

BMM Ispat Ltd.,

ENVIRONMENTAL MONITORING REPORT



**Danapur Village, Hospet Taluk,
Bellary District, PIN-583222, Karnataka**

Stage 2 Units

APRIL-2018

Prepared by

GLOBAL ENVIRONMENT & MINING SERVICES

NABL Accredited Laboratory

(Consulting Engineers, Mine Designers, Geologists & Surveyors)

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GEMS



PREFACE

The Industries should monitor environmental parameters as per the frequency and locations given in the CFE/CFO. And the same should be submitted on every month to the respective pollution control board.

As part of the conditions and inherent concern on health of the employees and surroundings *M/s. BMM Ispat Ltd.*, as appointed *M/s. Global Environment & Mining Services, HOSPET*, to carry out the environmental pollution monitoring on Fugitive monitoring within the plant, Stack monitoring and Noise pollution and submit the same to the Pollution Control Board.

Accordingly, *M/s. Global Environment & Mining Services, HOSPET*, carried out the pollution monitoring as per the standard sampling methods prescribed by CPCB, for Fugitive monitoring within the plant, Stack monitoring for all chimneys, and Noise monitoring as per the CFO. These monitoring has been carried out in a frequency as mentioned in the CFO and the same report is being submitted to the Board.

We sincerely thank to officials of *M/s. BMM Ispat Ltd.*, for their valuable co-ordination & support during the sampling and reporting.

for GLOBAL Environment & Mining Services

Place: Hospet
Date 02.05.2018

K.Ramakrishna Reddy
(Technical Manager)

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The journey of the BMM Group is a reflection of the path tread by every entrepreneur who believes in the human potential and one's own ability to bring about a life affirming change that transcends time. BMM Group was born out of this committed belief of Late Shri Udaichand Singhi.

Entrenched in the Indian ethos, with an astute understanding of market needs, values and sensibilities *Mr. Dinesh Kumar Singhi* inherited the legacy from his father and has built the BMM Group on sound fundamentals since 1998. He steered the company towards growth by being the first mining company to establish a power generation plant for captive use, and creating a steel plant from the captive ore mine. Over the last 12 years, BMM has been able to add value to every relationship under his able and dynamic leadership.

Today, BMM is a 4900 Crores Company due to its focus on market orientation and optimal usage of technology to achieve process efficiency and value addition. BMM has always believed in the principle of sharing and hence continues to transfer this benefit derived from sustained growth to its employees, partners and associates. The unique value proposition that defines the very fabric of the BMM culture is the firm's belief in unleashing this 'potential in tones' in terms of its human capital, continuous growth and consistent benefits to its stakeholders.

The human potential at BMM is reflected in the depth of domain expertise across diverse sectors and dynamism of youth at various levels in the Organization. Business operations lead by professionals with decades of market understanding and a dynamic team enables BMM to deliver superior product quality. It is this human potential that keeps BMM attuned to scaling new heights and meeting customer expectations. While consistently adding value to its partners, BMM is sensitive to its responsibility towards the environment by implementing best practices in its Business Operations and contribution to society through various social Endeavours.

BMM has a commitment of being a good Corporate Citizen and is committed to achieving business goals through ethical means. BMM hence has been able to have deeper relevance to society by creating value that is inclusive and truly benefits all.



1.2 PROMOTERS OF THE PROJECT

BMM Group, one of the leading Steel, Power & Mining companies in India that has achieved the present level under the leadership and guidance of **Sri. Dinesh Kumar Singhi**, the Founder & Chairman of the group, is promoting the project. His vision is to globalize the company business and do value addition by operating responsibly and in a sustainable manner in exploring, exploiting, excavating and processing minerals followed by setting up steel plant facilities.

BMM is a step towards forward integration has set up new merchant Bar Mill. The works is located at:

BMM ISPAT LIMITED

(Registered Office & Works)

#114, Danapura

Hosapete - 583 222

Bellary Dist., Karnataka

Phone +91 08394-264000, +91 9686550808/09

Fax - 08394 264010

1.3 Site Location

BMM ISPAT LIMITED is located at Danapur about 15 Kms away from Hosapete in Karnataka. The plant site can be connected by national highway, viz. NH-13. The plant is 1 km away from the NH-13 near Danapura village. The nearest railway station is

Hospet; Bangalore is at a distance of 300 kms. Seaport is Belikere and Karwar, the nearest Airport is in the private sector belonging to JSW, a Jindal Group company at Thoranagallu (Vidyanagar).

