BMM Ispat Ltd.,

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

ENVIRONMENT MONITORING REPORT

Stage 2 Units

For

NOVEMBER-2016

Prepared By

GLOBAL ENVIRONMENT & MINING SERVICES
NABL Accredited Laboratory
(Consulting Engineers, Mine Designers, Geologists & Surveyors)
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HOSPET – 583201, Dist., Bellary (Karnataka)

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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: 06.12.2016

S. Kameswara Rao
(Managing partner)

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 **November-2016**. 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 programmeis givenbelow:

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 (1 st 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 iskinetic 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

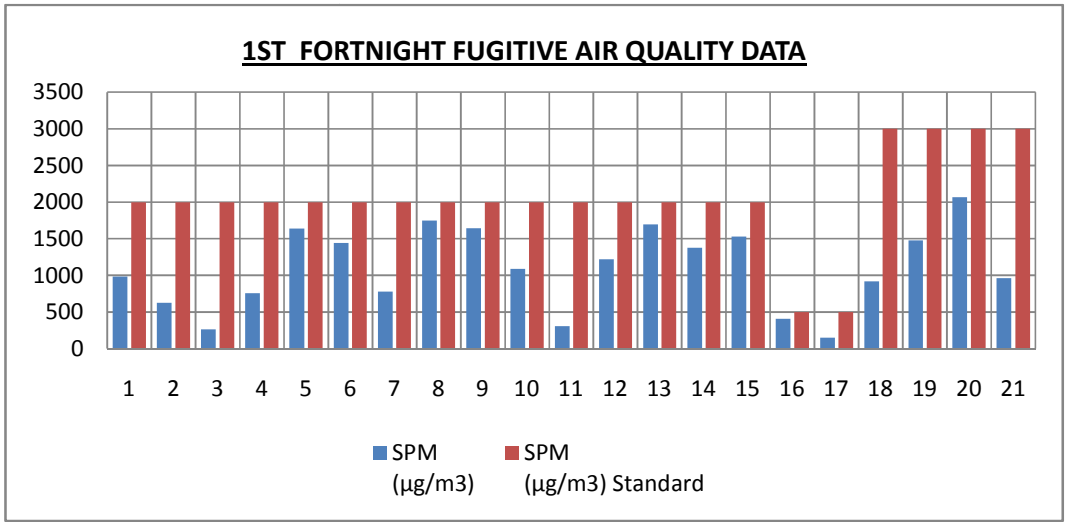
Calculate the traverse point and accordingly mark the distance from tip of the Nozzle, on Pitot tube and probe. Do not forget to add the collar length of port to the

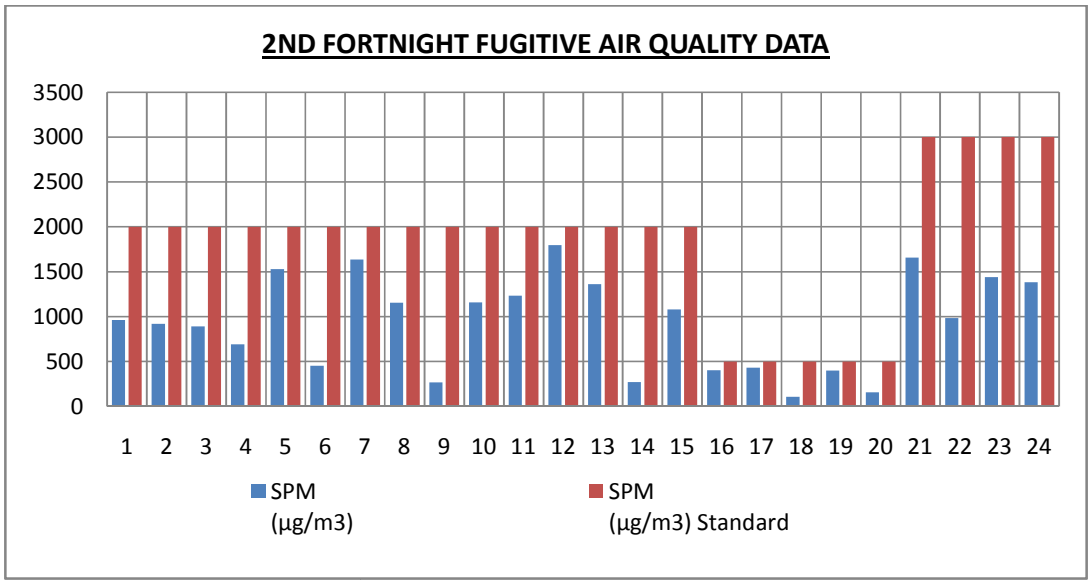
calculated traverses. For detailed calculation of "Stack Monitoring– Material and Methodology for isokinetic sampling.

