

MEGHALAYA POWER LIMITED

Corporate Office : Satyam Tower, 3 Alipore Road, 1st Floor, Unit No. 9B, Kolkata-700027

Ref: MPL (1 X 43 MW)/LUM/ EHS/2023-24/19

Dated: 29/01/2024

To,

The Member Secretary,
Meghalaya State Pollution Control Board
'ARDEN', Lumpyngngad,
Shillong, Meghalaya – 793014

Subject : Submission of Environmental Monitoring Report for the month of December, 2023.

Reference : MPCB/CON-64/2011/2021-2022/145, Dated. Shillong, the 22nd September, 2021.

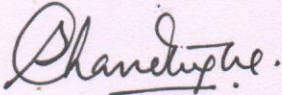
Dear Sir,

This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Stack Emission, Fugitive Emission & Water (Ground, Surface, STP & ETP) quality monitoring reports of **Meghalaya Power Limited (43 MW)** for the month of **December, 2023**.

Kindly acknowledge receipt of the same.

Thanking You,

Yours truly,
For **Meghalaya Power Limited (43 MW)**



Sharat Chandra Singha
Asst. General Manager Works

Enclosed: As mentioned above

Copy To: The Regional Director, Central Pollution Control Board (CPCB), North Eastern Zonal Office, 'TUMSIR', Lower Motinagar, Shillong, Meghalaya-790314.



MEGHALAYA POWER LIMITED

Lumshnong, Meghalaya

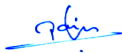
Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Manual Rain (mm)
01-12-2023	722.8	70.2	22.7	0.0
02-12-2023	720.2	69.0	22.0	0.0
03-12-2023	719.9	69.8	22.9	0.0
04-12-2023	726.1	68.1	22.7	0.0
05-12-2023	723.4	67.9	22.6	0.0
06-12-2023	729.2	69.2	22.0	0.0
07-12-2023	723.8	68.0	20.0	13.4
08-12-2023	726.5	67.8	19.0	16.0
09-12-2023	728.1	68.0	22.5	0.0
10-12-2023	725.8	69.1	22.9	0.0
11-12-2023	723.8	72.3	23.0	0.0
12-12-2023	723.3	71.4	24.7	0.0
13-12-2023	723.7	75.6	22.8	0.0
14-12-2023	726.5	72.7	22.9	0.0
15-12-2023	726.7	72.9	23.8	0.0
16-12-2023	726.1	70.1	23.4	0.0
17-12-2023	724.5	76.4	20.6	0.0
18-12-2023	722.9	75.6	19.2	0.0
19-12-2023	720.5	68.6	20.9	0.0
20-12-2023	726.1	61.6	20.8	0.0
21-12-2023	726.6	64.6	22.3	0.0
22-12-2023	724.3	69.4	22.6	0.0
23-12-2023	726.5	68.9	22.7	0.0
24-12-2023	728.1	66.8	23.9	0.0
25-12-2023	726.5	69.5	22.7	0.0
26-12-2023	721.3	66.2	21.9	0.0
27-12-2023	728.0	69.1	22.4	0.0
28-12-2023	725.8	70.5	22.9	0.0
29-12-2023	724.6	72.6	19.6	0.0
30-12-2023	725.4	71.4	22.0	0.0
31-12-2023	725.8	70.5	22.9	0.0
			Total	29.4

	MEGHALAYA POWER LIMITED (43MW) Lumshnong, Meghalaya		Reference No.	MPL/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
			Revision No.	5
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Rev.	01.12.2020
Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2023-24/09			Month : December	
Location of Sampling: Near ADM Office (South)		GPS Coordinate: 25°10'34"N 92°23'46"E 907 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
01.12.2023	47.01	26.84	14.25	15.38
04.12.2023	49.37	24.81	15.55	17.12
09.12.2023	45.23	29.34	14.93	16.27
13.12.2023	47.10	26.84	17.55	19.26
15.12.2023	45.93	28.02	13.91	16.31
18.12.2023	44.08	23.68	15.95	17.23
20.12.2023	44.75	30.34	14.58	18.06
28.12.2023	42.93	27.84	13.13	17.20
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

