



# 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: 07819-245367 Web. – www.prakash.com

**PIL/EHS/ENV-STATEMENT/2019/1780**

**Date: 21.05.2019**

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

**Sub.: Environment Statement for Sponge Iron Division, Power Plant  
Division and Induction Furnace Division for 2018-2019.**

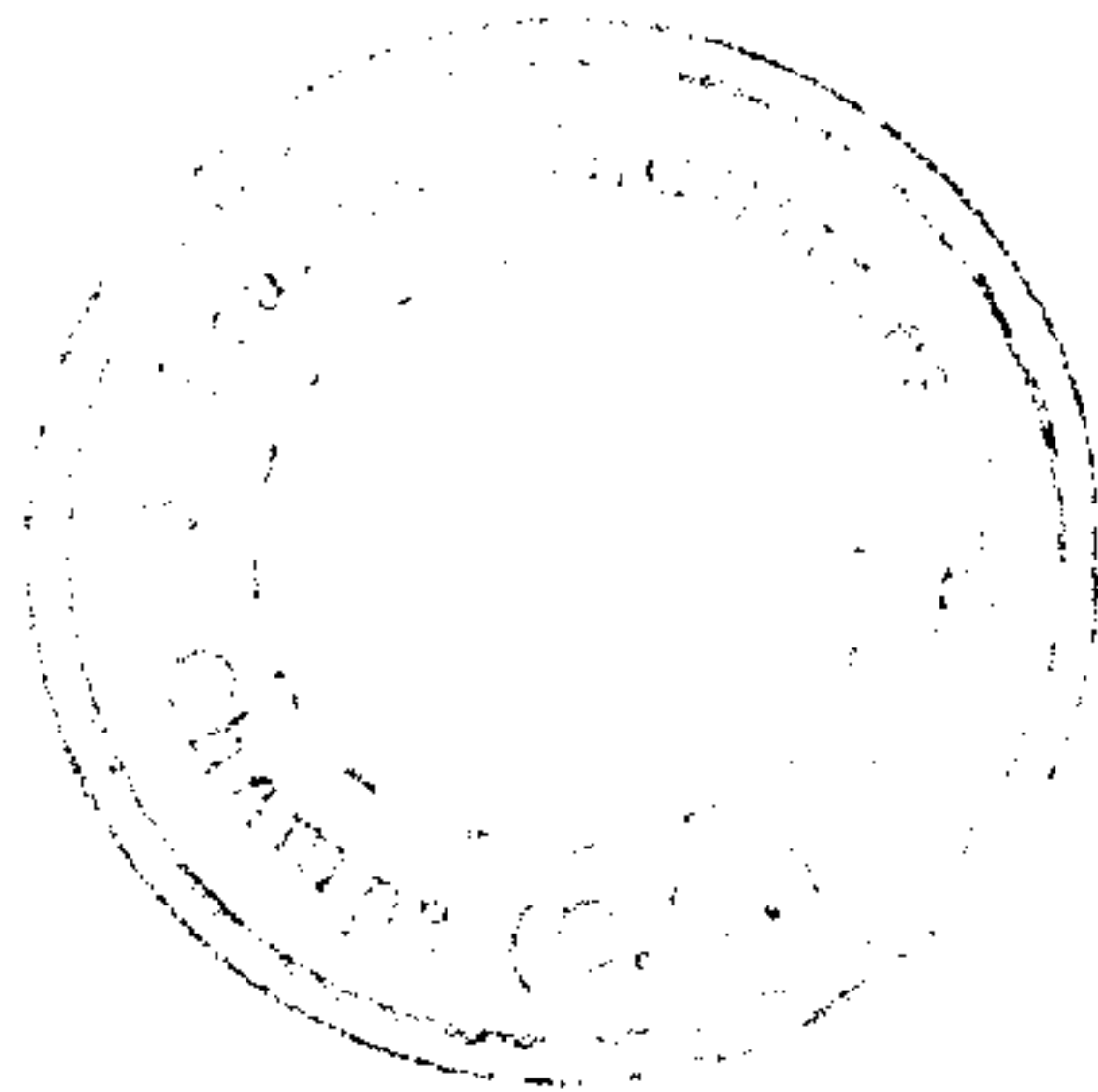
Sir,

Please find enclosed herewith Environment Statement as per Rule 14 of the Environment (Protection) Rules, 1986 of **Sponge Iron Division, Power Plant Division and Induction Furnace Division** for the financial year **2018-19, ended on 31.03.2019.**

We hope you will find the same in order.

