018. (Dye Unit)
 - b) Electricity has been disconnected from the electric pole.

- c) Pipeline of industry connected to pipeline carrying effluent to CETP was disconnected.
- ii) M/s Dauxil Product. (Dye Unit)
- d) Industry was closed. CPCB has issued closure through its order dated 25 October 2018.
- e) Infront of entry gate of the unit, brownish patches were indicating mishandling of raw material / product.
- f) There was no PETP.
- g) Consent copy was not given on spot as no office Member was available.

5.2 Random inspection of textile and steel industry to check compliance status.

The Committee took instant decision to inspect some units on random basis to check their compliance status and house - keeping and the observations are as under:

- a) M/s Shiva Steels, Block No. 7-8, Jodhana Industrial Estate, Jodhpur
- Unit was operating with valid consent and conditions prescribed have been linked with previous year.
 - House-keeping was very poor, floors were damaged and steel plates were spread on floors.
 - Pickling/Washing area was poorly maintained and highly acidic ,waters were splashing on unlined floor. Pungent fumes were observed, which can be highly damaging to health of the workers on inhalation. It is recommended to install hood to channelize these fumes away from the working area.
 - There is no PETP prescribed.
 - Unit has shown outlets connecting to main pipeline for discharging acidic effluents but, piping within industry was observed to be choked.

- The safety equipment (masks, helmets, gloves, eye glasses, shoes) were not being used by the workers.
- Flow meter at the inlet and outlet were not under working conditions.
- There was no adequate washroom facilities for workers. The working environment of workers are very poor.

b) M/S B. P. B. (India), G-625, MIA, Phase II, Basni, Jodhpur

- This Unit was closed as per the Hon. NGT order and subsequently permitted to operate after completion of PETP works and improvement in house-keeping.
- This Unit may be referred as 'Model' for replication by other steel Units for following good practices.

c) M/S Mayur Saree Printing Udyog, Phase II, MIA, Basni, Jodhpur (Unit ID 52749).

- The Unit was involved in washing of printed / plain cloth as job work.
- Washed water is disposed into drain without PETP but, standards have been prescribed in the consent.

d) M/s Rishabh creations, Nakoda Industrial Area, Jodhpur

- This Unit falls under Washing and Printing category.
- This Unit was closed earlier due to non-compliance as per the order of Hon. NGT and subsequently upgraded operating conditions and has set-up PETP works, which consists of holding tank added with coagulant as well as coagulant aid and allowing settling.
- The Committee felt that other such textile units can also set up similar PETPs, which can bring pH correction and removal of suspended solids reducing the risk of choking of common pipeline of CETP.

a) Other Units.

Besides steel, textile and dye units, the RIICO industrial area has also allotted plots to other category of industries and many of such units fall under "Handicraft" Category and not reported to be discharging trade effluents.

5.3 Environmental status and maintenance in RIICO Industrial Area.

The Committee also observed and noted issues relating to environmental management and existing infrastructure and these are summarized as under:

5.3.1 Drains and Pipeline.

- i) Open drains in entire industrial and non-industrial area were found to be filled with garbage, industrial solid waste.
- ii) There has been spillage of wastewater from drains flowing onto the roads.
- iii) At many places, drains have been in dilapidated conditions.
- iv) Textile and steel industries are using such drains for unauthorized disposal of effluents.
- v) At one location, it was observed that effluent of a steel industry instead of going into the designated HDPE pipeline, was found to flush on the road side spilling highly acidic effluent. At many locations, similar conditions have been observed due to leakages.
- vi) Underground HDPE pipeline for carrying acidic effluent particularly for steel industry has been a concern for the Committee. The Committee was not convinced on proper operation and maintenance issue of their pipeline. It was emphatically expressed by the CETP Management that underground pipeline which is of HDPE has been well laid and accident / damage proof. But, as question raised by the Committee on its maintenance, monitoring and safety audit, no satisfactory answer has been received. It was also placed before the Committee that,, so far, no accident has been reported and hence it is safe. Committee was of the view that if it has not happened so far does not mean that there are no such chances in future also and therefore,

performance Audit/risk assessment of pipeline and improvement in pH correction at the level of individual industry is essential.

- vii) The industrial area is littered with industrial solid waste which is disposed into drains and even burnt at several locations causing air pollution problem.

