

BMM/ENV/2021-22/048



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

Date: 29.09.2021

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 2020-21 in respect of M/s.BMM Ispat Ltd. (Stage-II units) Danapura, Hosapete Taluk, Ballari Dist., - reg.

Ref: CFO issued by KSPCB vide its Ltr. No.AW-303321 PCB ID: 10363 dated: 08.08.2017

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, Danapura village, Hosapete Taluk Ballari Dist, for the Financial Year ending 31st March 2021.

Kindly acknowledge the receipt of the same.

Thanking You,

Yours faithfully



Abgouda
29.09.2021

Authorized Signatory

Encl: Form-V



BMM Ispat Ltd. Registered Office & Works : 114, Danapur Village, Hosapete - 583 222
Ballari District, Karnataka, India. t. +91 99723 09413 / 417 f. +91 80 3072 3604

BMM Ispat Ltd. Corporate Office : 101, 1st Floor, Pride Elite, 10, Museum Road
Bengaluru - 560 001 Karnataka, India, t. +91 80 4149 5660 / 1 / 3 f. +91 80 4149 5664

Cell: 98461 43000 Fax: 0803085 Email: bmmisnat@bmm.in Website: www.bmm.in



ISO 9001 : 2015



ISO 14001 : 2015



ISO 45001 : 2018

BMM/ENV/2021-22/048



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

Date: 29.09.2021

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 2020-21 in respect of M/s.BMM Ispat Ltd, **(Stage-II units)** Danapura, Hosapete Taluk, Ballari Dist., - reg.

Ref: CFO issued by KSPCB vide its Ltr. No.AW-303321 PCB ID: **10363** dated: 08.08.2017

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, Danapura village, Hosapete Taluk Ballari Dist, for the Financial Year ending 31st March 2021.

Kindly acknowledge the receipt of the same.

Thanking You,

Yours faithfully



Agoudas
29.09.2021

Authorized Signatory

Encl: Form-V

BMM Ispat Ltd. Registered Office & Works : 114, Danapur Village, Hosapete - 583 222
Ballari District, Karnataka, India. t. +91 99723 09413 / 417 f. +91 80 3072 3604

BMM Ispat Ltd. Corporate Office : 101, 1st Floor, Pride Elite, 10, Museum Road,
Bengaluru - 560 001 Karnataka, India, t. +91 80 4149 5660 / 1 / 3 f. +91 80 4149 5664

CIN : U13100KA2002PLC030365 Email: bmmispat@bmm.in Website: www.bmm.in



ISO 9001 : 2015



ISO 14001 : 2015



ISO 45001 : 2018

BMM Ispat Ltd.,

Submission of Environmental statement (Form-V) for the year 2020-21

Stage-II



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

FORM V
(See rule 14)
ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR
ENDING THE 31ST MARCH-2021

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- Ballari.
- 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. : 25.09.2020.

PART B

Water and Raw Material Consumption:

Production during 2020-21 (1st April 2020 to 31st March 2021)

i. Water consumption in m³/A

- Process:

Sl. No.	Unit	Water consumption
1	DRI Plant (4X500 TPD)	
	Axis 1&2	202319 m ³ /A
	Axis 3&4	220680 m ³ /A
2	Power Plant (1X70MW)	115747 m ³ /A
3	Iron Ore Beneficiation Plant	979182 m ³ /A
4	Pellet Plant	84289 m ³ /A
5	Power Plant (2X70MW)	Nil
6	Steel melt shop	Since units were not in operation.
7	Merchant bar mill	