1.11 Determination of Dust Concentration

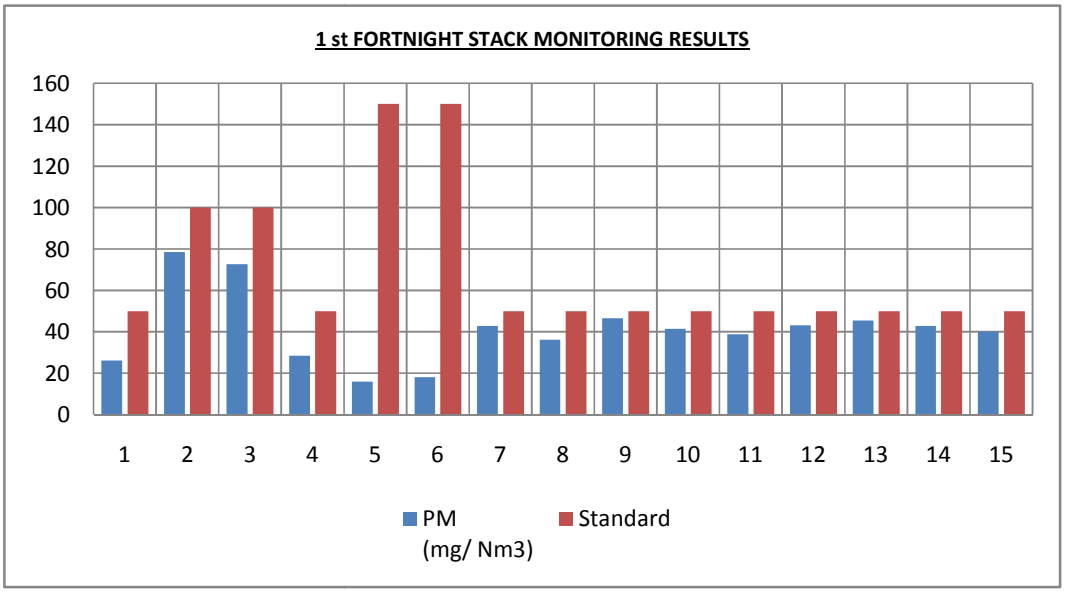
Determine the mass of dust collected in the thimble by difference i.e. weighing the thimble before and after the run. Dry the thimble in an oven for about 2 hours at 120^{o} C prior to sampling. After sampling, cool, dry and again weigh the thimble along with dust maintaining the same condition as prior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

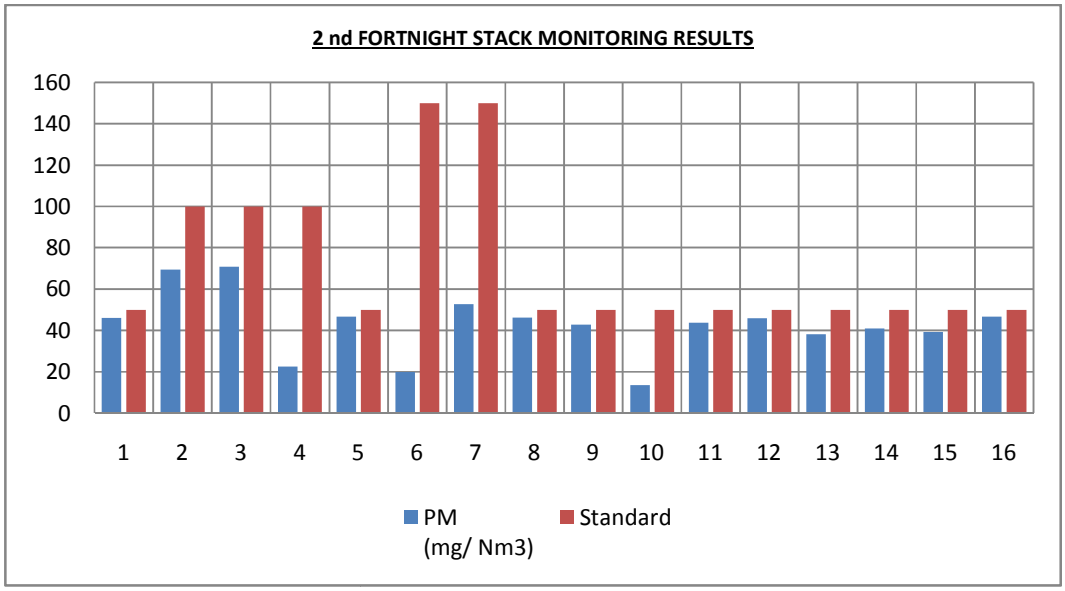
1.12 Fortnightly fugitive air quality was monitored all plant area SPM value minimum **105.7 µg/m^3**, maximum value **2069.9 µg/m^3**,and average value **1036.40 µg/m^3**. The Fugitive Monitoring results of 1st Fortnight & 2nd Fortnight is mentioned in graph.





