BEFORE THE NATIONAL GREEN TRIBUNAL

EASTERN ZONE BENCH, KOLKATA

Original Application No:-104/2021/EZ

Tribunal on its own Motion

Re: Effluent discharge by the Raghunathpur Thermal Power Plant (T-WBHRC)

..... Applicant(s)

Versus

District Magistrate & Collector Purulia & Ors.

.....Respondent(s)

AFFIDAVIT FILED BY THE DISTRICT MAGISTRATE, PURULIA.

I, Rahul Mazumder son of Sadhana Nanda Mazumder, aged about 49 years, By faith: Hindu, by occupation: Service, now posted as District Magistrate, Purulia, having my office at Purulia, District- Purulia, do hereby solemnly affirm and say on oath as follows:-

1. I am the District Magistrate, Purulia, I have made myself acquainted with the facts and circumstances of this case and affirm this affidavit.

2. That this affidavit is being affirmed in pursuant to the solemn order passed by the Hon'ble Tribunal on 31.03.2022.

3. That the District Magistrate, Purulia has been directed to file affidavit as per the order dated 31.03.2022 Passed by the Hon'ble National Green Tribunal Eastern Zone Bench, Kolkata.

4. That the Hon'ble Tribunal passed an order directed that *"the Respondent No.1, District Magistrate, Purulia, and Respondent No.2, Central Pollution Control Board, have not filed their counter-affidavits".*

5. That in pursuance of the order dated 12.11.2021 passed by the Hon'ble National Green Tribunal Eastern Zone Bench, Kolkata regarding effluent discharge by Raghunathpur Thermal Power Plant, a meeting was held on 08.12.2021 at about 4 P.M. in the Conference Hall of the District Magistrate, Purulia and it was discussed and resolved the members of District Level Committee will inspect the site and to submit-a report.

6. That the deponent i.e. the present respondent No. 1 was one of the members of that Inspection Team and inspected the area, discussed with Villagers of adjoining Village.

7. That during inspection, the deponent instructed the Official of Agriculture Department, Government of West Bengal to conduct soil analysis in and around the affected area for assessing the extent of damage to the Agriculture Land.

8. That after conducting inspection of the area, report has been prepared and being the member of Inspection Team the present respondent signed on it and said report has been submitted before the Hon'ble Tribunal.

The copy of the said report is annexed herewith and marked as **Annexure-"A".**

9. That the undersigned has no intention for delay in complying the solemn order of the Hon'ble Tribunal for which the undersigned pray for apology before the Hon'ble Tribunal and assure that no such delay will be made in future while complying the order of the Hon'ble Tribunal.

10. It is therefore prayed that the Hon'ble Tribunal may pass necessary order or further orders as it deem fit and proper in the interest of justice.

11. The statements made in paragraph 1 to 10 are based on information derived from the record which are usually kept and maintained by the answering respondent in the ordinary course of business and which I believe to be true and rest thereof are my humble submission before this Hon'ble Tribunal.

470
DATE 22/04/22.

Prepared in my office

Advocate
(Sudip Kumar Dutta)

Deponent
(Rahul Mazumder)
District Magistrate, Purulia
District Magistrate
Purulia

Identified by me
Sarah Tasneem Roy
Adv.

NOTARY
Aditya Banerjee
Asst. Purulia (W.B.)
Regn. No. 612
Dist. Judges' Court
PURULIA
GOVT. OF INDIA

Under Notaries Act.-1959
Solemnly affirmed/Sworn
22nd Day April of 2022.
by Rahul Mazumder
Sadhana Mahato Mazumder
Who is identified by Sarah Tasneem Roy
ADITYA BANERJEE
NOTARY
Govt. of India
Purulia (W.B.)
22/4/22

