

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

Principal Bench, New Delhi

O.A No. 366 of 2023

Rajesh Kumar Dokwal

Applicant

Versus

Govt. of NCT of Delhi

Respondent

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(Vishal Gandhi)

Scientist-E

Central Pollution Control Board,
Parivesh Bhawan, East Arjun Nagar
Delhi- 110032.

Date: 02.04.2024

Place: Delhi

**COMPLIANCE REPORT IN THE MATTER OF OA NO. 366/2023 TITLED;
RAJESH KUMAR DOKWAL VS GOVT. OF NCT OF DELHI**

1.0 BACKGROUND

The Hon'ble NGT vide order dated 15.01.2024 in the matter of OA No. 366/2023 titled; Rajesh Kumar Dokwal Vs Govt. of NCT of Delhi directed as follows:

“Para 5: Having, regard to the circumstances of the case and in order to ascertain the correct position, we direct the Member Secretary, CPCB to carry out the sample analysis from Inlet and Outlet of all the four STPs with reference to BOD, SS and FC and submit the report before the Tribunal at least one week before the next date of hearing. It will be open to the DPCC and DJB to file fresh report indicating the progress at least one week before the next date of hearing.”

2.0 COMPLIANCE TO THE DIRECTIONS OF HON'BLE NGT

In compliance to directions of Hon'ble NGT, Member Secretary, CPCB assisted by a team of CPCB officials visited Kondli STPs on 19.03.2024 and collected the samples from Inlet and Outlet of all the four STPs in presence of DJB officials. The photographs showing the sampling activity are attached as **Annexure-I**.

The STPs at Kondli is divided into four phases; Phase-I, II, III & IV. Phase-wise details of STPs are mentioned below:

S. No.	Phases	Installed Capacity (in MGD)	Capacity Utilization (in MGD)	Technology of treatment
1.	Phase I	10	10	Activated Sludge Process [ASP] + Rapid Gravity Filter [RGF] + Chlorination
2.	Phase II	25	25	
3.	Phase III	10	10	
4.	Phase IV	45	26	ASP with Integrated Fixed Film Activated Sludge Technology + Disc Filters + Ultra Violet based Disinfection

The samples collected from Inlet and Outlet of all four STPs were analyzed for pH, BOD, COD, TSS, Total Nitrogen, Phosphate and Fecal Coliform in CPCB Delhi laboratory. The sampling locations are cited in schematic diagram placed as Figure 1.

