

Item No.15

(Court No. 1)

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

(Through Physical Hearing with Hybrid VC Option)
Original Application No.369/2022
(I.A No. 279/2022)

Sachin Tomar

...Applicant

Versus

State of U.P. & Ors.

...Respondents

Date of Order: 18.01.2024

Date of Uploading: 12.02.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL JUDICIAL MEMBER
HON'BLE MR. JUSTICE ARUN KUMAR TYAGI JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD EXPERT MEMBER**

Applicant: None for the applicant.

Respondents: Mr. Pradeep Misra Advocate for Respondent no. 3-UPPCB
(through VC).
Mr. Vivek Singh and Ms. Kirti Mewar Advocates for
Respondent No. 4 alongwith Mr. Lokesh Kumar, General
Manager (through VC).

Application is registered based on a complaint received by Email.

ORDER

By Hon'ble Mr. Justice Arun Kumar Tyagi, Judicial Member

1. Mr. Sachin Tomar, resident of Village Titawi, District Muzaffarnagar has sent by email the present letter petition, which has been treated and registered as Original Application No. 369/2022, complaining about air and water pollution caused by Titawi Sugar Mill in village Titawi, Muzaffarnagar.

2. The applicant has submitted in the application that Titawi Sugar Mill is discharging contaminated chemical effluent and emitting fly ash in village Titawi, Muzaffarnagar due to which the villagers are falling ill and

appropriate action may be taken after watching the video clips enclosed with the application.

3. This Tribunal took cognizance on the said application and vide order dated 24.05.2022 constituted a Joint Committee comprising of CPCB, State PCB and District Magistrate, Muzaffarnagar, Uttar Pradesh and directed the same to submit factual and action taken report within two months.

4. Mr. Ankit Singh, Regional Officer, UPPCB Regional Office, Muzaffarnagar sent written report of the Joint Committee vide email dated 18.08.2022 for extension of time for submission of report stating that the industry M/s Indian Potash Limited (Titawi Sugar Complex), Titawi, Muzaffarnagar had shut down its operation and ended the crushing season on 22.05.2022. As the industry was not operational, the efficacy of installed pollution Control systems could not be verified. Accordingly the Joint Committee recommended that the inspection of the industry may be carried out once the crushing season 2022-2023 started.

5. The applicant filed Interlocutory Application No. 279/2022 stating that only generation of fly ash had been stopped due to shutting down of operation of the Sugar Mill but the fly ash stored inside and outside the Sugar Mill reaches the fields and houses of the villagers due to blowing of winds for which no proper arrangement has been made by the Sugar Mill. Further, the chemical mixed waste water is being discharged by the Sugar Mill through drain which flows about 1 KM along the National High way from the Sugar Mill to Titawi Bus Stand. Four persons had died till then by drowning in the said drain and proper factual verification has not been done by the UPPCB Regional Officer. The applicant also sent the links to the videos uploaded on YouTube.

eration tank → Aeration Tank-I → Secondary Clarifier-I → Chlorine contact tank → Multigrade filter (MGF) → Activated Carbon Filter → Sludge dewatering system (Decanter). Lime dosing was also done before primary clarifier & further before secondary clarifier; urea & DAP were added. Flow chart placed at Annex-V.

6. No logbook was maintained for chemical consumption at ETP.

7. On the day of the visit, it was observed that the unit has renovated the existing aeration tank-II of capacity 3647m³ with diffusers based technology, the unit representative informed that this aeration tank will come under use within 2-3 days.

8. As per the log book data of ETP inlet and ETP outlet, provided the unit for the month of Dec, 2022. Average effluent generation was 607 KLD and Effluent discharge was 629.9 KLD. The details are as follows;

Table 1: Effluent generation and Effluent discharge for the month of Dec, 2022

Month	Effluent generation	Effluent discharge	Consumption of water from Lagoon in irrigation
Dec, 2022 (19 days)	11541 KL	11969 KL	5815 KL
Avg.	607.4 KLD	629.9 KLD	306.05 KLD

9. The unit is complying w.r.t. specific effluent discharge norms as the treated effluent at ETP outlet is 74.63 liter per ton of cane crushed against the specific effluent discharge norms of 200 liters per ton of cane crush. As per the consent issued under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended) to M/s. Titawi Sugar Complex, the unit is having four boilers of capacity 77 TPH, 90 TPH & 32 TPH (02 boilers) having a consent validity for the period from 31.05.2019 to 31.12.2024. All the boilers were found operational on the day of inspection.

Table 2: Details of the boilers

S. No.	Air Pollution Source	Type of fuel	Stack No.	Stack Height	Air Pollution Control Device
1.	77 TPH Boiler	Bagasse	1	40 meter from ground Level	Electro Static Precipitator (ESP)
2.	32 TPH Boiler	Bagasse	1	40 meter from ground Level	Wet scrubber
3.	32 TPH Boiler	Bagasse	1	40 meter from ground Level	Venturi Scrubber
4.	90 TPH Boiler	Bagasse	1	65 meter from ground level	Electro Static Precipitator (ESP)

10. The team of officials from Regional Office (RO), UPPCB, Muzaffarnagar carried out stack emission monitoring. The stack monitoring results are given below;

Table 3: Analysis results of Stack monitoring for Particulate Matter (PM)

Sr. No	Name of the plant /stack identification	Stack Height	PM Result (mg/Nm³)	Standards
1	Boiler stack of 32TPH+32TPH	40 mtrs	140.9	150 mg/Nm ³
2	Boiler stack of 90 TPH	65 mtrs.	123.1	150 mg/Nm ³
3	Boiler stack of 77 TPH	40 mtrs	136.2	150 mg/Nm ³

Analysis results of stack monitoring showed value of PM 140.9 mg/Nm³, 123.1 mg/Nm³ and 136.2 mg/Nm³ which are within the notified norms of 150 mg/Nm³.

11. Fresh water abstraction

The unit has 03 bore wells to meets its fresh water requirement. On the day inspection 2 Borewell were found operational and one was found non-operational. The unit is meeting its domestic water requirement from borewell-1 and industrial water requirement from borewell-2. The unit has obtained NOCs for ground water abstraction for 03 bore wells. The details are as follows;

Table 4: Detail of CGWA NOC & Ground water abstraction

No. of Borewell	Validity	Rate of withdrawal m³/h	Maximum allowable running hours (per day)	Maximum allowable annual extraction of ground water (m³)
Borewell 1 (REG018075)	NOC valid till 13.03.2025	100	4	1,40,000
Borewell 2 (REG012285)	NOC valid till 13.03.2025	125	1	45,625
Borewell 3 (REG011159)	NOC valid till 13.03.2025	90	5	1,57,500
Total annual abstraction				3,43,125

Table 5: Month wise details of fresh water abstraction (KLD)

(As per logbook data from 1st Nov-2022 to 19th Dec-2022)				
S.N	Months	Bore-well No. I (KL) (Colony)	Bore-well No. II (KL) (Industrial)	Borewell-III
1	Nov-22	1497	8415	0
2	Dec-22	666	10136	0
	Total withdrawal	2163	18551	0
		2163 KL (Borewell 1 & Borewell-2)		
	Avg. withdrawal	44.14 (KLD)	378.5 (KLD)	0

As per the logbook data provided by the unit for the month of Nov, 2022 and December 2022. The unit has extracted total 2163 KL of fresh water from Borewell-1 and Borewell-2. Flow-meters were found installed at both the bore-wells. As per logbook records from

01.11.2022 to 19.12.2022 the average fresh water extraction/consumption from bore-well-1 is 44.14 KLD and from Borewell-2 is 378.5.

12. Characteristics of the ground water sample collected from the industrial Borewell and nearby village (hand pump)

Table 6: Characteristics of the ground water sample collected from the industrial Borewell and nearby village (hand pump)

<i>Parameters</i>	<i>Sampling location</i>	<i>Bore well No.1</i>	<i>Hand pump (Nearby village)</i>	<i>BIS IS 10500:2012 (Permissible limit in absence of alternative source)</i>
<i>pH</i>		8.4	8.5	6.5-8.5
<i>Colour (Hazen)</i>		--	BDL	15
<i>COD (mg/l)</i>		BDL	BDL	-
<i>BOD</i>		BDL	BDL	-
<i>TDS (mg/l)</i>		220	414	2000
<i>TSS</i>		12	08	
<i>Total hardness as CaCO₃ (mg/l)</i>		182	335	600
<i>Total alkalinity as CaCO₃ (mg/l)</i>		200	333	600
<i>Chloride (mg/l)</i>		10	14	1000
<i>Sulfate (mg/l)</i>		12	28	400
<i>Fluoride (mg/l)</i>		0.4	0.2	1.5
<i>NO₃-NO₃ (mg/l)</i>		0.1	6.3	45
<i>As (mg/l)</i>		BDL	BDL	0.05
<i>Cd (mg/l)</i>		BDL	BDL	0.003
<i>Cr (mg/l)</i>		BDL	BDL	0.05
<i>Fe (mg/l)</i>		1.00	BDL	0.3
<i>Mn (mg/l)</i>		0.06	BDL	0.3
<i>Ni (mg/l)</i>		BDL	BDL	0.02
<i>Pb (mg/l)</i>		BDL	BDL	0.01
<i>Zn (mg/l)</i>		BDL	BDL	15

13. Analysis results collected from the industrial Borewell and from the nearby village is found complying w.r.t BIS standards.

