BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

PRINCIPAL BENCH AT NEW DELHI

ORIGINAL APPLICATION NO. 203 OF 2022

IN THE MATTER OF:

Kamlesh Singh ...Applicant

Versus

State of U.P. & Ors. ...Respondents

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FILED BY

SKV LAW OFFICES
Advocates for the Respondent No.5
B-50, Defence Colony, New Delhi-110024
Phone: 011-47099999
Email: lawyers@skvlawoffices.com

Place: New Delhi
Date: 13.07.2024

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

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ORIGINAL APPLICATION NO. 203 OF 2022

IN THE MATTER OF:

Kamlesh Singh ...Applicant

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ADDITIONAL REPLY ON BEHALF OF RESPONDENT NO. 5/PRAYAGRAJ POWER GENERATION COMPANY LIMITED IN COMPLIANCE OF ORDER DATED 08.04.2024

MOST REPECTFULLY SHOWETH:-

I. CONSPECTUS:-

1. The present letter petition/Original Application ("**OA**") has been filed by Mr. Kamlesh Singh ("**Applicant**") before this Hon'ble Tribunal wherein certain grievances have been raised by the Applicant against M/s Prayagraj Power Generation Company Limited ("**PPGCL**"/"**Project Proponent**"/"**Respondent No. 5**") among others power generators.

2. The issue raised by the Applicant in the present OA is that from Kishanpur canal, which extracts around 420 cusec (1 cusec = 28.32 litres) water from Yamuna river, around 96 cusec water is being utilised by PPGCL, 80 Mega litres/day ("**MLD**") is being used by Nagar Nigam, Meja district and Karchana district using 54 MLD and NTPC Meja is using 90 cusec water.

3. Furter *vide* the present OA the Applicant has alleged that PPGCL among

other power generators has been drawing water from the river Yamuna and river Ganga, and the water being utilised now from the said rivers will eventually become scare which will in turn adversely affect the Kumbh Mela and Magh Mela in the next 20 years.

4. The present matter was listed for hearing on 08.04.2024 wherein this Hon'ble Tribunal had sought certain additional questions from PPGCL *qua* the manner of utilisation of the treated water discharged of the water from the plant premised.

5. In light of the aforesaid, PPGCL is filing the present additional reply in the captioned matter before this Hon'ble Tribunal, placing on record the information as sought by this Hon'ble Tribunal.

6. *Vide* the present additional reply, PPGCL intends to fully and completely demonstrate the manner in which the water is treated in the plant premises and the manner in which the same is utilised.

7. It is submitted that the PPGCL has 3 units of 660 MW with a total generation capacity of 1980 MW. The water source is surface water (river). Further, it may be noted that the Water treatment plant starts from Pre-treatment plant which uses river water and after treatment, the treated water is stored in Clarified Water Storage tank.

8. The clarified water is used for the service, fire water and cooling water. The clarified water further passes though the Dual Media Filter ("**DMF**") followed by Ultra Filtration and RO Membranes. RO water finally passes through the Mixed Bed to make it De-mineralized water at DMF Plant. This De-mineralized water is sent to the Condensate Storage Tanks ("**CST**") for

boiler make-up.

9. The major use of clarified water is in cooling towers for the cooling purposes. It is submitted that the Cooling water treatment has been designed to operate the higher cycle of concentrations. The cooling tower blowdown water is further recycled by treating in the Effluent Treatment Plant ("**ETP**") and some time for the de-ashing purpose.

10. In addition to the above it may be noted that the ETP is used for the wastewater, which comes from the various plant areas. ETP are equipped with pretreatment facilities like the mechanical filters along with the ultra filtration and reverse osmosis system. All the ETP treated water is used in cooling water system as a make up in place of fresh water. The reject water from the ETP is re-routed to Ash handling plant for the bottom ash de-ashing purpose.

11. The Ash water recovery system operated in the close loop. Wastewater from ETP and Cooling Water Treatment ("**CWT**") passes through the Ash Water Clarification System as makeup water. After clarification, the water along with Ash goes to the Ash Pond. After settling and decantation, it is again brought to the clarifier for the de-ashing.

