

BRAHMANI RIVER PELLETS LIMITED



Registered Office :

4th Floor, IPICOL House, Janpath
BHUBANESWAR, ODISHA - 751022

Tel. No.: 0674-2543390

Fax No.: 0674-2543398

E-mail : admin@brplind.com

(CIN)-U27106OR2006PLC008914

No. BRPL/OSPCB/PP/24/239

Date: 16.09.2024

To,

The Member Secretary
State Pollution Control Board, Odisha,
Paribesh Bhawan,
A/118, Nilkantha Nagar, Unit- VIII,
Bhubaneswar-751012

Sub: - Submission of Environmental Statement Report for the financial year 2023-2024 of M/s. Brahmani River Pellets Ltd (Pellet Plant), At-Khurunti, P.O-Danagadi, Kalinga Nagar Industrial Complex, Dist-Jajpur, Odisha.

Dear Sir,

We are submitting herewith the Environmental Statement Report for the financial year 2023-2024 of M/s. Brahmani River Pellets Ltd (Pellet Plant), At-Khurunti, P.O-Danagadi, Kalinga Nagar Industrial Complex, Dist-Jajpur, Odisha in a duly filled up Form-V.

This is for favour of your kind information and perusal.

Thanking You.

Yours Sincerely,



Encl: As stated above.

C.C to: Regional Officer, SPCB, Jajpur.

FORM-V
ENVIRONMENTAL STATEMENT
(See rule 14)

Environmental Statement for the financial year ending with 31st March 2024.

PART-A

- i.* Name and address of the occupier of the industry operation or process:

Mr. T.C. Swamy
Plant Head
M/s BRAHMANI RIVER PELLETS Limited,
At-Khurunti, P.O- Danagadi,
Kalinga Nagar Industrial complex
Dist. -Jajpur, Odisha

Mr. T.C.Swamy
Plant Head
M/s BRAHMANI RIVER PELLETS Limited,
4th Floor, IPICOL House,
Janpath, Bhubaneswar,
Odisha-751022

- ii.* Industry category: Pellet Plant
Primary- **Large**
Secondary- **Red**

- iii.* Production category - Units.
Iron ore Pellets: 4.0 Million Ton Per Annum (MTPA)

- iv.* Year of establishment: **2007**

- v.* Date of the last environmental statement submitted: **15.09.2023.**

PART –B

Water and Raw Material Consumption:

- i. Water consumption in m³/d: (Average requirement) = (5712-6744) m³/d
- Process : (1488-1656) m³/d
- Cooling : (984-1080) m³/d
- Domestic (Drinking within plant premises) : (72 -96) m³/d

Name of Products	Process water consumption per unit of products	
	During the previous financial year 2022-23	During the current financial year 2023-24
1. Iron Ore pellet	1795854 m ³	1522042 m ³

ii. Raw material consumption

Name of raw materials*	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year 2022-23	During the current financial year 2023-24
1. Concentrate Iron Ore/Filter cake	Pellet	33,10,835 MT	28,17,233 MT
2. Bentonite	Pellet	12,572.960 MT	10,120.040MT
3. Lime stone	Pellet	50,702.310 MT	46,367.542 MT
4. Coke breeze	Pellet	49,643.780 MT	36,428.310 MT
5. Furnace oil	Pellet	56,036.506 KL	35,850.657 KL
6. LDO	Pellet	1,339.920 KL	645.495 KL

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of Variation from prescribed standards with reasons.
Water	Nil	Nil	<p>The waste water from iron ore slurry is separated through filtration system and treated in the thickener. The treated water is used as make up water and other uses in pellet plant.</p> <p>We have thickener wherein all de-dusting/scrubber return water is passed and the thickener underflow is reused again in the filtration process.</p> <p>STP (Sewage treatment Plant) has been installed for treatment of domestic waste generated from plant buildings.</p> <p>WTP has been installed for treatment of water generated from the process. The water from iron ore slurry is separated through filtration system and treated in the thickener and WTP. The treated water is used as make up water and other uses in pellet plant.</p> <p>Apart from this we have also installed ETP having capacity 250 KLD for surface runoff management.</p>

Air-

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (micrograms/cu.meter)	Standards (micrograms/cu.meter)
PM ₁₀	Refer to Annexure- I	Refer to Annexure- I	100 µg/m ³
PM _{2.5}	Refer to Annexure- I	Refer to Annexure- I	60 µg/m ³
NO _x	Refer to Annexure- I	Refer to Annexure- I	80 µg/m ³
SO ₂	Refer to Annexure- I	Refer to Annexure- I	80 µg/m ³
CO	Refer to Annexure- I	Refer to Annexure- I	4 mg/m ³
O ₃	Refer to Annexure- I	Refer to Annexure- I	180 µg/m ³
NH ₃	Refer to Annexure- I	Refer to Annexure- I	400 µg/m ³
Pb	Refer to Annexure- I	Refer to Annexure- I	1.0 µg/m ³
Benzene	Refer to Annexure- I	Refer to Annexure- I	05 µg/m ³ (Annul *)
Benzo(a)pyrene	Refer to Annexure- I	Refer to Annexure- I	01 mg/m ³ (Annul *)
Ni	Refer to Annexure- I	Refer to Annexure- I	20 mg/m ³ (Annul *)
As	Refer to Annexure- I	Refer to Annexure- I	06 mg/m ³ (Annul *)

PART-D**HAZARDOUS WASTES**

(As specified under Hazardous Wastes (Management & Handling Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year 2022-23	During the current financial year 2023-24
1. From Process	Used Oil- 6.3 KL	Used Oil- 10 KL
2. From Pollution Control Facilities	Nil	Nil

PART - E

SOLID WASTES:

Solid Wastes	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
a. From process	Nil	Nil
b. From Pollution Control Facility	Nil	Nil
c. Quantity recycled or re-utilized within the unit.	Nil	Nil

PART - F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste:- 10 KL of used oil is generated during operation & maintenance of equipment. Generated used oils are stored in barrels at its designated hazardous waste shed. Concrete Oil-water separation pit has been provided for collection of spilled material. This used oil was sold to an authorized recycler /re-processors approved by State Pollution Control Board, Odisha.

Solid waste: Pellet plant does not generate any solid waste. Any fugitive dust in the process is being extracted and collected through Bag Filters, Scrubbers and reused in the process. Thus, no waste is generated.

Gas flow through stack is done by two fans connected to ESP. Our two ESPs are designed to blow around 4, 00,000 m³/hr and 14, 00,000 m³/hr of air respectively. The iron ore dust collected by ESP is recycled by sending into thickener and reused in the process. We have thickener wherein all de-dusting/scrubber return water is passed and the underflow is reused in the process.

PART-G

Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production:

1. The pellet plant utilizes iron ore concentrate which is transported in the form of slurry from Beneficiation plant at Barbil through pipeline. Low grade iron ore beneficiation itself is a mineral conservation. The beneficiation process is a wet process and potential particulate matter emission is limited to raw material handling and conveying.

Concentrate Iron ore slurry is transported through underground pipeline from Barbil to Jajpur instead of transported through road/rail. Slurry pipelines offer an economic advantage over road/rail and much less noise disturbance to the environment. Also, CO₂ emission is much lower compared to surface transport systems through road/rail. Thus underground pipeline reduces road traffic and ambient dust pollution providing environmental benefit to all.