Inspection Report

1.0	**Preamble**	West Bengal Human Rights Commission had taken suo-motu cognizance in respect of a news item published in Bengali Daily Newspaper "Gana Shakti" on 09.07.2021.The news item related to discharge of effluents by the Raghunathpur Thermal Power Plant causing misery to farmers and degradation of their agricultural land and later it was transferred to Hon'ble National Green Tribunal.
2.0	**Reference of inspection**	Order of Hon'ble NGT Order dated 12.11.2021 in connection with OA No. 104/2021/EZ in the matter of Tribunal on it's own motion regarding discharge of effluent by Raghunathpur Thermal Power Station (DVC) Vs State of West Bengal &Ors.
3.0	**Name of Applicant**	West Bengal Human Rights Commission
4.0	**Name of Respondents**	State of West Bengal &Ors.
5.0	**Nature of Complaint**	Pollution caused due to discharge of polluted water from Raghunathpur Thermal Power Station (DVC) which had resulted in loss of crops in agricultural land.
6.0	**Name & Designation of the Inspecting Officers**	1. Sri Rahul Majumder, District Magistrate & Collector, Purulia 2. Sri Sandeep Roy, Scientist-D, CPCB, Kolkata. 3. Sri Swarup Kumar Mandal, Sr. Environmental Engineer, WBPCB.

		4. Sri Pradip Bhattacharya, Superintending Engineer, Irrigation & Waterways Directorate, Govt of West Bengal.
7.0	**Date of Inspection**	14.12.2021
8.0	**Field Visit and Observations:**	
	8.1 Raghunathpur Thermal Power Station (DVC) has two (02) coal fired Boilers of electricity generation capacity 600 MW each and during inspection total Electricity generation was 772.949 MW. Visible emission was noticed from stack. Stack monitoring has been conducted and results obtained are as given below: a. Concentration of Particulate matter in Unit :1 – 88.09 mg/Nm^3 b. Concentration of Particulate matter in Unit :2 – 64.14 mg/Nm^3 Both the values are beyond permissible limit (50.0 mg/Nm^3). 8.2 Raw water for the unit is sourced from Panchet reservoir & it is drawn through pipeline from a distance of 11 Km. Raw water is stored in 2 nos. reservoirs with total capacity of 15 lac m^3. After treatment it is distributed in various industrial operations purpose i.e. Cooling Tower, D.M.Plant , Ash handling & Domestic purpose. 8.3 Sources of industrial waste water generation are mainly from D.M.Plant regeneration, Boiler blow down , Cooling Tower blowdown. As stated, the industrial waste water is stored in guard pond inside the plant premises. Guard pond water is utilized in ash slurry make up only. 8.4 During inspection, it was observed that entire effluent is discharged through an outlet located on eastern end boundary of the plant. large volume of effluent was noticed to be discharged from this point outside the boundary. As stated by the local villagers the water flows upto a stretch of 2 km through an earthen nullah before meeting at Uthalajore which ultimately meets river Damodar	

after 8 km (approx.). Effluent samples have been collected from 03(three) locations for analysis. Results obtained are attached as **Annexure I.** Effluent parameter TC (Total Coliform) has exceeded permissible limit with respect to river water standard which might have happened due to discharge of domestic effluent. Value of pH has also exceeded permissible limit (8.5) at all sampling locations.

8.5 Unit has proposed for recirculation of entire effluent from this outlet and also proposed that excess effluent will be discharged outside after treatment through it's own drain. During visit it was noticed that the unit has installed one recirculation pump at it's plant discharge location and the same was in operation for recirculation of effluent. However, the unit has not yet achieved zero liquid discharge.

8.6 There are two Ash ponds with ash holding capacity 68.0 lac MT and 46.0 lac MT respectively as stated.

Ash ponds are located on north western side of the unit about 5 km away from unit boundary. Presently one of the Ash ponds is in use. The other Ash pond is filled up with water. Ash pond overflow is recycled through clarifier and utilised in ash slurry preparation. No discharge was observed from any of the Ash ponds.

8.7 Dry fly ash is stored in 2 (two) nos. of Silos of capacity 1500 Ton each. Dry fly ash is despatched to cement plants and flyash brick manufacturers. Presently ash utilization is about 10% as stated. Unit has proposed to set up dry fly ash bagging & despatch facility near ESP (Electro Static Precipitator) in recent future.

8.8 The only Automatic ambient air quality monitoring station installed inside the plant premises was found to be functional during inspection for measurement of PM2.5,PM10,SO_2 & NO_X.

8.9 The online stack monitoring facility was in operation for measurement of PM, SO_2& NO_X.

8.10 Inspecting team visited Guard Pond, CAAQMS, Cooling Tower

area etc.