14. At the inlet of ETP, two pipe lines of fresh water were observed also in the equalization tank, layer of oil was observed, which clearly indicates that oil skimmer was not working properly. Also, scrapper of secondary clarifier of the unit was not working initially only made operational after team arrival.

15. For storage of treated effluent, the unit has one impervious lagoon of capacity 3200m³. The treated effluent from the ETP is stored in the lagoon which is further distributed to nearby farmer's field for irrigation as per the demand. To measure the quantity, of treated effluent supplied for irrigation, the unit has installed flow meter at the outlet of lagoon. As per the log book data provided by the unit for the month of December 2022 of 19

days, avg. consumption of treated effluent for irrigation is 306.05 KLD.

16. The unit has two underground reservoirs (UGR) for hot water and cold water recirculation having capacities 300 m³ and 600 m³. All machinery cooling water is reused through UGR. Separate cooling tower is installed for cooling of power house and boiling house machinery cooling water.

17. Earlier, the sludge from primary and secondary clarifier was sent to sludge drying beds, however the unit has now installed mechanical sludge dewatering system (sludge decanter). The dried cake is distributed to farmers for utilization as manure.

18. The unit has setup environmental laboratory for analysis of daily parameters (pH, BOD, COD, TSS etc.). The unit has maintained the ETP log book for daily analysis of ETP effluent parameter.

19. The unit's fly ash generation data for the month of November and December 2022 is given below:

Table 7: Fly ash generation data for the month of November and December 2022

S. No.	Cane crushed	Quantity (Qtl.)	Bagasse Generation	Quantity (Qtl.)	Ash Generation @1.5% on bagasse consumed
I	Cane crushed from unit-I	2477400	Bagasse Generation from unit-I	538070.19	14679 Qtl.
II	Cane crushed from unit-II	1581000	Bagasse Generation from unit-I	440520.58	
Total		4058400		978590.77	14679 Qtl.

20. The unit has submitted the copy of analysis reports of Industrial effluent and stack monitoring for the month of Nov, 2022.

21. The unit has submitted the copy of Irrigation Management Plan prepared by Chandra Shekar Azad University of Agriculture & Technology Kanpur, in the year 2017. As per the irrigation management plan, the unit is having total 1196.08 acre of command area for irrigation (18.55 acre of Factory Lawns, orchard, garden, horticulture and 1177.53 acres Titawi village area) and the lands available in campus and nearby are sufficient for consuming treated effluent water for irrigation purpose and the unit is mostly having sandy loam soil in Command area.

22. The unit has provided agreements regarding request and demand of ETP treated effluent by the farmers from nearby villages for irrigation of their agricultural fields.

23. The unit is using cooling tower water for ash quenching. The unit has 10 acres of land for ash disposal.

24. The unit has submitted the water balance and ETP adequacy verification report prepared by VSI for the year 2018.

25. Cooling tower overflow/spray pond over was also feed into the equalization tank. The unit has no separate system for Sulphate removal.

26. The unit has installed Online Continuous Effluent Monitoring System (OCEMS). OCEMS reading w.r.t. flow- 48.5m³/hr, pH- 7.27, COD- 109.2 mg/l, BOD- 21.8 mg/l and TSS-

16.5 mg/l were recorded during joint inspection. OCEMS is connected with CPCB and SPCB server.

27. The team of officials collected the samples from the ETP inlet, ETP outlet, Equalization tank, Primary clarifier, cooling tower overflow, Secondary Clarifier and storage lagoons. The analysis results are as follows;

Table 8: Analysis results of samples were collected from ETP inlet and outlet

Sampling location	pH	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	TDS (mg/l)	Sulphate (mg/l)	Oil & Grease (mg/l)	MLSS/MLVSS
ETP Inlet	4.1	1363	292	298	1460	71	-	-
Equalization tank	4.5	2241	739	329	1668	92	-	-
Cooling tower overflow	7.7	1176	274	642	1428	66	-	-
Primary clarifier outlet	5.6	2465	1084	280	2424	96	-	-
Aeration tank	-	-	-	-	-	-	-	MLSS=2880 MLVSS=2356
Secondary clarifier-outlet	8.0	147	17	121	2016	113	-	-
ETP Outlet	7.9	65	09	45	1280	79	BDL	-
Treated effluent storage lagoon	8.3	70	08	17	1956	134	-	-
Notified standards for land disposal	5.5 to 8.5	250	100	100	2100		10	-

Table 9: Analysis results of samples were collected from storm water drain

Sampling location	pH	COD (mg/l)	BOD (mg/l)	TSS (mg/l)	TDS (mg/l)	Sulphate (mg/l)
Storm water Drain	6.7	139	50	89	404	30
Notified standards for land disposal	5.5-9	250	30	100	--	---

28. The analysis results of sample collected from the inlet of ETP showed (pH- 4.1, COD- 1363 mg/l, BOD- 292 mg/l, TSS- 298

mg/l, TDS- 1460 mg/l and Sulphate- 78 mg/l) which indicates that ETP inlet did not reflect the characteristics of sugar effluent industry.

29. The analysis results of sample collected from the ETP outlet (pH- 7.9, COD- 65 mg/l, BOD- 09 mg/l, TSS- 45 mg/l, TDS- 1280 mg/l, Sulphate- 79 mg/l and Oil & Grease- BDL) indicates that the treated effluent from the ETP is complying w.r.t. the notified standards for irrigation purpose i.e. pH- 5.5-8.5, COD- 250 mg/l, BOD- 100 mg/l, TSS- 100 mg/l, TDS- 2100 mg/l).

30. It was observed that industry was bypassing the cooling tower overflow/spray pond over flow into the storm water drain near the ETP area. Analysis results of sample collected from storm water drain showed (pH- 6.7, COD- 139 mg/l, BOD- 50 mg/l, TSS- 89 mg/l, TDS- 404 mg/l and Sulphate- 30 mg/l).

31. Sewage Treatment Plant (Capacity 80 KLD)

- The unit has one sewage treatment plant of 80 KLD for treatment of domestic effluent generated from the staff quarters, worker's colony, guest houses, canteens, bathrooms, kitchen and laundry.

- The unit has consent to operate, issued (dated 28.01.2022) by UPPCB, having permission to discharge 125 KLD of treated sewage through Septic Tank with prescribed standards as per E(P)A rules 1986.

Characteristics of samples collected from STP

Samples were collected from the inlet and final outlet of STP and the analysis results are as follows:

Table 10: Analysis results of samples collected from STP

Sample Analysis from STP	pH	COD	BOD	TSS	TDS	NO2-N	NO3-N
STP inlet	7.7	85	25	45	440	0.05	0.19
STP outlet	7.8	61	14	35	370	BDL	1.02
Drain near STP	6.9	102	24	24	568	--	---

- At the time of inspection, flowmeter reading at STP inlet was observed as 255.8.m³/hr and no flowmeter was installed at STP outlet.

- The unit has not provided the copy of logbook data of STP, however the unit has informed that treated effluent after STP is mixed with the storm drain water and after mixing it is used for irrigation purpose.

- One bypass arrangement at the inlet line of STP was observed, however no flow was observed in the bypass line.

- Samples collected from the inlet and outlet of STP showed pH-7.7, COD-85 mg/l, BOD-25 mg/l, TDS-440 mg/l, TSS-45 mg/l, and NO2-N-0.05 mg/l & NO3-N-0.09 mg/l and pH-7.8, COD-61 mg/l, BOD-14 mg/l, TDS-370 mg/l, TSS-35 mg/l, NO3-N-1.02 mg/l and NO2-N-BDL.

- Analysis results of sample collected from the drain near STP showed (pH- 6.9, COD- 102 mg/l, BOD- 24 mg/l, TSS- 24 mg/l and TDS- 568 mg/l respectively.