2. A massive tree plantation is done inside the pellet plant premises by planting various types of indigenous plant species. 34,825 saplings were planted so far inside plant premises in order to enhance vegetation and improvement of air quality and thus environment. Further Green belt development is planned in a phased manner. Apart from the above, we have also planted 8400 trees in Avenue plantation in Kalinga Nagar area. In 2023-24, we also distributed 1000 no. of fruit bearing plants to nearby villagers.
3. Recycled water of the plant is used for the watering of the green belt and water spraying on the road for the fugitive dust control due to vehicular movement.
4. To reduce the particulate matter emissions from the stacks; suitable pollution control equipment have been installed like ESPs (Electrostatic Precipitator), scrubbers and Bag filter system including 85 meters high Chimney to ensure sufficient dispersion of the pollutants. All the air pollution control devices are being operated and maintained properly like fabric bags and cages in bag house and these are regularly checked and replaced whenever required. We also store extra spares with respect to bag filter and ESP system for immediate replacement.

The air pollution from various technological units is controlled by employing suitable pollution control systems for reduction of pollution.

Air Pollution Control Measures		
Sl. No.	Source	Air pollution control Devices installed
1.	Induration Furnace	ESP (Electrostatic Precipitator)
2.	Additives Grinding Unit	Pulse Jet Bag Filter

3.	Mixing and Feed end area of Induration Furnace	Wet Scrubber
4.	Discharge end of Induration Furnace	Wet Scrubber
5.	HLSB(Hearth Layer Storage Bin)	Wet Scrubber

All roads inside the plant premises are concrete and black topped to avoid fugitive emissions. Water sprinkling is being done on the roads and work zone areas to minimize the fugitive emissions. Fixed water sprinklers are installed in product yard area & product conveyor while mobile water tanker is used for sprinkling water on the roads.

The main raw material for the pellet plant is beneficiated iron ore concentrate and it comes as slurry form from our Beneficiation plant through pipe line. So there are no fugitive emissions in raw materials handling area. In product area (HLSB), we use wet scrubbers for minimizing the particulate matter emissions and water sprinkling is done to avoid fugitive emissions.

5. Ambient Air Quality, Meteorological (weather), Noise level, fugitive Dust monitoring are efficiently carried out at fixed locations as per schedule. The monitoring work is conducted by authorized Third party agency. Monitoring reports indicates that the values of parameters are within the prescribed limits of CPCB. Apart from this online AAQMS (Ambient air quality monitoring station) was set up near main gate for monitoring the dust.
6. Trucks are properly covered with tarpaulin during transportation of materials.
7. Adequate stack height, as per CPCB guidelines, is provided on DG set.
8. Internal roads are black topped, concrete and paver block laid to reduce the fugitive dust emission inside the plant premises.
9. Housekeeping and scrap removal has been undertaken by all departments for implementing 5S drive process in different areas for maintaining neat and clean environment in the plant premises.
10. Water treatment plants having capacities 150 m³/hr, 250 m³/hr and 150 m³/hr are installed for treatment of water.
11. The STP has installed inside the plant premises for treatment of domestic effluents that are generated from the plant building.
12. An electronic display board has already been installed at the main gate where Environmental Information with respect to Air, water and Hazardous Waste is being displayed.
13. Landscape development has been done in front of canteen area, MRSS, Electrical work station, Near CCR by lawn development and planting decorative plants; thus preventing soil erosion and enhancing beautification.
14. Effluent treatment plant (ETP) having capacity 250 KLD is installed for surface runoff management.

PART – H

Additional measures/investment proposal for environmental protection including abatement of pollution.

Sl.no.	Particulars	Expenditure(Rs.)
1	Water Sprinkling by sprinklers & water tankers	15,00,000/-
2	AAQ, Metrological, Fugitive dust, Noise, Stack Monitoring	16,00,000/-
3	Water Monitoring	2,00,000/-
4	Green belt Maintenance	8,02,000/-
5	O & M for running of STP	4,20,000
6	Maintenance of STP, WTP, sprinkler	8,00,000
7	AMC for electronic display board	60,000
8	AMC for AAQMS(Ambient Air quality Monitoring Station)	1,50,000
9	O& M and chemical required for running of WTP	12,00,000
10	Avenue plantation	2,00,000
11	Maintenance of Bag filter, ESP, Scrubber	15,00,000
12	Media for WTP,STP,ETP	10,00,000
	Total	94,32,000/-

PART –I

1. No. of saplings proposed for next financial year is 1400 nos.
2. 1000 no. of fruit bearing plants to be distributed to nearby villagers.
3. Small patches of gardens will be developed inside of the plant premises wherever the open space is available to improve the plant beautification.
4. We have a separate Environmental management cell which is headed by Plant head & controlled by Sr.Manager (Environment). This department undertakes monitoring of the environmental pollution levels by measuring fugitive emissions, ambient air quality, water & effluent quality, noise level either departmentally or by appointing external agencies wherever necessary.





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• Information Technology
• Public Health Engineering

• Mine Planning & Design
• Mineral/Sub-Soil Exploration
• Waste Management Services

Ref: Envlab/23-24/TR-10073

Date: 13.11.2023

METEROLOGICAL DATA FROM APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : OPTCL Control Room

Date	Temperature(⁰ C)		Relative Humidity(%)		Wind Speed m/sec		Wind Direction	Rain fall (mm)
	Max	Min	Max	Min	Max	Min		
April-23	43.0	25.8	65.0	48.8	6.27	2.16	SSE	1.49
May-23	-	-	-	-	-	-	-	-
June-23	41.9	29.1	62.9	50.2	6.10	2.50	SE	8.96
July-23	35.5	28.2	67.2	49.5	5.15	2.04	SSE	6.97
Aug-23	34.1	21.1	65.9	49.3	4.54	2.07	SSE	9.06
Sept-23	33.3	26.1	63.9	48.3	4.91	1.40	SE	16.2
Six Monthly Average	37.56	26.06	64.98	49.22	5.394	2.034	-	8.536

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Ref: Envlab/23-24/TR-10074

Date: 13.11.2023

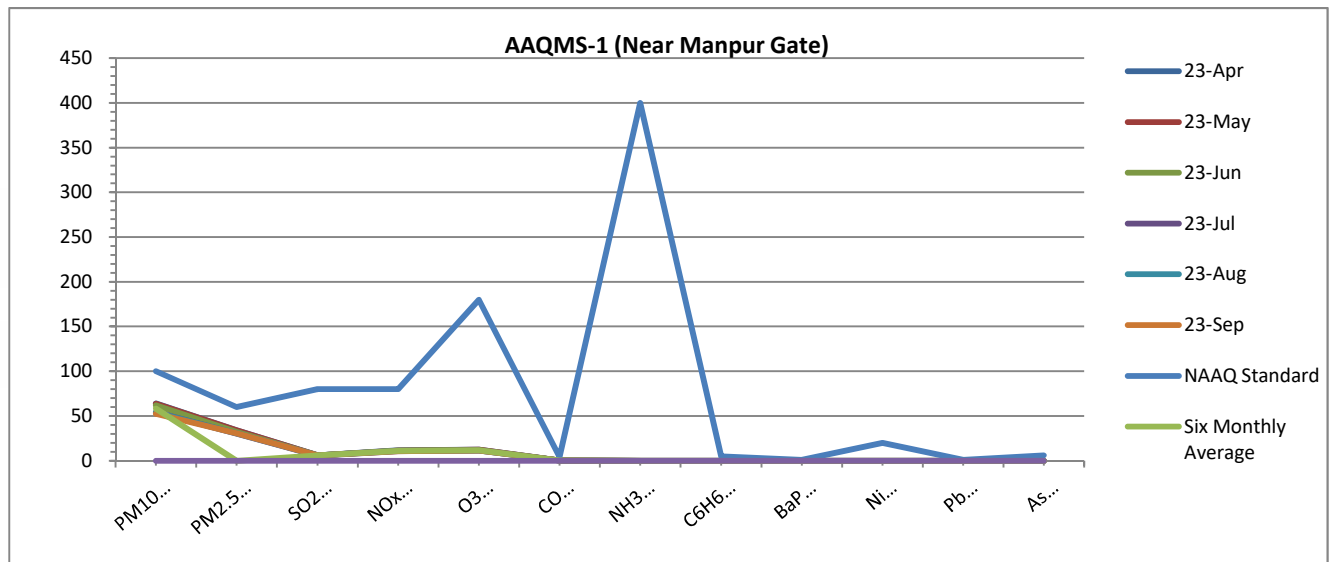
AAQ MONITORING REPORT FOR THE MONTH OF APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : AAQMS-1 (Near Manpur Gate)