8.11 Inspecting team met & spoke to few local people of village Ghutitora,Pathuriadanga, Khudirmahal & other villages. The main allegation was that they are unable to do cultivation in their lands due to discharge of waste water from the plant through their lands. Inspection was carried out to few such areas along with them. Growth of bushes & grasses were noticed in lands just adjacent to cropped lands. Hence it is quite apparent that the lands with bushes & grasses were not cultivated by the land owners for long period.

8.12 The unit has obtained 'Consent to Operate' which is valid upto 31.10.2023.

9.0 Site Specific Observations:

9.1 Plant final discharge location:

This is the final discharge location of entire effluent. During early hours of inspection very high discharge was noticed from this point. Later the discharge quantity had drastically reduced. On enquiry with plant personnel it was understood that due to regeneration (Backwash) of Automatic Valve less Gravity Filter (Figure 1) and domestic effluent, large quantity of waste water was discharged in early hours. The boundary wall at final discharge location was totally damaged (Figure 2). Sample 1 was collected from beneath the culvert/causeway (Figure 3) and thereafter the effluent (Figure 4) is flowing downstream towards Uthalajore.

Figure 1

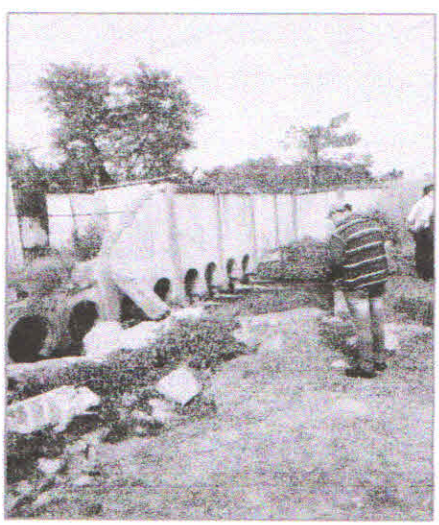

Figure 2

Figure 3

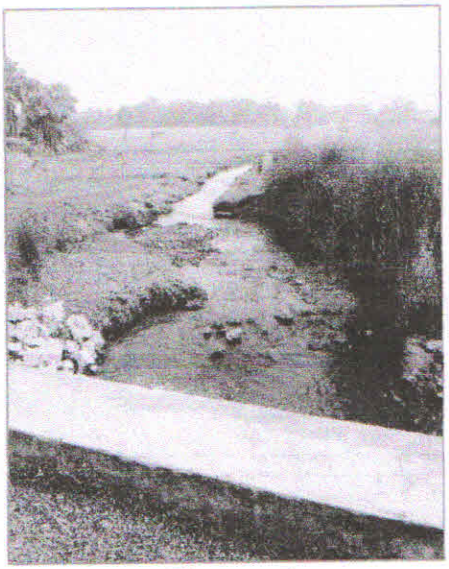

Figure 4

9.2 Sampling location at Bhaldubi:

The 2nd effluent sample was collected at Bhaldubi area through which the earthen channel is passing. Villagers were met during visit. It was alleged by the local people that the agricultural crops around the discharge channel have been damaged due to discharge of pollutants along with flyash from the industry & the farmers could not grow crops since inception of the project. The District Magistrate, Purulia had instructed the Officials of Agriculture Department of Govt. of West Bengal to conduct soil analysis in & around the affected area and assess the extent of damage to agricultural land specially with reference to soil fertility (Report annexed as Annexure III).

