

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

ORIGINAL APPLICATION NO. 104/2021/EZ

BETWEEN

**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 ON BEHALF OF THE RESPONDENT NO. 03, THE
WEST BENGAL POLLUTION CONTROL BOARD.**

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1.	Affidavit		
2.	Copy of the direction of the State Board dated 26.11.2021.	"R1"	
	Copy of the letter of the Damodar Valley Corporation dated 12.01.2022 undertaking the payment of bank guarantee.	"R2"	
3.	Copy of the inspection report of the Committee.	"R3"	

FILED BY

**PRITHWISH KUMAR BASU
ADVOCATE**

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

SL. NO. 509 20.22 ORIGINAL APPLICATION NO. 104/2021/EZ

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**AFFIDAVIT ON BEHALF OF THE RESPONDENT NO. 03, THE
WEST BENGAL POLLUTION CONTROL BOARD.**

Most Respectfully Sheweth

I, Sri Subrata Ghosh, son of Shri Biswanath Ghosh, aged about 58 years, by faith-Hindu, by Occupation- Service, residing at Narkelbagan, Gorosthan, Chinsurah, District - Hooghly, do hereby solemnly declare and say as follows :-

01. That, I am the Chief Engineer, West Bengal Pollution Control Board (hereinafter will be referred to as the 'State Board') and look after this case and as such I am well acquainted with the facts and circumstances of the case. I have been duly authorized by the Respondent No. 03 to affirm this Affidavit on its behalf and as such, I am competent to do so.

15 FEB 2022

S. CHAUDHURI
* NOTARY *
GOVT. OF INDIA
Regd. No.-6584/08
Buhannagar Court
Dist.-North 24 Pgs.

02. That, this affidavit is being affirmed in pursuance to the solemn order passed by the Hon'ble Tribunal dated 15.12.2021.

03. That, on the basis of letter from West Bengal Human Right Commission on the basis of complaint of the local farmers alleging pollution caused due to discharge of waste water from the industry resulting damages of their cultivation land, the State Board officials inspected the unit on 29.07.2021. Thereafter, the State Board after giving chance of hearing to the industry, issued a direction against the industry viz., M/s. Raghunathpur Thermal Power Station (RTPS), Damodar Valley Corporation, located at Vill-Dumdumi, P.O.- Nildih, P.S.-Raghunathpur & Neturia, District-Purulia, Pin-723133, vide memo dated 26.11.2021. The State Board inter alia directed the industry to execute a bank guarantee (BG) of Rs. 20,00,000/- (Rupees twenty lakhs) only valid for twelve months within fifteen days from the date of issuance of this direction in favour of West Bengal Pollution Control Board and other directions to comply.

Copy of the said direction of the State Board is annexed herewith and marked with letter "R1".

04. That, the Damodar Valley Corporation submitted the bank guarantee amounting to Rs. 20,00,000/- (Rupees twenty lakhs) only as an assurance to comply with the environmental norms. The said bank guarantee will remain valid till 09.01.2023.

Copy of the letter of the Damodar Valley Corporation dated 12.01.2022, undertaking the payment of bank guarantee is annexed herewith and marked with letter "R2".

05. That, in compliance to the order of the Hon'ble National Green Tribunal dated 12.11.2021, the officials of Central Pollution Control Board jointly with the District Magistrate and Collector, Purulia, Senior Environmental Engineer, West Bengal Pollution Control Board

S. CHAUDHURI
* NOTARY *
GOVT. OF INDIA
Regd. No.-6584/08
Biddhannagar Court
Dist.-North 24 Pys.

15 FEB 2022

and Superintending Engineer, Irrigation and Waterways Directorate, Government of West Bengal caused an inspection of the said site on 14.12.2021 and collected the water samples. inspecting officers, as per Guidelines of CPCB for Assessing Environmental Compensation for an Industry, have assessed environmental compensation of amount RS 50,68, 125/- (Rupees Fifty Lakhs Sixty Eight Thousand One Hundred Twenty Five Only). It is observed from the inspection report that the Committee has assessed the Environmental Compensation on the basis of Central Pollution Control Board's guidelines and has calculated number of non-compliance days from the date of news published in the newspaper (i.e. 09.07.2021) regarding environmental pollution by Raghunathpur Thermal Power Station and the date of inspection of the Committee i.e. 14.12.2021 and has arrived at 159 days of non-compliance.