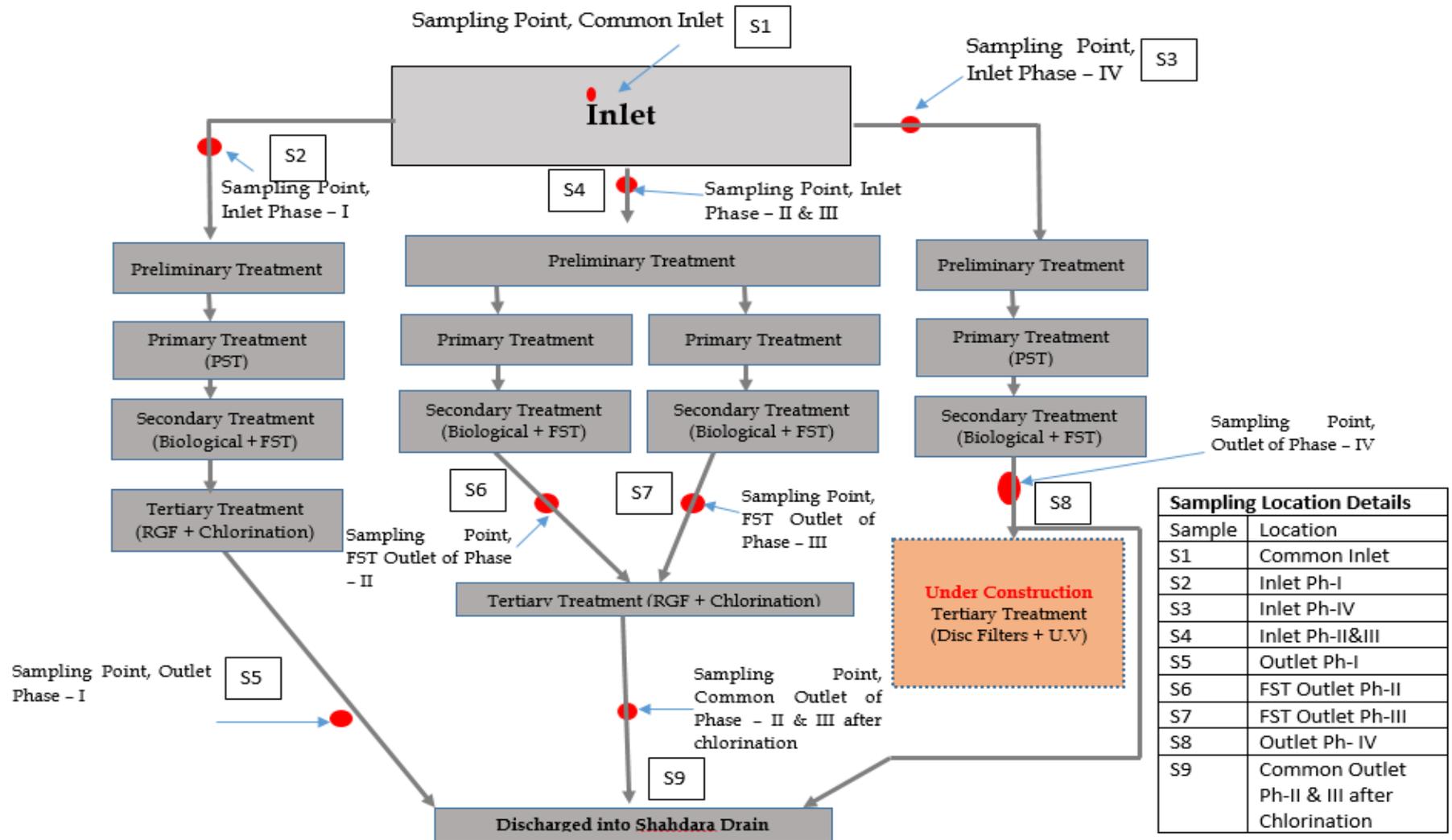


Figure 1: Schematic Diagram depicting sampling locations of STP

3.0 Analytical Results of STPs

The samples collected from the inlet and outlet of all the phases were analysed.

The analysis results are tabulated in table 1.

Table 1: Analytical Results of STPs

S. No	Sampling Location			Physiochemical						Biological
				pH	COD (mg/L)	BOD (mg/L)	TSS (mg/L)	TN (mg/L)	PO ₄ -P (mg/l)	FC MPN/100ml
A.	Consented Norms of DPCC			6.5-9.0	50 mg/L	10 mg/L	10 mg/L	10 mg/L	2.0 mg/l	230 MPN/100 ml
B.	Standards notified by Hon'ble NGT in the matter of O.A. No. 1069/2018			5.5-9.0	50 mg/L	10 mg/L	20 mg/L	10 mg/L	N.A	230 MPN/100ml
1	Kondli STP	S1	Common Inlet	7.6	606	185	342	40.80	4.20	17x10 ⁷
2	Kondli STP Phase I	S2	Inlet	7.50	668	219	364	42.80	3.8	40x10 ⁶
		S5	Outlet	7.80	35	5	BDL (<10)	7.84	0.26	<1.8
3	Kondli STP Phase II	S4	Inlet	7.50	922	332	631	46.50	4.5	21x10 ⁸
		S6	FST Outlet	7.60	47	8	BDL (<10)	10.48	0.62	24x10 ⁴
4	Kondli STP Phase III	S4	Inlet	7.50	922	332	631	46.50	4.5	21x10 ⁸
		S7	FST Outlet	7.60	39	6	BDL (<10)	8.59	0.16	94x10 ³
5	Kondli Phase II & III	S9	Outlet after Common Chlorination Tank	7.80	44	7	BDL (<10)	8.10	0.5	35x10 ³
6	Kondli STP Phase IV	S3	Inlet	7.60	652	200	656	41.60	4.2	17x10 ⁷
		S8	Outlet	7.80	77	17	12	12.93	0.3	39x10 ³

4.0 Observations

During inspection and discussion held with the representative of DJB, following observations are made:

- i. Kondli STP has Common Inlet chamber receiving sewage from 08 Sewage Pumping Stations (SPS). Further, sewage is distributed among Inlet Channels of STP of Phase I, Phase II & III and Phase IV.
- ii. Phase II & III STPs have common screening chamber, grit chamber and chlorination contact tank.
- iii. Phase IV STPs was observed operating their biological treatment system with about 57 % hydraulic capacity. Other units like Disc Filters and UV disinfection units are under construction. The photographs of the ongoing construction