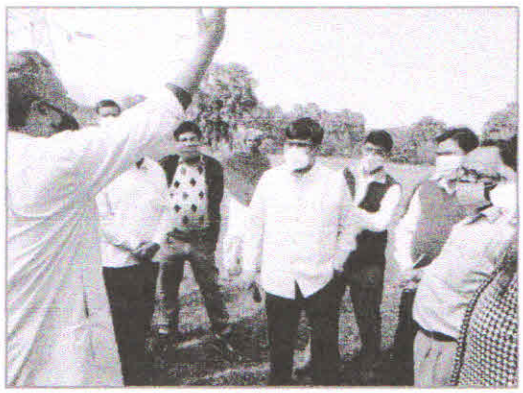


Figure 5. Committee in discussion with villagers at Bhaldubi

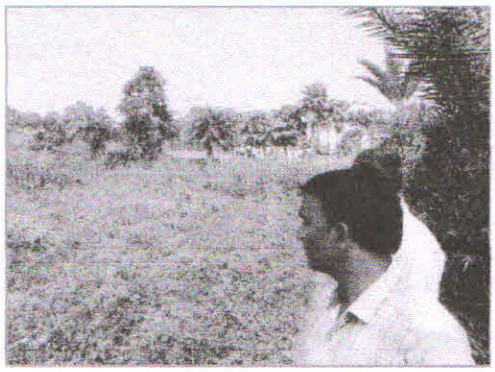


Figure 6. Affected agricultural field under Bhaldubi area

9.3 Sampling location at Lachyara:

The 3rd effluent sample had been collected from this area through which the earthen channel is passing. Discussion held with local people. Similar allegation was heard from the local people as per 2nd location. Growth of bushes were noticed around the area (Figure 7 & Figure 8).

Figure 7

Figure 8

10.0 Remarks

10.1 As per report submitted by the Agriculture Department of Govt. of West Bengal, it may be noted that value obtained for the parameters are not critical for germination.

10.2 Values obtained of Total Coliform (TC) & pH at all effluent samples are found to be beyond permissible limit.

10.3 Particulate matter concentration at both the stacks are found to be beyond permissible limit.

10.4 Environmental compensation calculation is as follows :

Considering above mentioned violation of emission standard committee suggested to impose environmental compensation based on methodology given in "Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund" formulated in response to OA No. 593/2017(PB), for an industry can be assessed using the following formulae:

$$EC = PI \times N \times R \times S \times LF \quad \text{.....(1)}$$

Where,

EC is Environmental Compensation in (Rs.)

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees (Rs.) for EC

S = Factor for scale of operation

LF = Location factor

The above formulae incorporate the anticipated severity of environmental pollution in terms of Pollution Index, duration of violation in terms of number of days, scale of operation in terms of micro & small/medium/large industry and location in terms of proximity to large habitations.

As per "Final Document on Revised Classification of Industrial Sectors Under Red, Orange, Green and White Categories (February 29, 2016)" normalised score of pollution index of Thermal Power Plant is 85.

PI = f (Water Pollution Score, Air Pollution Score & HW Generation Score)

Further, N is the number of days of violation. In this matter the no. of days considered between **the date of news published i.e. 09/07/2021 in newspaper ("Gana Shakti"- Hon'ble NGT vide Order Dt 12/11/2021- Para 1) reg. environmental pollution by mentioned unit and the date of inspection by NGT committee i.e. 14/12/21**. Therefore N is 159 days.

R is a factor in rupees for estimating environmental compensation which as per CPCB guidelines is taken as Rs. 250.

S is a factor representing the scale of operation of the industry

(small scale = 0.5, medium scale = 1.0 and large scale = 1.5). Since power generation capacity of existing unit is more than 500 MW so it was considered as large scale and therefore S = 1.5

LF is the location factor depending on the population of the areaas per recent census 2011 is below 1 million, so LF may be taken as 1 following CPCB's guidelines.

S. No.	Population* (million)	Location Factor# (LF)
1	1 to <5	1.25
2	5 to <10	1.5
3	10 and above	2.0

*Population of the city/town as per the latest Census of India

#LF will be 1.0 in case unit is located >10km from municipal boundary

LF is presumed as 1 for city/town having population less than one million

Now, using formulae (1), environmental compensation is:

EC = PI x N x R x S x LF

EC = 85 X 159 X 250 X 1.5 X 1

= **INR 50,68,125 (Rupees Fifty Lakhs Sixty Eight Thousand One Hundred Twenty Five Only)**

10.5 Under no circumstances the unit should discharge effluent to private lands outside. The unit should take proper action to prevent discharge of effluent & entire effluent should be recycled.

	10.6 Necessary action to be taken by Raghunathpur Thermal Power Station (DVC) to develop the marshy land on which the flow of effluent has been passing to make the land cultivable for agriculture. 10.7 The Directions and Execution of Bank Guarantee (BG) of Rs. 20,00,000/-(Rupees twenty lakh) as imposed upon the unit for non-compliance by West Bengal Pollution Control Board on 26/11/2021 (Copy enclosed as Annexure IV) to be followed in true spirit.