Copy of the said joint inspection report of the Committee is annexed herewith and marked with letter "R3".

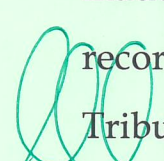
06. It is therefore respectfully prayed that Hon'ble Tribunal may pass such order/orders as it deems fit and proper in the interest of justice.

BEFORE THE NOTARY PUBLIC
AT BIDHANNAGAR
DIST.-NORTH 24 PARGANAS


DEPONENT

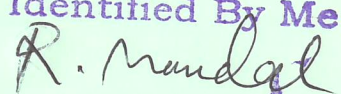
VERIFICATION

Verified at Kolkata by the deponent above named on this theday of February, 2022 and say that the contents of this affidavit made in paragraph nos. 1 and 5 are true to my knowledge and those made in paragraph nos. 2 is true to my information derived from records and rest are my respectful submission before this Hon'ble Tribunal.


S. CHAUDHURI
★ NOTARY ★
GOVT. OF INDIA
Regd. No.-6384/08
Bidhannagar Court
Dist.-North 24 Pgs.

15 FEB 2022


DEPONENT

Identified By Me

ADVOCATE



R-1'

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.

-367/WPB/O&E/2019

Date: /11/2021

DIRECTIO

WHEREAS, M/s. Raghunathpur Thermal Power Station (RTPS), Damodar Valley Corporation (hereinafter referred to as the industry) located at Vill – Dumdum, 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.

15 FEB 2022

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

Memo No. 822(64)-367/WPB/O&E/2019

Date: 26 /11/2021

Copy forwarded for information and necessary action to:

1. M/s. Raghunathpur Thermal Power Station (RTPS), Damodar Valley Corporation, Vill – Dumdumi, P.O. – Nildih, P.S. – Raghunathpur & Neturia, Dist. - Purulia, Pin – 723133
2. The Senior Environmental Engineer, EIM Cell, WBPCB
3. The Senior Environmental Engineer & In-Charge, Asansol Regional Office, WBPCB.
- ✓ 4. The Senior Law Officer, WBPCB
5. The Finance & Accounts Manager (A), WBPCB
6. T.A. to the Member Secretary, WBPCB
7. P.A. to the Chairman, WBPCB
8. Technical Cell, WBPCB for updating the website.
9. Environment Officer- Communication, WBPCB – for circulation through float file.
10. Guard file of O & E Cell


Chief Engineer

West Bengal Pollution Control Board

'R-2'



DAMODAR VALLEY CORPORATION

OFFICE OF THE CHIEF ENGINEER

DUMDUMI, P.O.- NILDIH, RAGHUNATHPUR, DIST-PURULIA-723133

No. RT/CE//EM&PC/726

Dated: 12/01/2022

To,

→ The Chief Engineer
West Bengal Pollution Control Board
(Department of Environment, Government of West Bengal)
Paribesh Bhawan, Bldg. 10A, Block LA
Sector III, Bidhannagar
Kolkata-700106

FAM(4)
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CE (O&E)

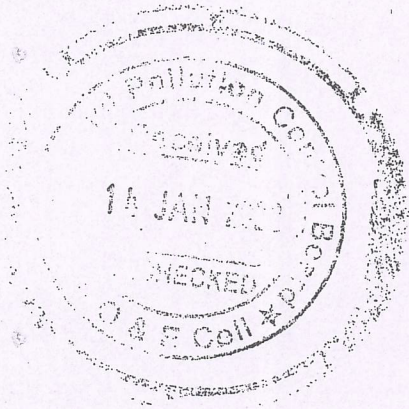
Sub:-Submission of Bank Guarantee (BG) of Rs. 20,00,000/- (Rupees Twenty lakhs only as an assurance to comply with the environmental norms