M/s. BMM ISPAT Ltd., Has accorded Environmental Clearance for 2.0 MTPA Integrated Steel Plant, with the following facilities.

S.N.	Items	Capacity
1	Iron ore beneficiation plant	3.40 MTPA
2	Palletizing Plant	1.20 MTPA
3	DRI Plant	0.70 MTPA
4	Coke Oven	0.80 MTPA
5	Sinter Plant	2.50 MTPA
6	Blast furnace	1.70 MTPA
7	EAF & BOF Steel making shop	2.30 MTPA
8	Continuous casting machines Slab Caster Billet Caster	1.10 MTPA 1.10 MTPA
9	Rolling mills : Hot strip mill Structurals/wire rods	1.00 MTPA 1.00 MTPA
10	Oxygen Plant	2x500 TPD
11	Calcining	1,080 TPD
12	Cement Plant	1.40 MTPA
13	Power Plant	230 MW

Out of the above units, presently **4 x 500 TPD Sponge Iron Plants** and **1X70 MW Thermal Power Plants** have been commissioned on August 2011. Beneficiation plant-2, Pellet Plant-2 are commissioned on March 2012. 2X70 MW Thermal based power plants have commissioned on Jan 2013, EAF, Steel Making Shop, CCM, Rolling Mill, Oxygen plants are commissioned on August 2015. Remaining units are under various stages of implementation.

Hence environmental pollution monitoring is being carried out for 4 x 500 TPD sponge iron plants, 1X70 MW Thermal Power Plant, 1.3MTPA Beneficiation, 1.2MTPA Pellet Plant, 2X70MW Power plant, SMS, and RML.

1.4 The report includes environmental monitoring data collected at above site for the month of **APRIL-2018**. The Parameters monitored are:

- ❖ Fugitive Dust Level
- ❖ Stack Emission

Important Note: *Ambient Air Quality & Water Quality data are common for both Stage-I & Stage-II. Hence, Please refers Stage-I report for the same.*

1.5 Study:

The data collection programme is given below:

1.6 Fugitive Emission Monitoring

Ambient Air Quality was monitored 48 samples were collected from the analyzed for SPM analyzed by gravimetric method. Work Zone Air quality was monitored at all Plant area, and material handling area air quality status given in *Annexure – 1/A (1st Fort night) & Annexure – 1/B (2nd Fort night)* .

1.7 Stack Monitoring

Vayubhodhan Stack sampler VSS1 stack monitoring was used for drawing the flue gas. Sulphur dioxide and oxides of Nitrogen in the flue gas were sampled by bubbling flue gas solution respectively and the analyses of the pollutants were done as per the Indian Standard procedures prescribed by CPCB/BIS. Stack Emission level was monitored as per the statutory requirement on twice in a month, and the results given in *Annexure – 2/A (1st Fort night) & Annexure – 2/B (2nd Fort night)*

1.8 Stack Emissions Monitoring Methodology

1.9 Sampling Procedure Pre Sampling Activities

Weigh the properly conditioned thimble/filter and place it into the clean, air tight Container. Designate appropriate label or ID No. to each thimble/filter container. Particulate matter emission of “Stack Monitoring – Material and Methodology for is kinetic Sampling.

Field activity starts with the collection of detailed information from the industry about the products, raw materials, fuels, and stack dimensions.