- work are enclosed as **Annexure-I**. As per information provided by DJB, disc filters and UV disinfection are expected to be fully operational by 31.03.2024.
- iv. As stated above, the total installed capacity of all the STPs is 90 MGD whereas capacity utilization is 71 MGD based on daily average treatment of March, 2024 till 21.03.2024. The daily sewage treatment by STPs of March 2024 provided by DJB is attached as **Annexure-II**.
- v. Phase IV STP is under rehabilitation and about 20 MGD sewage (as reported by DJB) is being bypassed and discharge finally into Shahdara drain alongwith treated sewage.
- vi. It was observed that work of rehabilitation was under progress. The details of rehabilitation work in respect of initiation of work and expected completion date as informed by DJB are mentioned below:
- a. The rehabilitation work such as construction of Primary Settling Tank (PST), Aeration Unit, Final Settling Tank (FST), Tertiary Treatment System (TTS) and Sludge Handling System at Phase I, II, III of STP was started on 10.08.2018. At present, Liquid stream comprising of Primary Treatment Units, Aeration Unit, Final Settling Tank, Tertiary Treatment System was operational and rehabilitation work of Sludge handling system is under progress and expected date of completion is **31.03.2024**.
 - b. The rehabilitation work at Phase IV of STP was started on 05.09.2022 and expected date of completion is **31.03.2024** for the liquid stream (Construction work of Tertiary Treatment System). The balance work which includes rehabilitation work of sludge handling system is expected to be completed by **15.04.2024**.
- vii. Compliance Status of Discharge Norms of STPs
- a. Delhi Pollution Control Committee (DPCC) vide Consent to operate has prescribed the discharge standards for STPs at par with the standards of Hon'ble NGT mentioned in the matter of O.A. No. 1069/2018 expect for TSS (10 mg/l) which is more stringent than standard prescribed by Hon'ble NGT. Further, DPCC has also stipulated additional parameter i.e Phosphate with limit of 2.0 mg/l. S. No. A and B of Table 1 may be referred in this regard.

- b. Phase-I Kondli STP is meeting the discharge standards prescribed by DPCC for the all Physiochemical and Biological parameters. S. No. 2 of table 1 may be referred in this regard.
- c. The common outlet from Chlorination Tank of Phase-II & III Kondli STP is meeting the discharge standards prescribed by DPCC except for Fecal Coliform. S. No. 5 of table 1 may be referred in this regard.
- d. Phase -IV Kondli STP was not meeting the discharge standards prescribed by DPCC for COD, TSS, BOD, TN and Fecal Coliform. S. No. 6 of table 1 may be referred in this regard.
- e. The MLSS counts in Phase I, II and III was observed in range of 2871 mg/l to 3292 mg/l which is satisfactory whereas in Phase IV, MLSS was observed as 1798 mg/l which is on lower side.

5.0 CONCLUSIONS

In view of above observations and analytical results STPs, followings conclusions are made:

- i. Only Phase I STP is conforming to the discharge standards prescribed by DPCC for the all Physiochemical and Biological parameters.
- ii. Phase II and III STPs are complying with all the parameters' standards prescribed by DPCC except Fecal Coliform.
- iii. Phase IV STP is non-complying with the standards prescribed by DPCC for COD, BOD, TSS, TN and Fecal Coliform.
- iv. Further, as per information provided by DJB, Rehabilitation work of Sludge Handling System in Phase I, II and III STPs is under progress and expected to be completed by 31.03.2024. Installation of Tertiary Treatment System in Phase-IV of STP is under progress and expected to be completed by 31.03.2024. The rehabilitation work of Sludge Handling System in Phase IV is also in progress and expected to be completed by 15.04.2024.