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
April-23	63.89	34.00	5.76	11.54	12.43	0.34	BDL	BDL	BDL	BDL	BDL	BDL
May-23	63.50	33.84	5.90	11.48	12.43	0.34	BDL	BDL	BDL	BDL	BDL	BDL
June-23	61.83	31.89	5.93	11.29	12.00	0.33	BDL	BDL	BDL	BDL	BDL	BDL
July-23	54.16	30.30	5.70	10.64	11.47	0.32	BDL	BDL	BDL	BDL	BDL	BDL
Aug-23	53.81	30.62	6.02	10.87	11.37	0.32	BDL	BDL	BDL	BDL	BDL	BDL
Sept-23	52.41	30.51	5.85	10.65	11.22	0.32	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Six Monthly Average	58.27	31.86	5.86	11.07	11.82	0.33	BDL	BDL	BDL	BDL	BDL	BDL
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As <1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO<0.1



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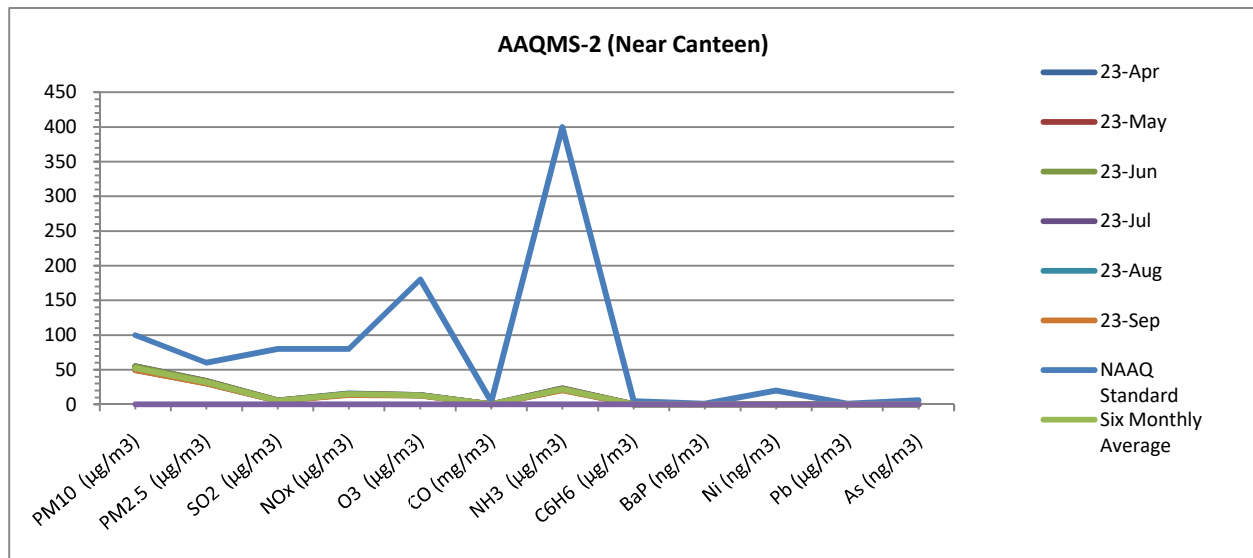

AAQ MONITORING REPORT FOR THE MONTH OF APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : AAQMS-2 (Near Canteen)

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
April-23	55.28	33.64	5.59	15.63	13.55	0.35	23.17	BDL	BDL	BDL	BDL	BDL
May-23	54.68	33.42	5.58	14.96	13.48	0.35	22.66	BDL	BDL	BDL	BDL	BDL
June-23	54.65	33.30	5.55	15.44	13.41	0.34	22.43	BDL	BDL	BDL	BDL	BDL
July-23	49.65	30.66	5.11	14.35	12.93	0.31	21.61	BDL	BDL	BDL	BDL	BDL
Aug-23	49.97	30.65	5.45	14.29	13.08	0.31	21.12	BDL	BDL	BDL	BDL	BDL
Sept-23	49.51	30.32	5.09	13.61	12.59	0.30	20.65	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Monthly Average	52.29	31.99	5.39	14.71	13.17	0.33	21.94	BDL	BDL	BDL	BDL	BDL
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indophenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As<1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO<0.1 mg/m³



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Ref: Envlab/23-24/TR-10076

Date: 13.11.2023

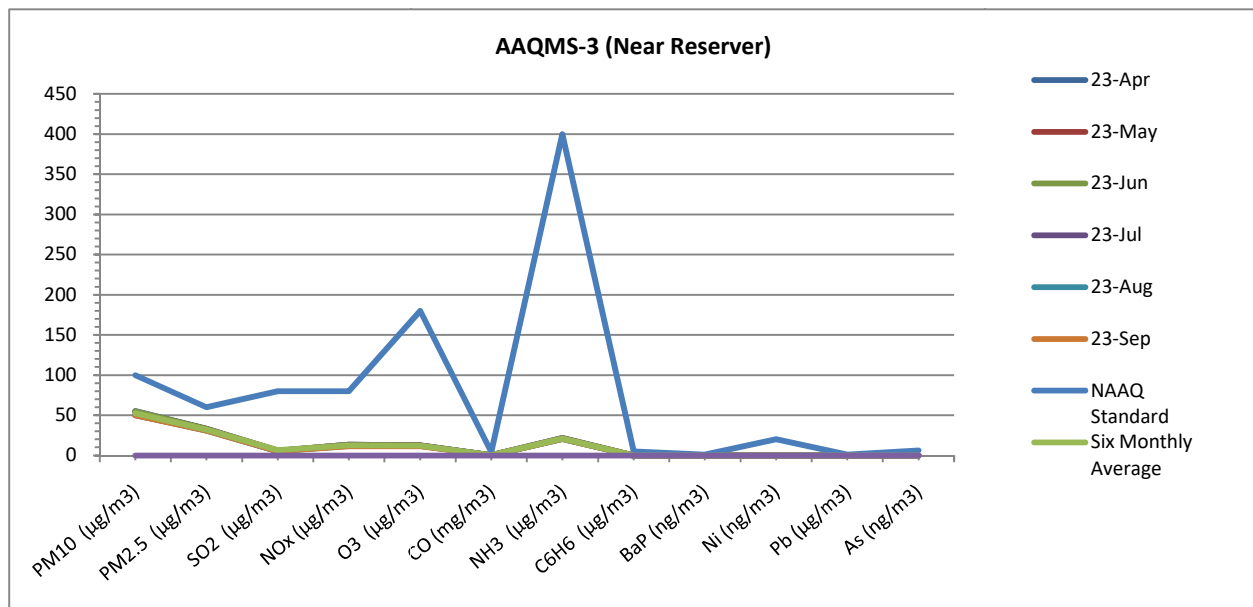
AAQ MONITORING REPORT FOR THE MONTH OF APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : AAQMS-3 (Near Reserver)