	MEGHALAYA POWER LIMITED (43MW) Lumshnong, Meghalaya		Reference No.	MPL/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
			Revision No.	5
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Rev.	01.12.2020
Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2023-24/09			Month : December	
Location of Sampling: Near STP		GPS Coordinate: 25°10'49"N 92°23'58"E 947 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
01.12.2023	28.38	21.80	14.15	18.79
04.12.2023	30.38	20.77	15.35	22.29
09.12.2023	31.70	23.10	12.67	14.92
13.12.2023	36.05	24.26	13.29	16.92
15.12.2023	33.67	22.62	13.97	18.79
18.12.2023	31.37	21.08	14.69	16.58
20.12.2023	35.60	18.61	13.97	17.82
28.12.2023	33.89	16.78	13.02	15.83
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m³)	60 (µg/m³)	80 (µg/m³)	80 (µg/m³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

	MEGHALAYA POWER LIMITED (43MW) Lumshnong, Meghalaya		Reference No.	MPL/Env/F – 01
			Issue No.	1
	AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2023-24/09			Date of Rev.	
			01.12.2020	
Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2023-24/09			Month : December	
Location of Sampling: Near Piezometer Well		GPS Coordinate: 25°10'35"N 92°23'53"E 348 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
01.12.2023	49.74	33.28	13.49	18.10
04.12.2023	48.36	27.86	15.03	16.90
09.12.2023	52.00	30.08	14.68	18.89
13.12.2023	53.50	33.76	12.61	17.76
15.12.2023	52.36	30.28	11.68	18.40
18.12.2023	46.71	31.93	12.68	17.36
20.12.2023	47.36	26.93	13.71	18.79
28.12.2023	43.98	25.92	11.03	18.88
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by  Checked by  Verified By				

	MEGHALAYA POWER LIMITED (43MW) Lumshnong, Meghalaya		Reference No.	MPL/Env/F – 01
			Issue No.	1
			Date of Issue:	24.08.2013
			Revision No.	5
GROUND LEVEL AMBIENT AIR QUALITY MONITORING REPORT			Date of Rev.	01.12.2020
Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2023-24/09			Month : December	
Location of Sampling: Near ADM Office		GPS Coordinate: 25°10'34"N 92°23'46"E 907 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.12.2023	41.41	22.40	11.68	14.44
03.12.2023	43.17	20.37	10.65	13.41
06.12.2023	39.63	24.90	12.98	15.74
11.12.2023	41.50	22.40	14.14	16.90
14.12.2023	40.33	23.58	14.68	15.26
16.12.2023	28.93	14.06	10.96	13.72
19.12.2023	39.15	25.90	12.25	14.45
29.12.2023	37.33	23.40	13.69	14.78
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

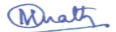
	MEGHALAYA POWER LIMITED (43MW) Lumshnong, Meghalaya		Reference No.	MPL/Env/F – 01
			Issue No.	1
	GROUND LEVEL AMBIENT AIR QUALITY MONITORING REPORT		Date of Issue:	24.08.2013
			Revision No.	5
			Date of Rev.	01.12.2020
Reference No.: MPL (43 MW)/ENV/AAQM/MONTHLY/2023-24/09			Month : December	
Location of Sampling: Behind DM Plant		GPS Coordinate: 25°10'43"N 92°23'50"E 348 m		
Sampling Duration:	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.
Date of Sampling	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
02.12.2023	37.17	24.61	14.15	16.52
03.12.2023	37.47	22.58	13.12	15.49
06.12.2023	38.58	27.11	15.45	17.82
11.12.2023	36.63	24.61	16.61	18.98
14.12.2023	35.14	25.79	14.97	17.34
16.12.2023	33.63	21.45	13.43	15.80
19.12.2023	35.15	28.11	9.50	13.33
29.12.2023	32.35	25.61	9.13	11.50
NAAQS permissible limits for Rural, Industrial, Residential Area	100 (µg/m ³)	60 (µg/m ³)	80 (µg/m ³)	80 (µg/m ³)
Remarks: All the analyzed parameters are well within the permissible limits of NAAQ Standards , Notification dated 18th November 2009.				
 Analysed by		 Checked by		 Verified By