1.13 Stack emission level was monitored all chimneys' PM values (mg/Nm^3) 1st and 2nd Fort Night Minimum Value **13.6 mg/Nm^3**, Maximum Value **78.5 mg/Nm^3** & Average Value **42.00 mg/Nm^3**. 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 NOVEMBER -2016

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.T- 3553
   Date of Validity 06.08.2017
3. Particulars of sample collected : RDS Sampler (AAS 217 BL) (**GEMS-01, GEMS-02,GEMS-03, GEMS-04)**
4. Report to sent : **06.12.2016**
5. Method adopted : IS 5182 (Part 4) : 2006

Sl.N0.	Location / Plant	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu g/m^3$)	Standard
I. Beneficiation Plant-II					
1.	Ball Mill Area (Zero Meter)	07.11.2016	08.11.2016	983.2	**2000**
2.	Between Concentrate & Tailing Thickner	07.11.2016	08.11.2016	628.6	**2000**
3.	FC 25 conveyor	07.11.2016	08.11.2016	264.6	**2000**
II. Pellet Plant-II					
4.	TG Zero Meter	08.11.2016	09.11.2016	760.5	**2000**
5.	Boiler Furnace	08.11.2016	09.11.2016	1638.8	**2000**
6.	PGP	07.11.2016	08.11.2016	1442.7	**2000**
III. Sponge Iron Division -2 (Kiln 1 & 2)					
7.	Control room	08.11.2016	09.11.2016	779.8	**2000**
8.	Near Weigh bridge (dispatch)	08.11.2016	09.11.2016	1749.8	**2000**
9.	Pellet Storage bin	09.11.2016	10.11.2016	1642.5	**2000**
IV. Sponge Iron Division -2 (Kiln 3 & 4)					
10.	Near Control room	09.11.2016	10.11.2016	1086.8	**2000**
11.	Near Coal crusher	09.11.2016	10.11.2016	307.8	**2000**
12.	Near Product bin	09.11.2016	10.11.2016	1217.7	**2000**
V. Wagon Tipper/RMHS					
13.	Near Tipping point	10.11.2016	11.11.2016	1695.1	**2000**
14.	CPU DE System	10.11.2016	11.11.2016	1378.8	**2000**
15.	Old Compressor room	12.11.2016	14.11.2016	1532.1	**2000**
VI. Power Plant-70 MW					
16.	70MW-DM Plant (Near R.O. Plant)		**SHUTDOWN**		**2000**
17.	Coal Screen (near gate weigh bridge)				**2000**
18.	CFBC boiler				**2000**
VII. 2X70MW Power Plant					
19.	Near Boiler	10.11.2016	11.11.2016	404.8	**2000**
20.	Near Coal storage Shed	10.11.2016	11.11.2016	153.6	**2000**
VIII . SMS Area					
21	Stock House/Vibro feeders	11.11.2016	12.11.2016	918.7	**3000**
22	Laddle Tapping	11.11.2016	12.11.2016	1475.3	**3000**
23	Slag Pouring Area	11.11.2016	12.11.2016	2069.9	**3000**
IX. BAR MILL					
24	Near Reheating Furnace	11.11.2016	12.11.2016	961.2	**3000**

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

Analyzed By
Environmental Engineer
G.Aarathi

Authorised signatory
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 NOVEMBER -2016

1. Name of the Industry : BMM Ispat Ltd., Danapur, Hospet Taluk, Bellary District
2. Sample collected by : GLOBAL Environment & Mining Services
   NABL Certificate No.T- 3553
   Date of Validity 06.08.2017
3. Particulars of sample collected : RDS Sampler (AAS 217 BL) (**GEMS-01, GEMS-02,GEMS-03, GEMS-04)**
4. Report to be sent : **06.12.2016**
5. Method adopted : IS 5182 (Part 4) : 2006