12. The Sewage treatment Plant ("**STP**") is used for the treatment of sewerage, which originates from the various locations. The sewage is treated as per the practices and outlet parameters are maintained as per norms. All the STP treated water is used for the horticulture and gardening purposes.

13. It is submitted that the following treatment facilities are available for the Water Treatment:-

(a) Pre-Treatment Plant for production of clarified water & DM feed water.

(b) DM plant for production of DM water.

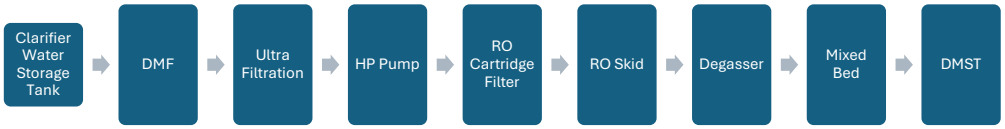
(c) Cooling Water treatment

(d) ETP.

(e) Ash Water Recovery System

(f) STP.

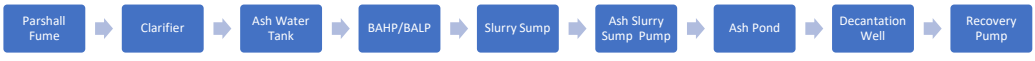
14. It is submitted that the for a better understanding of the entire process being followed by PPGCL, reliance is placed upon the diagrams below.



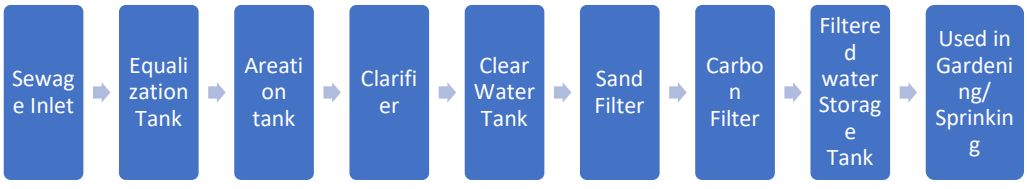
(a) Process Flow Diagram for Cooling Water Treatment:

(b) Process Flow Diagram for ETP:

(c) Process Flow Diagram for Ash Water Recovery System:



(d) Process Flow Diagram for STP:



15. It is further submitted that the Process Description of the above procedure is explained hereunder for the kind convenience of this Hon'ble Tribunal:-

(a) Raw Water Supply and Storage:

i. Raw water is brought to the reservoir from the Intake pump based on the need.

ii. The raw water is stored in the raw water reservoir.

iii. Based on the need, the raw water is being taken to the Pretreatment plant for the treatment by pumping through the Raw water pumps.

Fig: Raw Water Pump House

(b) **Pre-Treatment Plant & DM Water Production & Supply:**

i. Raw water is taken to Pre-treatment plant from RW Pump outlet. After chemical treatment at PT the Clarified water is stored at Clarified water storage tank.

ii. Using filter feed pump the clarified water is taken to filter media (DMF). Each filter is backwashed as and when required.

iii. Filter outlet water is taken to UF followed by RO plant through cartridge filter. RO Booster pump is used to provide the required pressure for RO.

iv. RO permeate is stored in DM feed tank.

v. Using DM plant supply pumps, the water is taken from DM feed Tank.

vi. Start DM plants as per WI.

vii. Mixed Beds units are regenerated after a gross output.

viii. Maintain DM water storage tank levels as per water requirements. Transfer DM water from storage tank to CST of running units as instruction from Operation Department

ix. N -pit- Effluents from DM plant is collected in N-pit and treated before discharging to ETP/CMB-2.

Fig: Pre-Treatment Plant

Fig: DM Plant

(c) CWT:

i. Water flows to cooling water forebay from the Clarifier Water Storage tank based on the requirement.

ii. From cooling water sump water flow to condenser through cooling water pumps.

iii. After cooling *via* condenser, water come to the cooling towers.

iv. In cooling water system, specialty chemicals are being dosed along with the Acid and Disinfectant to enhance the cycle of concentration.

v. Cooling water system also have the side stream filters for the filtration purpose.