5.3.2 Infrastructure issue

- i) Industries do not have their proper Information Boards.
- ii) Road Maintenance is poor.

5.4 Common Effluent Treatment Plant.

- i) CETP was inspected to observe functioning of Neutralization, flocculation, sedimentation, biological treatment and tertiary treatment.
- ii) Samples from inlet and outlet of CETP have been collected for analysis. At the time of inspection, following observations were made:
The pH of acidic influent at CETP was found 1.2.
Acidic Inlet flow = 0.69 Mld
Alkaline Inlet flow = 7.2 Mld
Total inlet flow (acidic + alkaline) = 7.89 Mld
Outlet discharge = 10.44 Mld
- iii) Treated effluents of CETP are disposed into RIICO drain whereas, as per consent granted by RSPCB, it is required to be disposed into river Jojri through its own drain rather than disposing it directly into RIICO drain.

5.5 RIICO Drain

- i) On the day of inspection (01.11.2018) the flow in the drain was about 45 Mld.
- ii) pH of the wastewater flowing into RIICO drain was 12 before it met the CETP treated effluent.
- iii) It has been a fact that, the drain is receiving effluent of Textile units and sewage effluents generated from residential areas.

5.6 Sewage Treatment Plants (STPs)

- i) There are two STPs of 50 Mld each. Operator of STP informed that some of the textile units are discharging effluents into sewer as a result, significant foam formation was noticed.
- ii) The treated sewage is reported to be used by farmers and finding its way through drain to the river Jojri.

5.7 Village Araba, Bhandu, Doll

- i) It was observed that effluents of CETP, other industries and untreated sewage of Jodhpur city finally flows through river Jojri travelling through various villages. Such effluents are not meeting standards of Irrigation' though these are utilized by some of the farmers.
- ii) During interaction with Gram Panchayat, Araba, their main grievance was relating to: (i) Drinking water to villagers; (ii) They do not want that sewage and industrial effluent to pass through their village.

5.8 River Jojri

- i) The Location where the river .was dredged, was inspected. The river remains dry at its upper reaches and as it travels down, carries only industrial and sewage effluents.

5.9 Kayalana Lake

- i) On 3rdNovember, 2018, the Kayalana lake was inspected. Through one of lift canal, fresh water from Indira Gandhi Canal (IGC) is let into Kayalana lake. Through this lake, water supply to the city of Jodhpur as well as for industrial / irrigation purpose is supplied.

5.10 Ground Water Status

- i) Ground water in the Jodhpur block is reported to be shallow.

6. Reference and Interaction

- i) Committee examined the consent documents of industries and CETP. Interaction was also made with RSPCB (Regional Officer) to discuss consent issuing process. The observations are as under:

- a) Consents granted to the industries are linked with previous years. This means, the running valid consent does not indicate standards prescribed instead, it refers earlier granted consents.
- b) PETP standards have also been prescribed to the industry visited.
- c) Complete list of industries with consent and compliance status is not available at the website of RSPCB.

7. Action Plan: Suggestions and Recommendations.

- i) The Committee after field visit and in-depth review suggests the Action Plan for better operation of industries and improving performance of CETP. The Action Plan on each issue with time-lines is as under:

7.1 Two units

- i) The two industries namely M/s Universal Dye Stuff and M/s Dauxil Product which were found to be closed should remain closed. These units should have pre/primary effluent treatment plant (PETP) before letting out their effluent into drain or pipeline reaching to CETP. Both the units should comply with PETP standards.
- ii) RSPCB should grant consent under Water and Air Act and authorization for handling hazardous waste and then to permit for operation. The conditions of CPCB like installation of on-line devices should be initiated and connected with server of CPCB.

7.2 Industries with PETPs

- i) All the Steel industries generating effluents should set up PETP within 90 days and only treated effluent should be disposed into pipeline leading to CETP. Industry may be given with option that:
 - a) They should be closed immediately till they set up PETP / or
 - b) Pay compensation @ Rs. 25000/- per day till they set up PETP but not exceeding 90 days.
- ii) Steel industries should comply with PETP norms.

- iii) The Textile / Dye - stuff or other effluent generating industries should have PETP and should not be permitted to operate till they set-up and' comply with PETP norms. Such units should pay compensation charges g Rs. 25000/- per day or close immediately.