Sl.N0.	Location / Plant	Date Of Monitoring	Date Of Sample Receipt	SPM ($\mu g/m^3$)	Standard
I. Beneficiation Plant-II					
1.	Ball Mill Area (Zero Meter)	29.11.2016	30.11.2016	962.7	**2000**
2.	Between Concentrate & Tailing Thickner	29.11.2016	30.11.2016	917.5	**2000**
3.	FC 25 conveyor	29.11.2016	30.11.2016	891.8	**2000**
II. Pellet Plant-II					
4.	TG Zero Meter	30.11.2016	31.11.2016	689.0	**2000**
5.	Boiler Furnace	30.11.2016	31.11.2016	1529.8	**2000**
6.	PGP	29.11.2016	30.11.2016	453.0	**2000**
III. Sponge Iron Division -2 (Kiln 1 & 2)					
7.	Control room	26.11.2016	27.11.2016	1637.4	**2000**
8.	Near Weigh bridge (dispatch)	26.11.2016	27.11.2016	1153.8	**2000**
9.	Pellet Storage bin	26.11.2016	27.11.2016	267.7	**2000**
IV. Sponge Iron Division -2 (Kiln 3 & 4)					
10.	Near Control room	28.11.2016	29.11.2016	1156.7	**2000**
11.	Near Coal crusher	28.11.2016	29.11.2016	1232.6	**2000**
12.	Near Product bin	25.11.2016	26.11.2016	1797.2	**2000**
V. Wagon Tipper/RMHS					
13.	Near Tipping point	28.11.2016	29.11.2016	1360.4	**2000**
14.	CPU DE System	28.11.2016	29.11.2016	272.6	**2000**
15.	Old Compressor room	30.11.2016	30.11.2016	1079.4	**2000**
VI. Power Plant-70 MW					
16.	70MW-DM Plant (Near R.O. Plant)	25.11.2016	26.11.2016	401.6	**2000**
17.	Coal Screen (near gate weigh bridge)	25.11.2016	26.11.2016	429.8	**2000**
18.	CFBC boiler	24.11.2016	25.11.2016	105.7	**2000**
VII. 2X70MW Power Plant					
19.	Near Boiler	25.11.2016	26.11.2016	398.8	**2000**
20.	Near Coal storage Shed	25.11.2016	26.11.2016	159.1	**2000**
VIII . SMS Area					
21	Stock House/Vibro feeders	24.11.2016	25.11.2016	1656.4	**3000**
22	Laddle Tapping	24.11.2016	25.11.2016	982.0	**3000**
23	Slag Pouring Area	24.11.2016	25.11.2016	1437.9	**3000**
IX. BAR MILL					
24	Near Reheating Furnace	26.11.2016	27.11.2016	1379.9	**3000**

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

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STACK MONITORING RESULTS

Annexure – 2/A **(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.T- 3553 Date of Validity 06.08.2017**
3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 **Sl.No. 304 DTB 07** **Month : November - 2016**

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	07.11.2016	Coal	32	151	6.98	70	3.00	26.2	122.4	82.06	50
2	2X500TPD Sponge iron kiln1&2 ESP	07.11.2016	Coal	31	142	6.82	70	3.00	78.5	90.85	24.45	100
3	2X500TPD Sponge iron kiln3&4 ESP	08.11.2016	Coal	31	148	6.80	70	3.00	72.6	83.56	35.75	100
4	1 X 70MW-CFBC Boiler ESP		Coal	-			70	3.00	Shut Down			100
5	2X70MW -CFBC Boiler ESP	10.11.2016	Coal	31	164	7.34	110	8.00	28.4	126.24	76.20	50
6	SMS	11.11.2016	Coal	29	128	13.22	86	2.40	16.0	-	-	50
7	Bar mill	11.11.2016	Furnace Oil	32	262	7.70	87	3.00	18.2	83.85	129.82	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	**NOT IN OPERATION**										50
4	Mixer building											50
5	Pellet discharge point											50
2 X 500 TPD Sponge Iron Kiln 1 & 2												
6	Cooler Discharge -1	09.11.2016	---	---			30	1.20	42.8	---	---	50
7	Cooler Discharge -2	09.11.2016	---	---			30	1.20	36.2	---	---	50
8	Coal stock house	09.11.2016	---	---			30	1.20	46.6	---	---	50
9	Production Separation bin-1&2	09.11.2016	---	---			30	1.20	41.4	---	---	50
10	Production Separation bin-3&4	09.11.2016	---	---			30	1.20	38.8	---	---	50
11	Transfer House	09.11.2016	---	---			30	1.20	43.1	---	---	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 :
SO_2 - Sulphur dioxide
NO_2 - Nitrogen dioxide
PM - Particulate matter

