O/C

BMM/ENV/2022-2/060

BMM®
POTENTIAL IN TONNES

Date: 16.09.2022

To
Member Secretary,
Karnataka State Pollution control Board,
49 Parisara Bhavan,
4th & 5Th Floor, Church Street,
BENGALURU -560001.

Through
Environmental Officer,
KSPCB, No.597, 1st cross,
Near Vishnuvardhana Park,
Kuvempunagar,
BALLARI – 583 104

Sir,

Sub: Submission of Environmental statement (Form-V) for the year 2021-22 in respect of M/s.BMM Ispat Ltd, (Stage-II units) Danapur Village, Hosapete Taluk, Vijayanagara Dist., - reg.

Ref: CFO issued by KSPCB vide its Ltr. No.AW-332716 PCB ID: 10363 dated: 08.08.2022

With reference to above subject, we are herewith submitting Environmental Statement in the prescribed Form-V, in respect of 2MTPA Integrated Steel Plant of M/s BMM ISPAT LTD, Danapur Village, Hosapete Taluk, Vijayanagara Dist, for the Financial Year ending 31st March 2022.

Kindly acknowledge the receipt of the same.

Thanking You,

Yours faithfully

B.M.M. ISPAT LTD. DANAPUR

Authorized Signatory

Encl: Form-V

19/09/2022

BMM Ispat Ltd.,

Submission of Environmental statement (Form-V) for the year 2021-22

Stage-II

Danapura Village,
Hospet Taluk,
Vijayanagara District, PIN-583222,
Karnataka

FORM V
(See rule 14)
ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING THE 31ST MARCH-2022

BMM Stage II - 2 MTPA Integrated Steel Plant

PART A

i. Name and address of the owner: Mr.Vimal Singh
Occupier of the industry CEO & Occupier,
Operation or process BMM Ispat Ltd,
Danapura
Tq- Hosapete, Dist- Vijayanagara.

ii. Industry category Primary - (STC Code) Secondary- (STC Code)

iii. Production category Units - DRI Plant : 4 x 500 TPD
Beneficiation Plant : 1.3MTPA
Pellet Plant : 1.2 MTPA
Captive Power Plant : 1X70MW
Captive Power Plant : 2x70 MW
Steel melt shop : 1.10 MTPA
Merchant bar mill : 0.85 MTPA
Oxygen plant : 500 TPD

iv. Year of establishment: Aug 2011

v. Date of the last environmental statement submitted. : 29.09.2021.

PART B

Water and Raw Material Consumption:

Production during 2021-22 (1st Aril 2021 to 31st March 2022)

i. **Water consumption in m^3/A**

- Process:

Sl. No.	Unit	Water consumption
1	DRI Plant (4X500 TPD)	
	Axis 1&2	158965 m3/A
	Axis 3&4	183754 m3/A
2	Power Plant (1X70MW)	200901 m^3/A
3	Iron Ore Beneficiation Plant	747892 m^3/A
4	Pellet Plant	99238 m^3/A
5	Power Plant (2X70MW)	23249 m^3/A
6	Steel melt shop	Nil Since units were not in operation.
7	Merchant bar mill	

- Cooling : (included in the above list)
- Domestic : 44980 m^3/A

Name of Products	Process water consumption per unit of products	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
DRI Plant (4X500 TPD)		
Axis 1&2	1.0021 m^3/ton	0.6748 m^3/ton
Axis 3&4	1.1833 m^3/ton	0.6920 m^3/ton
Power Plant-1X70MW	0.3292 litres/KWh	0.5960 litres/KWh
Iron Ore Beneficiation Plant	0.6181 m3/ton	0.4903 m3/ton
Pellet Plant	0.0732 m3/ton	0.0839 m3/ton
Power Plant-2X70MW	-	0.5822 litres/KWh
Steel melt shop	-	-
Merchant bar mill	-	-

ii. Raw material consumption

Name of Product	Name of raw materials*	Consumption of raw material per unit of output	
		During the previous financial year (2020-21)	During the current financial year (2021-22)
DRI (4X500 TPD)			
Axis 1&2	• Iron Ore • Iron ore pellet • Coal • Indian Coal • Limestone • Dolomite • Indian Coal • SA Coal • Dolochar • Anthracite coal	- 0.5390 0.3467 - - 0.0136 - - -	- 1.4976 0.9648 - - 0.0447 0.0400 9.2501 -
Axis 3&4	• Iron Ore • Iron ore pellet • Coal • Indian Coal • Limestone • Dolomite • Indian Coal • SA Coal • Dolochar • Anthracite coal	- 1.1534 0.7297 - - 0.0229 - - - -	- 1.6507 1.0786 - - 0.0497 0.0352 1.0434 - -
Power-70MW	• Flue Gas from Kiln • Coal • Dolochar • Rice Husk • Bed material • WHRB Steam	- 1.12 kg/KWH 0.011 kg/KWH 0.582 kg/KWH 0.004 kg/kwh 4.09 kg/KWH	- 0.51 kg/KWH 0.59 kg/KWH - 0.00275 kg/KWH 4.12 kg/KWH
Iron Ore Beneficiation	• Iron Ore	1.163	1.31
Pellet	• Iron Ore concentrate • Bentonite • Limestone • Coal • Dolomite • Furnace oil • Coke	1.15 0.0096 0.0082 0.0278 0.0080 - 0.0060	1.1385 0.00799 0.00818 0.0358 0.00817 - -