Fig: Cooling Water Treatment

(d) Effluent Treatment Plant (ETP):

i. All the effluent is taken to ETP at Central Monitoring Basin - 2, which is a storage tank for the mixing of various effluent.

ii. Using feed pump the CMB -2 water is taken to the Clarifiers for the clarification. After chemical treatment at Pretreatment plant , the Clarified water is stored at Clarified water storage tank.

iii. Using filter feed pump the clarified water is taken to filter media (DMF). Each filter is backwashed as and when required.

iv. Filter outlet water is taken to UF followed by RO skid through cartridge filter. RO Booster pump is used to provide the required pressure for RO.

v. RO permeate is stored in Permeate storage tank.

vi. Using the makeup pump/ gravity, the water is taken from RO permeate Tank to cooling tower forebay as make up.

vii. Reject from ETP is collected in CMB-1 and discharging to Ash Handling Plant for the deashing purpose.

Fig: Effluent Treatment Plant

(e) Ash Water Recovery System:

i. Reject Water from ETP and CWT are coming to Parshall fume of Ash water recovery system.

ii. This is taken to clarifier from the Parshall fume. After chemical treatment at Clarifier, the Clarified water is stored at Ash Water Tank.

iii. Ash water tank, water is used by using BA HP/ LP pump for

bottom ash conveying and ash water mixture collected at Ash slurry sump.

iv. From Ash Slurry sump it is conveyed through ash slurry pump. this water with ash is conveyed to Ash Pond along with the ash through the pipelines by using Ash Slurry Pump.

v. After settling and decantation, this water again coming to the clarifier by pumping through recovery pump.

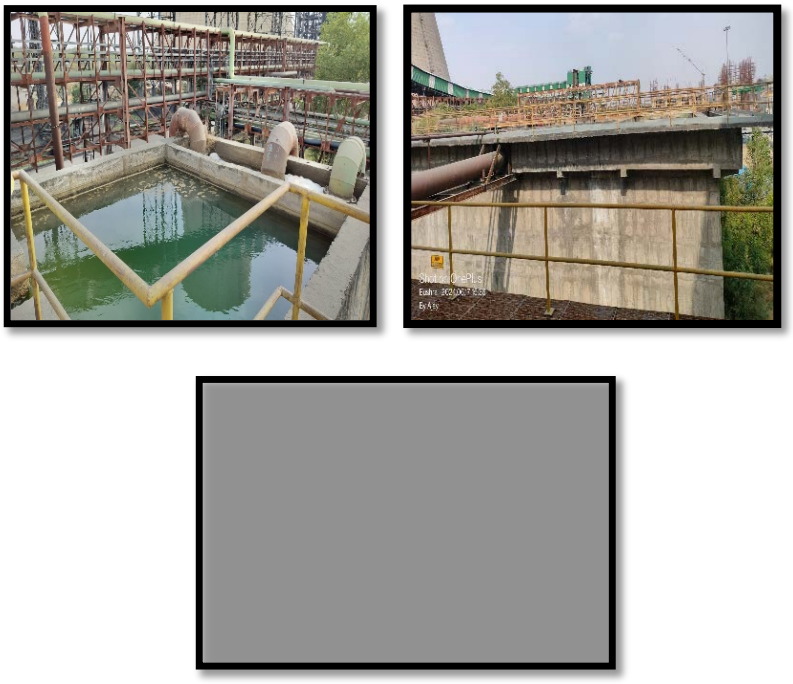


Fig: Ash Water Recovery Clarification System

(f) STP:

i. All the sewage is taken to STP at Equalization Tank of STP, which is a storage tank for the mixing and aeration of sewage coming from the various locations.

ii. Using feed pump the sewage water is taken to the Aeration tank for further aeration.

iii. From aeration tank, the water flows to the Clarifier for the clarification. After clarification, the treated water is stored at Clear water storage tank.

iv. Using filter feed pump the clarified water is taken to filter medias i.e., Sand filter fallowed by the Carbon Filter. Each

filter is backwashed as and when required.

v. Filter outlet water is taken to Filter Water Storage tank.

vi. Using the supply pump, the water is taken for the gardening and sprinkling purposes.