Conclusion:

1. The unit is having valid Consent to Operate under section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 and Consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 for discharge, both valid up to 31.12.2024.
2. As per the consent issued under section 21/22 of the Air (Prevention and control of Pollution) Act, 1981 (as amended) to M/s. Titawi Sugar Complex, the unit is having four boilers of capacity 77 TPH, 90 TPH & 32 TPH (02 boilers) having a consent validity for the period from 31.05.2019 to 31.12.2024. All the boilers were found operational on the day of inspection.
3. Analysis results of stack monitoring showed value of PM 140.9 mg/Nm³, 123.1 mg/Nm³ and 136.2 mg/Nm³ which are within the notified norms of 150 mg/Nm³.
4. The unit has installed Online Continuous Effluent Monitoring System (OCEMS). OCEMS reading w.r.t. flow- 48.5m³/hr, pH- 7.27, COD- 109.2 mg/l, BOD- 21.8 mg/l and TSS- 16.5 mg/l were recorded during joint inspection. OCEMS is connected with CPCB and SPCB server.
5. Two pipelines of fresh water were observed at the inlet of ETP, also in the equalization tank, layer of oil was observed, which indicates that oil skimmer was not working properly.
6. Analysis results of sample collected from the inlet of ETP showed (pH- 4.1, COD- 1363 mg/l, BOD- 292 mg/l, TSS- 298 mg/l, TDS- 1460 mg/l and Sulphate- 78 mg/l). which indicates that ETP inlet did not reflect the characteristic of typical sugar effluent.
7. Analysis results of sample collected from storm water drain showed (pH- 6.7 against norms of 5.5-9.0, COD- 139 mg/l against norms of 250 mg/l, BOD- 50 mg/l against norms of 30 mg/l TSS- 89 mg/l, TDS- 404 mg/l and Sulphate- 30 mg/l w.r.t. the surface discharge norms prescribed under Environment (Protection) Rules, 1986. The results indicate that the unit was bypassing the cooling tower overflow/spray pond over flow into the storm water drain near the ETP area.
8. Analysis results of the samples collected from the inlet and outlet of STP showed pH-7.7, COD-85 mg/l, BOD-25 mg/l, TDS-440 mg/l, TSS-45 mg/l, and NO₂-N-0.05 mg/l & NO₃-N-0.09 mg/l and pH-7.8, COD-61 mg/l, BOD-14 mg/l, TDS-370 mg/l, TSS-35 mg/l, NO₃-N-1.02 mg/l and NO₂-N-BDL.

Recommendations

1. The unit shall dismantle the bypass line observed at the inlet of STP.
2. The unit shall stop bypassing the cooling tower overflow/spray pond over flow into the storm water drain and shall treat all the industrial effluent and cooling tower overflow/spray pond through ETP only.
3. The unit shall operate its oil skimmer properly.
4. The unit shall dismantle all the fresh water lines available at ETP area and shall use only treated waste water for backwashing /cleaning purpose.
5. Color- coding of pipelines shall be ensured.
6. Unit shall install electromagnetic flowmeters at ETP inlet & STP outlet.

7. *Unit shall maintain logbook for chemical consumption of ETP.”*

10. In the facts and circumstances of the case, this Tribunal impleaded the State of Uttar Pradesh, through Chief Secretary, Government of Uttar Pradesh, District Magistrate, Muzaffarnagar, Uttar Pradesh, UPPCB and the Project Proponent as respondents no. 1 to 4 and ordered issuance of notices to them.

11. Pursuant to notice, short affidavit has been filed by respondent no. 4 Project Proponent- M/s Indian Potash Ltd. vide email dated 03.10.2023. In its reply respondent no. 4 has submitted that the recommendations which had been made in the show cause dated 23.01.2023 had all been strengthened and implemented by the respondent no. 4 which was also communicated to the Joint Committee and the UPPCB vide letters dated 01.02.2023. In its reply filed respondent No.4 has stated that Respondent no.4 has also installed and commissioned a Sulphate Removal System in the plant on 13.12.2023 at the cost of Rs.71.39 Lacs. to get better quality of treated water. In its reply respondent no. 4 has also inter alia mentioned that it had invested amount of Rs. 3.47 Crore in the last two years for strengthening compliance with environmental norms and that respondent no. 4 participated in **Vrahad Vraksha Ropan Maha Abhiyan-2023** and planted 5000 trees of various varieties such as Sagoon, Arjun, Amrood, Jamun, Shesham, Kanji and Sahjan.

12. Respondent no. 4 has also enclosed copy of reply dated 01.02.2023 in respect of compliance with recommendations made by the Joint Committee on Joint Inspection dated 20.12.2022. The relevant part of the same reads as under:-

“With reference to your letter No.H-87657/C-3/Ja1-256/2023 dated 23rd January 2023 regarding non compliance of our unit which had been inspected by the Joint Committee against NGT

O.A No.369/2022 on 20.12.22. As per the show cause notice following non compliance were mentioned by the inspecting Committee and we have taken corrective measures as per the recommendations suggested by the third party upgrade our ETP Plant. We have already installed one new soration tank with the capacity 4737m³ and adopted fine bubble diffuser technology based on air blower (02 Nos. capacity =1250m³/hr) to meet the BOD & COD Standards. Our average BOD is 21ppm as per OCEMS. During the Joint Committee visit, our ETP operation was found very satisfactory as told us by them. However we have enclosed ETP Discharge report for November 22 & December 22.

SI No.	Committee's Recommendations	Unit Reply
1	The Unit shall dismantle the bypass line observed at the inlet of STP	Our STP was found functional and it is a dead line of colony and it is not a bypass line however as per the recommendations we have dismantled the line observed at the inlet of STP(Photo enclosed)
2	The unit shall stop bypassing the cooling tower overflow/ spray pond overflow into the storm water drain and shall treat all the industrial effluent and cooling tower overflow/ spray pond through ETP only.	We are continuously operating our ETP in an effective manner and treated waste water is being used for Irrigation purpose for nearby farmers and green Park in factory premises as well as spray on factory road and our cane yard area on daily basis to settle dust. The pump installed at spray pond suddenly got tripped and the condensate water which was fresh got overflowed into the ETP outlet water drain however in order to overcome this problem we have installed some more standby pump at surplus hot water condensate cooling spray pond and we are not discharging any untreated effluent in any storm water drain. All the industrial effluent and cooling tower overflow/ spray pond overflow are treated through ETP.

3.	<i>The Unit shall operate its oil skimmer properly</i>	<i>We have installed centralized lubrication system at mills to avoid oil and we have also 01 oil skimmers in ETP to extract oil from the water and additionally we deploy contract labour at the inlet for manual extraction of oil from the water. However Joint Inspecting Committee had suggested to tight the scrapper for more extraction of oil, as per suggestion we have made tight the scrapper and we used to operate our oil skimmers properly.</i>
4.	<i>The unit shall dismantle all the fresh water lines available at ETP area and shall use only treated waste water for backwashing/ cleaning purpose.</i>	<i>The fresh water lines were used for Drinking water of staff working at ETP and at the start of season we have to develop blo mass culture with the help of cowdung and fresh water mixing with appropriate nutrients. As per the recommendations, we have dismantled all the fresh water lines at ETP area.</i>
5	<i>Colour Coding of pipelines shall be ensured</i>	<i>We have already provided color coding in pipelines but as per the recommendations we have made it more effective</i>
6	<i>Unit shall install electromagnetic flowmeter at ETP Inlet & amp; STP outlet.</i>	<i>The unit has already Installed mechanical flow meter at ETP inlet & amp; STP outlet however as per the recommendations we will replace the existing flow meters of ETP & STP with Electromagnetic flow meters.</i>

7	<i>Unit shall maintain log book for chemical consumption of ETP</i>	<i>We have already maintained log book for the ETP operation & chemical consumption of ETP which is filled on daily basis but as per your recommendation we will make separate log book for chemical consumption (Photocopy attached).</i>
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We have also attached herewith the Compliance report of CTO. We assure you that we will be always careful & vigilant for better water treatment without any bypass arrangement etc. The committee had not found any water going outside factory premises as we are recycling most of water to replace borewell consumption for cooling of plant equipments.

We had implemented all the best practices suggested in validation of Vasant Dada Sugar Institute, Pune and accordingly time to time equipment & technology is being upgraded as per their recommendations. The visiting team has found our ETP operation in a systematic manner.

Sir, our ETP is always operational and the parameters are under prescribed limit. We have also implemented most of the recommendation as suggested by the Joint Inspecting Committee to make our compliance more effective therefore we request you to discharge from the showcause notice dated 23.01.23..”

13. The UPPCB has also filed report before this Tribunal vide email dated 06.10.2023. In its report the UPPCB has submitted that in reference to the violations found in the industry, UPPCB had issued a show cause notice dated 23.01.2023 for imposition of Environmental Compensation (30,000/- per day) until found complying with the recommendations of the Joint Committee. The industry vide letter dated 01.02.2023 informed the UPPCB that the unit has complied with all the recommendations. The industry was inspected along with officials of Regional Office, UPPCB, by the third party teams constituted by CPCB for inspections of TPI/Grossly polluting industries on 25.02.2023. During the inspection, the unit was found complying with the treated effluent discharge norms. The industry shut down its operation during the season on 14.05.2023. The UPPCB further

inspected the industry on 21.09.2023 and industry was found closed due to off season. UPPCB has further submitted in the report that the following compliances were verified by UPPCB in reference to the recommendations made by the joint committee: -

- “1. The bypass line observed at the inlet of STP was found dismantled.*
- 2. No bypass system was observed for bypassing the cooling tower overflow/spray pond overflow into the storm water drain. Pipeline was found connected at the inlet of ETP for treatment of cooling tower overflow/spray pond overflow. Also, one additional standby pump has also been installed for continuous operation of the pump.*
- 3. Oil skimmer was found operating adequately to remove oil and grease at the inlet of ETP. Over hauling of the oil skimmer has been done by the industry.*
- 4. Fresh water line found at the inlet of the ETP has been dismantled.*
- 5. Colour coding of pipelines in various processes has been done by the industry.*
- 6. Flowmeters have been installed and found operating at ETP inlet and STP outlet.*
- 7. Log book was found maintained for chemical utilization in ETP.”*

14. None has appeared for the applicant today.

15. We have heard Mr. Pradeep Misra, learned Counsel for respondent no. 3-UPPCB and Mr. Vivek Singh and Ms. Kirti Mewar, learned Counsels for respondent No. 4- Indian Potash Ltd. and we have gone through the material on record.