1.10 Traverse Point Calculation

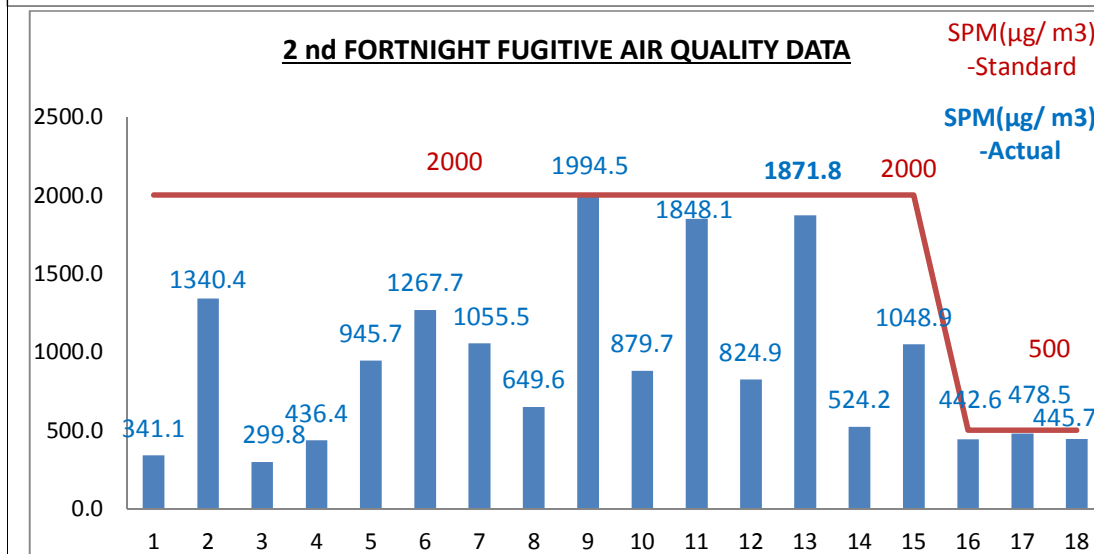
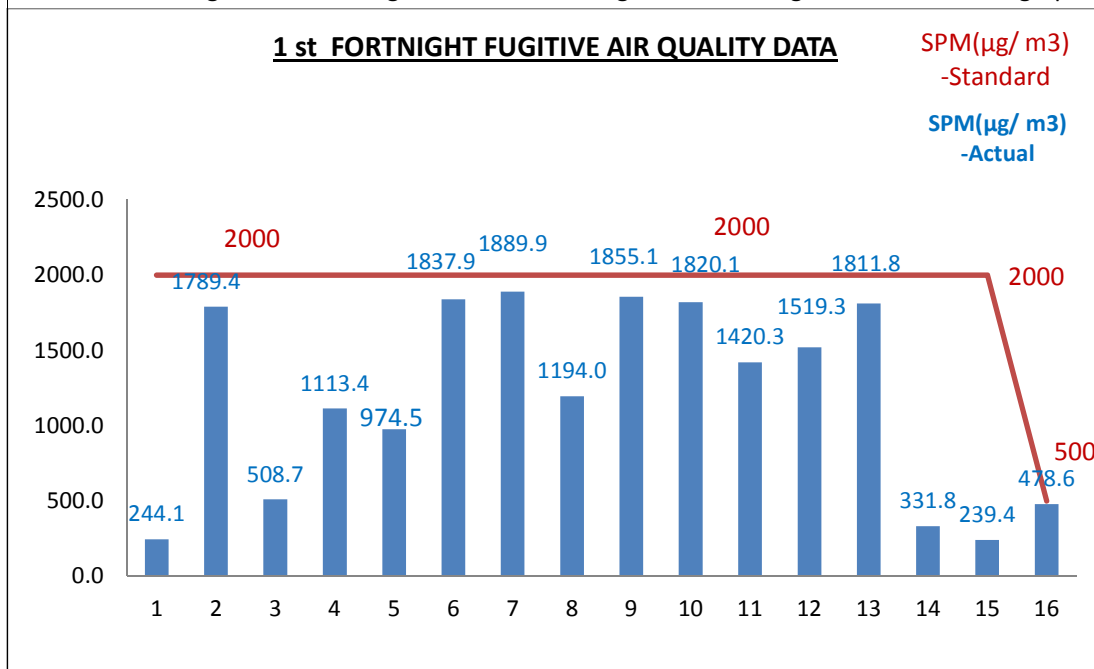
Calculate the traverse point and accordingly mark the distance from tip of the Nozzle, on Pitot tube and probe. Do not forget to add the collar length of port to the

calculated traverses. For detailed calculation of “Stack Monitoring– Material and Methodology for isokinetic sampling.