Fig: Sewage Treatment Plant

Re: Details of the utilisation of treated water discharged from the premises of PPGCL

16. It is submitted that PPGCL has implemented a system where domestic effluent is treated through a STP. The treated water from this STP is then utilized within the premises for irrigation and water sprinkling activities. This setup not only helps in managing waste efficiently but also conserves water by repurposing it for essential maintenance tasks.

16.1. By using treated water for irrigation, PPGCL ensures that the green belts and landscaped areas around the plant are maintained sustainably, reducing the withdrawal of fresh water resources. Similarly, water sprinkling is a critical activity, especially in industrial areas, to control dust

and manage air quality. Using treated water for this purpose minimizes the environmental footprint of the Plant's operations.

16.2. The aforesaid approach reflects a responsible environmental management strategy, aligning with broader sustainability goals by reducing fresh water usage, managing waste effectively, and contributing to environmental conservation.

17. In light of the aforesaid, PPGCL has demonstrated that it has taken utmost care *qua* the utilisation of treated water discharged from the premises of the plant. This is also in terms with the Environmental Clearance ("**EC**") / Consent to Operate ("**CTO**")/ Consent to Establish ("**CTE**") obtained by PPGCL.

18. Therefore, in the light of the facts and circumstances stated above, it is most respectfully submitted that the OA filed by the Applicant is nothing but a frivolous litigation filed without any cause of action and hence it warrants to be outrightly dismissed by this Hon'ble Tribunal.

FILED BY

SKV LAW OFFICES
Advocates for Respondent No. 5/PPGCL
B-50, Defence Colony, New Delhi-110024,
Phone: 011-47099999 Email:
lawyers@skvlawoffices.com

Date: 29.06.2024
Place: Prayagraj

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BE

AT NEW DELHI

ORIGINAL APPLICATION NO. 203 OF 2022

IN THE MATTER OF: –

Kamlesh Singh ...Applicant

Versus

State of U.P & Ors. ...Respondents

AFFIDAVIT

I, Subhash Chandra Pandey, aged about 52 years, S/o Shri Hari Narayan Pandey, R/o Ashish theatre Chembur, Type 3/21, Tata Colony, Mahul Road, Mumbai Suburban, Maharashtra -400074, Authorised Representative of Respondent No. 5 i.e. M/s Prayagraj Power Generation Company Ltd ("**Respondent No. 5**"/ "**PPGCL**"), having its office at PO – Lohgara, Tehsil – Bara, Prayagraj, Uttar Pradesh – 212107 do hereby solemnly affirm, declare and state on oath as under:-

1. That I am the Authorized Representative of Prayagraj Power Generation Company Limited, the Respondent No. 5 in the above-mentioned matter and as such I am well conversant with the facts and circumstances of the present case, based on the information and knowledge as derived from the records maintained by the Respondent No. 5 in its ordinary course of business.

2. That I have read the accompanying Reply and I say that the same has been drafted under my instructions, and that the contents therein are true and correct to the best of my knowledge and belief.

3. That the Annexures filed along with the accompanying Reply are true copies of their respective originals.

Prayagraj Power Generation Company Ltd. Prayagraj

4. That the facts stated above are true and correct to the best of my knowledge. No part of the same is false and nothing material has been concealed therefrom.

Prayagraj Power Generation Company Ltd. ★ Prayagraj

DEPONENT

VERIFICATION

I, the deponent above named do hereby verify that the contents of this affidavit are true and correct to the best of my knowledge and belief, no part of it is false and nothing material has been concealed therefrom.

Verified at Prayagraj, on this 29th day of June, 2024.

Prayagraj Power Generation Company Ltd. ★ Prayagraj

DEPONENT

Subhash Chandra Pandey

by the ... Clerk
Sri ... Advoca...
on date ...
Compound ... Allahaba...
J.R Accept... and verified that the Contr...
of thisaffidavit ... true and correct.

SHYAM BIHARI PANDE
NOTARY