(Sri Pradip Bhattacharya) Superintending Engineer, Irrigation & Waterways Directorate, Govt of West Bengal	(Sri Swarup Kumar Mandal) Sr. Environmental Engineer, WBPCB	(Sri Sandeep Roy) Scientist-D, CPCB, Kolkata	(Sri Rahul Majumder) District Magistrate & Collector, Purulia

Enclosures:

1. Annexure I : Copy of Analysis report of effluent.
2. Annexure II : Copy of Analysis report of Gaseous emission monitoring.
3. Annexure III : Copy of Report of Agricultural Department , Govt of WB.
4. Annexure IV : Copy of Direction issued by WBPCB on 26.11.2021.

Annexure - I

Analysis Report of Waste Water/Solid Samples **Inspection Id:** UD190808015133817122196S

Identification Code: 1 4 1 2 2 0 2 1 3 3 7 5

Analysis Done At:

WEST BENGAL POLLUTION CONTROL BOARD

Durgapur Regional Laboratory, Paribesh Bhawan, Durgapur-713 216

Mr. S.K. Mandal, SEE & Mr. A. Fouzdar, AEE

Sample Collected by (First name only in short) (As indicate in the label affixed to the sample container)	Date=> 14/12/2021	Office Code=> 00000005

Name of Unit / Source: M/s. Raghunathpur Thermal Power Station

Address: 295,297 P.O.- Nildih P.S - Raghunathpur Dist - Purulia Pin Code- 723133

Sl. No.	Sampling Details (Collection/Discharge)	In/Ex*	Collection Time
1	Plant Final Discharge	I	1055
2	Bhalduhi	U	1150
3	Lachhyara	U	1235

*Treated / Untreated

Parameters*	Sample Serial Number		
	1	2	3
TSS	38.00	6.00	54.00
Total Chromium	BDL	BDL	BDL
COD	29.80	35.93	9.45
Zinc	1.40	0.29	BDL
Phosphate-P	0.546	0.571	0.307
FC (MPN/100ml)	2200	1100	1000
pH (Unit)	8.56	8.61	8.62
Copper	BDL	BDL	BDL
BOD	5.19	5.47	Not Done
TC (MPN/100ml)	2700	1400	1200
Iron	1.05	1.12	0.34
O&G	2.03	2.58	1.78

*All Parameters expressed in mg/l excepting pH & TC, FC

BDL : Below Detectable Limit, NT : Not Traceable, NE : Not Excited, N.A. : Not Applicable

Remarks: Analysis of Metals done at Barrackpore Regional Laboratory, WBPCB.

24/12/2021
Date of Reporting

Signature of (JS/S/SS)

24/12/2021
Signature of In-Charge

Copy to: 1. Chief Engineer, Operation & Execution, WBPCB
2. Chief Scientist, WBPCB
3. Asansol Regional Regional Office, WBPCB
4. Industry

Analysis Reports of Gaseous Emission Identification Code 1 4 1 2 2 0 2 1 8 1 5 3

WEST BENGAL POLLUTION CONTROL BOARD

Durgapur Regional Laboratory, Paribesh Bhawan, City Centre, Durgapur- 713 216

Analysis done at:

1. Name of Industry	M/s. Raghunathpur Thermal Power Station		
2. Address	Vill - Dumdumi, P.O - Nilidih, P.S - Raghunathpur, Purulia, 723133		
3. Category & Type	Red		
4. Sampling Date	14.12.2021		
5. Duration of Sampling	39 min		
6. Name of Laboratory	M/s. S. M. Scientific Service		
7. Height of Stack from ground (m)	275.0		
8. Cross section of Stack at sampling point (m^2)	39.5719		
9. Stack connected to	Unit No - II (Boiler)		
10. Emission due to (Furnace / Boiler)	Burning of Pulverized Coal		
11. Average operational hours of boiler/furnace (per month)	720 hrs		
12. APC System (if any)	ESP		
13. Working load of source (MT/hr)	362 MW		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l /hr)	-		
16. Working Fuel consumption (Kg or l /hr)	210 TPH		
17. Nature of furnace/boiler	-		
18. Flue Gas Temp (^{0}C)	122.0		
19. Flue gas velocity (m/s)	17.01	20. Volume of Flue gas drawn in 10 (m^3)	1.014
21. Corrected flue gas volume (Nm^3)	0.9	22. Percentage of CO_2 & O_2	CO_2= 10.4% O_2= 9.8%
23. To be compensated at (% if required)		6 % O_2	
24. Initial wt of thimble (gm)	1.4857	25. Final wt of thimble (gm)	1.5287
26. Wt. of PM (mg)	43.00	27. Particulate matter (mg/Nm^3)	64.14 at 6 % O_2
28. Barometric Pressure Head (mm of Hg)	757	29. Diameter of the nozzle	6.35 mm
30. Others SO_x & NO_x		31. Thimble Number	3632
32. Sampled by	Mr. R. Chakraborty, AEE		