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
April-23	55.15	33.42	5.61	13.50	12.53	0.35	21.58	BDL	BDL	BDL	BDL	BDL
May-23	54.50	32.96	5.8	13.3	12.46	0.35	21.48	BDL	BDL	BDL	BDL	BDL
June-23	54.79	33.00	5.68	13.47	12.36	0.34	21.31	BDL	BDL	BDL	BDL	BDL
July-23	50.14	31.52	5.56	12.37	11.99	0.32	20.70	BDL	BDL	BDL	BDL	BDL
Aug-23	50.34	31.05	5.56	11.64	11.72	0.32	20.50	BDL	BDL	BDL	BDL	BDL
Sept-23	50.11	30.91	5.49	11.36	11.22	0.31	20.40	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	180	80	180	4	400	5	1	20	1	6
Monthly Average	52.51	32.14	6.62	12.61	12.05	0.33	21.0	BDL	BDL	BDL	BDL	BDL
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀<20 µg/m³, PM_{2.5}<10 µg/m³, SO₂<4 µg/m³, NO_x<6 µg/m³, O₃<4 µg/m³, NH₃<20 µg/m³, Ni<2.5 ng/m³, As<1 ng/m³, C₆H₆<4 µg/m³, BaP<0.5 ng/m³, Pb<0.02 µg/m³, CO<0.1 mg/m³



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Ref: Envlab/23-24/TR-10077

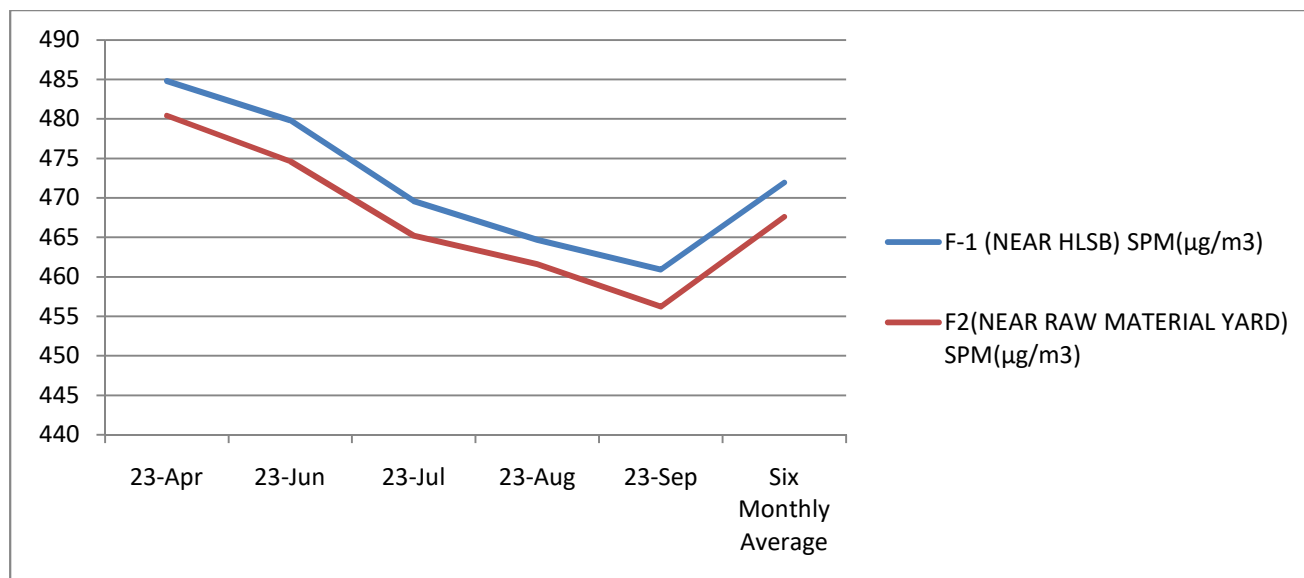
Date: 13.11.2023

FUGITIVE EMISSION MONITORING REPORT FROM APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sample Location : F-1:Near HLSB

MONTH	F-1 (NEAR HLSB)	F2(NEAR RAW MATERIAL YARD)
	SPM($\mu\text{g}/\text{m}^3$)	SPM($\mu\text{g}/\text{m}^3$)
April-23	484.8	480.4
May-23	-	-
June-23	479.8	474.6
July-23	469.6	465.2
Aug-23	464.7	461.6
Sept-23	460.9	456.2
Six Monthly Average	471.96	467.6



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Accredited by : NABET-A Grade, MOEF & CC/CPCB & SPCB-A Grade

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Ref: Envlab/23-24/TR- 10078

Date:13.11.2023

STATIONARY EMISSION MONITORING REPORT FROM APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.
Sampling Location : STI: Stack attached to ESP

Parameters	Unit of Measurement	Standard MoEF & CPCB	April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
Stack Temperature	°C	--	83	-	81	129	126	120	107.8
Velocity of Flue Gas	m/sec	--	9.72	-	9.81	16.78	16.05	15.85	13.64
Quantity of Gas flow	m ³ /hr	--	202450.26	-	203046.18	204040.28	205036.08	202050.36	203324.63
Concentration of Particulate Matter as PM	mg/Nm ³	100	23.8	-	24.9	40.6	31.8	30.5	30.32
Sulphur dioxide as SO ₂	mg/Nm ³	--	21.2	-	21.8	23.7	22.9	22.4	22.4
Oxides of Nitrogen as NO _x	mg/Nm ³	--	16.6	-	16.2	18.8	18.2	17.9	17.54



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Ref: Envlab/23-24/TR-10079

Date: 13.11.2023

STATIONARY EMISSION MONITORING REPORT FROM APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : ST-II: Stack attached to Discharge end Scrubber

Parameters	Unit of Measurement	Standard MoEF & CPCB	April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
Stack Temperature	$^{\circ}\text{C}$	--	50	-	52	45	36	42	45
Velocity of Flue Gas	m/sec	--	8.72	-	8.86	8.71	8.25	8.58	8.62
Quantity of Gas flow	m ³ /hr	--	58332.46	-	58554.24	57642.36	34990.36	35465.42	48996.97
Concentration of Particulate Matter as PM	mg/Nm ³	100	16.5	-	16.4	20.0	19.6	18.8	18.26
Sulphur dioxide as SO ₂	mg/Nm ³	--	16.7	-	15.8	16.8	16.4	15.2	16.18
Oxides of Nitrogen as NO _x	mg/Nm ³	--	17.2	-	16.2	16.1	15.8	15.4	16.14


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Ref: Envlab/23-24/TR-10080

Date: 13.11.2023

STATIONARY EMISSION MONITORING REPORT FOR APRIL-2023 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.
Sampling Location : ST-III : Stack attached to Feed End Scrubber

Parameters	Unit of Measurement	Standard MoEF & CPCB	April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
Stack Temperature	⁰ C	--	58	-	60	57	58	63	59.2
Velocity of Flue Gas	m/sec	--	10.1	-	10.6	9.96	10.3	10.32	10.26
Quantity of Gas flow	m ³ /hr	--	57224.14	-	58124.36	57325.22	44125.40	44320.10	52223.84
Concentration of Particulate Matter as PM	mg/Nm ³	100	17.2	-	16.8	17.8	17.2	16.8	17.16
Sulphur dioxide as SO ₂	mg/Nm ³	--	16.8	-	16.4	16.7	16.2	15.8	16.38
Oxides of Nitrogen as NO _x	mg/Nm ³	--	16.6	-	16.2	16.4	15.9	15.5	16.12