PHOTOGRAPHS OF SAMPLING OF KONDLI STP



Photograph 1: Sampling of Outlet of Phase I STP



Photograph 2: Sampling of Outlet of Phase II STP



Photograph 3: Sampling at common outlet of Phase II and III



Photograph 4: Disc Filter of Phase-IV



Photograph 5: Disc Filter of Phase - IV



Photograph 6: U.V of Phase IV

TREATMENT DETAILS OF STPS PROVIDED BY DJB

Date	Treatment Details of STP (in MGD)				Total treatment
	Ph-I 10 MGD KONDLI	Ph-II 25 MGD KONDLI	Ph-III 10 MGD KONDLI	Ph-IV, 45 MGD, Kondli	
1-Mar-2024	10.15	25.27	10.20	27.53	73.15
2-Mar-2024	10.07	25.14	10.15	26.76	72.12
3-Mar-2024	10.26	25.50	10.19	26.32	72.27
4-Mar-2024	10.22	25.12	10.15	26.89	72.38
5-Mar-2024	10.17	25.20	10.18	25.76	71.31
6-Mar-2024	10.22	25.27	10.04	25.48	71.01
7-Mar-2024	10.14	25.10	10.16	26.45	71.85
8-Mar-2024	10.08	24.99	10.05	26.67	71.79
9-Mar-2024	10.05	25.08	10.12	26.63	71.88
10-Mar-2024	10.15	25.27	10.21	26.95	72.58
11-Mar-2024	10.10	25.15	10.06	26.73	72.04
12-Mar-2024	10.18	25.28	10.09	26.13	71.68
13-Mar-2024	10.13	25.10	10.15	26.65	72.03
14-Mar-2024	10.12	25.18	10.07	26.32	71.69
15-Mar-2024	9.17	23.34	9.21	26.72	68.44
16-Mar-2024	10.24	25.26	10.05	26.10	71.65
17-Mar-2024	10.15	25.10	10.14	26.92	72.31
18-Mar-2024	10.19	25.23	10.15	26.67	72.24
19-Mar-2024	10.12	25.27	10.04	26.12	71.55
20-Mar-2024	10.17	25.13	10.12	29.12	74.54
21-Mar-2024	10.08	25.19	10.15	29.12	74.54
TOTAL	212.16	527.17	211.68	562.04	1513.05
Average	10.10	25.10	10.08	26.76	72.05

Item No. 12

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No.366/2023

Rajesh Kumar Dokwal

Applicant

Versus

Govt. of NCT of Delhi

Respondent(s)

Date of hearing: 15.01.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent: Ms. Richa Kapoor & Ms. Eesha Sharma, Advs. with Mr. Ashish Kr. Gupta, EE, Delhi Jal Board
Mr. Kush Sharma & Mr. Nishchaya Nigam, Advs. with Mr. Ashish Uniyal, JEE, DPCC

ORDER

1. The Original Application, registered on the basis of the letter petition, involves the issue of non-functioning of STP at New Kondli, Mayur Vihar, Phase-III. Earlier in the order dated 30.10.2023, the Tribunal had considered the report of the DPCC mentioning that the STPs in Kondli Phase I and III were meeting the standards prescribed and phase II was under stabilization and phase IV was not meeting the standards. The Tribunal had taken note of the shortcomings in STP in all the four phases and required the DPCC and DJB to file the fresh report.

2. The DPCC has filed the report dated 12.01.2024 disclosing that the Kondli STP Phase IV is not meeting with the requisite standards whereas Phase I to III are meeting the prescribed standards. The details relating to deficiencies as disclosed in the report of the DPCC are as under:-

“4. That inspection of the STPs at Kondli Phase I, II, III & IV was also carried out by a team of DPCC officials on 03.01.2024. Copy of the Inspection Report dated 03.01.2024 is at Annexure-4.

Deficiencies observed by team of DPCC during inspection of STPs at Kondli on 03.01.2024 are briefed below:

1. Kondli STP Phase-IV has total capacity of 45 MGD. However, half of the capacity i.e. (22.5 MGD) is being treated only and rest 22.5 MGD is being by-passed as the plant is under rehabilitation.
2. Only 01 out of 03 Odour Control Units (OCU) found operational at the time of inspection.
3. Rapid Gravity Filter (RGF) (for phase II & III) were found non-operational at the time of Inspection.
4. No OLMS found installed at Phase-II.
5. Chlorination is not being carried out in Phase-II & III.
6. Sludge Handling Units of all 04 Phases has not been commissioned yet.”