Analyzed By
Environmental Engineer
G.Aarathi

Authorised signatory
Technical Manager
K.Ramakrishna Reddy

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STACK MONITORING RESULTS

Annexure – 2/A

1. Name of the Industry : BMM Ispat Ltd., Danapur , Hospet Taluk, Bellary district.
2. Sample collected by : GLOBAL Environment & Mining Services **NABL Certificate No.T- 3553 Date of Validity 06.08.2017**
3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 **Sl.No. 304 DTB 07**
4. Month **: November - 2016 (1st Fort Night)**

Sl. No	Stack Attached to	Date of Monitoring	Fuel Used	Ta ^0C	TS ^0C	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				50
14	Cooler Discharge -1	08.11.2016	---	---			30	1.20	45.4	---	---	50
15	Cooler Discharge -2 & PSB transfer tower	08.11.2016	---	---			30	1.20	42.8	---	---	50
16	Production Bunker & Intermediate bin		---	---			30	1.20	**Not in Operation**			50
17	Production Separation bin	08.11.2016	---	---			30	1.20	40.1	---	---	50
18	Pellet Stock house		---	---			30	1.20	**Not in Operation**			50
19	Dolochar Stock House 1 & 2		---	---			30	1.20				50
20	CPU Building		---	---			30	1.20				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 :
SO_2 - Sulphur dioxide
NO_2 - 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.T- 3553 Date of Validity 06.08.2017**
3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1 **Sl. No. 304 DTB 07** **Month : November - 2016**

Si. No	Stack Attached to	Date of Monitoring	Fuel Used	T a °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	26.11.2016	Coal	30	148	6.12	70	3.00	46.0	62.89	92.19	50
2	2X500TPD Sponge iron kiln1&2 ESP	28.11.2016	Coal	32	145	6.80	70	3.00	69.4	78.18	BDL	100
3	2X500TPD Sponge iron kiln3&4 ESP	28.11.2016	Coal	31	128	5.84	70	3.00	70.7	106.62	47.03	100
4	1 X 70MW-CFBC Boiler ESP	24.11.2016	Coal	32	153	7.11	70	3.00	22.6	66.38	82.06	100
5	2X70MW -CFBC Boiler ESP	25.11.2016	Coal	31	164	7.49	110	8.00	46.8	102.24	46.62	50
6	SMS	30.11.2016	Coal	30	122	13.22	86	2.40	19.8	-	-	50
7	Bar mill	30.11.2016	Furnace Oil	30	261	8.17	87	3.00	52.7	62.16	78.18	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	29.11.2016	---	---		30	1.20		46.2	----	----	50
7	Cooler Discharge -2	29.11.2016				30	1.20		42.8	----	----	50
8	Coal stock house	29.11.2016	---	---		30	1.20		13.6	----	----	50
9	Production Separation bin-1 & 2	29.11.2016	---	---		30	1.20		43.7	----	----	50
10	Production Separation bin-3&4	29.11.2016	---	---		30	1.20		45.8	----	-----	50
11	Transfer House	29.11.2016	---	---		30	1.20		38.2	----	----	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 :
SO_2 - Sulphur dioxide
NO_2 - Nitrogen dioxide
PM - Particulate matter

Analyzed By
Environmental Engineer
G.Aarathi

Authorised signatory
Technical Manager
K.Ramakrishna Reddy

Note:
1. The results listed refer 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 Bangalore jurisdiction only.

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.T- 3553 Date of Validity 06.08.2017**
3. Particulars of sample collected : Vayubodhan Stack sampler VSS 1. **Sl. No. 304 DTB 07**
4. Month : **November - 2016 (2nd Fort Night)**

Sl. No	Stack Attached to	Date of Monitoring	Fuel Used	Ta ^{0}C	TS ^{0}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				50
14	Cooler Discharge -1	28.11.2016	---	---			30	1.20	40.9	----	----	50
15	Cooler Discharge -2 & PSB transfer tower	28.11.2016	---	---			30	1.20	39.2	----	----	50
16	Production Bunker & Intermediate bin		---	---			30	1.20	Not in Operation			50
17	Production Separation bin	28.11.2016	---	---			30	1.20	46.7	----	---	50
18	Pellet Stock house		---	---			30	1.20	Not in Operation			50
19	Dolochar Stock House 1 & 2		---	---			30	1.20				50
20	CPU Building		---	---			30	1.20				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 :
SO_2 - Sulphur dioxide
NO_2 - Nitrogen dioxide
PM - Particulate matter

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