- Cooling : (included in the above list)
- Domestic : 44165 m³/A

Name of Products	Process water consumption per unit of products	
	During the current financial year (2019-20)	During the current financial year (2020-21)
DRI Plant (4X500 TPD)		
Axis 1&2	1.1423 m ³ /ton	1.0021 m ³ /ton
Axis 3&4	1.2981 m ³ /ton	1.1833 m ³ /ton
Power Plant-1X70MW	0.3382 Ltrs/KWh	0.3292 Ltrs/KWh
Iron Ore Beneficiation Plant	0.571 m ³ /ton	0.6181 m ³ /ton
Pellet Plant	0.179 m ³ /ton	0.0732 m ³ /ton
Power Plant-2X70MW	-	-
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 current financial year (2019-20)	During the current financial year (2020-21)
DRI (4X500 TPD)			
Axis 1&2	<ul style="list-style-type: none"> Iron Ore Iron ore pellet SA Coal Indian Coal Limestone Dolomite Indonesian Coal Australian Coal Dolochar Anthracite coal 	<ul style="list-style-type: none"> - 1.4819 0.9351 0.00488 - 0.0338 - - 0.1564 - 	<ul style="list-style-type: none"> - 0.5390 0.3467 - - 0.0136 - - - -
Axis 3&4	<ul style="list-style-type: none"> Iron Ore Iron ore pellet SA Coal Indian Coal Limestone Dolomite Indonesian Coal Australian Coal Dolochar Anthracite coal 	<ul style="list-style-type: none"> - 1.4750 0.933 0.00623 - 0.0317 -- - 0.119 - 	<ul style="list-style-type: none"> - 1.1534 0.7297 - - 0.0229 - - - -
Power-70MW	<ul style="list-style-type: none"> Flue Gas from Kiln Coal Dolochar Rice Husk Bed material WHRB Steam 	<ul style="list-style-type: none"> - 0.648kg/KWH 0.569kg/KWH - 0.00071kg/kwh 4.26kg/KWH 	<ul style="list-style-type: none"> - 1.12 kg/KWH 0.011 kg/KWH 0.582 kg/KWH 0.004 kg/kwh 4.09 kg/KWH
Iron Ore Beneficiation	<ul style="list-style-type: none"> Iron Ore 	1.2	1.163
Pellet	<ul style="list-style-type: none"> Iron Ore concentrate Bentonite Limestone Coal Dolomite Furnace oil Coke 	<ul style="list-style-type: none"> 1.16 0.011 0.009 0.029 0.009 - 0.009 	<ul style="list-style-type: none"> 1.15 0.0096 0.0082 0.0278 0.0080 - 0.0060
Power -2X70MW	<ul style="list-style-type: none"> Flue Gas from Kiln Coal Dolochar 	Nil (Plant in Shutdown condition)	

	<ul style="list-style-type: none"> • Rice Husk • Bed material 	
SMS	<ul style="list-style-type: none"> • Sponge Iron • Pig Iron • Scrap • Ferro Alloys • Dolomite • Lime 	Nil (Plant in Shutdown condition)
Bar Mill	<ul style="list-style-type: none"> • 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) (mass/volume)	Percentage of variation from prescribed standards with reasons
a. Water	Zero Discharge of waste water		
b. Air			
SID- kiln 1&2	215.7 kg/dy	66 mg/Nm ³	61.93 % Below
SID- kiln 3&4	186 kg/day	63 mg/Nm ³	53.00 % Below
Power Plant (70MW: WHRB 40MW & FBC 30MW)	118.0 kg/day	41 mg/Nm ³	42.44 % Below
Beneficiation Plant	Nil	Nil	Nil
Pellet Plant	850.52 kg/day	56 mg/Nm ³	46.27 % Below
Power plant(2X70MW)	Nil (Plant in Shutdown condition)		
SMS -Bag house			
Bar Mill			

PART.D

HAZARDOUS WASTES

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

Hazardous Wastes	Total Quantity (Kg)	
	During the current financial year (2019-20)	During the current financial year (2020-21)
1.From Process Used Oil:		
1. Power Plant -1x70MW	320 Litres/ annum	2730 Litres/ annum
2. DRI plants		
➤ Axis 1&2	2000 Litres/ annum	1890 Litres/ annum
➤ Axis 3&4	2000Litres/ annum	1650 Litres/ annum
3. Iron Ore Beneficiation Plant	3430 Litres/ annum	1660 Litres/ annum

