

MEGHALAYA POWER LIMITED

Ref: MPL (1 X 8 MW)/LUM/EHS/2022-23/26

Dated: 23/01/2023

To,

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

Subject : Submission of Environmental Monitoring Report for the month of December, 2022.

Reference : MPCB/CON-54/2007/2022-2023/85, Dated. Shillong, the 5th December, 2022.

Dear Sir,

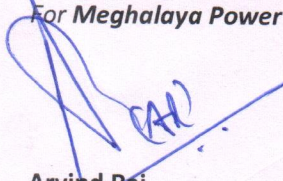
This is in reference to above cited subject, we are hereby submitting the monthly Environmental monitoring reports of Ambient Air Quality monitoring including meteorological data, Stack Emission, Fugitive Emission & Water (Ground, Surface, STP & ETP) quality monitoring reports of **M/s Meghalaya Power Limited (8MW)** for the month of **December, 2022**.

This is for your kind information record please.

Thanking You,

Yours truly,

For **Meghalaya Power Limited (8 MW)**


Arvind Rai

Sr. General Manager Works

Enclosed: As mentioned above

- Copy To:**
- 1) The Deputy Director General of Forest (Central), Ministry of Environment Forest & Climate Change, Govt. of India, Regional Office, Shillong, Meghalaya-793021.
 - 2) The Regional Director, Central Pollution Control Board (CPCB), North Eastern Zonal Office, 'TUMSIR', Lower Motinagar, Shillong, Meghalaya-793 014.
 - 3) The Member Secretary, State Environment Impact Assessment Authority (SEIAA), 'Silviculture Building' Lower Lachumiere, Shillong – 793001, Meghalaya



MEGHALAYA POWER LIMITED

Lumshnong, Meghalaya

Date (DD-MM-YYYY)	Pressure (mmHg)	Relative Humidity (%)	Temp. (C)	Wind Direction (deg)	Wind Speed- (m/s)	Manual Rain (mm)
01-12-2022	761.7	95	19.0	319	0	0
02-12-2022	761.5	95.6	19.4	253	0	0
03-12-2022	761.4	95.6	20.0	255	0	0
04-12-2022	761.4	95.5	18.7	250	0	0
05-12-2022	761.9	95.5	23.4	251	0	0
06-12-2022	762.5	95.5	20.8	250	0	0
07-12-2022	763	95.1	21.4	261	0	0
08-12-2022	763.7	81.2	17.2	123	0	0
09-12-2022	764	63.2	21.4	212	0	0
10-12-2022	763.9	59.5	22.2	207	0	0
11-12-2022	763.2	64.2	23.3	180	0.3	0
12-12-2022	762.5	64.5	23.1	212	2	0
13-12-2022	762	63.1	24.1	207	1.8	0
14-12-2022	761.5	61.2	24.1	223	1.9	0
15-12-2022	761.5	65.3	23.1	249	0.5	0
16-12-2022	761.5	67.2	23.0	213	0	0
17-12-2022	761.7	83.2	19.0	359	0	0
18-12-2022	761.9	88.1	17.1	258	0	0
19-12-2022	762.2	91.1	16.3	253	0	0
20-12-2022	762.4	93.4	15.0	250	0	0
21-12-2022	762.4	93.2	15.4	357	0	0
22-12-2022	762.4	94.3	19.7	252	0	0
23-12-2022	762.5	94.0	14.3	274	0	0
24-12-2022	762.4	95.0	14.3	123	0	0
25-12-2022	763.2	95.5	22.2	60	1.07	0
26-12-2022	762.5	95.5	23.3	90	0.72	0
27-12-2022	762	95.5	23.1	180	1.28	7.7
28-12-2022	761.5	95.1	24.1	212	0	0
29-12-2022	761.5	81.2	20.0	207	0	0
30-12-2022	761.5	83.2	18.7	253	0	0
31-12-2022	761.7	88.1	18.6	250	0	0
					Total rain of this month	7.7