16. In his application the applicant raised grievances regarding (i) water pollution caused by discharge of chemical mixed waste water in drain which joins river Hindon and (ii) air pollution caused by emission of fly ash reaching the fields and houses of the villagers due to blowing of winds and the questions which arise in the present case are whether the respondent No.4 has violated environmental norms regarding discharge of industrial and domestic effluent and management and disposal of fly ash and if so, what remedial measures are required to be taken.

17. As per the material on record, the unit was commissioned in the Year 1992 before issuance of notification dated 14.09.2006 whereby the requirement of grant of prior environmental clearance was laid down. However, the Industry was required to apply for and has been granted consent to operate under the Air (Prevention and Control of Pollution) Act, 1981 valid upto 31.12.2024 and consent to operate under the Water (Prevention and Control of Pollution) Act, 1974 valid upto 31.12.2024. The Industry had authorization under the Hazardous Waste Rules valid upto 08.02.2023. On the day of visit by the Joint Committee, the unit was found operational. The unit commenced its crushing season 2022-23 on 7th November, 2022 and as per Daily Manufacturing Reports (DMRs) provided by the unit, the average cane crushing from 01.11.2022 to 19.12.2022 was 8439.76 TCD. The unit has three bore wells to meet its fresh water requirements. On the day of inspection by the Joint Committee, two Borewells were found operational and one borewell was found non-operational. The Joint Committee found that the unit is meeting its domestic water requirements from borewell-1 and industrial water requirements from borewell-2 and the industry has also adopted Rain Water harvesting system. The unit is having ETP with treatment capacity of 2150 KLD for treatment of effluent generated from various sections of sugar mill. For storage of treated effluent, the unit has one impervious lagoon of capacity 3200m³. The treated effluent from the ETP stored in the lagoon is distributed to nearby farmers' fields for irrigation as per the demand. To measure the quantity, of treated effluent supplied for irrigation, the unit has installed flow meter at the outlet of lagoon. The unit has one sewage treatment plant of 80 KLD for treatment of domestic effluent generated from the staff quarters, worker's colony, guest houses, canteens, bathrooms, kitchen and laundry.

18. As per the consent conditions, the industry has to comply with various provisions of the Air (Prevention and Control of Pollution) Act, 1981 as amended, the Water (Prevention and Control of Pollution) Act, 1974 as amended and all other applicable rules notified under E.P. Act, 1986.

19. The relevant consent conditions imposed by UPPCB in CTO dated 28.01.2020 under the Water (Prevention and Control of Pollution) Act, 1974 requiring compliance with regard to discharge of industrial and domestic effluent are reproduced as under:-

“General Conditions

4. Arrangement should be made for collection of water used in process and domestic effluent separately in closed water supply system. The treated domestic and industrial effluent if discharged outside the premises, if meets at the end of final discharge point, arrangement should be made for measurement of effluent and for collecting its sample. Except the effluent informed in the application for consent no other effluent should enter in the said arrangements for collection of effluent. It should also be ensured that domestic effluent should not be discharged in storm water drain .

X X X X

7. The industry shall establish the cooling arrangement and polishing tank for recycling the excess condensate water to process or utilities or allied units.

8. Effluent Treatment Plant to be stabilized one month prior to the start of the crushing season and continue to operate one month after the crushing season.

9. During no demand period for irrigation, the treated effluent to be stored in a seepage proof lined pond having 15 days holding capacity only.

10. The industry shall implement treated effluent flow distribution measurement for irrigation purposes completely in accordance with irrigation plan.

11. The impact of treated effluent application on land is to be included further in E.I.A. studies, involving ground water monitoring point identified in close proximity to the unit.

12. The industry will have to ensure compliance of the permission from the CGWA before ground water extraction and it will be the responsibility of the industry to comply with the various conditions of the permission taken.

13. The industry shall submit Environmental Statement in prescribed form V rule no.14 of E.P Rules 1986.”

Specific Conditions

7. During no demand period for irrigation, the treated effluent to be stored in a seepage proof lined pond having 15 days holding capacity only.

8. *Flow meter to be installed in all water abstraction points and usage of fresh water to be minimized.*
9. *The newly provided treated effluent storage tank with 15 days holding capacity shall be connected to E.T.P. unit operations & integrated with tertiary treatment stage.*
10. *The industry shall ensure deployment of qualified to step up self monitoring mechanism on 24 × 7 Hours basis.*
11. *The industry shall implement treated effluent flow distribution measurement for irrigation purposes completely in accordance with irrigation plan.*
12. *The impact of treated effluent application on land is to be included further in E.I.A. studies, involving ground water monitoring point identified in close proximity to the unit.*
13. *The industry will have to ensure permission from the CGWA before ground water extraction and it will be the responsibility of the industry to comply with the various conditions of the permission taken.*
14. *E.I.A. studies shall include comprehensive study of water & waste water balance in Addition to the adequacy studies of E.T.P. relating to pollution load reduction impacts after implementation of treatment technology & discharge of treated effluent completely for irrigation purposes in place of discharge on surface water body.*
15. *The industry shall deploy self monitoring task force to strictly observe & monitor treated effluent discharge restriction on surface water body located in its proximity.*
16. *The industry shall also explore treated effluent re-cycle mechanism in furtherance to the application of treated effluent on land as a significant alternative mode of re-cycle. This step shall in turn reduce hydraulic loading of effluent discharge as well as shall eliminate extraneous treated effluent discharge possibility elsewhere.”*

20. In the report of the Joint Committee it was mentioned that **two pipe lines of fresh water were observed at the inlet of ETP also in the equalization tank, layer of oil was observed, which clearly indicates that oil skimmer was not working properly. The unit had no separate system for Sulphate removal. The Unit was bypassing the cooling tower overflow/spray pond over flow into the storm water drain near the ETP area.**

21. As per the log book data of ETP inlet and ETP outlet provided to the Joint Committee by the unit for the Month of December 2022, average effluent generation was 607 KLD but effluent discharge was 629.9 KLD **which was more than the effluent generated which is suggestive of inlet of fresh water into effluent discharged.**

22. The Joint Committee referred to the analysis results of sample collected from the inlet of ETP which showed (pH- 4.1, COD- 1363 mg/l, BOD- 292 mg/l, TSS- 298 mg/l, TDS- 1460 mg/l and Sulphate- 78 mg/l) prompting the Joint Committee to observe that **the same indicated that ETP inlet did not reflect the characteristics of sugar effluent industry.** However, the analysis results of sample collected from the ETP outlet (pH- 7.9, COD- 65 mg/l, BOD- 09 mg/l, TSS- 45 mg/l, TDS- 1280 mg/l, Sulphate- 79 mg/l and Oil & Grease- BDL) indicated that the treated effluent from the ETP is complying w.r.t. the notified standards for irrigation purpose i.e. pH- 5.5-8.5, COD- 250 mg/l, BOD- 100 mg/l, TSS- 100 mg/l, TDS- 2100 mg/l).

23. **One bypass arrangement at the inlet line of STP was observed by the Joint Committee** although no flow was observed in the bypass line. At the time of inspection, Flowmeter reading at STP inlet was observed as 255.8.m³/hr. but **no flowmeter was installed at STP outlet. The unit did not provide the copy of logbook data of STP.**

24. Samples collected from the inlet and outlet of STP showed pH-7.7, COD-85 mg/l, BOD-25 mg/l, TDS-440 mg/l, TSS-45 mg/l, and NO₂-N-0.05 mg/l & NO₃-N-0.09 mg/l and pH-7.8, COD-61 mg/l, BOD-14 mg/l, TDS- 370 mg/l, TSS-35 mg/l, NO₃-N-1.02 mg/l and NO₂-N-BDL. Analysis results of sample collected from the drain near STP showed (pH- 6.9, COD- 102 mg/l, BOD- 24 mg/l, TSS- 24 mg/l and TDS- 568 mg/l respectively. **However, the same were not analyzed for presence of fecal coliform.**

25. Respondent no. 4 has claimed that the factory uses its surplus water for sprinkling on boiler ash, watering plants within the mill, and, as required, for irrigation to farmers. Respondent no.4 further mentioned that to reduce the excess water quantity, hot water was cooled using the newly

installed cooling tower and used in place of the tubewell water. For this, respondent No.4 had a water audit conducted by the National Productivity Council, which found a 50% reduction in groundwater usage during the last crushing season which reduced the load on the ETP. Continuous capital investment has been made over the past years to improve the quality of the ETP as per the latest technology. **The unit informed the Joint Committee that treated effluent after STP is mixed with the storm drain water and after mixing the same is used for irrigation purpose**

26. It may be observed here that in letter dated 01.02.2023 respondent no.4 had mentioned that the unit has already installed mechanical flow meter at ETP inlet & STP outlet and as per the recommendations of the Joint Committee and directions in show cause notice dated 23.01.2023 , the unit will replace the existing flow meters of ETP & STP with Electromagnetic flow meters. Respondent No.4 has not specifically stated and UPPCB has not verified in its report filed vide email dated 06.10.2023 as to whether mechanical flow meter installed at ETP inlet and STP outlet as per the recommendations were replaced with Electromagnetic flow meters as undertaken by respondent no. 4 in its letter dated 01.02.2023.

