

**Status Report
of
Five Steel Re-Rolling Industries
at
Jodhpur, Rajasthan**

Submitted in Reference to

**Hon'ble National Green Tribunal (NGT),
New Delhi order dated August 30, 2018
(Item No. 12-17)**

In the Matter of

**Original Application No. 329 of 2015
Gram Panchayat Araba V/s State of Rajasthan & others**

**Submitted by
Dr. Ajit Pratap Singh,
Professor & Dean, Civil Engineering Department
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15 May 2018

**Inspection Report in the matter of Original Application No 329 of 2015
Gram Panchayat Araba V/s State of Rajasthan & others
(Item No. 12-17 of order dated August 30, 2018)**

Hon'ble National Green Tribunal, Principal Bench, New Delhi vide its order dated 16.03.2018 (Item No. 11-16) in the matter of Original Application No. 329 of 2015 "Gram Panchayat Araba V/s. State of Rajasthan & others" appointed Prof. Ajit Pratap Singh Professor and Dean, Birla Institute of Technology and Science, Pilani, Rajasthan as Court Commissioner. The inspection has been done at various sites in Jodhpur city along Jojari river from 07 April to 11 April 2018 and from 05 May to 07 May 2018. A report was submitted to the Hon'ble Tribunal on 18.05.2018. Apart from the common treatment facilities of industrial and municipal wastewater, RIICO drain, solid waste management etc., 19 individual industrial units have also been inspected randomly as a sample and observations of each unit have been provided in the report. Industrial operations of all these 19 faulty units have been closed and the electricity supply has been discontinued as per the direction of the Hon. Tribunal order dated May 30, 2018 (Item No. 21-26). Mr. K.C.A. Arun Prasad, Member Secretary, Pollution Control Board, Jaipur (Rajasthan) visited these 19 closed industries on 26.08.2018 and 27.08.2018 and gave his observation about the current condition in the industries with respect to the points highlighted by Court Commissioner. The Hon'ble National Green Tribunal again directed to Prof. Ajit Pratap Singh Professor and Dean, BITS, Pilani, through its order dated August 30, 2018 (Item No. 12-17), to visit and verify whether the deficiencies pointed out by the Court Commissioner are rectified especially in five steel re-rolling industries listed below:

1. M/S B. P. B. (India), G-625, MIA, Phase II, Basni, Jodhpur
2. M/S Chanchal Industries, A-4 5, Marudhar Industrial Area, Phase II, Basni, Jodhpur
3. M/S Reliable Steel, 6, New Nakoda Industrial Estate, Nr MIA-II, Basni, Jodhpur
4. M/S Rajesh Metals, G -624, MIA, 2nd Phase, Basani, Jodhpur
5. M/S Daulat industries, 17-A, Heavy Industrial Area, Jodhpur

The appointed Commissioner visited above-mentioned five industries on 10.09.2018 and the observations are given below. For the purpose of convenience, observations given by the Commissioner in his earlier report and observations made by the Member Secretary are also repeated in italics.

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

Observations are given in the initial report submitted by the Court Commissioner dated 18.05.2018:

“No proper helmet and mask was being used in the industry. Flowmeter was non-functional. No logbook maintained of inlet flowrate. Primary Treatment Plant (PTP) was non-functional. Industrial wastewater was flowing in the RIICO drain in front of the industry.”

Observation by Member Secretary Pollution Control Board, Jaipur (Raj.) after the visit on 26.08.2018 and 27.08.2018:

- a. The unit has provided a mechanical flow meter in the inlet and installed SCADA based flow meter at the outlet.*
- b. Log book for inlet and outlet has been made.*
- c. The unit has provided cemented tanks with compartments as Primary Treatment Facility along electric stirrer with dosing arrangements.*
- d. Separate storage facility for Hazardous waste has been provided.*

Observations made by Court Commissioner during a surprise visit on 10.09.2018:

- a. The safety equipment (masks, helmets, gloves, eyeglasses, shoes) were available in the industry, which were being used by the workers at the time of the visit.
- b. Flow meter at the inlet and outlet were available with SCADA system.
- c. Primary Treatment Plant (PTP) has been found. However, permissible limit of effluent to be disposed from the steel industry to CETP pipeline must be prescribed either by CETP authorities and/or RSPCB so that adequacy of PTP can be ensured.
- d. The logbook of the inlet and outlet flow rate were maintained with effect from 08 September 2018. The logbook of sludge generation was maintained from 01.04.2018 to 02.09.2018.
- e. pH measuring device was available at the site.
- f. The effluent pipeline of the industry has been found connected properly with the acidic HDPE pipeline to convey effluent wastewater to CETP.
- g. The proper arrangements of ventilation have been observed and adequate washroom facility for workers was available in the industry.

2. M/S Chanchal Industries, A-4 5, Marudhar Industrial Area, Phase II, Basni, Jodhpur:

Observations are given in the initial report submitted by the Court Commissioner dated 18.05.2018:

"Though wastewater generation is 30 KLD, no flow meter has been found also, there is no connection to CETP drain found at the time of inspection. The industry is running without taking care any safety and environmental issues. Being steel industry, not even a single exhaust fan has been found. The condition of laborers is the worst. They do not have helmets, masks, glasses (not even a single helmet and mask was found at the time of inspection). No flow meters, no pH meter reading, No Primary Treatment Plant (PTP). No record of inlet flow rate"

Observation by Member Secretary Pollution Control Board, Jaipur (Raj.) after the visit on 26.08.2018 and 27.08.2018:

- a. The unit has provided a mechanical flow meter in the inlet and installed SCADA based flow meter at the outlet.*
- b. Log book for inlet and outlet has been made.*
- c. The unit has provided cemented tanks with compartments as Primary Treatment Facility along electric stirrer with dosing arrangements.*
- d. Separate storage facility for Hazardous waste has been provided.*
- e. Unit has provided 6 pedestal and 2 roof mounted exhaust fans for ventilation in the working section.*
- f. The industry has provided Personal Protective Equipment i.e. Mask, Gloves, Helmets etc. and also pH pens to measure pH.*

Observations made by Court Commissioner during a surprise visit on 10.09.2018:

- a. The safety equipment (masks, helmets, gloves, eyeglasses, shoes) were available in the industry, which was being used by the workers at the time of the visit.*
- b. Flow meter at the inlet and outlet were available with SCADA system.*
- c. Primary Treatment Plant (PTP) has been found. However, permissible limit of effluent to be disposed from the steel industry to CETP pipeline must be prescribed either by CETP authorities and/or RSPCB so that adequacy of PTP can be ensured.*

- d. The logbook of inlet flow rate was maintained from 27.05.18 to 02.06.18 and outlet flow rate logbook was available with no entry as industry was not in operation due to Hon. NGT order. The logbook of sludge generation was maintained from 01.04.2018 to 04.07.2018.
- e. pH measuring device was available at the site.
- f. The effluent pipeline of the industry has been found connected properly with the acidic pipeline to convey effluent wastewater to CETP.
- g. The proper arrangements of ventilation have been observed with exhaust fans and washroom facility for workers.

3. M/S Reliable Steel, 6, New Nakoda Industrial Estate, Nr MIA-II, Basni, Jodhpur:

Observations are given in the initial report submitted by the Court Commissioner dated 18.05.2018:

“No helmet and mask is being used in the industry. No pH-measuring device. No Flow meter installed. No logbook maintained of inlet flow rate from groundwater. No Primary Treatment Plant (PTP)”

Observation by Member Secretary Pollution Control Board, Jaipur (Raj.) after the visit on 26.08.2018 and 27.08.2018:

- a. *The unit has provided a flow meter in the inlet and installed SCADA based flow meter at the outlet.*
- b. *Log book for inlet and outlet has been made.*
- c. *The unit has provided cemented tanks with compartments as Primary Treatment Facility along electric stirrer with dosing arrangements.*
- d. *Separate storage facility for Hazardous waste has been provided.*
- e. *Unit has provided 4 pedestal, 4 wall mounted and 3 roof mounted exhaust fans for ventilation in the working section.*
- f. *The industry has provided Personal Protective Equipment i.e. Mask, Gloves, Helmets etc. and also pH pens to measure pH.*

Observations made by Court Commissioner during a surprise visit on 10.09.2018:

- a. The safety equipment (masks, helmets, gloves, eyeglasses, shoes) were available in the industry, which was being used by the workers at the time of the visit.
- b. Flow meter at the inlet and outlet were available with SCADA system.