Ref: Your Memo no. 822(01)-367/WPB/O&E/2019 Dated 26/11/2021

Dear Sir,

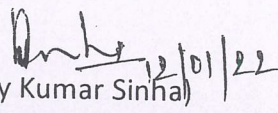
This has reference to above. Enclosed please find herewith a Bank Guarantee (BG) in the prescribed format amounting to Rs. 20,00,000/- (Rupees Twenty lakhs only) vide BG No. **17212ILG000222 dated 10.01.2022** having validity of 12 months as an assurance to comply with the environmental norms by RTPS, DVC as directed by you.

Enclo: The original Bank Guarantee as stated above.



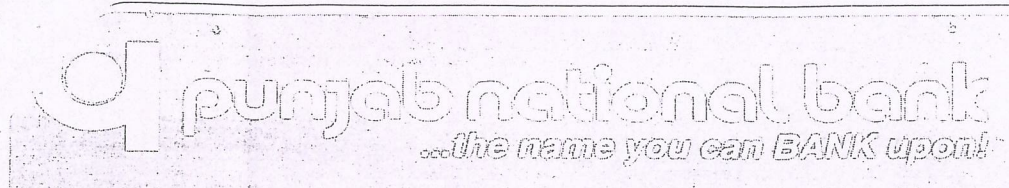
Received
17/1/22

Yours faithfully,


(Sanjay Kumar Sinha)
Deputy Chief Engineer (Mechanical)
EM&PC, RTPS, DVC

उप मुख्य अभियंता (यांत्रिक)
Dy. Chief Engineer (M)
RTPS, DVC.

Diary No. 286 Date 14/01/22
Operation and Execution Cell
West Bengal Pollution Control Board
Kolkata-700 098



Phone : 033-22133169
Email : bo172120@pnb.co.in

LCB SECOND FLOOR, UNITED TOWER, 11 HEMANTA BASU SARANI KOLKATA - 700001

Date: 11.01.2022

To
WEST BENGAL POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT GOVT OF WB
SECTOR 03 BIDHAN NAGAR
PARIBESH BHAWAN BLDG 10A BLOCK LA
PIN 700106

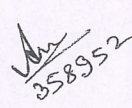
Dear Sir,

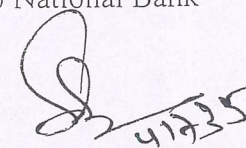
Please find enclosed extension to Letter of Guarantee No 17212ILG000222 Dated 10.01.2022 for amount of Rs. 2000000 (Rupees Twenty Lakh Only) Valid Till 09.01.2023 Claim Period Upto 09.01.2023 issued at the Request of M/S DAMODAR VALLEY CORPORATION by this office under the joint signature of (1) Sh.Santosh Kumar De (Designation- Sr. Manager) (2) Amit Mukherjee (Designation-Manager).

This letter forms an integral part of Original Guarantee, where our liability under the Guarantee shall not exceed RS. 2000000 (Rupees Twenty Lakh Only) Valid Till 09.01.2023 Claim Period Upto 09.01.2023 and We are liable to pay the Guarantee amount or any part thereof under this Bank Guarantee only if you serve upon us a written claim or demand on or before 09.01.2023.