27. Further, vide letter dated 10.04.2023 following directions were issued to the unit under the Water (Prevention and Control of Pollution) Act 1974 by Chief Environment Officer, (Circle-3) in view of the report submitted and recommendations made on inspection of the third-party technical institutions on 25.02.2023,:

“1. Flow meters shall be installed at Excess condensate generated, Fresh water added in Sugar UGR, Process cooling tower make-up water, Cogeneration cooling tower make-up water, wet scrubber make-up water, Power turbine cooling water, mills bearing cooling water, B/C massecuite cooling water, Molasses tank cooling water, Sulphur burner cooling water, Effluent generated from mills, Effluent generated from

boiling house, Effluent generated from refinery house, Wash water generated from IER, Soda boiling water drain line, Effluent generated from RO and DM plant and Process cooling tower overflow

2. *Process cooling tower overflow shall be treated through ETP and not allowed to sprayed in the factory premises.*
3. *For treatment of process cooling tower overflow, existing ETP should be up-graded by addition of Anaerobic filter before aeration*
4. *Collections pits shall be constructed in centrifugal section.*
5. *To get correct flow rate, all flow meters shall be calibrated by the unit.*
6. *ETP gutters shall be made properly leak-proof.*
7. *To avoid mixing of rain water with effluent, separate storm water channel shall be constructed.*
8. *House keeping shall be improved by reducing leakages and overflows.*
9. *All flow meter's logbooks shall be maintained properly.”*

28. Respondent No.4 has mentioned in its letter dated 24.04.2023 that it had complied with the directions issued by the UPPCB vide letter dated 10.04.2023 but in its report filed vide email dated 06.10.2023 UPPCB has not verified as to whether flow meters as mentioned in letter dated 10.04.2023 have been installed by respondent no. 4.

29. In the report the Joint Committee has mentioned that the unit submitted the copy of Irrigation Management Plan prepared by Chandra Shekar Azad University of Agriculture & Technology Kanpur, in the year 2017. As per the Irrigation Management Plan, the unit is having total 1196.08 acre of command area for irrigation (18.55 acre of Factory Lawns, orchard, garden, horticulture and 1177.53 acres Titawi village area) and the lands available in campus and nearby are sufficient for consuming treated effluent water for irrigation purpose and the unit is mostly having sandy

loam soil in Command area. However, as per the report of the Joint Committee crop area under effluent application was 824.27 acres.

30. Respondent no. 4 has submitted that respondent no.4 provides water to Farmers nearby the Mill and has provided copies of agreements regarding request and demand of ETP treated effluent by the farmers from nearby villages for irrigation of their agricultural fields and copies of irrigation plan and irrigation logbook.

31. It may be observed here that as mentioned in the Irrigation Plan on the request of respondent No. 4, a visit of the unit was undertaken by the team of Chandra Shekhar Azad University of Agriculture and Technology, Kanpur during the off season on 18.07.2017 and 01.10.2017 for investigations, inspections and collection of data for the assessment of utilization of treated waste water for irrigation purpose efficiently and verify water irrigation plan in view of standards notified G.S.R.35 (E) Mo EF & CC, January 14th, 2016. In Irrigation Plan for the Utilization of Treated Effluent prepared by Mr. R.A. Yadav, Professor and Mr. Y.K. Singh, Agronomist, Chandra Shekar Azad University of Agriculture & Technology, Kanpur, U.P., it was mentioned that during visit the actual working of effluent treatment plant and the processing and other conditions could not be physically observed due to the reason of visit being during off season and the observations are on the basis of data/information provided by the factory. All calculations are carried out on the basis of inputs provided by the factory and the adequacy of the Irrigation Plan is also based on the data provided by the factory with respect to area available, crop pattern and tie up made with the farmers. This fact is also mentioned in conclusion recorded in the Irrigation Plan which is reproduced as under: -

“Conclusion:

1. *As per the details submitted by the factory, the generated treated effluent shall be utilized for irrigation purposes.*
2. ***However, the actual assessment shall be possible during crushing season only when the sugar plant will be in operation.***

No such actual assessment has been made by any visiting Team of the above said or any other University.

32. It may be observed here that the reuse of effluent by irrigation can make a significant contribution to the integrated management of drying/depleting water resources. When the water and nutrients in effluent are beneficially utilized through irrigation, some of the water extracted from rivers, ground and other resources can be replaced and the amount of pollutants discharged into our waterways can be reduced.

33. However, in the present case as per the log book data provided by the unit for the month of December 2022 of 19 days, average effluent generation was 607 KLD and effluent discharge was 629.9 KLD but average consumption of treated effluent for irrigation is 306.05 KLD.

34. In its reply filed vide email dated 16.01.2024 respondent No.4 has also admitted that that there is a natural drain outside the main gate of the Titawi Sugar Complex which comes under the Irrigation Department and that treated water discharged from the Sugar Mill also goes to the said natural drain.

35. It may be observed here that as per the conditions imposed at the time of grant of consent to operate under the Water (Prevention and Control of Pollution) Act, 1974, respondent no. 4 is mandatorily required to utilize the effluent for irrigation. The log book data shows that respondent no.4 is utilizing less than 50% of the treated effluent for irrigation and discharging more than 50% in the storm water drain which is not permissible.

36. In view of the consent conditions referred to in para No. 19 above, no industrial or domestic effluent can be discharged in the storm water drain by Respondent No.4 and the treated industrial or domestic effluent has to be utilized for irrigation but respondent No. 4 has been violating the conditions by utilizing less than 50% of treated effluent and discharging more than 50% treated effluent in storm water drain.

37. In letter dated 06.07.2023 respondent no.4 has mentioned that due to the construction of the National Highway (Panipat-Khatima route) by the Government for the past year, the construction agency has been converting the open drain into a closed one due to which the drain was completely blocked, severing any connection with the Hindan River. However, in its report filed vide email dated 06.10.2023, UPPCB has not verified the present status of storm water drain and discharge of treated/untreated effluent by respondent No.4 in the same.

38. Vide order dated 06.10.2023, the District Magistrate, Muzaffarnagar was directed to constitute a Joint Committee of the officers to verify that no industrial effluent is discharged by any of the industries operating in Muzaffarnagar in storm water drain and the UPPCB was directed to monitor the quality of the water reaching the river and to take appropriate action against the defaulting industries. Joint Action Taken Report was ordered to be filed by the District Magistrate and R.O. UPPCB, Muzaffarnagar in this regard within three months. Joint Action Taken Report has been filed by Mr. Ankit Singh, Regional Officer, UPPCB mentioning that District Magistrate vide letter no. 993/OA No. 369/Sachin Tomar/2023 dated 27.12.2023 constituted committee comprising of Officers of District Administration and UPPCB to inspect all water intensive industries and the Committee has verified that treated/untreated water is not being discharged into storm water drains by any water intensive industry and submitted status report in tabular format.

39. The Report seems to have been casually prepared without factual verification regarding discharge of industrial/domestic effluent into storm water drains reaching Hindon River. Further, the UPPCB did not take any samples and get the same analyzed to monitor the quality of the water reaching Hindon River.

40. **The UPPCB is directed to verify the factual position with respect to compliance with the directions issued to respondent no.4 regarding utilization of treated industrial and domestic effluent for irrigation and take appropriate action for ensuring that treated industrial and domestic effluent is utilized by respondent no.4 for irrigation and is not discharged by it in storm water drain.**

41. The UPPCB is also directed to comply with directions issued vide order dated 06.10.2023 and verify that no industrial effluent is discharged by any of the industries operating in Muzaffarnagar in storm water drain and to monitor the quality of the water reaching the river and to take appropriate action against the defaulting industries in accordance with law.

42. So far as the aspect of causing of air pollution by the industry is concerned, as per the Joint Committee report the unit is having four boilers of capacity 77 TPH, 90 TPH & 32 TPH (02 boilers) having consent validity for the period from 31.05.2019 to 31.12.2024. All the boilers were found operational on the day of inspection. As per fly ash generation data for the month of November and December 2022 ash Generation @1.5% of bagasse consumed was 14679 Qtl. The unit is using cooling tower water for ash quenching. The unit has 10 acres of land for ash disposal. The Joint Committee has submitted in its report that the Unit is disposing of fly ash by distribution to farmers. However, no details were obtained by the Joint Committee regarding distribution of fly ash to the farmers.