- c. Primary Treatment Plant (PTP) has been found. However, permissible limit of effluent to be disposed from the steel industry to CETP pipeline must be prescribed either by CETP authorities and/or RSPCB so that adequacy of PTP can be ensured.
- d. The logbook of the inlet and outlet flow rate were maintained with effect from 08 September 2018. They should also maintain logbook of sludge generation.
- e. The effluent pipeline of the industry has been found connected properly with the acidic pipeline to convey effluent wastewater to CETP.
- f. The proper arrangements of ventilation have been observed with exhaust fans and washroom facility for workers was there but not maintained properly.
- g. pH measuring device was available at the site.

4. M/S Rajesh Metals, G -624, MIA, 2nd Phase, Basani, Jodhpur:

Observations are given in the initial report submitted by the Court Commissioner dated 18.05.2018:

“No proper helmet and mask was being used in the industry. No Flowmeter installed. No logbook maintained of inlet flowrate. No Primary Treatment Plant (PTP). The industrial wastewater was being discharged to the RIICO drain through an opening of CETP pipeline”.

Observation by Member Secretary Pollution Control Board, Jaipur (Raj.) after the visit on 26.08.2018 and 27.08.2018:

- a. *The unit has provided a mechanical flow meter in the inlet and installed SCADA based flow meter at the outlet.*
- b. *Log book for inlet and outlet has been made.*
- c. *The unit has provided cemented tanks with compartments as Primary Treatment Facility along electric stirrer with dosing arrangements.*
- d. *Separate storage facility for Hazardous waste has been provided.*
- e. *Unit has provided 5 pedestal, 4 wall mounted and 5 roof mounted exhaust fans for ventilation in the working section.*
- f. *The industry has provided Personal Protective Equipment i .e. Mask, Gloves, Helmets etc. and pH pens to measure pH.*

Observations made by Court Commissioner during a surprise visit on 10.09.2018:

- a. The safety equipment (masks, helmets, gloves, eyeglasses, shoes) were available in the industry, which was being used by the workers at the time of the visit.
- b. Flow meter at the inlet and outlet were available with SCADA system.
- c. Primary Treatment Plant (PTP) has been found. However, permissible limit of effluent to be disposed from the steel industry to CETP pipeline must be prescribed either by CETP authorities and/or RSPCB so that adequacy of PTP can be ensured.
- d. The logbook of the inlet and outlet flow rate were maintained with effect from 08 September 2018. The logbook of sludge generation was maintained from 07.04.2018 to 30.05.2018.
- e. The effluent pipeline of the industry has been found connected properly with the acidic pipeline to convey effluent wastewater to CETP.
- f. The proper arrangements of ventilation have been observed with exhaust fans and adequate washroom facility for workers was available in the industry.

5. M/S Daulat industries, 17-A, Heavy Industrial Area, Jodhpur:

Observations are given in the initial report submitted by the Court Commissioner dated 18.05.2018:

“The industry is running without taking care any safety and environmental issues. Being steel industry, not even a single exhaust fan has been found. The condition of laborers is the worst. They do not have helmets, masks, glasses (not even a single helmet and mask was found at the time of inspection). No flow meters, no pH meter reading, no mechanism to store sludge etc. No Primary Treatment Plant (PTP). No record of inlet flow rate.”

Observation by Member Secretary Pollution Control Board, Jaipur (Raj.) after the visit on 26.08.2018 and 27.08.2018:

- a. *The unit has provided a mechanical flow meter in the inlet and installed SCADA base flow meter at the outlet.*
- b. *Log book for inlet and outlet has been made.*
- c. *The unit has provided cemented tanks with compartments as Primary Treatment Facility along electric stirrer with dosing arrangements.*
- d. *Separate storage facility for Hazardous waste has been provided.*
- e. *Unit has provided 3 pedestal, 2 wall mounted and 6 roof mounted exhaust fans for ventilation in the working section.*

f. The industry has provided Personal Protective Equipments i.e. Mask, Gloves, Helmets etc. and also pH pens to measure pH.