Yours faithfully,  
**FOR PRAKASH INDUSTRIES LTD.,**

  
21/5/2019  
**Santosh Thawait  
Sr. Manager – EHS**



**Encl:** As above

**CC TO:**

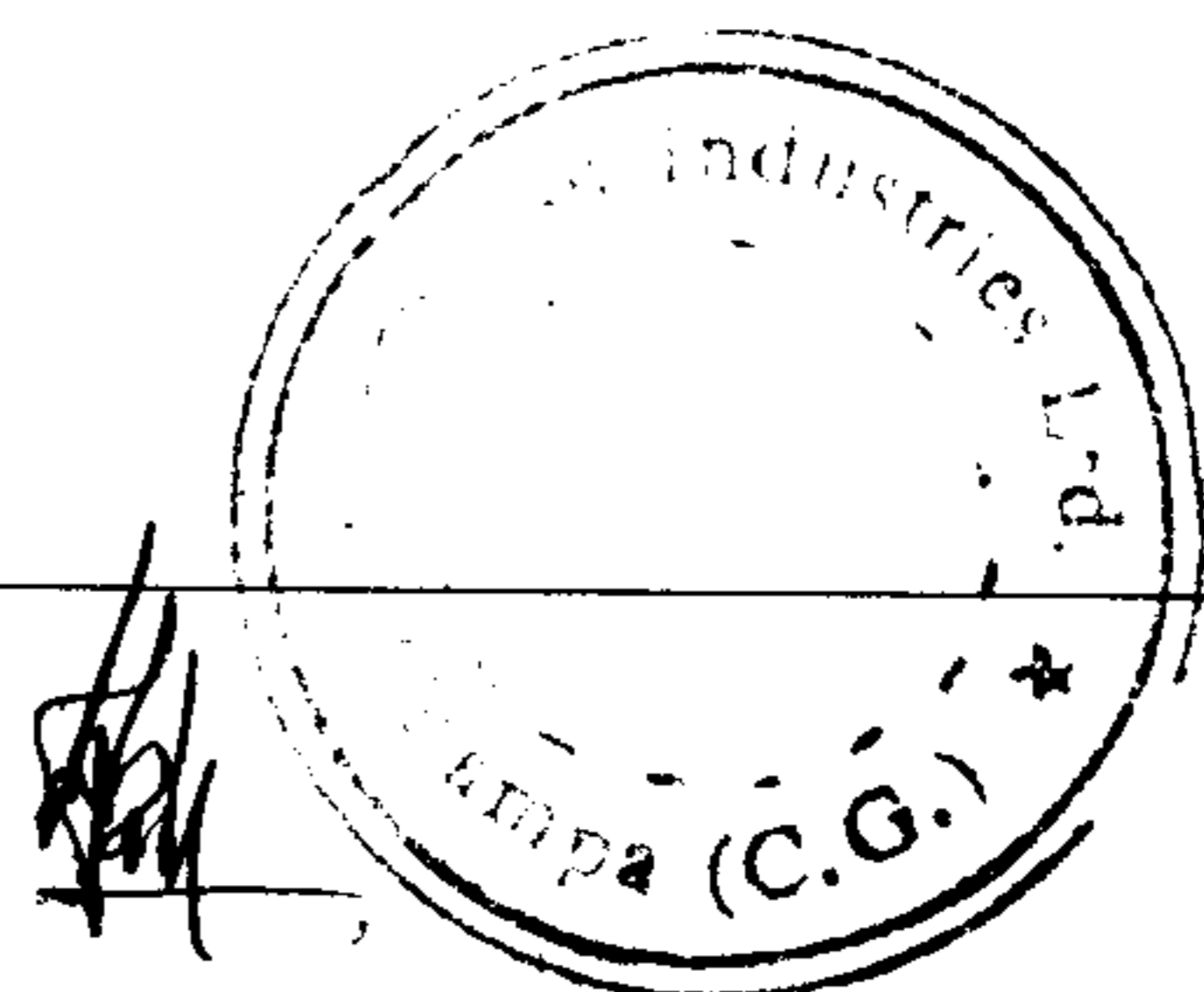
- 1. Additional Principle Chief Conservator of Forest,  
Ministry of Environment, Forests and Climate Change (MoEFCC),  
(Govt. of India), Regional Office, West – Central Zone (WCZ),  
Ground Floor, East Wing, New Secretariate Building,  
Civil Line, Nagpur – 440001 (M.S.)**
- 2. The Regional Officer,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

**ENVIRONMENT STATEMENT  
FOR  
SPONGE IRON, POWER PLANT  
AND INDUCTION FURNACE  
DIVISIONS**

**(YEAR 2018 - 2019)  
PERIOD ENDED 31.03.2019**

**By**

**PRAKASH INDUSTRIES LIMITED  
CHAMPA**



**FORM - V  
(SEE RULE-14)**

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL  
YEAR ENDING 31<sup>ST</sup> MARCH 2019**