	MEGHALAYA POWER LIMITED (8MW) 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 (8MW)/ENV/AAQM/MONTHLY/2022-23/09			Date of Rev.	
			01.12.2020	
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)
01.12.2022	48.48	29.34	8.19	12.24
03.12.2022	50.24	27.31	11.33	14.00
06.12.2022	46.70	31.84	10.10	13.01
09.12.2022	48.57	29.34	9.17	16.00
12.12.2022	47.40	30.52	9.65	12.36
14.12.2022	45.55	26.18	8.13	12.04
16.12.2022	46.22	32.84	9.32	11.03
19.12.2022	44.40	30.34	11.29	15.86
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 (8MW) 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
			Date of Rev.	01.12.2020
Reference No.: MPL (8 MW)/ENV/AAQM/MONTHLY/2022-23/09			Month: December'22	
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)
01.12.2022	30.55	22.51	11.30	17.00
03.12.2022	32.55	21.48	9.86	20.50
06.12.2022	33.87	23.81	9.23	13.23
09.12.2022	38.22	24.97	12.13	15.13
12.12.2022	35.84	23.33	10.32	17.00
14.12.2022	33.54	21.79	12.93	14.79
16.12.2022	37.77	19.32	12.49	15.02
19.12.2022	36.06	17.49	11.11	14.04
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 (8MW) 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
			Date of Rev.	01.12.2020
Reference No.: MPL (8MW)/ENV/AAQM/MONTHLY/2022-23/09			Month: December'22	
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)
01.12.2022	49.28	32.84	12.11	15.96
03.12.2022	47.90	27.42	13.65	17.71
06.12.2022	45.59	29.64	13.30	12.71
09.12.2022	47.47	33.32	11.23	15.36
12.12.2022	51.90	29.84	10.30	14.71
14.12.2022	46.25	31.49	11.30	13.36
16.12.2022	46.90	26.49	12.33	17.59
19.12.2022	43.52	25.48	9.65	12.43
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 (8MW) 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 (8MW)/ENV/AAQM/MONTHLY/2022-23/02			Month: December'22	
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)
02.12.2022	46.38	26.18	6.84	10.60
15.12.2022	48.14	24.15	9.98	12.36
07.12.2022	44.60	28.68	8.75	11.37
10.12.2022	46.47	26.18	7.82	14.36
13.12.2022	45.30	27.36	8.30	10.72
15.12.2022	43.45	23.02	6.78	10.40
20.12.2022	44.12	29.68	7.97	8.38
22.12.2022	42.30	27.18	9.94	14.22
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 (8MW) 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 (8MW)/ENV/AAQM/MONTHLY/2022-23/02			Month: December'22	
Location of Sampling: Near 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)
02.12.2022	43.48	25.14	4.99	7.04
15.12.2022	45.24	23.11	8.13	8.80
07.12.2022	41.70	27.64	6.90	7.81
10.12.2022	43.57	25.14	5.97	10.80
13.12.2022	42.40	26.32	6.45	7.16
15.12.2022	40.55	21.98	4.93	6.84
20.12.2022	41.22	28.64	6.12	5.83
22.12.2022	39.40	26.14	8.09	10.66
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 (8MW)
Lumshnong, Meghalaya

Reference No.	MPL/Env/F-02
Issue No.	1
Date of Issue:	01.05.2019
Revision No.	5
Date of Rev.	01.06.2021

STACK EMISSION MONITORING ANALYSIS REPORT

Report No: MPL(8MW)/ENV/STACK/MONTHLY/2022-23/09

Month: December'22

Analysis Result

A. General Information About Stack		
1 Stack Identification No	8 MW	
2 Stack Connected to	Boiler	
3 Material of Construction (Stack/Duct)	Mild Steel	
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)	45	
2 Duct diameter at sampling point (meter)	2.08	
3 Sampling height point from ground level (meter)	11	
4 Cross sectional area of Duct/Stack (m ²)	3.4	
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	19.12.2022	
2 Ambient Temp (°C)	38.00	
3 Stack Gas Temp (°C)	101	
4 Exit Velocity of Gas (m/sec.)	13.35	
5 Flow Rate (Nm ³ / sec.)	33.50	
6 Quantity of Emission (Nm ³ / Hr)	120583.04	
7 Concentration of PM (mg/Nm ³)	17.9	
8 Concentration of SO ₂ (mg/Nm ³)	328.0	
9 Concentration of NO _x (mg/Nm ³)	275.4	
10 Oxygen (O ₂) (%)	9.4	
E. Remarks:		
Standard		
PM - 50 mg/Nm³	SO₂ - 600 mg/Nm³	NO_x - 300 mg/Nm³
<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
	FUGITIVE EMISSION MONITORING REPORT		Revision No.	2
			Revision Date	01-01-2021
Ref: MPL(8MW)/ENV/FUGITIVE/MONTHLY/2022-23/009				
Month - December 2022				
Date	Location	Fugitive Emission Results	As per CPCB/BIS Guideline	
			Limit	
		(in $\mu\text{g}/\text{m}^3$)	(in $\mu\text{g}/\text{m}^3$)	
05.12.2022	Coal Storage Section	1439	2000	
 Analyzed By  Checked By  Verified By				