43. This Tribunal observed in order dated 06.10.2023 that this Tribunal has observed in number of cases that the project proponents enter into agreements with the third parties for disposal of fly-ash which are reporting compliance by submitting that the fly-ash is being disposed of in low lying areas. Since fly-ash generated by coal based industries contains harmful heavy metals, it is appropriate that the same is not utilized for filling of any agricultural areas and is utilized by cement or brick making industry. These aspects have to be looked into and the monitoring mechanism needs to be evolved to ensure proper disposal of fly-ash. Accordingly, vide order dated 06.10.2023 this Tribunal directed the Member Secretary, UPPCB to file an affidavit mentioning the mechanism evolved for verifying the development of green belts and disposal of fly-ash by the project proponents in accordance with the EC/consent conditions.

44. In compliance thereof Affidavit dated 15.01.2024 of Mr. Sanjeev Kumar Singh, Member Secretary UPPCB has been filed by Chief Environmental Officer, Circle-3, UPPCB vide email dated 16.01.2024. In the affidavit filed by Chief Environmental Officer, Circle-3, UPPCB vide email dated 16.01.2024 it has been submitted that the site verification of development of Green Belts and disposal of fly ash by the project proponent in accordance with EC/consent conditions was covered in the inspection done by Regional Offices UPPCB. The matter related to disposal of fly ash in low lying area is also covered by this Tribunal in **O.A. No. 744/2022 Moharram Ali Versus State of U.P. with O.A. No. 277/2021 Liyakat Ali Versus State of U.P.**

45. The **draft mechanism** for proper utilization of fly ash generated by coal based industry has been enclosed with the affidavit as **Annexure-II** which reads as under :-

"Draft Mechanism for proper utilization of fly ash generated by coal based industries in compliance to

**directions issues by Hon'ble NGT in OA No. 369/2022
Sachin Tomar Vs State of U.P.**

Issues relating to disposal of fly ash from coal based industries in State of U.P.

I. *It has been a general practice by several industries using coal as fuel in boilers, to dispose the fly ash by filling in low lying areas. However, as a general practice adopted by the industries, collection and disposal of the fly ash from the industries is carried out through local contractors.*

II. *Industries/Contractors some time execute an agreement with the owners of lands for disposal of the fly ash. However, instead of usage of fly ash for filling up the low lying areas, the land is used as an open storage/dumping site for fly ash.*

III. *The lands, being an open area with no adequate cover at the boundaries and water sprinkling systems, the dispersion of fly ash causes air pollution in the nearby areas.*

IV. *Further, there are possibilities of degradation of top soil by storage/dumping of coal based fly ash on lands.*

V. *Hon'ble NGT has also considered the disposal of fly ash in low lying areas as an unscientific mechanism and have passed directions for proper disposal of the fly ash. In the matter of O.A. No. 744/2022 with OA No. 277/2021 Moharram Ali Vs State of UP and Liyakat Ali Vs State of UP, Hon'ble NGT has issued directions dated 22.03.2023 as below:*

”
.....7. *It is established that plastic waste and fly ash are being unscientifically stored and disposed of in violation of Rules and to the detriment of environment. Such storage and use of landfill through contractor is not legally permissible. Stand that waste is being used for cement plants does not appear to be factually correct as no name of cement plant has been given and needs to be verified by manifest system. Compensation determined does not take into account financial capacity of the units to determine the deterrent element nor the value of the extent of damage and the cost of restoration*

Draft Mechanism for proper disposal of Fly ash by Lame air polluting industries:-

Practice of disposal of fly ash through contractors at nearby low lying areas is not an effective and environmental friendly mechanism for disposal of fly ash because generally it is observed that the fly ash is usually being dumped on the agriculture land without having sprinklers and covering the agriculture land boundary by green covers for arresting the fly ash from traversing in nearby residential areas.

1. *With respect to effective disposal of fly ash, MoEF&CC vide notification dated 31.12.2021 has issued guidelines for utilization of fly ash generated in coal based Thermal Plants. Similar directions/mechanisms can also be adopted by other coal based industries. Further, CPCB has Issued OM dated*

06.03.2023 authorizing auditors from recognized institutions for regular auditing of disposal of fly ash as per the guidelines. Hence, taking in consideration the general on site mechanism adopted by coal based industries, the following mechanisms can be adopted by other industries in line with the notifications issued by MoEF&CC and OM issued by CPCB for coal based Thermal Plants, to ensure that industries are disposing all the fly ash generated by environmental friendly mechanism :

i) There should be no involvement of a third party/contractor for collection and disposal of fly ash generated by the industries to ensure proper disposal of the fly ash being done by industries as per the agreements. Instead of disposing/dumping the fly ash on land at several agriculture land/low lying areas on day to day basis, every coal based large units may install dedicated silos for storage of dry fly ash silos for at least sixteen hours of ash based on installed capacity and it shall be reported upon to the UPPCB from time to time.

ii) Proper agreements / MOU needs to be signed between industries directly with the Cement industry/brick kilns/fly ash manufacturing units etc. The industry shall also submit the total quantity of fly ash being sent to users which shall then be verified by U.P. Pollution Control Board cross verifying the quantity utilized by the users.

iii) As per CPCB OM date 6 March 2023, CPCB has authorized auditors from various technical and recognized institutions for carrying out fly ash audits and submission of reports to CPCB and UPPCB. Industries may involve the authorized auditors for carrying out fly ash audit and submit the audit report to CPCB and UPPCB on regular basis (Quarterly/Half yearly/ Yearly) Scope of Work to carry out the audit may contain the following important mechanism: -

a. Verification of ash generation data pertaining to the financial year based on inspection of records of coal receipt/consumption and average ash content in coal and comparison of this data with the information provided by the industries.

b. Verification of fly ash and bottom ash utilization data pertaining to the financial year based on inspection of records of ash supplied to the user agencies covered under permitted uses/avenues, and comparison of this data with the information provided by the industries

c. The compliance audit for ash disposal by the industry and the user agency shall be conducted by auditors, authorised by Central Pollution Control Board (CPCB) and audit report shall be submitted to Central Pollution Control Board (CPCB) and UPPCB on regular basis. UPPCB shall initiate action against non-compliant industries within fifteen days of receipt of audit report.

iv) UPPCB after scrutiny of auditor's reports may, if required re-verify the quantity of fly ash being generated by the generators and quantity being utilized by the users under agreement with the generators.

- v) *On the mechanism of filling of low lying areas with ash, shall be only be carried out only on the construction sites, Road Laying etc. (Govt, Semi Govt, Private) which have been approved by UPPCB, CPCB or other authorized departments.*
- vi) *Non-compliant industries shall be imposed with an environmental compensation on per ton basis on unutilized ash during the end of financial year based on the annual reports submitted*
- vii) *Major responsibilities of industries to dispose fly ash and bottom ash.-*

The ash generated from coal shall be utilized only for the following eco-friendly purposes, namely:-

- a) *Fly ash based products viz. bricks, blocks, tiles, fibre cement sheets, pipes, boards, panels;*
- b) *Cement manufacturing, ready mix concrete;*
- c) *Construction of road and fly over embankment, Ash and Geo-polymer based construction material;*
- d) *Construction of dam;*
- e) *Filling up of low lying area on the construction sites, Road Laying etc (Govt, Semi Govt, Private) after the approval by UPPCB, CPCB or other authorized departments*
- f) *Filling of mine voids;*
- g) *Manufacturing of sintered or cold bonded ash aggregate;*
- h) *Agriculture in a controlled manner based on soil testing;*
- i) *Export of ash to other countries;*
- viii) *The compliance audit for ash disposal by industries and the user agency shall be conducted by auditors, authorized by Central Pollution Control Board (CPCB) and audit report shall be submitted to Central Pollution Control Board (CPCB) and UPPCB on regular intervals. Central Pollution Control Board (CPCB) and UPPCB shall initiate action against non-compliant industries within fifteen days of receipt of audit report.*
- (ix) The above mechanism shall be uploaded on the website of UPPCB seeking responses from the stakeholders, after which the mechanism shall be finalized and directions shall be issued to all coal based industries in the State of U.P/ Specific conditions shall be included in the CTO issued by UPPCB.*
- The above draft report is put up for perusal and necessary action please.”*

46. In the affidavit dated 15.01.2024 of Mr. Sanjeev Kumar Singh, Member Secretary UPPCB filed vide email dated 16.01.2024 there is no mention as to what steps have been taken to finalize the draft mechanism. On the other hand, it has been submitted that **it has been proposed to select a pioneer agency for study regarding ecofriendly disposal of fly**

ash generated by coal based industry through Online Government of India GeM Portal.

47. The UPPCB is directed to finalize the mechanism for proper disposal of Fly ash by all air polluting industries within six months and thereafter ensure compliance by the industries with the same.

48. The UPPCB is also directed to verify the facts regarding disposal of fly ash by respondent no. 4-Project Proponent by distribution to the farmers and also the utilization thereof by the farmers. The UPPCB is also directed to verify compliance of the conditions regarding storage and transportation of fly ash in accordance with environmental norms/directions by Hon'ble Supreme Court and this Tribunal and to file an action taken report regarding disposal of fly ash by the respondent no. 4.