14/01/2022
Date of Reporting

Junior Scientist, DRL

14/01/2022
Scientist, DRL

Copy to:
1. Chief Engineer, Operation & Execution, WBPCB
2. Chief Scientist, WBPCB
3. Env. Engineer (DRO) / Sr. Env. Engineer (ARO), WBPCB
4. Industry

Annexure- II

190

GOVERNMENT OF WEST BENGAL
OFFICE OF THE AGRICULTURAL CHEMIST
SOIL TESTING LABORATORY
V NAGAR, PURULIA
PHONE-03252-202469

Memo No: 117/STL/PRL/T3

Date: 31/12/2021

To
THE District Magistrate ,Purulia
Govt of West Bengal
DIST- PURULIA
PIN-723101

Sub: Soil Analysis Reports (06 Nos) of Soil Sample of Nildih GP under Raghunathpur II block,Purulia.

Ref. No. : - 484 Dated 17/12/2021 of Assistant Director of Agriculture,Raghunathpur II Block,Purulia.

Sir,
With the reference mentioned above, this is to inform you that this office actually received **06 nos**. of soil samples, out of which **06 nos**. of soil samples are found to be fit for processing and analysis in the laboratory. The above **soil samples** have been tested and the reports of those are given below.

Sample No	MOUZA	Lat-Long	PLOT No.	pH		EC dsm^{-1}		OC (%)		N $Kgha^{-1}$		Av P_2O_5 $Kgha^{-1}$		Av K_2O $Kgha^{-1}$		Sulphur ppm		Zinc ppm		Boron ppm		Iron ppm		Manganese ppm		Copper ppm	
				Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating	Value	Rating
1	Khudirmahul (133)	23.62110834' 86.67155107'	161	6.9	N	0.28	N	0.76	H	438	M	45	M	478	H	25	H	0.94	S	0.51	S	36	S	3.0	S	1.26	S
2	Do	23.62093807' 86.67113594'	138	5.7	SA	0.15	N	0.53	M	324	M	32	L	496	H	14	M	0.88	S	0.27	D	40	S	3.2	S	2.50	S
3	Do	23.62080335' 86.67222952'	140	6.3	SA	0.16	N	0.52	M	318	M	30	L	524	H	15	M	0.90	S	0.36	D	30	S	2.8	S	1.40	S
4	DO	23.62152727' 86.67172055'	161	6.6	N	0.47	N	1.03	H	714	H	82	M	538	H	30	H	0.96	S	0.61	S	44	S	3.4	S	1.74	S
5	Kharikabaid (136)	23.62390263' 86.68853359'	01	6.7	N	0.38	N	0.89	H	516	H	35	L	498	H	20	H	0.92	S	0.94	S	42	S	2.9	S	3.18	S
6	Do	23.623804' 86.6873243'	228	6.8	N	0.23	N	0.50	M	306	M	49	M	564	H	13	M	0.94	S	0.54	S	32	S	3.0	S	3.20	S

*A-Acidic, SA-Slightly Acidic, Alk-Alkaline, N-Neutral/Normal, C-Critical for germination, H-High, L-Low, M-Medium, D-Deficiency, S-Sufficiency.