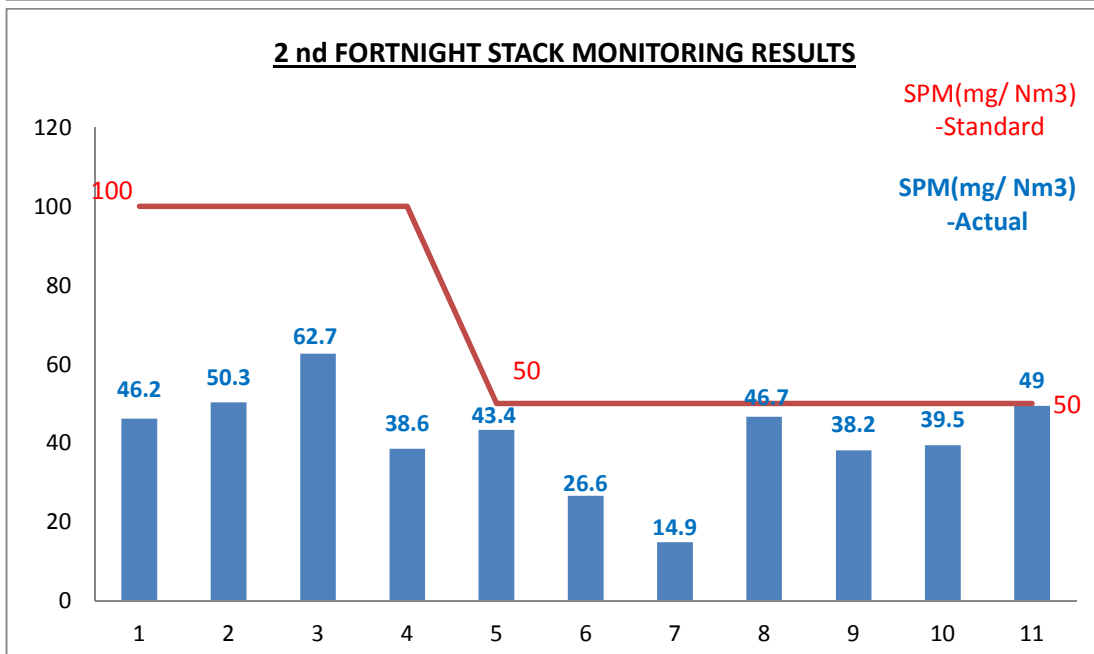
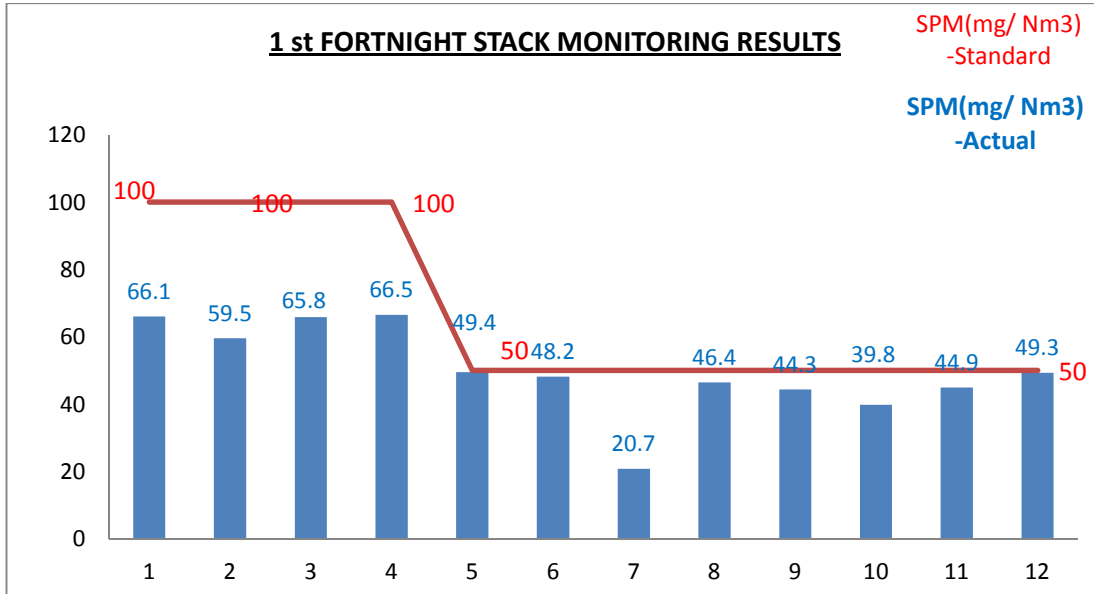
1.11 Determination of Dust Concentration

Determine the mass of dust collected in the thimble by difference i.e. weighing the thimble before and after the run. Dry the thimble in an oven for about 2 hours at 120° C prior to sampling. After sampling, cool, dry and again weigh the thimble along with dust maintaining the same condition as prior to sampling

1.12 Fortnightly fugitive air quality was monitored all plant area SPM value minimum **239.5 µg/m³**, maximum value **1994.5 µg/m³**, and average value **1050.7 µg/m³**. The Fugitive Monitoring results of 1st Fortnight & 2nd Fortnight is mentioned in graph.



