



Prakash Industries Limited

(AN ISO 9001 , 14001 AND OHSAS 18001 Certified Company)
Champa-495671 Distt. - Janjgir-Champa (Chhattisgarh)
CIN: L27109HR1980PLC010724
Phone: 07819-245103, 245108, 245378
Fax: 07819-283594 Web. – www.prakash.com

PIL/EHS/ENV-STATEMENT/2020/46

Date: 15.06.2020

The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryavas Bhawan, North Block, Sector – 19,
Nava Raipur, Atal Nagar, Raipur (C.G.) 492002

Sub.: Environment Statement for Sponge Iron Division, Power Plant Division, Induction Furnace Division, Sinter Plant and Oxygen Plant for 2019 – 2020.

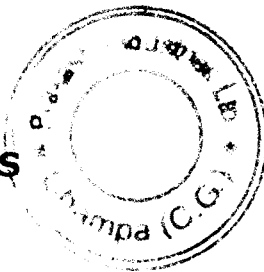
Sir,

Please find enclosed herewith Environment Statement as per Rule 14 of the Environment (Protection) Rules, 1986 of **Sponge Iron Division, Power Plant Division, Induction Furnace Division, Sinter Plant and Oxygen Plant** for the financial year **2019 – 2020, ended on 31.03.2020.**

We hope you will find the same in order.

Yours faithfully,
FOR PRAKASH INDUSTRIES LTD.,


15/6/2020
Santosh Thawait
Sr. Manager – EHS



Encl: As above

CC TO:

- 1. Additional Principle Chief Conservator of Forest,
Ministry of Environment, Forests and Climate Change (MoEFCC),
(Govt. of India), Regional Office, West – Central Zone (WCZ),
Ground Floor, East Wing, New Secretariat Building,
Civil Lines, Nagpur (M.S.) 440001**
- 2. The Regional Officer,
Chhattisgarh Environment Conservation Board,
Near Dindayal Upadhyay Park,
Vyapar Vihar, Bilaspur (C.G.) 495001**

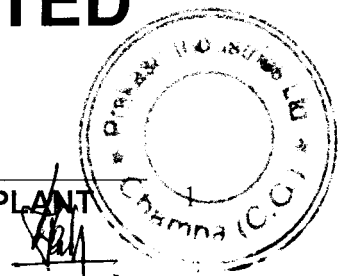
Head Office : Near I.O.C.L. Depot Main Najafgarh Road, Bijwasan, New Delhi-110061
Regd. Office : 15 Km stone, Delhi Road, Hissar-125 044(Haryana) INDIA

**ENVIRONMENT STATEMENT
FOR
SPONGE IRON, POWER PLANT
INDUCTION FURNACE DIVISION,
SINTER PLANT AND OXYGEN
PLANT**

**(YEAR 2019 - 2020)
PERIOD ENDED 31.03.2020**

By

**PRAKASH INDUSTRIES LIMITED
CHAMPA**



FORM - V
(SEE RULE-14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL
YEAR ENDING 31ST MARCH 2020

PART-A

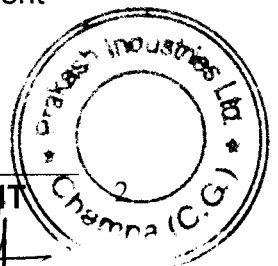
- (i) **Name and address of the owner/ Occupier of the Industry, Operation or process** : **Sh. M. L. Pareek
Director
Prakash Industries Ltd.,
Village : Hathneora,
Tehsil : Champa - 495671
Dist.: Janjgir-Champa (CG)**
- (ii) **Production Capacity** **Units**
Sponge : Kiln - I, II, III,IV,V&VI – 2.0 LTPA each,
Power : {(WHRB-6.0+6.0+12.5+12.5+10+10) +
(CPP-12.5+ 50+25+ 3x25)}MW
Steel : 11.76 LTPA
Sinter : 1.0 LTPA
Oxygen : 8 TPD
- (iii) **Year of Establishment** Sponge : Kiln I – 1993, Kiln II – 1996,
Kiln III – 2009, Kiln IV – 2012,
Kiln V – 2017, Kiln VI – 2019
Power : 1999, 2005, 2011, 2012, 2017
Steel : 1993, 2008, 2009, 2010, 2013,
2014, 2019
Sinter : 2020
Oxygen : 2020
- (iv) **Date of last Environmental Statement : Submitted** : 21.05.2019