7.3 PETP Standards

- i) As per Notification of MoEF& CC dated 01.01.2016, SPCBs are required to notify PETP standards for required treatment design of CETP. Since, the CETP has been in existence prior to the notification (01.01.2016), the State Board has prescribed general standards as PETP standards which can be followed by the all industrial units as PETP standards:

| Parameter | Steel | Textile and Others |
|------------------------|--------------|---------------------------|
| pH | 5.5 - 8.5 | 6.5 - 8.5 |
| Oil & Grease | 20 mg/1 | 20 mg/1 |
| Phenolic Compounds | 5.0 mg/1 | 5.0 mg/1 |
| Ammonical Nitrogen | 50 mg/1 | 50 mg/1 |
| Cynide | 2.0 mg/1 | 2.0 mg/1 |
| Chromium hexavalent | 2.0 mg/1 | 2.0 mg/1 |
| Chromium (total) | 2.0 mg/1 | 2.0 mg/1 |
| Copper | 3.0 mg/i | 3.0 mg/1 |
| Lead | 1.0 mg/1 | 1.0 mg/1 |
| Nickel | 3.0 mg/1 | 3.0 mg/1 |
| Zinc | 15 mg/1 | 15 mg/1 |
| Arsenic | 0.2 mg/1 | 0.2 mg/1 |
| Mercury | 0.01 mg/1 | 0.01 mg/1 |
| Cadmium | 1.0 mg/1 | 1.0 mg/1 |
| Selenium | 0.05 mg/1 | 0.05 mg/1 |
| Fluoride | 15 mg/1 | 15 m_g/1 |
| Boron | 2.0 mg/1 | 2.0 mg/1 |
| Total Suspended Solids | 600 mg/1 | 600 mg/1 |

[Explanation to the suggested PETP Standards.]

It has been observed that PETP standards were already in existence notified by MoEF& CC in the year

1995 at Sl.no. 55. It can be considered that the concentrations suggested for each parameter mentioned above are the optimum level which can be treated in CETP.

7.4 CETP - JPNT

- i) Should comply with standards prescribed and not to dispose effluents to river. Treated effluent should be reused by the Member Industries or may be utilized for irrigation with proper irrigation management plan.
- ii) Hazardous waste should be disposed as per rules and with due Authorization.
- iii) CETP should have onsite and offsite disaster management plan.
- iv) HDPE pipeline should be audited for hazard prevention with safety. Routine checks should be done by duly accredited agency. The pipeline route should be marked and well displayed for public and maintenance purpose.

7.5 Action for RIICO and RSPCB

- i) RIICO should periodically remove sludge and waste.
- ii) Drains should be repaired (by RIICO).
- iii) Burning of waste should be stopped (by RIICO).
- iv) No further new industries, particularly which generate trade effluents, should be allowed by RSPCB till existing industries meet the prescribed effluent standards.
- v) Industries should have information board with necessary information displaying both in Hindi and English outside their main gate (RSPCB).
- vi) All the valid consents given by the RSPCB should be displayed at RSPCB website.
- vii) District Magistrate shall ensure closing of Units with RSPCB immediately or recover compensation @ Rs. 25000 per day but not exceeding 90 days and thereafter close till they set-up PETP and meet the standards.
- viii) With JPNT, RSPCB should ensure proper sludge collection on door-to-door basis from each of the industry.

- 7.6** All Three STPs should meet prescribed standards for fecal coliform and treated water should be utilized for irrigation. (Jodhpur Sewage Board).
- 7.7** Kalyanur village and other villages should be provided and covered for potable water supply. Necessary clearance to the proposal of Araba Gram panchayat be examined and granted.
- 7.8** Irrigation and flood control Department should examine for releasing water from upper stretches of river Jojri and Luni for maintenance of flow. This, however, should be done only after ensuring proper treatment of sewage and industrial effluent..

8. Execution and Monitoring of Action Plan

- i) District Magistrate under convener of RO, RSPCB shall monitor execution of Action Plan on a weekly basis.
- ii) Secretary Environment of State will monitor progress on monthly basis with Member Secretary of RSPCB and concerned Department and will file bi-monthly report of compliance.

1 - 200
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