4. Pellet Plant	5550 Litres/ annum	3339 Litres/ annum
5. Power plant-2x70MW	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
6. SMS	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
7. Barmill	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
Used Grease:		
1. Power Plant -1x70MW	247 kgs/ annum	175 kgs/ annum
2. DRI plant (Axis 1&2)		
➤ Axis (Axis 1&2)	2281 Kgs/ annum	760 Kgs/ annum
➤ Axis (Axis 3&4)	1200 Kgs/ annum	650 Kgs/ annum
3. Iron Ore Beneficiation Plant	1684 kgs/ annum	4320 kgs/ annum
4. Pellet Plant	4550 Litres/ annum	6552 kgs/ annum
5. Power plant-2x70MW	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
6. SMS	Nil (Plant in Shutdown condition)	Nil (Plant in Shutdown condition)
7. Barmill	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 current financial year (2018-19)	During the current financial year (2019-20)
i) DRI plant		
➤ Axis 1&2		
a. From process	Coal dust : 9000 TPA Dolochar : 38631 TPA	3203 TPA 33514 TPA
b. From Pollution Control Facility	Fly Ash /dust : 30000TPA	24489 TPA
➤ Axis 3&4		
a. From process	Coal dust : 10000 TPA Dolochar : 40000 TPA	3588 TPA 37484 TPA
b. From Pollution Control Facility	Fly Ash /dust : 28600TPA	28444 TPA
c. 1) Quantity recycled or re-utilised within the unit	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
2) Sold		
3) Disposed/Stored	-	-
ii) Power Plant-1X70MW		
a. From process	Bed ash – 16274TPA	Bed ash – 13962 TPA
b. From Pollution Control Facility	Fly ash – 34842 TPA	Fly ash –29252 TPA
c. 1) Quantity of recycled or re-utilised within the unit	Nil	Nil
2) Sold	51116 TPA	43215 TPA
3) Disposed	Nil	Nil
iii) Beneficiation Plant		
a. From process	Tailing –2,71,662 TPA	Tailing –258702 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-25600MT	Ash-26341MT
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		
b. From Pollution Control Facility		
c. 1) Quantity of recycled or re-utilised within the unit 2) Sold 3) Disposed		
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 through 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. 1.56 crore of rupees for environmental pollution control. The detailed breakup of FY 2020-21 is given in the below table for **Stage I and Stage II**.

Sl. No.	Description	Expenditure Amount in lakhs
1	Maintenance cost of Pollution Control equipment's at stage-I & II	92.4
2	Cost of Monitoring of environmental parameters	12.0
3	Maintenance of existing Online monitoring Equipment's & Accessories 2020-21	1.1
4	Maintenance of existing Green Belt	31.8
5	Dust suppression cost	18.9
	Total	156.2

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 6 nos. of ESP's for various processes and 38 nos. of DE-dusting systems for abating dust emissions.
2. Installed Dry fog system at transfer chutes & conveyor transfer points.
3. Installed more than 150 nos. 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 Conveyor 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 2nos. 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.

Green belt development: Stage-I & II

1. Own nursery to cater the sapling needs, this year we have planted 25,000 nos. of different species.
2. This year 3822 saplings have been developed and planted in the factory premises.
3. Up to March-2021 is 3, 41,731 samplings have been planted.

Implemented EMS & OHSAS management:

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



Own nursery for development of saplings





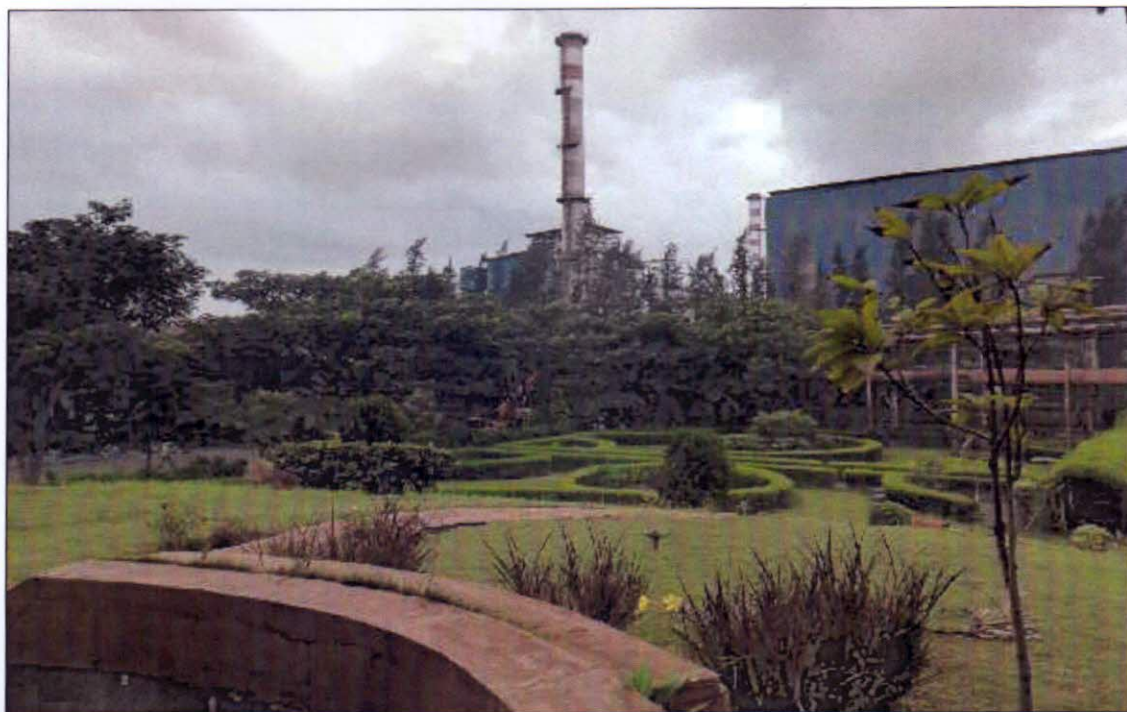
Own nursery for development of saplings





Sponge iron Plant view



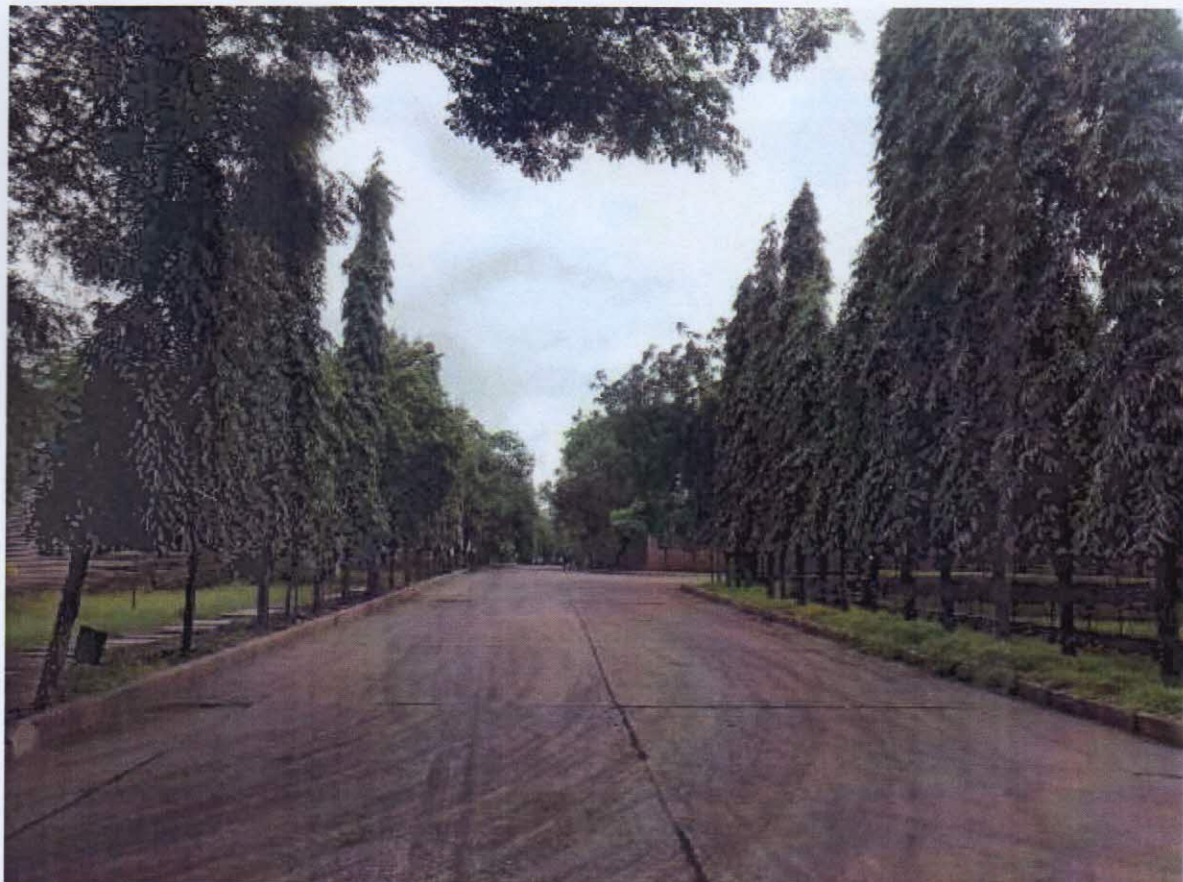


CPP 70MW Plant view





Concreted roads & Avenue plantations





Concreted roads & Avenue plantations



Concreted roads & Avenue plantations



Plantation along the boundary



Good growth of plantation along the boundary wall



Plantation along the boundary



Plantation along the Boundary of the Railway Track



Plantation along the Boundary of the Railway Track



CPP 2X70MW Plant view.



CPP 2X70MW Plant view



Celebration of World Environment Day 2021