PART – B

WATER AND RAW MATERIAL CONSUMPTION

- (1) **WATER CONSUMPTION (m³/day)**
Process (Boiler) = 1090.44
Cooling (SID+CPP+IFD+SINTER)= 20608.76
Domestic = 203.06

NAME OF THE PRODUCTS	<u>Process Water Consumption Per Unit of Product Output</u>	
	During the previous Financial year 2018 – 2019 (1)	During the current Financial year 2019 – 2020 (2)



PRAKASH INDUSTRIES LTD., CHAMPA

Sponge Iron,
Power generation
(CPP + WHRB),
Steel ingots/Billets/Bloom,
Sinter and Oxygen

Water is not consumed in the process. Water is mainly used for making DM water for Boiler use and for cooling purposes.

(2) RAW MATERIAL CONSUMPTION

Name of Raw Material	Name of Products	Consumption of Raw Material per unit of output (Ton/Ton & Ton/MW)	
		During the previous Financial year	During the current Financial year

SPONGE IRON PRODUCTION

1. Iron Ore	Sponge Iron	1.531	1.554
2. Coal		1.348	1.189
3. Dolomite		0.115	0.151

POWER GENERATION

1. ROM Coal/ Coal Fines	Power Generation	0.849	0.950
2. Coal char		0.231	0.182

STEEL (BLOOM/BILLET) PRODUCTION

1. Sponge Iron+Slag Rec.	Steel	0.979	0.987
2. Ferro alloys & Aluminum Notch Bar		0.017	0.015
3. MS Scrap		0.064	0.064
4. Coke		0.008	0.009
5. Pig Iron/Mould Scrap/Hi Fe Si Mn		0.151	0.141

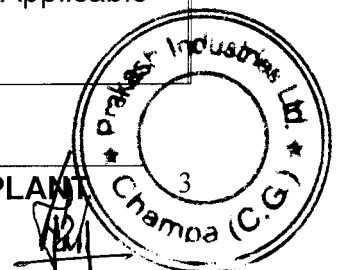
SINTER PRODUCTION

1. Iron Ore Fines	Sinter	Nil	1.100
2. Coke Fines		Nil	0.067

PART – C

**Pollution discharged to environment/unit of output.
(Parameter As Specified In The Consent Issue)**

Pollutants	Quantity of pollutants discharged (mass /day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standard with reasons
(a) Water	We are not discharging any water to outside of the plant premises.		Not Applicable
(b) Air	Air pollutant discharged are within the range of prescribed standards. Average results of concentration of pollutants attached as Annexure-I		



**PART - D
HAZARDOUS WASTE**

**As Specified Under [Hazardous Wastes
(Management, Handling and Transboundary Movement) Rules, 2016]**

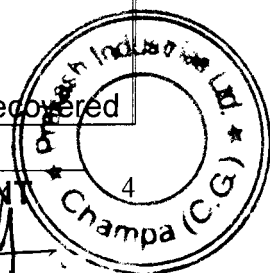
Hazardous Waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
Used / Spent Oil*		
(a) From process	11500 Kg from all divisions of the plant	7180 Kg from all divisions of the plant
(b) From pollution control facilities	Nil	Nil

* We have disposed of 7180 kg of used oil to the CPCB authorized recyclers.

* Used Ion exchange material (waste resin) is yet to be generated from DM plant in the financial year 2019 – 2020, when it will be generated then we will disposed off to CPCB authorized recyclers.