Observations made by Court Commissioner during a surprise visit on 10.09.2018:

- a. The safety equipment (masks, helmets, gloves, eyeglasses, shoes) were available in the industry, which was being used by the workers at the time of the visit.
- b. Flow meter at the inlet and outlet were available with SCADA system.
- c. Primary Treatment Plant (PTP) has been found. However, permissible limit of effluent to be disposed from the steel industry to CETP pipeline must be prescribed either by CETP authorities and/or RSPCB so that adequacy of PTP can be ensured.
- d. The logbook of the inlet and outlet flow rate were maintained with effect from 07 September 2018. The logbook of sludge generation was maintained from 02.07.2018 to 10.09.2018.
- e. pH measuring device was available at the site.
- f. The effluent pipeline of the industry has been found connected properly with the acidic pipeline to convey effluent wastewater to CETP.
- g. The proper arrangements of ventilation have been observed. At the time of inspection, washroom facility for workers was under construction.

Overall observations and Comments:

- During the surprise inspection by the court commissioner on 10.09.2018 at five industries, it was found out that there is a significant improvement in the working environment of these five steel re-rolling industries with appropriate facilities for the workers. This time, no evidence of unauthorized disposal of effluent has been found by these steel industries, which was observed in some of these 5 industries during earlier inspection.
- Primary Treatment Plant is also available now in all 5 industries. However, they are designed for different effluent characteristics. These industries are the member units of Common Effluent Treatment Plant (CETP) run by Jodhpur Pollution Niwaran Trust (JPNT). It seems that there is no prescribed standard set by CETP authorities and/or RSPCB for effluent characteristics (say pH, oil and grease, TDS, TSS, heavy metals etc.) to be disposed from the industry to CETP pipeline so that adequacy of PTP can be ensured. In Environment (Protection) Amendment Rules, 2015 (enforced from 1 January 2016) it is mentioned that state pollution control board may decide inlet norms for CETP. Hence, it is recommended that CETP authorities and RSPCB should make

appropriate standards for the influent of CETP so that adequacy of PTP for industry can be ensured.

- RSPCB should ensure that each industry must display all necessary information about the industry **outside the factory main gate in Hindi and English** both on 6' x 4' information board as prescribed by PCB. The details must include name, address, production capacity of the industry, validity of the consents and average quantity of water consumption, wastewater and sludge generation etc.
- A surprise inspection was also done at CETP, Jodhpur to verify whether SCADA system of these 5 industries are connected online with the monitoring server located at CETP. During the inspection at CETP, it has been found that all 5 steel industries mentioned above are connected with online monitoring server at CETP. It has also been observed that merely 46 industries (including both steel and textile industries) are connected with online monitoring server at CETP out of total ~419 industries as on the date of inspection, i.e. 10 September 2018.
- pH was also measured at the influent chamber of CETP which was found as ~0.7 implying that HDPE pipeline conveying wastewater from all steel re-rolling industries to the CETP is highly acidic. The red color of wastewater in acidic influent chamber of CETP indicates that there is possibility of involvement of disposal of wastewater into HDPE pipeline from industries other than steel re-rolling.
- As mentioned in the report submitted to the Hon'ble Tribunal on 18.05.2018 by court commissioner, all 19 industries, which were inspected during his earlier visits, were found non-complying necessary standards. These 19 industries were inspected randomly at that time as a sample of the entire industrial cluster. It indicates that there may be deficiencies in complying the standard in many other industries among the total 419 industrial units (312 Textile industries, 94 Steel Re-Rolling Industries and 13 Miscellaneous). The concerned authorities should ensure that all industries comply strictly the standards as per the rules and regulations.

Date: 15.09.2018

Ajit Pratap Singh

Court Commissioner, Hon. NGT

Professor and Dean, BITS Pilani Rajasthan