**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 – 2.0 LTPA each,  
Power : {(CPP-12.5+ 50+25+ 3x25) +  
(WHRB-6.0+6.0+12.5+12.5+10)}MW  
Steel : 10.0 LTPA
- (iii) **Year of Establishment**  
Sponge : Kiln I – 1993, Kiln II – 1996,  
Kiln III – 2010, Kiln IV – 2012,  
Kiln V – 2017  
Power : 2000, 2005, 2011, 2012, 2017  
Steel : 1995, 2006, 2010, 2012, 2013,  
2014
- (iv) **Date of last Environmental Statement : Submitted** : 05.05.2018

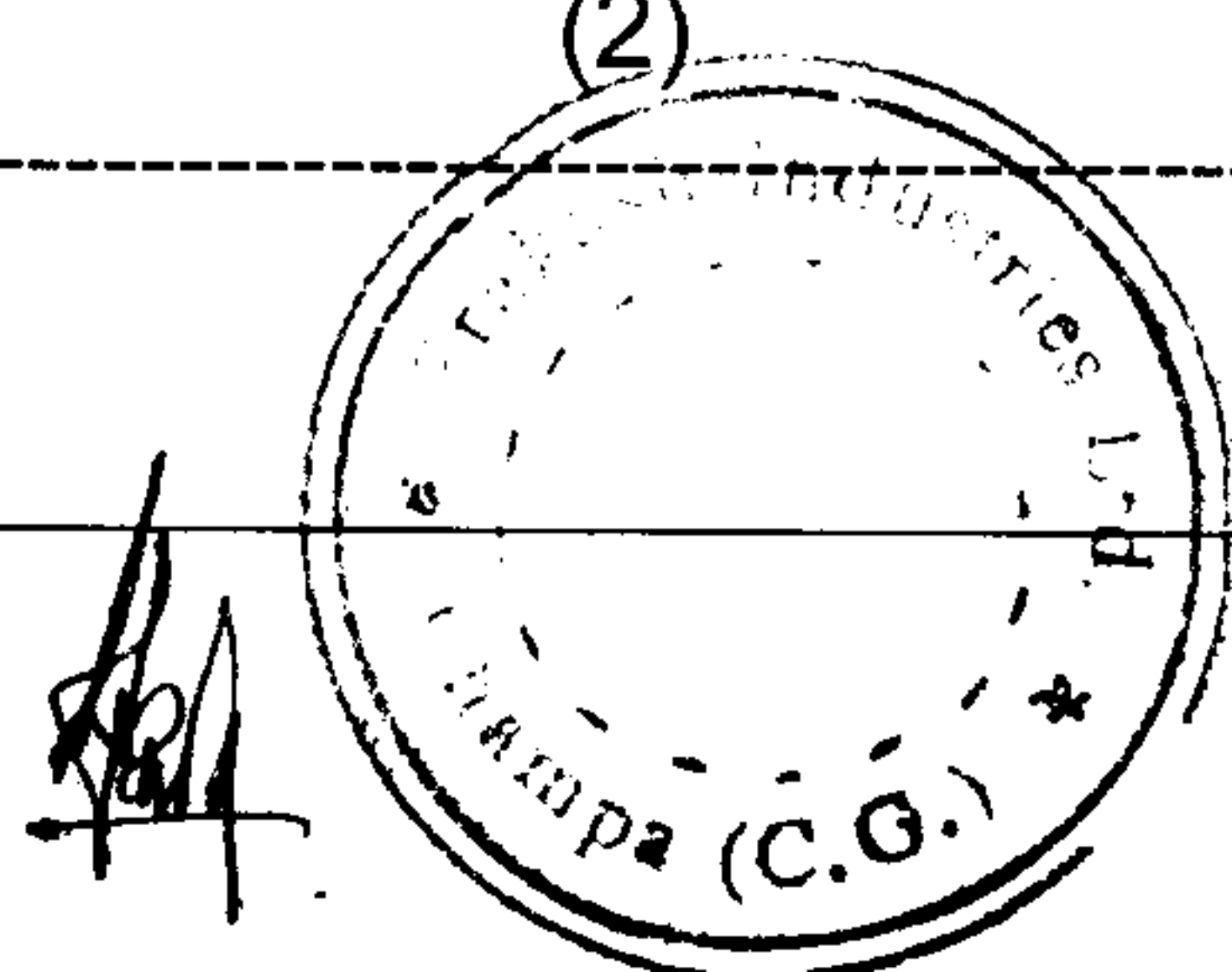
**PART – B**

**WATER AND RAW MATERIAL CONSUMPTION**

(1) **WATER CONSUMPTION (m<sup>3</sup>/day)**

Process (Boiler)	=	1142.18
Cooling (SID+CPP+IFD)	=	18390.97
Domestic	=	210.43

<b>NAME OF THE PRODUCTS</b>	<b><u>Process Water Consumption Per Unit of Product Output</u></b>	
	<b>During the previous Financial year 2017-2018 (1)</b>	<b>During the current Financial year 2018-2019 (2)</b>