	• Flue Gas from Kiln • Coal • Dolochar • Rice Husk • Bed material	Nil (Plant in Shutdown condition)	- 0.911 kg/KWH 0.423 kg/KWH - 0.001503 kg/KWH
SMS	• Sponge Iron • Pig Iron • Scrap • Ferro Alloys • Dolomite • Lime	Nil (Plant in Shutdown condition)	
Bar Mill	• Billets • Furnace oil	Nil (Plant in Shutdown condition)	

* 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) Kg/day	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons
a. Water	Zero Discharge of waste water		
b. Air			
SID- kiln 1&2	249.1	71	58.20
SID- kiln 3&4	196.8	55.35	66.51
Power Plant (70MW: WHRB 40MW & FBC 30MW)	113.4	33.6	99.99
Beneficiation Plant	Nil	Nil	Nil
Pellet Plant	433.8	57.8	51.57
Power plant(2X70MW)	361.6	35.3	100
SMS -Bag house	Nil (Plant in Shutdown condition)		
Bar Mill			

PART.D

HAZARDOUS WASTES
(as specified under Hazardous Wastes (Management & Handling Rules, 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
1.From Process **Used Oil:**		
1. Power Plant -1x70MW	2730 Litres/ annum	664.2 Litres/ annum
2. DRI plants		
➢ Axis 1&2	1890 Litres/ annum	2700 Litres/ annum
➢ Axis 3&4	1650 Litres/ annum	1450 Litres/ annum
3. Iron Ore Beneficiation	1660 Litres/ annum	3600 Litres/ annum

4. Pellet Plant	3339 Litres/ annum	1224 Litres/ annum
5. Power plant-2x70MW	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
6. SMS	Nil (Plant in Shutdown condition	87.2 Litres/ annum
7. Barmill	Nil (Plant in Shutdown condition	Nil (Plant in Shutdown condition
Used Grease:		
1. Power Plant -1x70MW	175 kgs/ annum	176 kgs/ annum
2. DRI plant (Axis 1&2)		
➢ Axis (Axis 1&2)	760 Kgs/ annum	760 Kgs/ annum
➢ Axis (Axis 3&4)	650 Kgs/ annum	650 Kgs/ annum
3. Iron Ore Beneficiation Plant	4320 kgs/ annum	6486 kgs/ annum
4. Pellet Plant	6552 kgs/ annum	2912 kgs/ annum
5. Power plant-2x70MW	Nil (Plant in Shutdown condition)	35 kgs/ annum
6. SMS	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
7. Bar mill	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
2. From Pollution Control Facilities	No hazardous waste is generated from Pollution control equipment's.	No hazardous waste is generated from Pollution control equipment's.

PART- E

SOLID WASTES:

Solid Wastes	Total Quantity	
	During the previous financial year (2020-21)	During the current financial year (2021-22)
i) DRI plant		
➢ **Axis 1&2**		
a. From process	Coal dust : 3203 TPA Dolochar : 33514 TPA	Bag filter dust- 13172.57 TPA Dolochar- 38166.4 TPA
b. From Pollution Control Facility	Fly Ash /dust : 24489 TPA	ESP Dust- 9922.86 TPA
➢ **Axis 3&4**		
a. From process	Coal dust : 3588 TPA Dolochar : 37484 TPA	Bag filter dust -16252 TPA Dolochar Dust- 33237.02 TPA
b. From Pollution Control Facility	Fly Ash /dust : 28444 TPA	ESP Dust- 7470 TPA
c. 1) Quantity recycled or re-utilised within the unit 2) Sold 3) Disposed/Stored	All the Qty. of Coal dust is reused in process. All the dolochar produced was utilised in CFBC boiler for power generation -	All the Qty. of Coal dust is reused in process. All the dolochar produced was utilised in CFBC boiler for power generation -
ii) Power Plant-1X70MW		
a. From process	Bed ash – 13962 TPA	Bed ash – 15755.073 TPA
b. From Pollution Control Facility	Fly ash – 29252 TPA	Fly ash –31382.77 TPA
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed	Nil 43215 TPA Nil	Nil 25542.32 TPA Nil
iii) Beneficiation Plant		
a. From process	Tailing –258702 TPA	Tailing –542439 TPA
b. From Pollution Control Facility	-	-
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed/stored	- Stored in a tailing ponds	- Stored in a tailing ponds
iv) Pellet Plant		