1.13 Stack emission level was monitored all chimneys' PM values (mg/Nm³) 1st and 2nd Fort Night Minimum Value **14.9 mg/Nm³**, Maximum Value **66.5 mg/Nm³** & Average Value **45.98 mg/Nm³**. The Stack Monitoring results of 1st Fortnight & 2nd Fortnight is mentioned in graph.



1.14 Conclusion

All the monitored Environmental parameters were found to be well within the statutory norms– and the same are enclosed as follows.



Annexure-1/A (1 st Fort Night)

FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING APRIL-2018

1. Name of the Industry : BMM Ispat Ltd., Danapur, Hospet Taluk, Bellary District.
2. Sample collected by : GLOBAL Environment & Mining Services, Hospet.
NABL Certificate No.TC-5323
3. Particulars of sample collected : RDS Sampler (AAS 217 BL) (GEMS-01, GEMS-02, GEMS-03, GEMS-04)
4. Report to sent : 02.05.2018
5. Method adopted : IS 5182 (Part 4) : 2006

Sl.NO.	Location / Plant	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-II					
1.	Ball Mill Area (Zero Meter)	02.04.2018	03.04.2018	244.1	2000
2.	Iron Ore Hopper (Near Monsoon Shed)	02.04.2018	03.04.2018	1789.4	2000
3.	Concentrate Thickner	02.04.2018	03.04.2018	508.7	2000
II. Pellet Plant-II					
4.	PR-6	03.04.2018	04.04.2018	1113.4	2000
5.	Annual Cooler	03.04.2018	04.04.2018	974.5	2000
6.	Aditive Grinding Building	03.04.2018	04.04.2018	1837.9	2000
III. Sponge Iron Division -2 (Kiln 1 & 2)					
7.	Control room	04.04.2018	05.04.2018	1889.9	2000
8.	Near Weigh bridge (dispatch)	04.04.2018	05.04.2018	1194.0	2000
9.	Pellet Storage bin	04.04.2018	05.04.2018	1855.1	2000
IV. Sponge Iron Division -2 (Kiln 3 & 4)					
10.	Near Control room	05.04.2018	06.04.2018	1820.1	2000
11.	Near Coal crusher	05.04.2018	06.04.2018	1420.3	2000
12.	Near Product bin	05.04.2018	06.04.2018	1519.3	2000
V. Wagon Tipper/RMHS					
13.	Near Tipping point	06.04.2018	07.04.2018	1811.8	2000
14.	Monsoon Shed (CPU)	06.04.2018	07.04.2018	331.8	2000
15.	MCC Room(2 nd Gate)	06.04.2018	07.04.2018	239.4	2000
VI. Power Plant-70 MW					
16.	70MW-DM Plant (Near R.O. Plant)	07.04.2018	09.04.2018	478.6	500
17.	Coal Screen (near gate weigh bridge)	SHUTDOWN			500
18.	CFBC boiler				500
VII. 2X70MW Power Plant					
19.	Near Boiler	SHUTDOWN			500
20.	Near Coal storage Shed				500
VIII . SMS Area					
21.	Stock House/Vibro feeders	SHUTDOWN			3000
22.	Laddle Tapping				3000
23.	Slag Pouring Area				3000
IX. BAR MILL					
24.	Near Reheating Furnace	SHUTDOWN			3000

Note: SPM - Suspended Particulate matter ($\mu\text{g}/\text{m}^3$) INFERENCE: The Measured Values are within the limits

Analyzed By
Chemist
J.M.ThippeSwamy

Checked By
Sr.Chemist
J.Ravi Kumar

Verified By
Environmental Engineer
S.S.Afreen

Authorised By
Technical Manager
K.Ramakrishna Reddy

Note:

1. The result listed refers only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
2. Samples will be destroyed after one month from the date of issue of test certificate unless otherwise specified.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the Court of law & should not used any advertising media without special permission in writing.
4. Total liability of our laboratory is limited amount. Any dispute arising out of this report is subject to Hospet jurisdiction only.