3. A separate report on behalf of the DJB has been filed on 12.01.2024 mentioning the compliance status of STPs of all the four phases as under:-

S. No.	Name of STP	Capacity	Design Parameters (BOD/TSS in mg/l)	Status	Meeting standards prescribed (Yes/No)	Present status
1.	Phase-I, Kondli	10 MGD	10/10	Operational	Yes	<ul style="list-style-type: none"> - The rehabilitation work of liquid stream is completed and plant is functional & achieving the latest effluent norms of DPCC/NGT. - The commissioning of the 2 sludge digesters and 2 gas holders have been completed and ready to function once the commencement of the common E&M equipment of common gas engine of Phase I, II & III gets completed in all respect. - Overall physical progress of rehabilitation is approx. 98%, whereas the rehabilitation of minor works related to instrumentation i.e. Supervisory Control and Data Acquisition (SCADA) & Electrification etc. is in progress. - The Online Monitoring System is already installed

						<i>and working.</i>
2.	<i>Phase-II, Kondli</i>	<i>25 MGD</i>	<i>10/10</i>	<i>Operational</i>	<i>Yes</i>	<i>- The rehabilitation work of liquid stream is completed and plants are functional & achieving the latest effluent norms of DPCC/NGT.</i>
3.	<i>Phase-III, Kondli</i>	<i>10 MGD</i>	<i>10/10</i>	<i>Operational</i>	<i>Yes</i>	<p><i>- The installation of Chlorination System is almost completed and testing commissioning yet to be made which is expected to be completed by March 2024.</i></p> <p><i>- Construction of 5 sludge digesters and 2 gas holders are almost completed and related electromechanical work is under progress. However, Sludge beds are being used to dispose the treated sludge until the rehabilitation and construction is completed. Photographs showcasing sludge beds being used to dispose the treated sludge is enclosed as ANNEXURE R-1.</i></p> <p><i>- Construction work of centrifuges are completed and commissioned.</i></p> <p><i>- Power generation unit is under construction.</i></p> <p><i>- The testing, commissioning and functioning of sludge units i.e. digesters/gas holders and power generation is expected to be completed by end of March 2024.</i></p> <p><i>Further, the tertiary treatment units and final discharge channel of Phase-II & III STPs are common. Presently, the Online Monitoring System is installed at secondary discharge point of Phase-III STP which will be shifted at final common outlet of Phase II & III both and hence the OLMS shall start recording the parameter reading at one place jointly for the aforementioned STPs.</i></p>
4.	<i>Phase - IV, Kondli</i>	<i>45 MGD</i>	<i>20/30</i>	<i>Operational</i>	<i>Yes</i>	<p><i>- Rehabilitation of Phase-IV (45 MGD) STP Kondli is going on in such a way that half stream has to be under rehab and balance half will continue the treatment of sewage as per the present design parameters i.e. BOD/TSS<20/30 at a time. The complete Plant is likely to be functional by the end of March, 2024.</i></p> <p><i>- Presently the rehabilitation of half liquid stream up to</i></p>

					<p><i>secondary unit has already been completed and treating the sewage accordingly.</i></p> <p><i>- The Online monitoring system is already installed and working.</i></p> <p><i>- There are total 3 Nos. of Odour Control Units (OCU) installed at 45 MGD Phase- IV STP and all of them are functional.</i></p> <p><i>- The real time data of H2S gas at the inlet and outlet of all three OCUs can be viewed by any public/official at the DJBs official website https://delhijalboard.delhi.gov.in/services.</i></p> <p><i>- It is further to apprise that the Rehabilitation/Up gradation work of 45 MGD STP Ph-IV is going on to get the effluent standard i.e. BOD/TSS < 10/10 mg/l and on request of the executing agency and to carry out the rehabilitation the FRP (Fiber-reinforced polymer or plastic) covering of OCU units are being removed and shall be restored unit wise to carry out the rehabilitation later on.</i></p>
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4. Annexure-1 to the report of the DPCC relates to the analysis of the report at the inlet and outlet of STPs of December, 2023 whereas the bottom of the report states that the analysis of the fecal coliform was carried out by the DPCC Laboratory in the month of November, 2023. That apart, we also notice that there is no effective chlorination even in the STPs of Phase II and III.

5. Having regard to the circumstances of the case and in order to ascertain the correct position, we direct the Member Secretary, CPCB to carry out the sample analysis from Inlet and Outlet of all the four STPs with reference to BOD, SS and FC and submit the report before the Tribunal at least one week before the next date of hearing. It will be open

to the DPCC and DJB to file fresh report indicating the progress at least one week before the next date of hearing.

6. List this matter on 03.04.2024.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

January 15, 2024
Original Application No.366/2023
SN.