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Ref: Envlab/23-24/TR-10081

Date: 13.11.2023

STATIONARY EMISSION MONITORING REPORT FOR APRIL-23 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.
Sampling Location : ST-IV: Stack attached Bag Filter

Parameters	Unit of Measurement	Standard MoEF & CPCB	April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
Stack Temperature	⁰ C	--	83	-	81	86	75	67	78.4
Velocity of Flue Gas	m/sec	--	22.96	-	21.86	14.75	22.40	22.47	20.89
Quantity of Gas flow	m ³ /hr	--	274435.48	-	271456.52	221024.46	100406.63	100805.42	193625.70
Concentration of Particulate Matter as PM	mg/Nm ³	100	19.9	-	18.2	22.0	23.2	22.6	21.18
Sulphur dioxide as SO ₂	mg/Nm ³	--	2.0	-	2.0	2.0	2.0	2.0	2.0
Oxides of Nitrogen as NO _x	mg/Nm ³	--	5.0	-	5.0	5.0	5.0	5.0	5.0

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Ref: Envlab/23-24/TR- 10082

Date:13.11.2023

STATIONARY EMISSION MONITORING REPORT FOR APRIL-23 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : ST-V: Stack attached to HLSB

Parameters	Unit of Measurement	Standard MoEF & CPCB	April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
Stack Temperature	$^{\circ}\text{C}$	--	55	-	53	48	45	41	48.4
Velocity of Flue Gas	m/sec	--	8.92	-	9.04	7.74	7.61	8.10	8.28
Quantity of Gas flow	m ³ /hr	--	46892.40	-	46996.26	45365.42	35320.16	35998.32	43098.56
Concentration of Particulate Matter as PM	mg/Nm ³	100	20.4	-	19.9	30.0	29.0	28.0	25.46
Sulphur dioxide as SO ₂	mg/Nm ³	--	2.0	-	2.0	2.0	2.0	2.0	2.0
Oxides of Nitrogen as NO _x	mg/Nm ³	--	5.0	-	5.0	5.0	5.0	5.0	5.0

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Ref: Envlab/23-24/TR- 10083

Date:13.11.2023

NOISE MONITORING REPORT FOR APRIL-23 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited ; Kalinga Nagar,Jajpur.

Location ID	Location	Day time Equivalent						
		Noise Level in dB(A) leq						
		April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
N-1	Near Main Gate	71.8	-	71.4	70.9	71.2	70.8	71.22
N-2	Near Office Canteen	69.8	-	68.4	67.8	66.2	65.6	67.56
N-3	OPTCL Room	70.2	-	69.8	68.9	68.4	67.8	69.02
N-4	Manpur Gate	70.4	-	69.6	68.8	67.6	66.2	68.52
N-5	Near CCR	70.8	-	70.2	70.4	70.8	69.4	70.32
N-6	Near Store	69.4	-	68.8	68.5	65.9	66.0	67.72
N-7	Electrical Work shop	71.8	-	71.2	70.6	69.8	68.4	70.36
N-8	Raw Material Yard	72.8	-	71.9	71.2	71.0	70.2	71.42
Standard as per CPCB		75						

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Ref: Envlab/23-24/TR-10084

Date: 13.11.2023

NOISE MONITORING REPORT FOR APRIL-23 TO SEPT-2023

Name of Industry : M/s. Brahmani River Pellets Limited ; Kalinga Nagar, Jajpur.

Location ID	Location	Night time Equivalent						
		Noise Level in dB(A) leq						
		April-23	May-23	June-23	July-23	Aug-23	Sept-23	Six Monthly Average
N-1	Near Main Gate	65.6	-	65.2	64.8	63.9	62.8	64.46
N-2	Near Office Canteen	64.2	-	63.8	63.6	62.2	62.4	63.24
N-3	OPTCL Room	65.0	-	64.8	65.0	65.1	65.4	65.06
N-4	Manpur Gate	65.6	-	65.1	65.3	64.6	63.9	64.90
N-5	Near CCR	64.6	-	65.0	64.8	65.2	64.8	64.88
N-6	Near Store	63.8	-	62.9	63.2	61.6	60.9	62.48
N-7	Electrical Work shop	65.4	-	66.2	65.8	65.5	65.8	65.74
N-8	Raw Material Yard	65.6	-	66.8	66.2	66.4	65.9	66.18
Standard as per CPCB		70						

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[Signature]

SIX MONTHLY COMPLIANCE REPORT (FROM OCT-2023 TO MAR-2024)

**ON
ENVIRONMENTAL MONITORING
AT**



BRAHMANI RIVER PELLETS LIMITED

**KALINGA NAGAR, INDUSTRIAL COMPLEX
DUBRI, DIST-JAJPUR,
ODISHA-755026.**

Prepared by:-



VISIONTEK CONSULTANCY SERVICES PVT. LTD

(An Enviro Engineering Consulting Cell)

Plot No-M22&M23, Chandaka Industrial Estate, Patia- 751024

Tel. : 0674-3511721

E-mail : visiontekin@gmail.com, visionte-
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Ref: Envlab/24-25/TR-01206

Date: 23.04.2024

METEROLOGICAL DATA FROM OCT-2023 TO MAR -2024

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.
Sampling Location : OPTCL Control Room

Date	Temperature(⁰ C)		Relative Humidity(%)		Wind Speed m/sec		Wind Direction	Rain fall (mm)
	Max	Min	Max	Min	Max	Min		
Oct-23	31.8	23.2	66.0	49.1	3.85	1.23	SSW	3.77
Nov-23	30.4	20.8	67.6	51.0	3.32	1.06	NNW	0.41
Dec-23	27.6	17.4	69.3	49.0	3.12	1.0	WNW	0.0
Jan-24	28.3	16.7	70.8	50.2	3.69	0.93	NNE	0.0
Feb-24	32.9	20.0	67.5	49.6	4.97	1.13	SSE	0.25
Mar-24	-	-	-	-	-	-	-	-
Six Monthly Average	30.2	19.6	68.2	49.8	3.79	1.07	-	0.89

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Ref: Envlab/24-25/TR-01207

Date: 23.04.2024

AAO MONITORING REPORT FOR THE MONTH FOR OCT-2023 TO MAR -2024

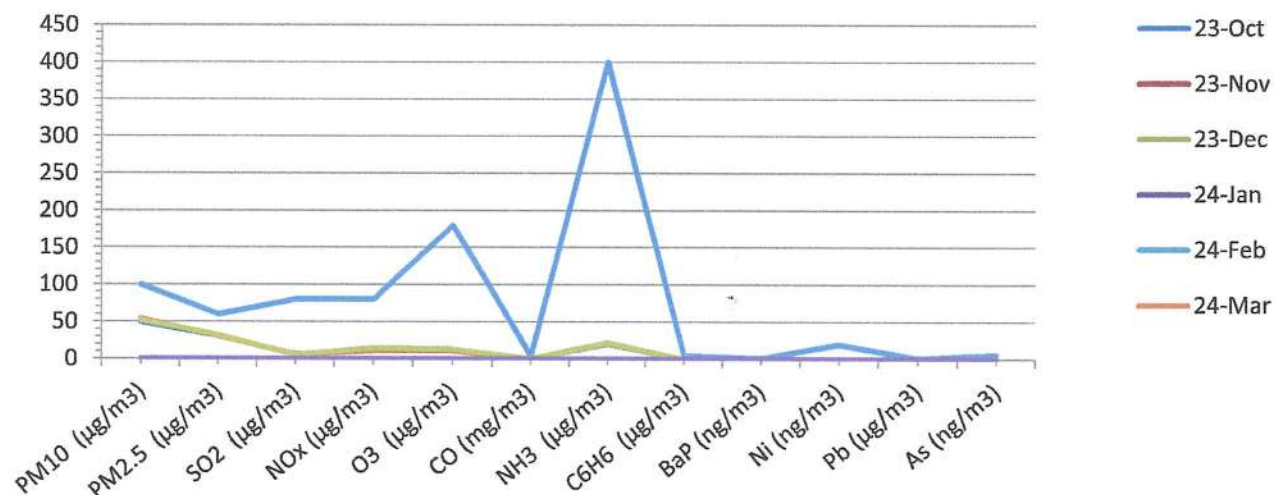
Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : AAQMS-1 (Near Manpur Gate)