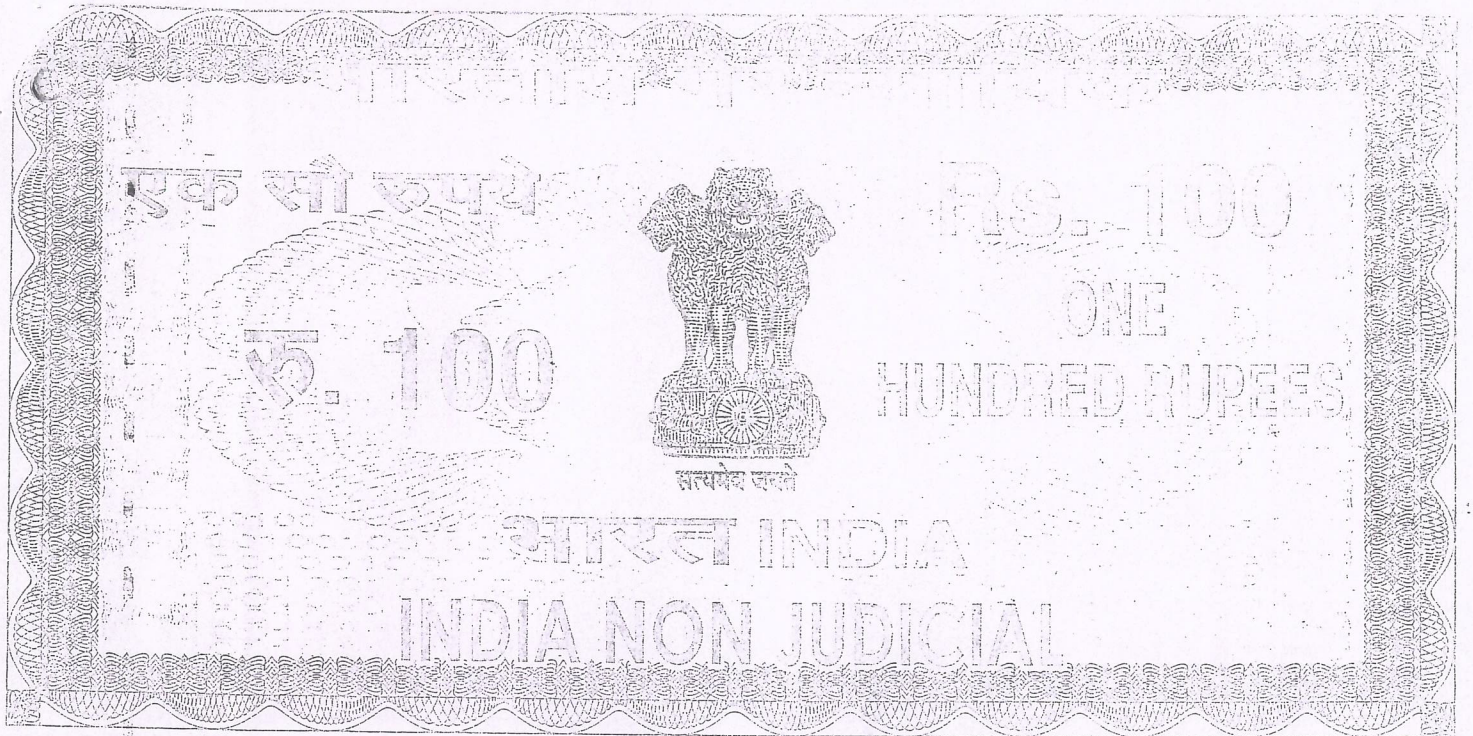
It is advised that in your own interest you may verify the genuineness of the guarantee from our controlling office at , 11 HEMANTA BASU SARANI, UNITED TOWER 4th Floor ZO CRMD Kolkata - 700001. **Email:** zokolcrmd@pnb.co.in

Yours Faithfully
For Punjab National Bank


358952
Manager


41735
Sr. Manager

Copy to : 11 HEMANTA BASU SARANI, UNITED TOWER 4th Floor ZO CRMD Kolkata - 700001



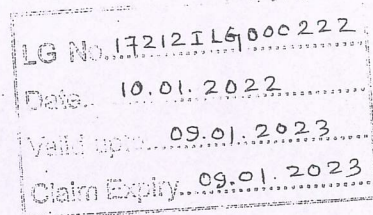
পশ্চিমবঙ্গ পশ্চিম বঙ্গাল WEST BENGAL

AF 122515

PERFORMANCE BANK GUARANTEE

To

WEST BENGAL POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT GOVT OF WB
SECTOR 03 BIDHAN NAGAR
PARIBESH BHAWAN BLDG 10A BLOCK LA
PIN 700106