Waiting to serve you again,

31-12-2021
Research Officer
Soil Testing Laboratory
Purulia

31/12/2021
Agricultural Chemist
Soil Testing Laboratory
Purulia

13
17.12.2021

Govt of West Bengal
Office of the Assistant Director of Agriculture
Raghunathpur-II Block Dist Purulia

Memo No:484 Date: 17.12.2021

To
The Agril.Chemist
Soil Testing Lab., Purulia

Sub: Submission of Soil Sample (Six Nos.) for Test and Analysis.
Ref: As per instructions of the Respected District Magistrate sir, Purulia during field visit at Nildih GP (Ghuttitora, Khudirmahul, Kharikabaid) Dated. 14.12.2021

Sir,
The under-signed is sending herewith 06(Six) Nos. of Soil Sample collected on 14.12.2021 as per instructions of the respected District Magistrate sir, Purulia. Details of the Samples are given below:-

Sample No.	Mouza with JL No.	Plot No.	Latitude	Longitude	Remarks
Sample-01	Khudirmahul (133)	161	23.62110834'	86.67155107'	Fellow Land
Sample-02		138	23.62093807'	86.67113594'	Agril. Land
Sample-03		140	23.62080335'	86.67222952'	Agril. Land
Sample-04		161	23.62152727'	86.67172055'	Fellow Land
Sample-05	Kharikabaid (136)	01	23.62390263'	86.68853359'	Agril. Land
Sample-06		228	23.623804'	86.6873243'	Agril. Land

Thanking You

Yours Faithfully

17.12.2021
Asst. Director of Agriculture
Raghunathpur II Block, Dist Purulia

Asst. Director of Agriculture
Raghunathpur II Block, Purulia(W.B.)

Memo No:_____/1(2) Date: 17.12.2021

Copy forwarded for kind information to:-
1) The CA/PA to the Respected District Magistrate, Purulia
2) The CA/PA to the Respected Sub-Divisional Officer, Raghunathpur Sub-Div.
3) The Block Dev. Officer, Raghunathpur-II Dev. Block, Purulia

Asst. Director of Agriculture
Raghunathpur II Block, Dist Purulia

West Bengal Pollution Control Board
(Department of Environment, Government of West Bengal)
Paribesh Bhawan, Bldg. 10A, Block LA
Sector III, Bidhannagar, Kolkata 700 106
Tel: 2335-6730, 2335-9088/7428/8211/6731/0261/8861
Fax: (0091) (033) 2335-2813

Memo No. 822-367/WPB/O&E/2019 Date: 26/11/2021

DIRECTION

WHEREAS, M/s. Raghunathpur Thermal Power Station (RTPS), Damodar Valley Corporation (hereinafter referred to as the industry) located at Vill – Dumdumi, P.O. – Nildih, P.S. – Raghunathpur & Neturia, Dist. - Purulia, Pin – 723133 is a thermal power plant having 2 nos. coal fired boilers.

AND WHEREAS, the industry was inspected by the **West Bengal Pollution Control Board** (hereinafter referred to as the State Board) official on 29.07.2021 following a letter received from West Bengal Human Rights Commission in connection with a complaint of local farmers against pollution caused due to discharge of waste water from the industry resulting damages of their cultivation land. During inspection unit #2 was in operation. The following observations were made during inspection:

- As stated by the industry representative, the entire waste water is stored in guard pond inside the plant premises and the said water is utilized in ash slurry make up only. During inspection it was observed that the entire surface water is discharged through an outlet located on eastern end boundary of the industry. Due to heavy downpour the said area of the boundary wall had been damaged and large volume of effluent was noticed to be discharged from this point outside the boundary. As stated by the industry representative, the water flows upto a stretch of 2 km. through an earthen nullah before the meeting at Uthala Jore which ultimately meets river Damodar after 8 km.

- The industry has a proposal for recirculation of entire effluent from this outlet and also proposed that excess effluent will be discharged after treatment through its own drain.

- The industry has two ash ponds located on north western side of the unit. Ash pond overflow is recycled back to boiler through clarifier and utilized as make up water in ash slurry preparation. No discharge was observed from any ash ponds outside the plant premises.

- Dry fly ash is stored in 2 nos. of silos. Presently ash utilization is about 10%, as stated. The unit has a proposal to set up dry fly ash bagging and dispatch facility at ESP in recent future.

- Automatic ambient air quality monitoring station was non-functional. However online stack monitoring was in operation.

- Installation work of FGD is in progress. It is stated that the same will be completed by mid of year 2022.

AND WHEREAS, the inspecting official met the local people of village Ghutitora and Pathuridanga. They alleged that they are unable to do cultivation in their lands due to discharge of waste water from the plant through their lands. During inspection growth of bushes and grasses was noticed in lands just adjacent to cropped lands. It is quite apparent that the lands with bushes and grasses were not cultivated by the land owners for long period.