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
Oct-23	51.81	30.90	5.91	10.73	11.32	0.33	BDL	BDL	BDL	BDL	BDL	BDL
Nov-23	52.59	31.03	6.12	11.0	11.27	0.33	BDL	BDL	BDL	BDL	BDL	BDL
Dec-23	53.56	31.12	6.38	11.0	11.15	0.33	BDL	BDL	BDL	BDL	BDL	BDL
Jan-24	54.11	31.21	6.22	11.23	11.15	0.34	BDL	BDL	BDL	BDL	BDL	BDL
Feb-24	54.14	31.20	6.10	11.16	11.08	0.34	BDL	BDL	BDL	BDL	BDL	BDL
Mar-24	54.76	31.23	6.17	11.20	11.20	0.35	BDL	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Six Monthly Average	54.5	31.11	6.15	11.05	11.2	0.34	BDL	BDL	BDL	BDL	BDL	BDL
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀ < 20 µg/m³, PM_{2.5} < 10 µg/m³, SO₂ < 4 µg/m³, NO_x < 6 µg/m³, O₃ < 4 µg/m³, NH₃ < 20 µg/m³, Ni < 2.5 ng/m³, As < 1 ng/m³, C₆H₆ < 4 µg/m³, BaP < 0.5 ng/m³, Pb < 0.02 µg/m³, CO < 0.1

AAQMS-1 (Near manpur gate)



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Ref: Envlab/24-25/TR-01208

Date: 23.04.2024

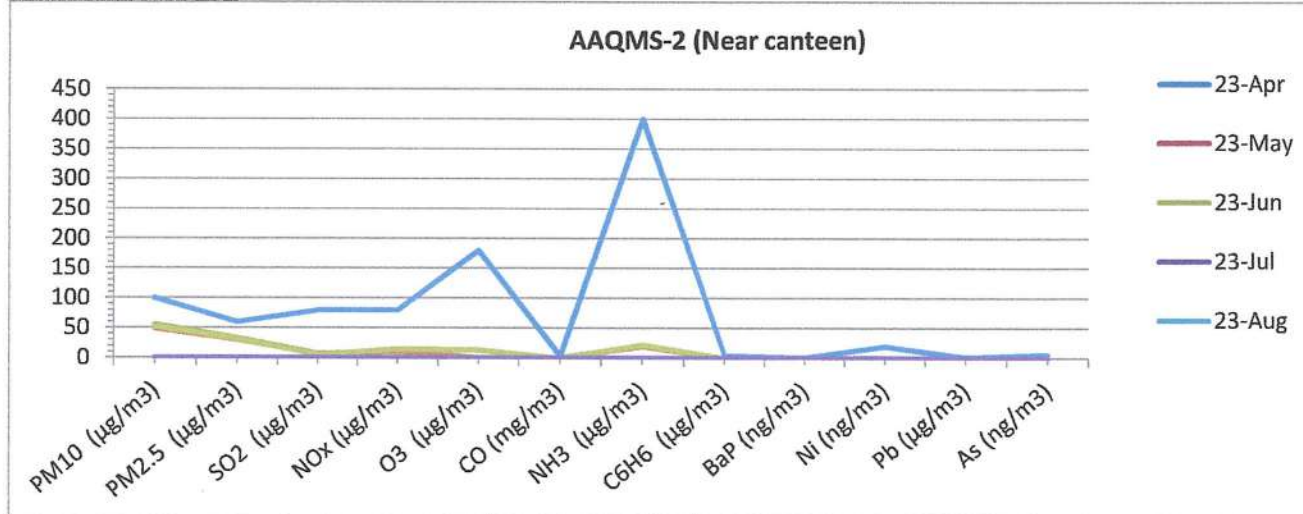
AAQ MONITORING REPORT FOR THE MONTH FOR OCT-2023 TO MAR -2024

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : AAQMS-2 (Near Canteen)

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
Oct-23	50.72	30.50	5.54	13.52	12.45	0.31	20.62	BDL	BDL	BDL	BDL	BDL
Nov-23	51.89	31.10	5.73	13.27	12.25	0.33	20.53	BDL	BDL	BDL	BDL	BDL
Dec-23	52.71	31.03	6.01	13.04	12.19	0.33	20.64	BDL	BDL	BDL	BDL	BDL
Jan-24	53.59	31.14	6.09	11.10	12.06	0.33	20.83	BDL	BDL	BDL	BDL	BDL
Feb-24	53.52	31.10	5.92	11.14	11.72	0.34	20.66	BDL	BDL	BDL	BDL	BDL
Mar-24	53.96	31.17	6.00	11.13	11.50	0.35	20.93	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	80	80	180	4	400	5	1	20	1	6
Monthly Average	52.73	31.0	5.88	12.2	12.03	0.33	20.71	BDL	BDL	BDL	BDL	BDL
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indophenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀ < 20 µg/m³, PM_{2.5} < 10 µg/m³, SO₂ < 4 µg/m³, NO_x < 6 µg/m³, O₃ < 4 µg/m³, NH₃ < 20 µg/m³, Ni < 2.5 ng/m³, As < 1 ng/m³, C₆H₆ < 4 µg/m³, BaP < 0.5 ng/m³, Pb < 0.02 µg/m³, CO < 0.1 mg/m³