1. We PUNJAB NATIONAL BANK, having office at Large Corporate Branch, United Tower, 02nd Floor, 11 Hemanta Basu Sarani, Kolkata – 700001 (herein after referred to as a Gurantor Bank term include its successor or assignee) with its Head Office at Plot No 04 Sector 10 Dwarka New Delhi hereby agree unequivocally to pay within 48 hours on demand in writing form the Member Secretary, west Bengal Pollution Control Board, (hereinafter reffered as the Board), which term included his successor or assignee or any

For PUNJAB NATIONAL BANK

Sr. Manager

LCB 2nd Floor, 11, Hemanta Basu Sarani, United Tower Kol-01

Sr. Manager

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PNB
LCB Branch

Kol-1

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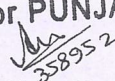
10 JAN 2022

LC No.	172)2 ILG 000222
Date	10.01.2022
Valid upto	09.01.2023
Claim Expiry	09.01.2023

Officer authorized by this Board in this behalf any amount up to and not exceeding Rs20,00,000/-(Rupees Twenty lacs) only to Board on behalf of Raghunathpur Thermal Power Station, DVC, Raghunathpur, Purulia
(hereinafter called the industry which term shall include its successor or assignee)

2. WHEREAS the Industry has under taken to complete the erection of Pollution Control System in all respect up to the satisfaction of the State Board and meeting the statutory norms under existing Environmental Acts and Rules. We PUNJAB NATIONAL BANK, Large Corporate Branch, United Tower, 02nd Floor, 11 Hemanta Basu Sarani, Kolkata – 700001 (the gurantor bank) do hereby undertake to pay to the aboard an amount not exceeding Rs. 20,00,000/- (Rupees Twenty lacs only) as and when demanded by this Board within 1(one) year from the date of execution of Bank Guarantee.
3. We PUNJAB NATIONAL BANK, Large Corporate Branch, United Tower, 02nd Floor, 11 Hemanta Basu Sarani, Kolkata – 700001 hereby, undertake to pay this guarantee without any demur merely on a demand from the Board. However our liability under this agreement shall be restricted to an amount not exceeding Rs. 20,00,000/- (RupeesTwenty lacs only)
4. NOTWITHSTANDING anything contained herein:
 - a) Our liability under this guarantee shall not exceed Rs. 20,00,000/-(Rupees Twenty lacs only)
 - b) This bank Guarantee shall be valid up to one year i.e. 09.01.2023
 - c) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before 09.01.2023
5. We PUNJAB NATIONAL BANK, Large Corporate Branch, United Tower, 02nd Floor, 11 Hemanta Basu Sarani, Kolkata – 700001 lastly undertake not to revoke this guarantee during the currency except with the prior consent of the Board in writing.

On this day of..... 11th JAN. 2022

For PUNJAB NATIONAL BANK

 Sr. Manager
 LCB 2nd Floor, 11, Hemanta Basu Sarani, United Tower Kol-01

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	<ol style="list-style-type: none"> 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:	
	<p>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:</p> <p style="padding-left: 40px;">a. Concentration of Particulate matter in Unit :1 – 88.09 mg/Nm³ b. Concentration of Particulate matter in Unit :2 – 64.14 mg/Nm³ Both the values are beyond permissible limit (50.0 mg/Nm³).</p> <p>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 m³. After treatment it is distributed in various industrial operations purpose i.e. Cooling Tower, D.M.Plant , Ash handling & Domestic purpose.</p> <p>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.</p> <p>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</p>	

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 PM_{2.5}, PM₁₀, SO₂ & NO_x.