49. It may be observed here that as one of the remedial measures for preventing and controlling air pollution the industry was required to carry out the plantation on 33% of land on which industry is established and conditions were imposed in this regard at the time of grant of consent to operate under the Water (Prevention and Control of Pollution) Act 1974 and the Air (Prevention and Control of Pollution) Act, 1981. General Condition No. 16 in CTO dated 28.01.2020 under the Air (Prevention and Control of Pollution) Act, 1981 which is similarly worded to Specific Condition No. 15 therein and General Condition No. 15 and Specific Condition No. 24 in CTO dated 28.01.2020 under the Water (Prevention and Control of Pollution) Act, 1974 reads as under:-

“Minimum 33% of the land on which industry is established will be covered and properly maintained by the plantation of tall trees of suitable species as per the guidelines set up by the Board vide its Office Order no.H-16405/220/2018/02 dt. 16/02/2018. The copy of this guideline is available at URL http://www.uppcb.com/pdf/Green-Belt-Guidle_160218.pdf.”

50. Vide order dated 06.10.2023 respondent no. 4-Project Proponent was directed to file additional reply mentioning in detail the green belt maintained by it, particulars of the land where the plantation of 5,000 trees was carried out, the activities which were carried out under CSR/CER schemes, amount proposed to be utilized during the remaining part of the financial year and the activities on which the same is proposed to be utilized.

51. Short Affidavit has been filed by respondent no. 4-Project Proponent vide email dated 16.01.2024. In its affidavit respondent no.4 has mentioned that Respondent no.4 participated in Vrahad Vraksha Ropan Maha Abhiyan, 2023, and planted 5000 trees of various varieties such as Sagoon, Arjun, Amrood, Jamun, Shesham, Kanji and Sahjan out of which around 1500 plants could not survive, and at present there are around 3500 trees in the factory premises.

52. Neither the UPPCB nor respondent No.4 has mentioned as to whether the condition that "minimum 33% of the land on which industry is established will be covered and properly maintained by the plantation of tall trees of suitable species as per the guidelines set up by the Board vide its Office Order no.H-16405/220/2018/02 dt. 16/02/2018" has been complied with by respondent no.4 or not. The photographs filed by respondent no.4 with its reply show scanty plantation of trees bridged by shrubs and do not support its claim regarding due compliance of consent conditions imposed in this regard.

53. In its affidavit respondent No.4 has mentioned that under the CSR/CER Scheme, respondent no.4 operates a mobile medical van having registration no. UP12CT1113 containing a team of doctors, compounder and driver equipped with medical instruments such as Blood Sugar Measurement Apparatus, Blood Pressure Measurement Machine, Stethoscope, Pulse Oximeter, Thermometer etc. and respondent no.4 also

provides free of cost medicines. Respondent No.4 has also mentioned that respondent No.4 distributed gym machines in more than 60 villages for training and fitness of the candidates who are applying for Army and other Civil Police Services. The list of gyms and the details of machines along with receipt(s) have been annexed with the affidavit. In the affidavit respondent no.4 has also given details of expenses incurred by Respondent no.4 in the last three (03) years for CSR activities.

54. Regional Officer, UPPCB, Muzaffarnagar has verified the compliance and filed report vide email dated 16.01.2024 which lacks verification of all relevant details.

55. The Divisional Forest Officer, Muzaffarnagar is directed to inspect the Sugar Mill and verify the plantation already made and further plantation required to be made for compliance with the consent condition and submit his report to the UPPCB which shall issue appropriate directions to respondent no.4 in exercise of its statutory powers to carry out requisite plantation.

56. It may be observed here that in the present case show cause notice dated 23.01.2023 was issued by the UPPCB to the project proponent requiring the project proponent to show cause as to why CTO be not withdrawn, the unit be not ordered to be closed with immediate effect and environmental compensation be not imposed. The case was listed before this Tribunal on 18.09.2023 after expiry of more than 7 months but UPPCB did not file any further report to show what compliance had been made by the project proponent and what further proceedings were taken by the UPPCB on the show cause notice issued to be project proponent.

57. Mr. Pradeep Misra, Learned Counsel for UPPCB had submitted that environmental compensation of about Rs. 76.2 crores had been

imposed on the project proponent by UPPCB vide order dated 06.09.2023 but even copy of the said order was not been filed before this Tribunal.

58. Mr. Pradeep Mishra, learned counsel for UPPCB submitted that the above said order had been reviewed by UPPCB and the environmental compensation had been reduced to the amount of Rs. 20,10,000/-.

59. In its reply filed vide email dated 06.10.2023 the UPPCB has explained the reasons for withdrawal of order imposing environmental compensation of Rs. 76.2 crores and the relevant part of the reply reads as under:-

"8. In reference to the Environmental Compensation of 76.2 crores imposed against the industry by UPPCB, it is stated that Hon'ble NGT in O.A. No. 859/2022 Abhisht Kusum Gupta Vs State of U.P. regarding Hindon Pollution, issued directions on dated 28.06.2023 to impose environmental compensation upto 10% of industries turn over if found non compliant. Hence, in compliance to the Hon'ble NGT directions, Environmental compensation of Rs 76.2 crores was issued against the industry vide letter no H00380/C-3/Jal-256/2023 Dated 06.09.2023. The Hon'ble Tribunal vide order dated 26.09.2023 passed in Review Application No. 33/2023 In Re: O.A. No. 859/2022 Abhisht Kusum Gupta Vs State of U.P. & Others issued a following direction:

"9. The action is to be taken against the erring industries and which are to be identified/shortlisted by the concerned competent authority after considering the relevant reports and gathering the other information and giving an opportunity of hearing to the concerned industries. Therefore, the authorities may not proceed on the basis that 310 industries mentioned in the order of the Tribunal are finally held to be erring industries. The authorities are required to examine the case of each industry after giving them opportunity of hearing and ascertain the position on merit on the basis of material so gathered and produced. The environmental compensation will also be levied in accordance with law."

Hence, Opportunity shall be given to the industries before realization of the Environmental Compensation issued by UPPCB...."

60. The UPPCB has not examined the case of respondent No.4 unit after giving it opportunity of being heard and has not ascertained the position on merit on the basis of material so gathered and produced and has not decided

the question of liability of respondent No.4 to pay environmental compensation under order passed by this Tribunal in above mentioned case.

61. Vide order dated 06.10.2023 this Tribunal directed the Member Secretary, UPPCB to file an affidavit regarding the amount of environmental compensation which has been imposed on the project proponents throughout the State of U.P., the amount which is yet to be realized, the amount which has been realized and is lying deposited with the UPPCB and the action plan/proposal for utilization of the amount for restoration of environment,

62. In compliance thereof Affidavit of Mr. Sanjeev Kumar Singh, Member Secretary, UPPCB has been filed by the Chief Environmental Officer, Circle-3, UPPCB vide email dated 16.01.2024. In the affidavit it has been submitted that as per the compiled information provided by Waste Management Division (WMD), the UPPCB has imposed Environmental Compensation of total Rs. 978.32 Crore against various defaulter units out of which stay orders have been obtained against Environmental Compensation of Rs. 99.11 crore by the project proponents from Hon'ble Supreme Court and Hon'ble High Court. UPPCB has recovered Environmental Compensation amount of Rs. 58.14 Crore. A meeting was held under the Chairmanship of Additional Chief Secretary, Department of Environment Forest and Climate Change on 04.01.2024 in compliance to the order dated-17.10.2023 passed by this Tribunal in O.A. No. 160/2022 for developing a mechanism for utilization of the amount of Rs. 46.26 Crore received in U.P. Pollution Control Board by imposing Environmental Compensation against the defaulter units. The minutes of the meeting was submitted by the Department of Environment Forest & Climate Change before this Tribunal in O.A. No. 160/2022 for approval. The copy of the response before this Tribunal has been enclosed as Annexure-I of this affidavit.

63. The relevant part of the minutes of the meeting submitted by the Department of Environment Forest & Climate Change is reproduced as under :-

"मा० एन०जी०टी०, नई दिल्ली द्वारा ओ०ए० संख्या-160/2022 ओम पाल एवं अन्य बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 17.10.2023 के अनुपालन में अपर मुख्य सचिव, पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, उ०प्र० शासन की अध्यक्षता में दिनांक 04.01.2024 को मध्याह्न 12:00 बजे नरही स्थित वन मुख्यालय के पारिजात सभाकक्ष में सम्पन्न समीक्षा बैठक का कार्यवृत्त ।

मा० एन०जी०टी०, नई दिल्ली द्वारा ओ०ए० संख्या-160/2022 ओम पाल एवं अन्य बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 17.10.2023 के अनुपालन में अपर मुख्य सचिव, पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, उ०प्र० शासन की अध्यक्षता में दिनांक 04.01.2024 को मध्याह्न 12:00 बजे नरही स्थित वन मुख्यालय के पारिजात सभाकक्ष में समीक्षा बैठक आयोजित की गयी। बैठक में उपस्थित अधिकारियों की सूची संलग्न है।

2- मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा ओ०ए० संख्या-160/2022 ओम पाल एवं अन्य बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 17.10.2023 के सुसंगत अंश निम्नवत् है:-

".....6. In the present case we consider it appropriate to seek response from the State of Uttar Pradesh as to why amount of environmental compensation imposed remains unrealized for very long periods even after receipt of the reference from the UPPCB for realization of the same and as to why the amount for remediation of environmental damage caused by the violators be not incurred by the State of Uttar Pradesh immediately on receipt of such references for remediation of the damage caused to the environment before the same results in irreversible damage to the ecology and bio-diversity. The amount so spent by the Uttar Pradesh may be recovered from the violators as arrears of land revenue in accordance with law.