**PART - E
SOLID WASTES**

Solid Waste	TOTAL QUANTITY	
	During the Previous Financial year	During the Current Financial year
(a) From Process		
SID - Kiln Waste	255932 MT	275642 MT
Power Plant	Nil	Nil
IFD - Slag	209959 MT	244699 MT
Sinter Plant	Nil	Nil
(b) From Pollution Control Facilities		
SID - ESP Dust	142415 MT	104668 MT
Power Plant - Fly Ash	627470 MT (total quantity generated)	655002 MT (total quantity generated)
IFD - Scrubber Dust	5706 MT	5753 MT
Sinter - Scrubber Dust	Nil	15 MT
(c)		
1.Quantity recycled or reutilized in the plant		
SID	Nil	Nil
POWER PLANT	201810 MT	157351 MT
IFD	28196 MT	28218 MT
	Metallic part recovered	Metallic part recovered



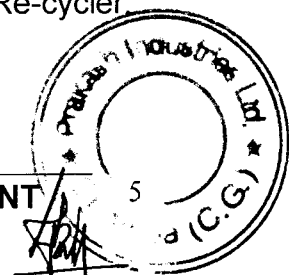
PRAKASH INDUSTRIES LTD., CHAMPA

	and reused in the furnace.	and reused in the furnace.
SINTER PLANT	Nil	Nil
2. Sold		
SID	Nil	Nil
POWER PLANT	Nil	Nil
IFD	Nil	Nil
SINTER PLANT	Nil	Nil
3. Disposed		
SID	196537 MT of ESP dust & wastes are disposed off in abandoned mines.	222959 MT of ESP dust & wastes are disposed off in abandoned mines.
POWER PLANT	307561 MT fly ash used for brick/block manufacturing and 319909 MT fly ash was disposed off in permitted abandoned mines.	392698 MT fly ash used for brick/block manufacturing, 38870 MT fly ash supply to cement plant and 223434 MT fly ash was disposed off in permitted abandoned mines.
IFD	181763 MT slag was used in road construction and filling of low lying areas.	216481 MT slag was used in road construction and filling of low lying areas.
SINTER PLANT	Nil	15 MT dust was used in road construction and filling of low lying areas.

PART – F

Please specify the characterizations (in term of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both of these categories of wastes.

As per analysis report based on schedule – 5 of HWM rules 2016, used oil (Hazardous waste) is suitable for Re-refining. At present, we collect used oil in the drums and keep it inside the shed and sale to CPCB approved authorized Re-cycler.



Solid waste (Coal char) generated from the process is presently used for captive power generation in FBB type power plant. Other solid waste is dumped in dumping yard with safe and scientific manner inside the plant premises, which is disposed off in abandoned mines after getting approval from the competent authority.

PART – G

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

We are recycling and re-utilizing all wastewater generated from the plant. By recycling and re-utilizing, we conserve fresh water. We are using coal char (solid waste from kiln) as a fuel in Captive Power Plant based on FBB and minimize the use of Coal (natural fossil fuel). There is not much impact on cost of production by taking pollution control measures.

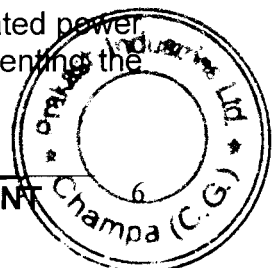
PART – H

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

We have placed on road cleaning machine for better house keeping of the plant. We have made all roads pucca to minimize dust emission during vehicular movements. We have installed three more bag filters at product separation area, I bin area and finished product storage silo area to control the fugitive emission in respective areas. Time to time, we have made retrofitting work of ESPs, Bag filters, Venture scrubber systems & Fume scrubber systems to improve the efficiency of air pollution control devices and to minimize the pollution load in an environment. We have regular programme for plantation and this year we have planned to plant 10000 saplings in and around the plant premises. We are implementing wastewater treatment and reuse of treated wastewater for cooling tower make up water purpose. This has been saving the consumption of fresh water. We have installed sewage treatment plant for treatment of domestic water and are using treated water for plantation purpose.

(i) WASTE HEAT RECOVERY BOILER (WHRB):

WHRB is a well known technology for the generation of power from the waste heat, generated by a source. Here, we use waste heat from rotary kiln where coal is used for the generation of heat for the purpose of melting of raw materials used for sponge production. Instead of leaving the huge quantity of heat in atmosphere which could unbalanced its stability; we use it for 57 MW power generation. The generated power from the process is used for industrial use. By this process, we are preventing the nature and on the other hand we are re-cycling & re-using our resources.



(ii) UTILIZATION OF COAL CHAR:

In the process of sponge iron production, coal is used as a raw material for generating heat. At the end of the process, along with sponge iron, a huge quantity of coal char is generated. This coal char is wastage after the process which we are using char for the generation of power in captive power plant.