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Ref: Envlab/24-25/TR-01209

Date: 23.04.2023

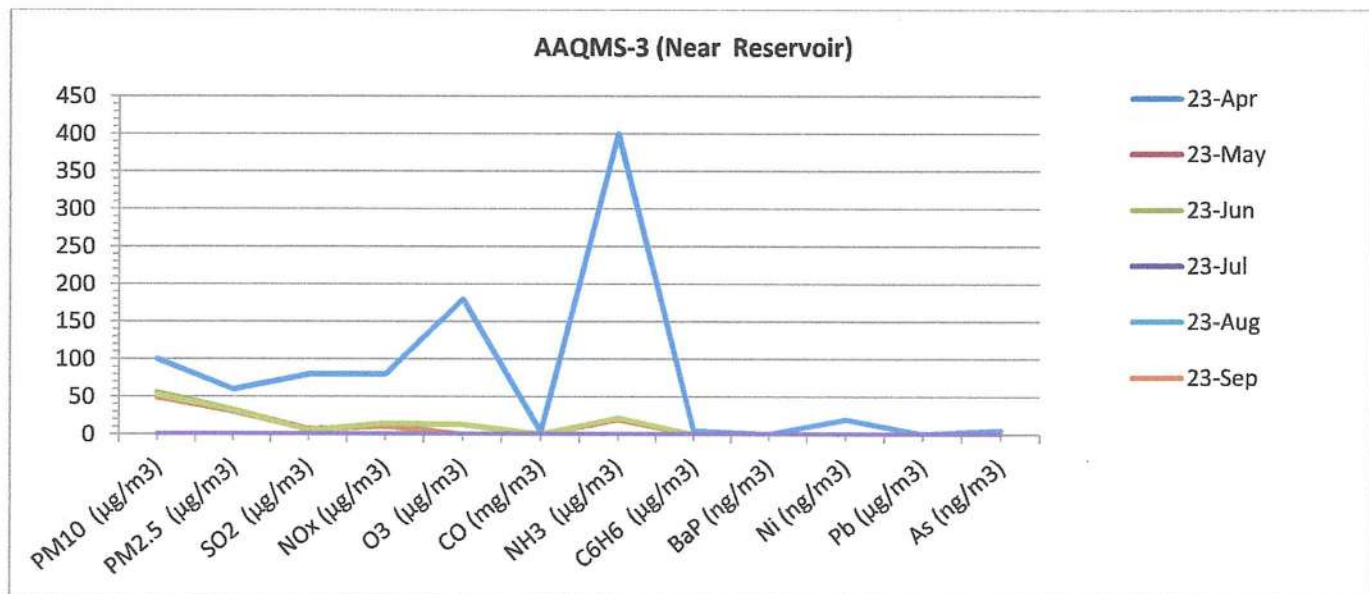
AAO MONITORING REPORT FOR THE MONTH FOR OCT-2023 TO MAR -2024

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : AAQMS-3 (Near Reserver)

Date	PARAMETERS											
	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	O ₃ (µg/m ³)	CO (mg/m ³)	NH ₃ (µg/m ³)	C ₆ H ₆ (µg/m ³)	BaP (ng/m ³)	Ni (ng/m ³)	Pb (µg/m ³)	As (ng/m ³)
Oct-23	50.12	30.97	5.66	11.45	11.43	0.32	20.58	BDL	BDL	BDL	BDL	BDL
Nov-23	51.76	31.01	5.76	11.27	11.30	0.33	20.64	BDL	BDL	BDL	BDL	BDL
Dec-23	53.15	31.06	5.95	11.21	11.25	0.34	20.75	BDL	BDL	BDL	BDL	BDL
Jan-24	53.52	31.10	5.92	11.14	11.72	0.34	20.66	BDL	BDL	BDL	BDL	BDL
Feb-24	53.48	30.98	5.96	11.06	11.04	0.33	20.84	BDL	BDL	BDL	BDL	BDL
Mar-24	54.07	31.03	6.07	11.03	11.17	0.34	21.0	BDL	BDL	BDL	BDL	BDL
NAAQ Standard	100	60	180	80	180	4	400	5	1	20	1	6
Monthly Average	52.68	31.02	5.89	11.19	11.32	0.33	20.75	BDL	BDL	BDL	BDL	BDL
Testing method	Gravimetric	Gravimetric	Improved West and Gaeke method	Modified Jacob & Hochheiser (Na-Arsenite)	Chemical Method	NDIR Spectroscopy	Indo phenol blue method	Absorption & Desorption followed by GC analysis	Solvent extraction followed by Gas Chromatography analysis	AAS method after sampling	AAS method after sampling	AAS method after sampling

BDL Values: PM₁₀ < 20 µg/m³, PM_{2.5} < 10 µg/m³, SO₂ < 4 µg/m³, NO_x < 6 µg/m³, O₃ < 4 µg/m³, NH₃ < 20 µg/m³, Ni < 2.5 ng/m³, As < 1 ng/m³, C₆H₆ < 4 µg/m³, BaP < 0.5 ng/m³, Pb < 0.02 µg/m³, CO < 0.1 mg/m³



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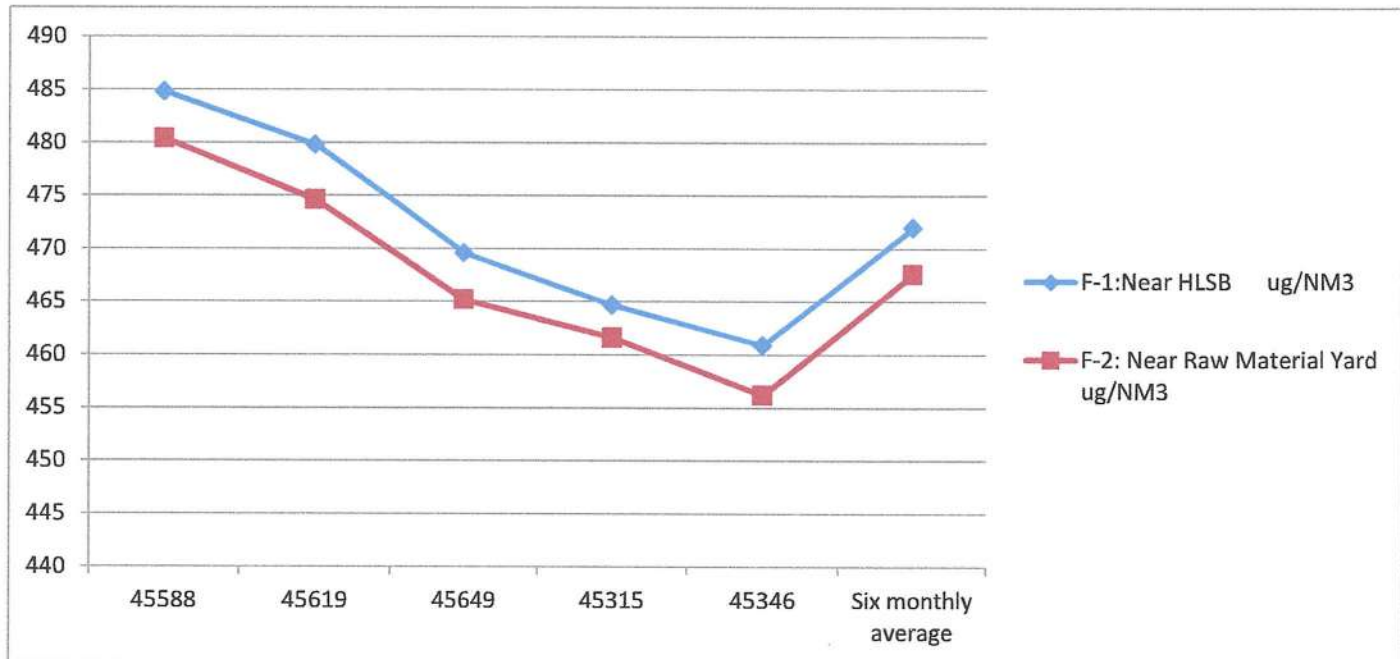
Ref: Envlab/24-25/TR-01210

Date: 23.04.2024

FUGITIVE EMISSION MONITORING REPORT FROM OCT-2023 TO MAR-2024

Name of Industry: M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur

Month	F-1: Near HLSB	F-2: Near Raw Material Yard
Oct-2023	484.8	480.4
Nov-2023	479.8	474.6
Dec-2023	469.6	465.2
Jan-2024	464.7	461.6
Feb-2024	460.9	456.2
Mar-2024	-	-
Six monthly average	472	467.6