8.9 The online stack monitoring facility was in operation for measurement of PM, SO₂ & NO_x.

8.10 Inspecting team visited Guard Pond, CAAQMS, Cooling Tower

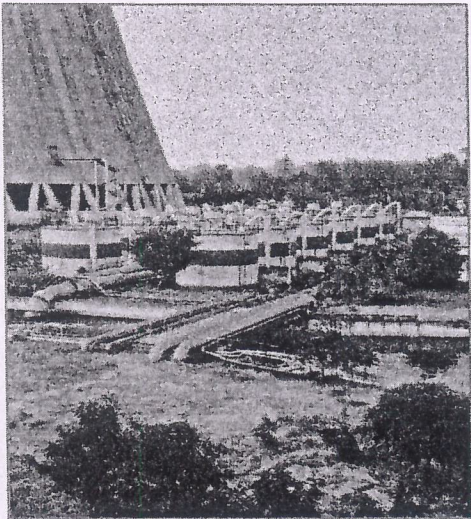

	<p>area etc.</p> <p>8.11 Inspecting team met & spoke to few local people of village Ghutitora, Pathuriadanga, Khudirmahal & other villages. The main allegation was that they are unable to do cultivation in their lands due to discharge of waste water from the plant through their lands. Inspection was 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.</p> <p>8.12 The unit has obtained 'Consent to Operate' which is valid upto 31.10.2023.</p>
9.0	<p>Site Specific Observations:</p> <p>9.1 Plant final discharge location:</p> <p>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.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Figure 1</p> </div> <div style="text-align: center;">  <p>Figure 2</p> </div> </div>



Figure 3

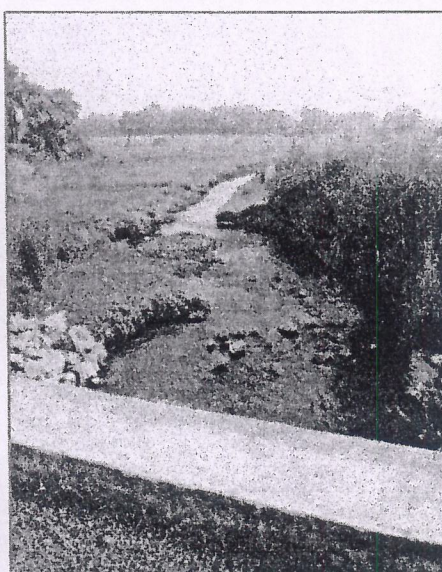


Figure 4

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).

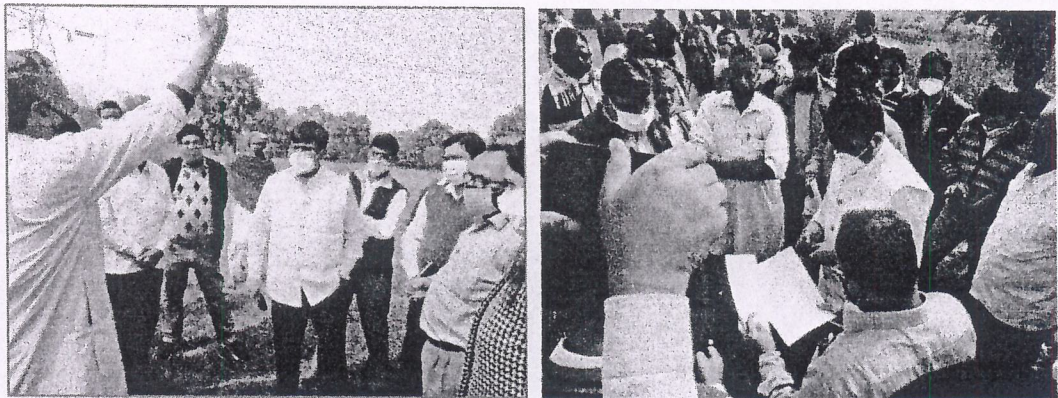


Figure 5. Committee in discussion with villagers at Bhaldubi



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
	<p>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.</p> <p>10.2 Values obtained of Total Coliform (TC) & pH at all effluent samples are found to be beyond permissible limit.</p> <p>10.3 Particulate matter concentration at both the stacks are found to be beyond permissible limit.</p> <p>10.4 Environmental compensation calculation is as follows :</p> <p>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:</p> $EC = PI \times N \times R \times S \times LF \quad \dots\dots\dots(1)$ <p>Where,</p>