Annexure-1/B (2nd Fort Night)**FORTNIGHTLY FUGITIVE AIR QUALITY DATA MONITORING APRIL-2018**

1. Name of the Industry : BMM Ispat Ltd., Danapur, Hospet Taluk, Bellary District
 2. Sample collected by : GLOBAL Environment & Mining Services
 NABL Certificate No.TC-5323
 3. Particulars of sample collected : RDS Sampler (AAS 217 BL) (GEMS-01, GEMS-02, GEMS-03, GEMS-04)
 4. Report to be sent : 02.05.2018
 5. Method adopted : IS 5182 (Part 4) : 2006

Sl.NO.	Location / Plant	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu\text{g}/\text{m}^3$)	Standard
I. Beneficiation Plant-II					
1.	Ball Mill Area (Zero Meter)	23.04.2018	24.04.2018	341.1	2000
2.	Iron Ore Hopper (Near Monsoon Shed)	23.04.2018	24.04.2018	1340.4	2000
3.	Concentrate Thickner	23.04.2018	24.04.2018	299.8	2000
II. Pellet Plant-II					
4.	PR-6	23.04.2018	24.04.2018	436.4	2000
5.	Annual Cooler	24.04.2018	25.04.2018	945.7	2000
6.	Aditive Grinding Building	24.04.2018	24.04.2018	1267.7	2000
III. Sponge Iron Division -2 (Kiln 1 & 2)					
7.	Control room	24.04.2018	25.04.2018	1055.5	2000
8.	Near Weigh bridge (dispatch)	24.04.2018	25.04.2018	649.6	2000
9.	Pellet Storage bin	25.04.2018	26.04.2018	1994.5	2000
IV. Sponge Iron Division -2 (Kiln 3 & 4)					
10.	Near Control room	25.04.2018	26.04.2018	879.7	2000
11.	Near Coal crusher	25.04.2018	26.04.2018	1848.1	2000
12.	Near Product bin	25.04.2018	26.04.2018	824.9	2000
V. Wagon Tipper/RMHS					
13.	Near Tipping point	26.04.2018	27.04.2018	1871.8	2000
14.	Monsoon Shed (CPU)	26.04.2018	27.04.2018	524.2	2000
15.	MCC Room(2 nd Gate)	26.04.2018	27.04.2018	1048.9	2000
VI. Power Plant-70 MW					
16.	70MW-DM Plant (Near R.O. Plant)	26.04.2018	27.04.2018	442.6	500
17.	Coal Screen (near gate weigh bridge)	27.04.2018	28.04.2018	478.5	500
18.	CFBC boiler	27.04.2018	28.04.2018	445.7	500
VII. 2X70MW Power Plant					
19.	Near Boiler	SHUTDOWN			500
20.	Near Coal storage Shed				500
VIII . SMS Area					
21.	Stock House/Vibro feeders	SHUTDOWN			3000
22.	Laddle Tapping				3000
23.	Slag Pouring Area				3000
IX. BAR MILL					
24.	Near Reheating Furnace	SHUTDOWN			3000

Note: SPM - Suspended Particulate matter ($\mu\text{g}/\text{m}^3$) **INFERENCE:** The Measured Values are within the limits.

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STACK MONITORING RESULTS

Annexure - 2/B (1st Fort Night)

- 1. Name of the Industry : BMM Ispat Ltd., Danapur, Hospet Taluk, Bellary district
2. Sample collected by : GLOBAL Environment & Mining Services NABL Certificate No.TC-5323 Valid up to : 11-10-2019
3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 Sl.No. 304 DTB 07 Month: April-2018

Table with 13 columns: Si. No, Stack Attached to, Date of Monitoring, Fuel Used, Ta °C, TS °C, V m/Sec, HEIGHT (m), Diameter (m), Results (PM, SO2, NO2), Standards PM (mg/Nm3). Rows include Pellet Plant-2 ESP, 2X500TPD Sponge iron kiln, 1 X 70MW-CFBC Boiler, SMS, and Bar mill.

Chimneys attached to Bag Filter (De dusting Units)

Beneficiation Plant-2

Table with 3 columns: Si. No, Stack Attached to, Standards PM (mg/Nm3). Rows: 1 Iron Ore Cone Crusher, 2 Iron Ore Screening. Status: NOT IN OPERATION.

Pellet Plant-2

Table with 3 columns: Si. No, Stack Attached to, Standards PM (mg/Nm3). Rows: 3 Additive grinding mill, 4 Mixer building, 5 Pellet discharge point. Status: NOT IN OPERATION.