a. From process	Nil	Nil
b. From Pollution Control Facility	Ash-0.570 MT	Ash-1.050 MT
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed	All the waste is reused in PP process	All the waste is reused in PP process
V) Power Plant 2X70MW	Nil (Plant in Shutdown condition)	
a. From process		Bed ash – 5910.68 TPA
b. From Pollution Control Facility		Fly ash –13808.44 TPA
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed	Nil (Plant in Shutdown condition)	Nil 12771.16 MT Nil
VI) SMS	Nil (Plant in Shutdown condition)	
a. From process		
b. From Pollution Control Facility		
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed		
VI) Bar Mill	Nil (Plant in Shutdown condition)	
a. From process b. From Pollution Control Facility		
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed		

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.

The fly ash generated in the power plant is being sold to cement industries for cement making through closed containers. Also the fly ash is being used for brick making, for which 2 Nos of fly ash brick manufacturing plants are in operation. Fly ash is also used @ 15-20% in all the PCC & RCC concretes used in the plant.

Generated hazardous wastes handled & disposed to KSPCB authorized agencies as per stipulated in Hazardous & Other Waste (Management & handling) Rules.

Coal dust generated in the DRI plants are collected in DE system hoppers and conveyed to silo's though a dense vessel conveying system. This dust will have unburnt carbon and moderate calorific value, which is being injected at ABC chamber of DRI plant for further recovery of calorific values and generate excess steam in the following WHRB.

PART.G

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

Water conservation is practised by recycling/reutilising water from slime ponds and treated DM back wash, seepage recovery from reservoirs. Rain Water harvesting through the 3 guard ponds, and the collected water will be utilised for dust suppression and iron ore processing. Domestic water is being treated in 3nos. of STP's and the treated water is used for garden development purpose.

All the water is used in various processes through reuse and recycling technique, hence zero liquid discharge policy is adopted.

Company has fixed the specific consumption target for all resources and continuous follow-up is made for improving process efficiency to reduce the specific consumption, thereby controlling on the cost of production.

The industry has concerns for Environment; it has spent Rs. 8.83 crore for environmental pollution control. The detailed breakup of FY 2021-22 is given in the below table for **Stage-II.**

Sl. No.	Description	Expenditure Amount in lakhs
1	Maintenance cost of Pollution Control equipment's at stage-I & II	685.30
2	Cost of Monitoring of environmental parameters	15.51
3	Maintenance of existing Online monitoring Equipment's & Accessories 2021-22	92.50
4	Maintenance of existing Green Belt	35.41
5	Dust suppression cost	54.86
	Total amount in lakhs	883.58

PART-H

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

Environmental protection measures adopted are as per norms approved by KSPCB.

PART-I

Any other particulars in respect of environmental protection and abatement of pollution

BMM Ispat Ltd is taking care of all aspects of environment, like air, water noise pollution control etc.,

Water pollution control measures :(Stage I & Stage II)

1. It is followed zero discharge policy and there is generation of effluent water.
2. Installed 3 nos. STP's to treat the domestic effluent.
3. Reduced fresh water consumption by recycling, reusing and rainwater harvesting etc.,

Air pollution control measures :(Stage I & Stage II)

1. Installed 3 No's of ESP's for various processes and 13 No's. of DE-dusting systems for abating dust emissions & In the Stage II statement 6 No's of ESP and 35 No's of De-dusting system.
2. Installed Dry fog system at transfer chutes & conveyor transfer points.
3. Installed more than 460 No's. of water sprinklers on dumps, on conveyors etc.,
4. Coal is obtained by Rail way wagons. The industry has provided Wagon Tripler and Dry fog system to arrest fugitive dust.
5. The coal is transported to different users point in closed Conveyer system. Dry fog system / Sprinkler Systems are provided at dust generation sources.
6. Provided barricades for iron Ore Storage Area on three sides.
7. Regular water sprinkling on unpaved roads.
8. Installed online stack emission monitoring to ensure the emission within the norms.
9. Installed 2 No's. of CAAQMS station at the boundaries of the plant to monitor dust levels.
10. Regular air quality monitoring to ensure dust free the work place environment.

<u>Green belt development:</u> Stage-I & II

1. Own nursery to cater the sapling needs, this year we have planted 30,000 No's of different species.
2. This year 37100 No's of saplings have been developed and planted in the factory premises.
3. Up to March-2022 is 3, 78,731 No's of samplings have been planted.

<u>Implemented EMS & OHSAS management:</u>

EMS is implemented and is in being followed with all standard requirements