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 area as 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:

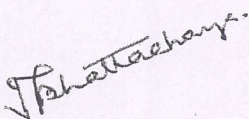
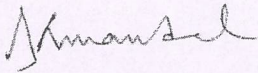
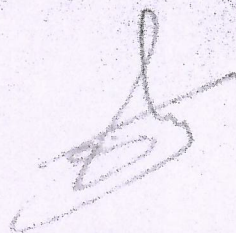
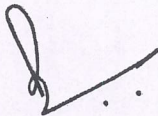
$$EC = PI \times N \times R \times S \times LF$$

$$EC = 85 \times 159 \times 250 \times 1.5 \times 1$$

= 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.

	<p>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.</p> <p>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.</p>
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 (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
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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:

U01900000151338171221965

Identification Code:

141220213375

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
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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)	TU/UW	Collection Time
1	Plant Final Discharge	T	1055
2	Bhaldubi	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 Exerted, 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

Annexure II

Analysis Reports of Gaseous Emission

Identification Code: 141220218134



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.- Dumdum, P.O.- Nildih, P.S.- Raghunathpur, Purulia, 723133		
3. Category & Type	Red		
4. Sampling Date	14.12.2021		
5. Duration of Sampling	34 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.- 1 (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)	402 MW		
14. Fuel used	Coal		
15. Rated Fuel consumption (Kg or l /hr)	352 TPH		
16. Working Fuel consumption (Kg or l /hr)	-		
17. Nature of furnace/boiler	-		
18. Flue Gas Temp (°C)	120.0		
19. Flue gas velocity (m/s)	19.96	20. Volume of Flue gas drawn in lit (m ³)	1.02
21. Corrected flue gas volume (Nm ³)	0.922	22. Percentage of CO ₂ & O ₂	CO ₂ =10.2% O ₂ = 9.6%
23. To be compensated at (% if required)	6 % O ₂		
24. Initial wt of thimble (gm)	1.5553	25. Final wt of thimble (gm)	1.6169
26. Wt. of PM (mg)	61.60	27. Particulate matter (mg/Nm ³)	88.09 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	3631		
32. Sampled by	Mr. R. Chakraborty, AEE		

04/01/2022
Date of Reporting

[Signature]
Junior Scientist, DRL

04/01/2022
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

Analysis Reports of Gaseous Emission

Identification Code: 141220218155



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.- Nildih, 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 (°C)	122.0		
19. Flue gas velocity (m/s)	17.01	20. Volume of Flue gas drawn in lit (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. WL 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		

04/01/2022
Date of Reporting

[Signature]
Junior Scientist, DRL

[Signature] 04/01/2022
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 III

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.

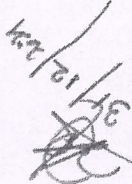
Sir,
With the reference mentioned above, this is to inform you that this office actually received 06 nos. of soil samples, out of which 06 nos. of soil samples are found to be fit for processing and analysis in the laboratory. The above soil samples have been tested and the reports of those are given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

Samp le No	MOUZA	Lat-Long	PLOT No.	pH		EC dsm ⁻¹		OC (%)		N Kg/ha ⁻¹		Av P ₂ O ₅ Kg/ha ⁻¹		Av K ₂ O Kg/ha ⁻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	Khudirmah ul (133)	23.62110834' 86.671155107'	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' 86.671113594'	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	Kharikahaid (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,


Research Officer
Soil Testing Laboratory
Purulia


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

Asst. Director of Agriculture
Raghunathpur II Block Dist Purulia

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

**BEFORE THE NATIONAL GREEN TRIBUNAL
EASTERN ZONE BENCH, KOLKATA**

ORIGINAL APPLICATION NO. 104/2021/EZ

BETWEEN

**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)

Filed by

**PRITHWISH KUMAR BASU
ADVOCATE**