AND WHEREAS, the Consent to Operate of the industry is valid upto 31.10.2023. The Hazardous Waste Authorisation of the industry was valid upto 31.08.2019.

AND WHEREAS, the industry was called for a hearing on 17.08.2021 at the Head office of the Board. The representatives on behalf of the industry appeared in the hearing and submitted that they have taken necessary measures in order to comply with the environmental norms. In this regard, an action taken report has been submitted by the industry mentioning the following:

- Their dry ash generation quantity is around 14 LMT per annum and have arranged to sale dry fly ash of around 9.395 LMT from silos to cement manufactures.
- After recent commissioning of private railway siding of RTPS arrangement is also being made to auction another 2.303 LMT dry fly ash to be disposed off directly from ESP hoppers by bagging and transportation through rail rake.
- To increase quantum of dry ash utilization they also supply dry fly ash to brick manufacturers. Regarding utilization of pond ash they have approached to NAHI and NH 33 informed them about their requirement of 4 LMT in the construction work of Jamshedpur – Mahuliya section of NH-33 in Jharkhand.
- They have also approached to Coal India Authority for allocation of abandoned mines, low line areas etc. for dumping of pond ash.
- Specific water consumption is calculated taking into account the process water, cooling water, clarified water and domestic water consumption and also considering 80% recovery from ash ponds.
- Process water has been re-circulated within the plant and do not discharge any effluent outside the plant premises.
- Process effluent is accumulated in a guard pond and after treatment the neutralized water is recycled and reused in ash handling plant.
- Ash Water Recovery System is functional and recovery water from ash pond is recycled and reused in ash handling plant.
- A scheme has been undertaken to stop draining out of the storm / surface water discharge through the outlet which is located on the eastern side of the plant.
- Existing outlet no. 1 at the eastern side of the plant near Ghutitora more will be blocked totally by concreting.
- Storm water will be diverted by constructing concrete open surface drain within the plant boundary to a lagoon / sedimentation pond through oil water separator
- Construction work of FGD plant of both the units #1 & #II is under progress and it will be expected to be commissioned by April, 2022 and July, 2022 respectively.
- CAAQMS has been installed but the same is not functioning properly. They stated that it will be made functional by September, 2021.

NOW THEREFORE, considering the above, **M/s. Raghunathpur Thermal Power Station (RTPS)**, Damodar Valley Corporation located at Vill – Dumdumi, P.O. – Nildih, P.S. – Raghunathpur & Neturia, Dist. - Purulia, Pin – 723133 is hereby directed as follows:

1. The industry shall always operate pollution control system efficiently to comply with the environmental norms.

2. The industry shall take necessary steps for enhancement of dry fly ash utilization so as to achieve 100% utilization.

3. The industry shall not discharge any surface water through the outlet located at the eastern side of the plant near Ghutitora more and this outlet will be totally blocked by concreting.

4. The industry shall always its Ash Water Recovery System be made functional and recovery water from ash pond shall be fully recycled and reused in the plant.

5. The industry shall ensure that no discharge of ash water from the ash pond into the nearby agricultural lands.

6. The industry shall immediately install Flue Gas Desulfurization (FGD) and submit a compliance report to the State Board.

7. The industry shall execute a **Bank Guarantee (BG)** (proforma enclosed) of Rs. **20,00,000/-** (Rupees twenty lakh) only valid for twelve (12) months within fifteen [15] days from the date of issuance of this direction in favour of the **WEST BENGAL POLLUTION CONTROL BOARD (Union Bank of India IFSC Code UBIN0906638)** as an assurance to comply with the above direction as well as environmental norms.

The Senior Environmental Engineer & In-Charge, Asansol Regional Office of the Board is requested to keep a strict vigil on the industry. In case of further non-compliance, the Board will take strict regulatory action against the industry like forfeiture of Bank Guarantee (BG), imposition of Environmental Compensation (EC) and Closure order with Disconnection of Electricity.

This direction is issued in exercise of the powers conferred under the provision of Section 33A of Water (Prevention & Control of Pollution) Act, 1974, Section 31A of Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and Rules made thereunder after being approved by the Competent Authority.

By Order,

Sd/-
Chief Engineer
West Bengal Pollution Control Board