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Ref: Envlab/24-25/TR-01211

Date: 23.04.2024

STATIONARY EMISSION MONITORING REPORT FROM OCT-2023 TO MAR-2024

Name of Industry

: M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location

: STI: Stack attached to ESP

Parameters	Unit of Measurement	Standard MoEF & CPCB	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
Stack Temperature	$^{\circ}\text{C}$	--	91	90	88	86	87	-	88.4
Velocity of Flue Gas	m/sec	--	10.11	10.23	10.32	10.27	10.33	-	10.3
Quantity of Gas flow	m ³ /hr	--	138347.65	139984.93	146157.80	146656.34	147699.75	-	143769.3
Concentration of Particulate Matter as PM	mg/Nm ³	100	30.1	30.7	31.8	32.2	31.7	-	31.3
Sulphur dioxide as SO ₂	mg/Nm ³	--	21.9	22.1	23.2	23.8	23.2	-	22.8
Oxides of Nitrogen as NO _x	mg/Nm ³	--	17.2	17.7	18.1	18.4	17.9	-	17.9

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Ref: Envlab/24-25/TR-01212

Date: 23.04.2024

STATIONARY EMISSION MONITORING REPORT FROM OCT-2023 TO MAR-2024

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.
Sampling Location : ST-II: Stack attached to Discharge end Scrubber

Parameters	Unit of Measurement	Standard MoEF & CPCB	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
Stack Temperature	$^{\circ}\text{C}$	--	46	47	46	45	47	-	46.2
Velocity of Flue Gas	m/sec	--	8.34	8.44	8.55	8.34	8.45	-	8.42
Quantity of Gas flow	m ³ /hr	--	35243.09	35425.13	41993.96	42163.81	42625.03	-	39490.2
Concentration of Particulate Matter as PM	mg/Nm ³	100	17.9	17.5	18.2	18.8	18.1	-	18.1
Sulphur dioxide as SO ₂	mg/Nm ³	--	15.1	15.4	15.9	16.2	15.9	-	15.7
Oxides of Nitrogen as NO _x	mg/Nm ³	--	15.2	14.9	15.4	15.8	15.3	-	15.32

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Ref: Envlab/24-25/TR-01213

Date: 23.04.2024

STATIONARY EMISSION MONITORING REPORT FOR OCT-2023 TO MAR -2023

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.
Sampling Location : ST-III : Stack attached to Feed End Scrubber

Parameters	Unit of Measurement	Standard MoEF & CPCB	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
Stack Temperature	$^{\circ}\text{C}$	--	61	59	58	57	59	-	58.8
Velocity of Flue Gas	m/sec	--	9.25	9.32	9.45	9.32	9.38	-	9.34
Quantity of Gas flow	m ³ /hr	--	43260.68	43728.66	43255.33	45404.92	45606.08	-	44251.13
Concentration of Particulate Matter as PM	mg/Nm ³	100	17.2	17.8	18.6	19.3	18.8	-	18.34
Sulphur dioxide as SO ₂	mg/Nm ³	--	16.0	16.5	17.2	17.8	17.2	-	16.94
Oxides of Nitrogen as NO _x	mg/Nm ³	--	15.7	15.9	16.4	16.6	16.3	-	16.20

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Ref: Envlab/24-25/TR-01214

Date: 23.04.2024

STATIONARY EMISSION MONITORING REPORT FOR OCT-2023 TO MAR -2024

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : ST-IV: Stack attached Bag Filter

Parameters	Unit of Measurement	Standard MoEF & CPCB	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
Stack Temperature	⁰ C	--	65	64	62	60	61	-	62.4
Velocity of Flue Gas	m/sec	--	21.95	21.84	21.98	21.85	21.90	-	21.9
Quantity of Gas flow	m ³ /hr	--	101414.56	98041.85	108582.03	105489.23	105841.42	-	103873.8
Concentration of Particulate Matter as PM	mg/Nm ³	100	22.5	22.9	23.5	22.9	21.9	-	22.74
Sulphur dioxide as SO ₂	mg/Nm ³	--	2.0	2.0	2.0	2.6	2.7	-	2.26
Oxides of Nitrogen as NO _x	mg/Nm ³	--	5.0	5.0	5.0	7.1	7.3	-	5.88

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Ref: Envlab/23-24/TR-01215

Date: 23.04.2024

STATIONARY EMISSION MONITORING REP FOR OCT-2023 TO MAR -2024

Name of Industry : M/s. Brahmani River Pellets Limited; Kalinga Nagar, Jajpur.

Sampling Location : ST-V: Stack attached to HLSB

Parameters	Unit of Measurement	Standard MoEF & CPCB	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
Stack Temperature	$^{\circ}\text{C}$	--	42	41	40	41	43	-	41.4
Velocity of Flue Gas	m/sec	--	7.8	7.93	8.05	8.15	8.10	-	8.0
Quantity of Gas flow	m ³ /hr	--	33351.3	33873.21	33622.04	35979.86	35676.86	-	34500.65
Concentration of Particulate Matter as PM	mg/Nm ³	100	27.6	28.1	29.8	30.0	29.6	-	29.0
Sulphur dioxide as SO ₂	mg/Nm ³	--	2.0	2.0	2.0	2.5	2.6	-	2.22
Oxides of Nitrogen as NO _x	mg/Nm ³	--	5.0	5.0	5.0	6.4	6.8	-	5.64

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Ref: Envlab/24-25/TR-01216

Date: 23.04.2024

NOISE MONITORING REPORT FOR OCT-2023 TO MAR -2024

Name of Industry : M/s. Brahmani River Pellets Limited ; Kalanga Nagar, Jajpur.

Location ID	Location	Day time Equivalent						
		Noise Level in dB(A) leq						
		Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
N-1	Near Main Gate	69.9	68.2	67.9	66.8	65.9	64.6	67.2
N-2	Near Office Canteen	64.8	64.2	63.7	61.6	59.4	57.2	61.8
N-3	OPTCL Room	66.9	66.4	67.2	66.8	65.7	63.3	66.1
N-4	Manpur Gate	66.0	65.8	64.9	64.5	63.9	61.4	64.4
N-5	Near CCR	68.9	69.1	68.8	67.5	66.4	64.2	67.5
N-6	Near Store	65.8	64.4	63.9	62.6	61.8	59.5	63.0
N-7	Electrical Work shop	68.8	67.9	68.6	68.2	68.2	66.3	68.0
N-8	Raw Material Yard	70.4	70.1	70.4	70.1	69.6	66.5	69.5
Standard as per CPCB		75						

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Ref: Envlab/24-25/TR-01217

Date: 23.04.2024

NOISE MONITORING REPORT FOR OCT-2023 TO MAR-2024

Name of Industry : M/s. Brahmani River Pellets Limited ; Kalinga Nagar, Jajpur.

Location ID	Location	Night time Equivalent						
		Noise Level in dB(A) leq						
		Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Six Monthly Average
N-1	Near Main Gate	61.9	60.2	61.1	60.8	59.4	55.1	59.8
N-2	Near Office Canteen	61.2	58.5	56.8	54.1	53.2	51.0	55.8
N-3	OPTCL Room	65.7	64.8	65.0	65.3	64.9	61.6	64.6
N-4	Manpur Gate	62.8	61.5	60.8	59.5	57.8	53.2	59.3
N-5	Near CCR	64.2	64.6	65.2	64.7	63.9	60.4	63.8
N-6	Near Store	59.8	55.2	54.9	52.8	51.3	49.5	53.9
N-7	Electrical Work shop	65.2	64.8	63.7	61.4	60.2	58.3	62.3
N-8	Raw Material Yard	65.4	64.6	65.6	64.9	63.8	58.7	63.8
Standard as per CPCB		70						

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