	MEGHALAYA POWER LIMITED (43 MW) Lumshnong, Meghalaya		Reference No.	MPL/Env/F-02
			Issue No.	1
	STACK EMISSION MONITORING ANALYSIS REPORT		Date of Issue:	01.05.2019
			Revision No.	5
			Date of Rev.	01.06.2021
Report No: MPL(43MW)/ENV/STACK/MONTHLY/2023-24/09 Month: December				
<u>Analysis Result</u>				
A. General Information About Stack				
1	Stack Identification No			43 MW
2	Stack Connected to			Boiler
3	Material of Construction (Stack/Duct)			RCC
4	Shape of duct			Circular
5	Whether duct is provided with permanent platform & ladder			Yes
B. Physical characteristic of stack				
1	Stack Height from ground level (meter)			81.0
2	Duct diameter at sampling point (meter)			2.75
3	Sampling height point from ground level (meter)			45.5
4	Cross sectional area of Duct/Stack (m ²)			5.94
C. Pollution Control Device				
1	Details of pollution control device attached to stack			ESP
D. Result of Sampling & Analysis of Gaseous Emission				
1	Date of Sampling			02.12.2023
2	Ambient Temp (°C)			32
3	Stack Gas Temp (°C)			120
4	Exit Velocity of Gas (m/sec.)			15.3
5	Flow Rate (Nm ³ / sec.)			64.1
6	Quantity of Emission (Nm ³ / Hr)			230713.4
7	Concentration of PM (mg/Nm ³)			29.7
8	Concentration of SO ₂ (mg/Nm ³)			398
9	Concentration of NO _x (mg/Nm ³)			203
10	Oxygen (O ₂) (%)			10.0
E. Remarks:				
Standard				
PM - 50 mg/Nm ³		SO ₂ - 600 mg/Nm ³		NO _x - 300 mg/Nm ³
<i>Particulate Matter (PM), Sulphur di-oxide (SO₂), Oxide of Nitrogen (Nox), Electro Static Precipitator (ESP)</i>				
 Analysis by  Checked by  Authorized Signatory				

	MEGHALAYA POWER LIMITED Lumshnong, Meghalaya		Document No.	MPL/EHS/Env/F-04
			Date of Issued	01-05-2019
			Revision No.	2
	FUGITIVE EMISSION MONITORING REPORT		Revision Date	01-01-2021
Ref: MPL(43MW)/ENV/FUGITIVE/MONTHLY/2023-24/09				
Month - December				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
			Limit	
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)	
12.12.2023	Coal Storage Section	1324	2000	
 Analyzed By  Checked By  Verified By				

	MEGHALAYA POWER LIMITED (43 MW) Lumshnong, Meghalaya				Document No.	MPL/EHS/Env/F-03			
					Date of Issued	01-05-2019			
					Revision No.	04			
	NOISE LEVEL MONITORING REPORT					Revision Date	01-01-2021		
Ref: MPL(43MW)/ENV/NOISE/MONTHLY/2023-24/009					Date: 04.12.2023				
Month - December									
S. No.	Location	Measured Values dB(A) Day time (6:00am to 10:00pm)			Norms In dB(A)	Measured Values dB(A) Night time (10:00pm to 6:00am)			Norms in dB(A)
		Min.	Max.	Avg.		Min.	Max.	Avg.	
A	Plant								
1	Turbine House Ground Floor	64.5	69.0	66.8	75	60.7	64.6	62.7	70
2	Turbine House 9 Mt.	61.4	71.2	66.3		57.6	66.6	62.1	
3	RO – MCC	65.3	71.7	68.5		60.9	65.7	63.3	
4	Boiler Ground Floor	65.8	70.9	68.4		59.7	65.6	62.7	
5	CHP – MCC	65.3	71.8	68.6		53.9	57.7	55.8	
6	Office Area	59.6	68.8	64.2		51.4	64.9	58.2	
 Analyzed by  Checked By  Verified By									