2 X 500 TPD Sponge Iron Kiln 1 & 2

Table with 13 columns: Si. No, Stack Attached to, Date of Monitoring, Fuel Used, Ta °C, TS °C, V m/Sec, HEIGHT (m), Diameter (m), Results (PM, SO2, NO2), Standards PM (mg/Nm3). Rows: 6 Cooler Discharge -1, 7 Cooler Discharge -2, 8 Coal stock house, 9 Production Separation bin-1&2, 10 Production Separation bin-3&4, 11 Transfer House.

Table with 2 columns: Parameter, Protocol. Rows: Particulate Matter (mg/Nm3), SO2 (mg/Nm3), NO2 (mg/Nm3).

Note: SO2 - Sulphur dioxide, NO2 - Nitrogen dioxide, PM - Particulate matter

Analyzed By Chemist J.M.ThippeSwamy

Checked By Sr.Chemist J.Ravi Kumar

Verified By Environmental Engineer S.S.Afreen

Authorised By Technical Manager K.Ramakrishna Reddy

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STACK MONITORING RESULTS

Annexure - 2/B

- 1. Name of the Industry : BMM Ispat Ltd., Danapur , Hospet Taluk, Bellary district.
- 2. Sample collected by : GLOBAL Environment & Mining Services NABL Certificate No.TC- 5323 Valid up to : 11-10-2019
- 3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 **Sl.No. 304 DTB 07**
- 4. Month : **APRIL-2018 (1st Fort Night)**

Sl. No	Stack Attached to	Date of Monitoring	Fuel Used	Ta °C	TS °C	V m/Sec	HEIGHT (m)	Diameter (m)	Results			Standards PM (mg/ Nm3)
									PM mg/Nm ³	SO ₂ mg/Nm ³	NO ₂ mg/Nm ³	
Chimneys attached to Bag Filter (De dusting Units)												
2X500 TPD Sponge Iron Kiln 3&4												
12	Coal Primary Screen	-	---	---	---	---	30	1.20	Not in Operation			50
13	Coal Stock House -1 & coal stock house-2	-	---	---	---	---	30	1.20	Not in Operation			50
14	Cooler Discharge -1	05.4.2018	---	---	---	---	30	1.20	44.9	-	-	50
15	Cooler Discharge -2 & PSB transfer tower	05.4.2018	---	---	---	---	30	1.20	49.3	-	-	50
16	Production Bunker & Intermediate bin	-	---	---	---	---	30	1.20	Not in Operation			50
17	Production Separation bin	-	---	---	---	---	30	1.20	---	---	---	50
18	Pellet Stock house	-	---	---	---	---	30	1.20	Not in Operation			50
19	Dolochar Stock House 1 & 2	-	---	---	---	---	30	1.20	Not in Operation			50
20	CPU Building	-	---	---	---	---	30	1.20	Not in Operation			50

Parameter	Protocol
Particulate Matter (mg/Nm3)	IS : 11255 (Part 1) - 1985 (reaffirmed 2009)
SO ₂ (mg/Nm3)	IS 11255 (Part 2) : 1985 (reaffirmed 2014)
NO ₂ (mg/Nm3)	IS 11255 (Part 7) : 2005 (reaffirmed 2005)

Note:
SO₂ - Sulphur dioxide
NO₂ - Nitrogen dioxide
PM - Particulate matter

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STACK MONITORING RESULTS

Annexure - 2/B(2nd Fort Night)

1. Name of the Industry : BMM Ispat Ltd., Danapur, Hospet Taluk, Bellary district.
 2. Sample collected by : GLOBAL Environment & Mining Services NABL Certificate No. TC-5323 Valid up to : 11-10-2019
 3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 Sl.No. 304 DTB 07 Month : APRIL-2018

Si. No	Stack Attached to	Date of Monitoring	Fuel Used	Ta °C	TS °C	V m/Sec	HEIGHT (m)	Diameter (m)	Results			Standards PM (mg/ Nm ³)
									PM mg/Nm ³	SO ₂ mg/Nm ³	NO ₂ mg/Nm ³	
1	Pellet Plant-2 ESP	27.04.2018	Coal	39	149	6.73	100	3.00	46.2	10.48	50.8	100
2	2X500TPD Sponge iron kiln1&2 ESP	24.04.2018	Coal	30	146	5.82	70	3.00	50.3	10.48	135.46	100
3	2X500TPD Sponge iron kiln3&4 ESP	26.04.2018	Coal	39	136	7.05	70	3.00	62.7	332.8	48.92	100
4	1 X 70MW-CFBC Boiler ESP	28.04.2018	Coal	40	148	7.41	70	3.00	38.6	15.72	139.22	100
5	2X70MW -CFBC Boiler ESP	-	Coal	-	-	-	100	3.00	SHUT DOWN			50
6	SMS	-	Coal	-	-	-	86	2.40				50
7	Bar mill	-	Furnace Oil	-	-	-	87	3.00				50