7. The State of Uttar Pradesh is accordingly directed to file its response within two months by email at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR supported PDF and not in the form of ImagePDF....."

(कार्यवाही- उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ)

(ii) मा० न्यायालयों द्वारा ₹ 30.3845716 करोड़ की पर्यावरणीय क्षतिपूर्ति धनराशि की वसूली के विरुद्ध पारित स्थगन आदेश को वकेट कराने हेतु अधिवक्ताओं का पैनल बनाते हुए स्टे वकेट एप्लीकेशन तत्काल मा० उच्च न्यायालय / उच्चतम न्यायालय में दाखिल कराया जाना सुनिश्चित किया जाय।

(कार्यवाही- उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ)

(iii) जिलाधिकारी के स्तर से पर्यावरणीय क्षतिपूर्ति की धनराशि की वसूली त्वरित रूप से कराये जाने के दृष्टिगत पर्यावरणीय क्षतिपूर्ति की वसूली से सम्बन्धित एजेण्डा मुख्य सचिव, उ०प्र० शासन की अध्यक्षता में प्रत्येक माह जिलाधिकारियों / मण्डलायुक्तों के साथ होने वाली वीडियो कान्फ्रेंस में सम्मिलित कराया जाय। इस सम्बन्ध में सुसंगत सूचनाओं के साथ प्रस्ताव प्रस्तुत किया जाय।

(कार्यवाही- उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ)

(iv) उ०प्र० प्रदूषण नियंत्रण बोर्ड द्वारा पर्यावरणीय क्षतिपूर्ति की धनराशि, जो कि मा० राष्ट्रीय हरित अधिकरण एवं सी०ए०क्यू०एम० द्वारा अधिरोपित पर्यावरणीय क्षतिपूर्ति से आच्छादित नहीं है तथा उ०प्र० प्रदूषण नियंत्रण बोर्ड द्वारा पर्यावरणीय विधियों का अनुपालन न किये जाने के कारण अधिरोपित धनराशि में से वसूल की गयी है, का एक कार्पस फण्ड स्थापित किया जाना उचित होगा, जिसके माध्यम से पर्यावरणीय क्षतिपूर्ति को आकस्मिक रूप से रोके जाने हेतु परियोजना का वित्त पोषण किया जा सके तथा पर्यावरणीय क्षतिपूर्ति की धनराशि वसूल हो जाने के पश्चात् उससे कार्पस की प्रतिपूर्ति की जा सके।

(कार्यवाही-उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ)

(V) पर्यावरणीय क्षतिपूर्ति के कार्पस फण्ड का पर्यावरणीय जीर्णोधार संबंधी कार्यों में आकस्मिक रूप से उपयोग किये जाने हेतु आवश्यक निर्णय तथा केन्द्रीय प्रदूषण नियंत्रण बोर्ड एवं मा० एन०जी०टी० के आदेशानुसार निर्धारित गाइडलाइन के अनुसार जीर्णोधार की परियोजना स्वीकृत किये जाने हेतु निम्नानुसार एक समिति का गठन किये जाने का निर्णय लिया गया :-

1	अपर मुख्य सचिव, पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, उ०प्र० शासन द्वारा नामित सचिव से अनिम्न अधिकारी	अध्यक्ष
2	सदस्य सचिव, केन्द्रीय प्रदूषण नियंत्रण बोर्ड, दिल्ली द्वारा नामित अधिकारी	सदस्य
3	सदस्य सचिव, उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ	सदस्य संयोजक

उक्त समिति पर्यावरणीय क्षति को तत्कालिक रूप से रोके जाने के सम्बन्ध में निर्णय लेकर जीर्णोधार कार्ययोजना को वित्त पोषित किये जाने हेतु अनुमोदन प्रदान करेगी। सम्पूर्ण जीर्णोधार कार्य केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा तैयार की गयी गाइडलाइन के अनुरूप

किया जायेगा तथा उक्त मद में व्यय की गई धनराशि को उल्लंघनकारी इकाई /उद्योग से भू-राजस्व की भांति वसूल कर कार्पस की प्रतिपूर्ति की जायेगी।

**(कार्यवाही- पर्यावरण, वन एवं जलवायु परिवर्तन विभाग, उ०प्र० शासन/
उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ)**

5- उपरोक्त निर्णयों के सम्बन्ध में मा० एन०जी०टी० को अवगत कराते हुए उनका आदेश भी प्राप्त कर लिया जाय।

(कार्यवाही-उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ)

अन्त में सभी उपस्थित अधिकारियों को धन्यवाद व्यक्त करते हुये बैठक समाप्त की गयी।"

64. As observed by this Tribunal in order dated 06.10.2023 imposition of any environmental compensation is no remediation of environmental damage caused until the amount of environmental compensation is realized and utilized for remediation of the damage caused to the environment. The State of U.P. and the UPPCB are directed to take steps for recovery and utilization of the amount of environmental compensation imposed.

65. The UPPCB is also directed to prepare action plan for utilization of the amount of environmental compensation already realized so far and to execute the same in accordance with the statutory provisions, directions issued by Hon'ble Supreme Court and this Tribunal and the Guidelines issued by CPCB and adopted by UPPCB.

66. In the present case environmental compensation of Rs. 22,10,000/- has been imposed on respondent no. 4. The UPPCB is directed to prepare and execute Action Plan for utilization of environmental compensation of Rs. 22,10,000/-, **on realization of the same**, for restoration of environment in the area surrounding the respondent no. 4 unit by carrying out plantation (which shall be in addition to the plantation which respondent no. 4 is required to carry out in compliance with consent conditions) and taking

other remedial measures in consultation with the District Magistrate, Muzaffarnagar, the Divisional Forest Officer, Muzaffarnagar and the District Environment Committee, Muzaffarnagar and to file Action Taken Report in this regard.

67. In view of the above discussion, the original application is disposed of with the following directions:-

- (i) UPPCB shall verify factual position regarding utilization of treated industrial and domestic effluent for irrigation by respondent no. 4 and to ensure that 100 % treated effluent, whether industrial or domestic, is utilized by respondent no. 4 for irrigation and not discharged in storm water drain;
- (ii) UPPCB shall also ensure compliance of order dated 06.10.2023 to the extent that no industrial effluent is discharged by any of the industry operating in Muzaffarnagar in storm water drain, quality of water reaching the river shall be monitored and appropriate action shall be taken against the defaulting industries;
- (iii) Fly Ash generated by coal contains harmful heavy metals, therefore, shall not be utilized for filling of any agricultural area and would be utilized by cement or brick making industries. Member Secretary, UPPCB shall ensure compliance and monitoring of the above direction;
- (iv) UPPCB shall finalize mechanism for proper disposal of fly ash by all air polluting industries within six months and submit Report.
- (v) UPPCB shall examine the manner in which fly ash is disposed of/being disposed of by respondent no. 4 and if it is not complying the norms and directions, take appropriate remedial, punitive and preventive action in accordance with law;
- (vi) UPPCB and Divisional Forest Officer, Muzaffarnagar shall find out whether the condition of minimum 33% of the land to be utilized for

plantation purpose has been complied by respondent no. 4 and if not it shall take appropriate action under law against respondent no. 4 including assessment of environmental compensation;

- (vii) Respondent no. 4 is directed to deposit the environmental compensation of Rs. 22,10,000/-, if not already deposited, within two months; and
- (viii) State of Uttar Pradesh and UPPCB shall take steps for recovery and utilization of the amount of environmental compensation imposed.
- (ix) UPPCB shall prepare an Action Plan for utilization of environmental compensation and execute the same for restoration of environment in the area surrounding respondent no. 4 unit by carrying out plantation and such other remedial measures, if necessary, in consultation with the District Magistrate, Muzaffarnagar, Divisional Forest Officer, Muzaffarnagar and District Environmental Committee, Muzaffarnagar.
- (x) UPPCB shall prepare Action Plan for utilization of the amount of environmental compensation, and to execute the same in accordance with the statutory provisions, directions by the Hon'ble Supreme Court of India and this Tribunal and the guidelines issued by the CPCB and adopted by UPPCB.

68. Reports/Action Plan as directed above be filed within six months by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Supported PDF and not in the form of Image PDF, before Registrar General of this Tribunal, who may, if he considers necessary, place the matter before the Bench for further directions.

69. A copy of this order be sent to Chief Secretary, Government of Uttar Pradesh, the Member Secretary, UPPCB, the District Magistrate, Muzaffarnagar, the Divisional Forest Officer, Muzaffarnagar and the

Secretary, District Environment Committee, Muzaffarnagar by email for requisite compliance.

Prakash Shrivastava, CP

Sudhir Agarwal, JM

Arun Kumar Tyagi, JM

Dr. Afroz Ahmad, EM

Order dated:
January 18th, 2024
Uploaded on:
February 12th, 2024
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