Utilizing the char in power generation, we are saving our surroundings with cleaner nature & atmosphere.

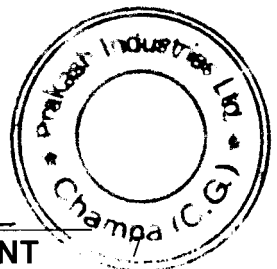
(iii) SLAG CRUSHER:

Slag generates during the process of steel making in Induction Furnace which contain Iron particles mixed with slag. To recover the iron particles, magnetic slag crusher has been established. The recovery of Iron particles is approximately 10% which is reused in the process of induction furnace for steel making. By this, proportionate amount of raw material (i.e., mineral) is saved. By doing this, we are using a waste as a source & controlling environmental pollution.

PART – I

Any other particulars for improving the quality of the environment.

We are concern to protect the total environment of the plant as well as environment of the nearby area. We are working sincerely to achieve the **Sustainable Development**.



Results of Concentrations of Pollutants

All wastewater generated from the plant is collected in the settling tank and recycled and reused in the plant for dust suppression and plantation purpose. We are regularly monitoring the quality of water at outlet of ETP mentioned as below:

pH	:	7.50 – 7.92
BOD 3 days 27 ° C.	:	6.50 – 9.50 mg/lit.
COD	:	30.00 – 60.00 mg/lit.
S.S.	:	5.62 – 8.89 mg/lit.
O&G	:	0.50 – 0.70 mg/lit.

All wastewater generated from the colony is treated in Sewage Treatment Plant and reused for plantation purpose. We are regularly monitoring the quality of water at outlet of STP mentioned as below:

pH	:	7.57 – 7.96
BOD 3 days 27 ° C.	:	8.50 – 10.00 mg/lit.
COD	:	45.00 – 55.00 mg/lit.
S.S.	:	8.44 – 9.84 mg/lit.
O&G	:	0.50 – 0.70 mg/lit.

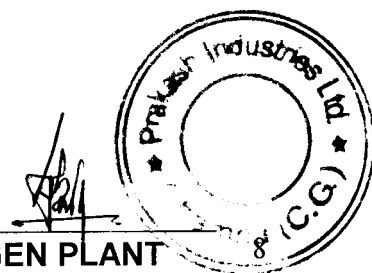
Ambient air quality and Stack monitoring is being done on regular basis and observed results (average) are given as below:

Ambient Air Quality

PM ₁₀	:	20.63 – 87.43 µg/m ³
PM _{2.5}	:	12.21 – 49.96 µg/ m ³
SO ₂	:	7.20 – 19.57 µg/ m ³
NOx	:	13.29 – 27.70 µg/ m ³
CO	:	BDL ppm

Stack Monitoring Results:

PM	:	19.92 – 41.71 mg/ Nm ³
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Prakash Industries Limited

(AN ISO 9001 , 14001 AND OHSAS 18001 Certified Company)
Champa-495671 Distt. - Janjgir-Champa (Chhattisgarh)
CIN: L27109HR1980PLC010724
Phone: 07819-245103, 245108, 245378
Fax: 07819-283594 Web. – www.prakash.com

PIL/EHS/ENV-STATEMENT/2020/47

Date: 15.06.2020

The Member Secretary,
Chhattisgarh Environment Conservation Board,
Paryavas Bhawan, North Block, Sector – 19,
Nava Raipur, Atal Nagar, Raipur (C.G.) 492002

**Sub.: Environment Statement for Submerged Arc Furnace (SAF)
Division for 2019 – 2020.**

Sir,

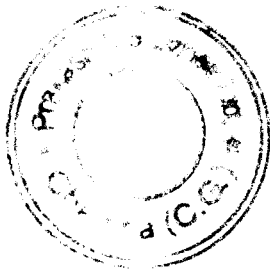
Please find enclosed herewith Environment Statement as per Rule 14 of the Environment (Protection) Rules, 1986 of **Submerged Arc Furnace (SAF) Division** for the financial year **2019 – 2020, ended on 31.03.2020.**

We hope you will find the same in order.