Plantation on the occasion of World environment day celebration June 2021



Plantation in progress



Plantation in progress



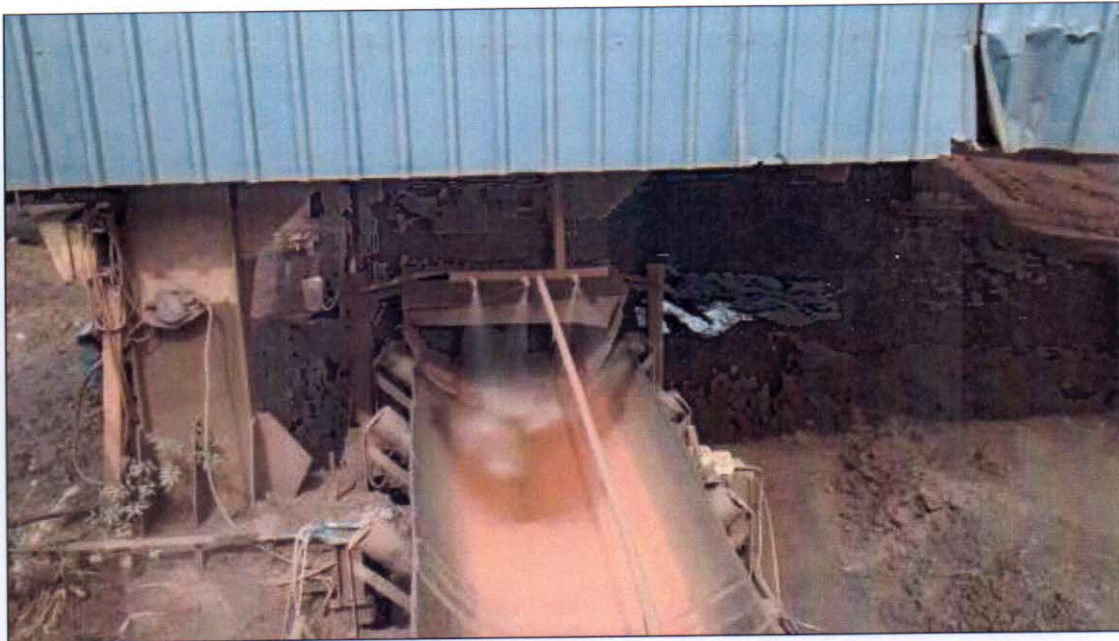
Plantation all along the Oxygen plant area



Water Sprinkling System at Monsoon Shed



Water sprinkling system at Wagon Tippler unloading system



Water sprinkling system at Conveyor belt system



Vacuum Operated Road Sweeper Machine



Dust Extraction by Truck Mounted Vacuum Operated Equipment



Plantation all along the BAR Mill area



Plantation all along the SMS area



MRSS Area Over view



Plantation all along the ISP road side



Environment Awareness programme 2021 (Turmeric Ganesha)



Celebration of Earth Day 2021