	MEGHALAYA POWER LIMITED Lumshnong, Meghalaya				Reference No.	MPL/EHS/F-04
					Issue No.	1
	WATER TESTING REPORT				Date of Issue:	24.08.2013
					Revision No.	3
					Date of Rev.	01.06.2019
Reference No.: MPL/ENV/WATER/MONTHLY/2023-24/09					Date of sample collection: 18.12.2023	
					Date of Analysis: 18.12.2023 to 21.12.2023	
Sl.No.	Parameter	Unit	STP Inlet	STP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date: - 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014- 2015/34 - dated Shillong, the 3rd Sep,2014	
1	pH	-	7.5	7.9	5.5 to 9.0	
2	Colour	Hazen	Yellowish	Colourless	-	
3	Odour	-	Odourless	Odourless	-	
4	Chloride	mg/L	79.8	81.5	-	
5	Total Hardness as CaCO ₃	mg/L	55.8	57.0	-	
6	Suspended Solids	mg/L	78	20.0	100	
7	Total Dissolve Solids	mg/L	313	322	-	
8	Chemical Oxygen Demand	mg/L	124	41	250	
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	84	9.0	30	
10	Oil & Grease	mg/L	1.1	< 3.0	10	
11	Temperature	° C	25	25	Shall not exceed 5.0°C above the receiving water temperature	
12	Conductivity	µS/cm	483	492	-	
 Analysis By  Checked By  Verified By						

	MEGHALAYA POWER LIMITED Lumshnong, Meghalaya			Reference No.	MPL/EHS/F-04
				Issue No.	1
	WATER TESTING REPORT			Date of Issue:	24.08.2013
				Revision No.	3
			Date of Rev.	01.06.2019	
Reference No.: MPL/ENV/WATER/MONTHLY/2023-24/09					Date of sample collection: 18.12.2023 Date of Analysis: 18.12.2023 to 21.12.2023
Sl.No.	Parameter	Unit	ETP Outlet	Standard Norms For Discharge of Environment Pollution (Notification Date:- 19th May 1993) & Consent To Operate vide letter no. MPCB/TB-900 (Pt-II)/2014-2015/34 – dated Shillong, the 3rd SEP, 2014.	
1	pH	-	8.0	5.5 to 9.0	
2	Suspended Solids	mg/L	35	100	
3	Total Dissolve Solids	mg/L	322	-	
4	Chemical Oxygen Demand	mg/L	45	250	
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	24	30	
6	Oil & Grease	mg/L	<3.0	10	
 Analysis By  Checked By  Verified By					

	MEGHALAYA POWER LIMITED Lumshnong, Meghalaya										Reference No.	MPL/EHS/F-04			
											Issue No.	1			
	WATER TESTING REPORT										Date of Issue:	24.08.2013			
											Revision No.	3			
Reference No.: MPL/ENV/WATER/MONTHLY/2023-24/09										Date of Rev.	01.06.2019				
Surface Water Analysis Results										Date of sample collection: 20.12.2023					
Date of Analysis: 20.12.2023 to 23.12.2023															
S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	Lunar	Lukha	Seshympa	Umbadoh	Tongseng	Lumshnong	Wahiajer	Standards norms as per IS 2296
			Up Stream	Down Stream	Up Stream	Down Stream	Down Stream				Seasonal Spring / Seasonal Nallah				
1	pH	-	7.7	7.5	7.8	8.1	8.2	6.9	7.1	7.3	Water source not found		7.6	6.5 - 8.5	
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Yellowish	Colourless	Colourless		Colourless	10		
3	Odour	-	Unobjectionable									Unobjectionable	Unobjectionable		
4	Chloride	mg/L	24.8	29.2	27.5	27.9	30.1	45.2	20.0	24.8		24.8	250		
5	Total Hardness as CaCO ₃	mg/L	52.8	68.0	76.0	84.0	88.0	125.0	24.0	49.2		47.2	300		
6	Suspended Solids	mg/L	1.0	1.5	2.1	8.96	10.0	23.0	3.9	1.4		2.0	-		
7	Total Dissolve Solids	mg/L	254.0	188.0	266.7	326.0	342.2	224.1	69.2	135.9		240.0	500		
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND		ND	2.0		
9	Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND	ND	ND		ND	-		
10	Temperature	° C	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	-		
11	Conductivity	µS/cm	447.0	329.0	433.2	526.5	547.4	353.4	107.2	218.6		424.0	-		
12	Flow	L / Min	2528.8	3026.0	367.9	1119.6	3060.0	10683.7	6247.5	132005.0		-	-		
 Analyzed by  Checked by  Verified by															