Yours faithfully,

FOR PRAKASH INDUSTRIES LTD.,


Santosh Thawait
Sr. Manager – EHS



Encl: As above

CC TO:

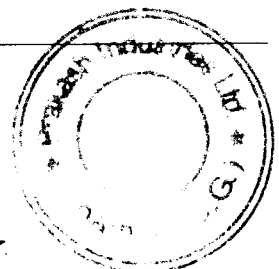
- 1. Additional Principle Chief Conservator of Forest,
Ministry of Environment, Forests and Climate Change (MoEFCC),
(Govt. of India), Regional Office, West – Central Zone (WCZ),
Ground Floor, East Wing, New Secretariat Building,
Civil Lines, Nagpur (M.S.) 440001**
- 2. The Regional Officer,
Chhattisgarh Environment Conservation Board,
Near Dindayal Upadhyay Park,
Vyapar Vihar, Bilaspur (C.G.) 495001**

Head Office : Near I.O.C.L. Depot Main Najafgarh Road, Bijwasan, New Delhi-110061
Regd. Office : 15 Km stone, Delhi Road, Hissar-125 044(Haryana) INDIA

**ENVIRONMENT
STATEMENT
FOR SUBMERGED ARC FURNACES
(SAF) DIVISION**

**(YEAR 2019 - 2020)
PERIOD ENDED 31.03.2020**

**By
PRAKASH INDUSTRIES LIMITED
CHAMPA**



FORM - V
(SEE RULE-14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL
YEAR ENDING 31ST MARCH 2020

PART-A

- (I) Name and address of the owner/
Occupier of the Industry, Operation
or process : Sh. M. L. Pareek
Director
Prakash Industries Ltd
Village : Hathneora
Tehsil : Champa - 495671
Dist.: Janjgir-Champa (C.G.)
- (II) Production Capacity Units : 7500 KVA x 9 Nos
(Capacity – 1,15,000 TPA)
- (III) Year of Establishment : 2004, 2005, 2008, 2013,
2015 and 2017
- (IV) Date of the Environmental Statement
Submitted : 21.05.2019

PART - B

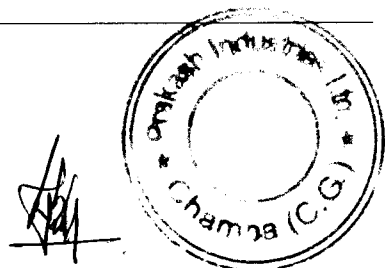
WATER AND RAW MATERIAL CONSUMPTION

(1) WATER CONSUMPTION (m³/day)

Process (Boiler)	=	Nil
Cooling	=	969.06
Domestic	=	12.59

NAME OF THE PRODUCTS	<u>Process Water Consumption Per Unit of Product Output</u>	
	During the previous Financial year 2018-2019 (1)	During the current Financial year 2019-2020 (2)

Ferro alloys Water is not consumed in the process. Water is mainly used for
Cooling Water purpose.



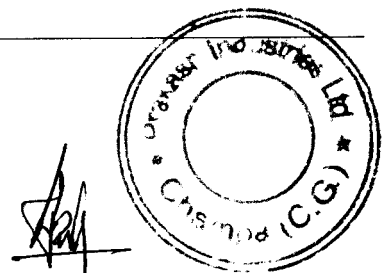
(2) RAW MATERIAL CONSUMPTION

Name of Raw Material	Name of Products	Consumption of Raw Material per unit of output. (Ton/Ton)	
		During the previous Financial year	During the current Financial year
1. Manganese Ore	Si-Mn, Hi Fe-Si Mn	0.082	0.039
2. Coal		0.509	0.421
3. Coke		1.276	0.268
4. Dolomite		0.180	0.156
5. Quartz		0.029	0.044
6. Ele. Carbon Paste		0.015	0.013
7. Iron Ore Fines		0.207	0.324
8. Mill Scale		0.647	0.578
9. Kiln Accretion		0.247	0.163
10. Sinter		0.949	0.565
11. Lime Stone		0.181	0.156
12. Flour Spar		0.044	0.037