	MEGHALAYA POWER LIMITED (8 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(8MW)/ENV/NOISE/MONTHLY/2022-23/003							Date: 07.12.2022		
Month - December 2022									
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	62.9	67.4	65.2	75	59.1	63.0	61.1	70
2	Turbine House 9 Mt.	59.8	69.6	64.7		56.0	65.0	60.5	
3	RO – MCC	63.7	70.1	66.9		59.3	64.1	61.7	
4	Boiler Ground Floor	64.2	69.3	66.8		58.1	64.0	61.1	
5	CHP – MCC	63.7	70.2	67.0		52.3	56.1	54.2	
6	Office Area	58.0	67.2	62.6		49.8	63.3	56.6	
   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/2022-23/09

Date of sample collection: - 06.12.2022
 Date of Analysis: 06.12.2022 to 09.12.2022

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	-	7.1	7.8	5.5 to 9.0
2	Colour	Hazen	Colourless	Colourless	-
3	Odour	-	Odourless	Odourless	-
4	Chloride	mg/L	35	38	-
5	Total Hardness as CaCO ₃	mg/L	83.0	84.2	-
6	Suspended Solids	mg/L	65.5	8.7	100
7	Total Dissolve Solids	mg/L	283	371	-
8	Chemical Oxygen Demand	mg/L	135	27	250
9	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	70	6	30
10	Oil & Grease	mg/L	9	< 3.0	10
11	Temperature	° C	25	25	Shall not exceed 5.0°C above the receiving water temperature
12	Conductivity	µS/cm	502	672	-



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/2022-23/09					Date of sample collection: - 06.12.2022
					Date of Analysis: 06.12.2022 to 09.12.2022
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	-	73	5.5 to 9.0	
2	Suspended Solids	mg/L	15	100	
3	Total Dissolve Solids	mg/L	235	-	
4	Chemical Oxygen Demand	mg/L	38	250	
5	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	9.7	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	
											Date of Issue:	24.08.2013	
	WATER TESTING REPORT										Revision No.	3	
										Date of Rev.	01.06.2019		
Reference No.: MPL/ENV/WATER/MONTHLY/2022-23/09 Surface Water Analysis Results Month: December-2022 Date of sample collection: - 12.12.2022 Date of Analysis: 12.12.2022 to 15.12.2022													
S.No.	Parameter	Unit	Umtyrngai Nallah		Umutha Nallah		Umso Nalah	Seshysmpa	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	-	7.5	7.4	7.3	7.5	7.8	7.1	7.7	7.8	Water Source not found		6.5 - 8.5
2	Colour	Hazen	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless			10
3	Odour	-	Unobjectionable										Unobjectionable
4	Chloride	mg/L	42.0	42.9	38.0	38.8	40.0	23.5	21.7	25.4			250
5	Total Hardness as CaCO ₃	mg/L	67.8	70.4	74.1	74.8	78.9	42.6	68.7	38.1			300
6	Suspended Solids	mg/L	9.0	8.7	4.7	6.4	4.2	6.0	6.0	4.4			-
7	Total Dissolve Solids	mg/L	235	237	182	183	195	95.0	157.4	73.4			500
8	Biochemical Oxygen Demand (For 3 days at 27 °C)	mg/L	ND	ND	ND	ND	ND	ND	ND	ND			2.0
9	Oil & Grease	mg/L	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			-
11	Conductivity	μS/cm	359	361	280	284	297	140	220	115	-		
12	Flow	L / Min	338.8	395.6	72.3	135.5	212.5	57954.5	-	-	-		
   Analyzed by Checked by Verified by													