Chimneys attached to Bag Filter (De dusting Units)

Beneficiation Plant-2

1	Iron Ore Cone Crusher	NOT IN OPERATION										50
2	Iron Ore Screening											50

Pellet Plant-2

3	Additive grinding mill	SHUTDOWN										50
4	Mixer building											50
5	Pellet discharge point											50

2 X 500 TPD Sponge Iron Kiln 1 & 2

6	Cooler Discharge -1	24.04.2018	---	---	---	---	30	1.20	43.4	---	---	50
7	Cooler Discharge -2	24.04.2018	---	---	---	---	30	1.20	26.6	----	----	50
8	Coal stock house	24.04.2018	---	---	---	---	30	1.20	14.9	----	----	50
9	Production Separation bin-1 & 2	24.04.2018	---	---	---	---	30	1.20	46.7	----	----	50
10	Production Separation bin-3&4	24.04.2018	---	---	---	---	30	1.20	38.2	----	----	50
11	Transfer House	24.04.2018	---	---	---	---	30	1.20	39.5	----	----	50

Parameter	Protocol
Particulate Matter (mg/Nm ³)	IS : 11255 (Part 1) - 1985 (reaffirmed 2009)
SO ₂ (mg/Nm ³)	IS :11255 (Part 2) : 1985 (reaffirmed 2014)
NO ₂ (mg/Nm ³)	IS :11255 (Part 7) : 2005 (reaffirmed 2005)

Note:
 SO₂ - Sulphur dioxide
 NO₂ - Nitrogen dioxide
 PM - Particulate matter

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**STACK MONITORING RESULTS**

Annexure - 2/B

1. Name of the Industry : BMM Ispat Ltd., Danapur , Hospet Taluk, Bellary district.
 2. Sample collected by : GLOBAL Environment & Mining Services NABL Certificate No. TC-5323 Valid up to : 11-10-2019
 3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 **Sl.No. 304 DTB 07**
 4. Month : **APRIL-2018 (2nd Fort Night)**

Sl. No	Stack Attached to	Date of Monitoring	Fuel Used	Ta °C	TS °C	V m/Sec	HEIGHT (m)	Diameter (m)	Results			Standards PM (mg/ Nm3)
									PM mg/Nm ³	SO ₂ mg/Nm ³	NO ₂ mg/Nm ³	
Chimneys attached to Bag Filter (De dusting Units)												
2X500 TPD Sponge Iron Kiln 3&4												
12	Coal Primary Screen	-	---	---	---	---	30	1.20	Not in Operation			50
13	Coal Stock House -1 & coal stock house-2	-	---	---	---	---	30	1.20	Not in Operation			50
14	Cooler Discharge -1	-	---	---	---	---	30	1.20	SHUTDOWN			50
15	Cooler Discharge -2 & PSB transfer tower	26.04.2018	---	---	---	---	30	1.20	49	----	---	50
16	Production Bunker & Intermediate bin	-	---	---	---	---	30	1.20	Not in Operation			50
17	Production Separation bin	-	---	---	---	---	30	1.20	--	----	---	50
18	Pellet Stock house	-	---	---	---	---	30	1.20	Not in Operation			50
19	Dolochar Stock House 1 & 2	-	---	---	---	---	30	1.20	Not in Operation			50
20	CPU Building	-	---	---	---	---	30	1.20	Not in Operation			50

Parameter	Protocol
Particulate Matter (mg/Nm ³)	IS : 11255 (Part 1) - 1985 (reaffirmed 2009)
SO ₂ (mg/Nm ³)	IS 11255 (Part 2) : 1985 (reaffirmed 2014)
NO ₂ (mg/Nm ³)	IS 11255 (Part 7) : 2005 (reaffirmed 2005)

Note :
 SO₂ - Sulphur dioxide
 NO₂ - Nitrogen dioxide
 PM - Particulate matter

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Note:

- The result listed refer only to the tested samples & applicable parameters. Endorsement of products is neither inferred nor implied.
- Samples will be destroyed after one month from the date of issue of test certificate unless otherwise specified.
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