PART – C

**Pollution discharged to environment /unit of output.
(Parameter As Specified In the Consent Issue)**

Pollutants	Quality of Pollutants Discharged (mass /day)	Concentrations of Pollutants discharges (mass/volume)	Percentage of variation from prescribed standard with reasons
(a) Water	We are not discharging any water to outside the plant premises.		Not Applicable
(b) Air	Air pollutant discharged are within the range of prescribed standards. Average results of concentration of pollutants attached as Annexure-I		



**PART - D
HAZARDOUS WASTE**

**As Specified Under [Hazardous Wastes
(Management, Handling and Transboundary Movement) Rules, 2016]**

Hazardous Waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
Used / Spent Oil*		
(a) From process	11500 Kg from all divisions of the plant	7180 Kg from all divisions of the plant
(b) From pollution control facilities	Nil	Nil

* We have disposed of 7180 kg of used oil to the CPCB authorized recyclers.

**PART - E
SOLID WASTES**

Solid Waste	TOTAL QUANTITY	
	During the Previous Financial year	During the Current Financial year
(a) From Process –Slag	55553 MT	44747 MT
(b) From Pollution Control Facilities - Bag Filter dust	7774 MT	6829 MT
(c) 1. Quantity recycled or reutilized within the unit	Nil	Nil
2. Sold	Nil	Nil
3. Disposed	55553 MT slag was used in road construction & filling of low lying areas and 7774 MT bag filter dust was disposed off in mines.	44747 MT slag was used in road construction & filling of low lying areas and 6829 MT bag filter dust was disposed off in mines.

PART - F

Please specify the characterizations (in term of composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both of these categories of wastes.

As per analysis report based on schedule – 5 of HWM rules 2016, used oil (Hazardous waste) is suitable for Re-refining. At present, we collect used oil in the drums and keep it inside the shed and sale to CPCB approved authorized Re-cycler.

PART - G

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

We are recycling and re-utilizing all wastewater generated from the plant. By recycling and re-utilizing, we conserve fresh water. We are using High manganese slag as Raw material in the furnace. There is not much impact on cost of production by pollution control measures.

PART - H

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

We have provided Bag filter system for control of source emission and Fogging system for fugitive emission which are working more efficient. We have made all roads pucca to minimize dust emission during vehicular movements. Time to time, we have made retrofitting of pollution control equipments for better working purpose. We have regular programme for plantation and this year we have planned to plant 10000 saplings in and around the plant premises. We are implementing waste water treatment and reuse of treated wastewater for cooling tower make up water purpose. This will save the consumption of fresh water. We have installed sewage treatment plant for treatment of domestic water and are using treated water for plantation purpose.

PART - I

Any other particulars for improving the quality of the environment.

We are concern to protect the total environment of the plant as well as environment of the nearby area. We are working sincerely to achieve the **Sustainable Development**.

Results of Concentrations of Pollutants

All wastewater generated from the plant is collected in the settling tank and recycled and reused in the plant for dust suppression and plantation purpose. We are regularly monitoring the quality of water at outlet of ETP mentioned as below:

pH	:	7.50 – 7.92
BOD 3 days 27 ° C.	:	6.50 – 9.50 mg/lit.
COD	:	30.00 – 60.00 mg/lit.
S.S.	:	5.62 – 8.89 mg/lit.
O&G	:	0.50 – 0.70 mg/lit.

All wastewater generated from the colony is treated in Sewage Treatment Plant and reused for plantation purpose. We are regularly monitoring the quality of water at outlet of STP mentioned as below:

pH	:	7.57 – 7.96
BOD 3 days 27 ° C.	:	8.50 – 10.00 mg/lit.
COD	:	45.00 – 55.00 mg/lit.
S.S.	:	8.44 – 9.84 mg/lit.
O&G	:	0.50 – 0.70 mg/lit.

Ambient air quality and Stack monitoring is being done on regular basis and observed results (average) are given as below:

Ambient Air Quality

PM ₁₀	:	20.63 – 87.43 µg/m ³
PM _{2.5}	:	12.21 – 49.96 µg/ m ³
SO ₂	:	7.20 – 19.57 µg/ m ³
NO _x	:	13.29 – 27.70 µg/ m ³
CO	:	BDL ppm

Stack Monitoring Results:

PM	:	28.68 – 39.65 mg/ Nm ³
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