**PRAKASH INDUSTRIES LTD., CHAMPA**

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

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

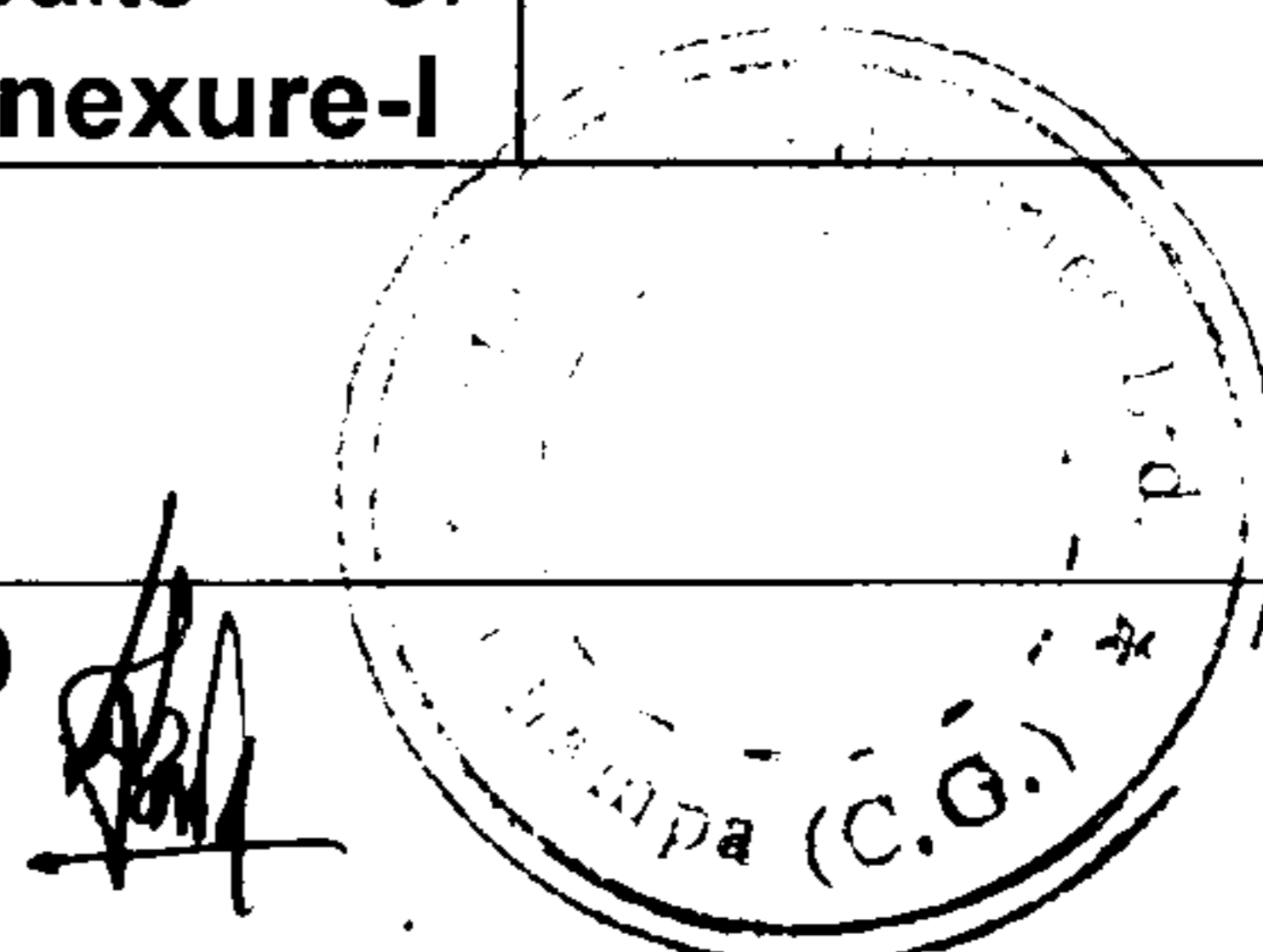
**(2) RAW MATERIAL CONSUMPTION**

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
<b>SPONGE IRON</b>			
1. Iron Ore	Sponge Iron	1.748	1.531
2. Coal		1.518	1.348
3. Dolomite		0.092	0.115
<b>POWER GENERATION</b>			
1. ROM Coal/ Coal Fines	Power Generation	0.836	0.849
2. Coal char		0.159	0.231
<b>STEEL (BLOOM/BILLET) PRODUCTION</b>			
1. Sponge Iron +Briquette +Slag Rec.	Steel	1.034	0.979
2. Ferro alloys & Aluminum Notch Bar		0.020	0.017
3. MS Scrap		0.078	0.064
4. Coke		0.008	0.008
5. Pig Iron/Mould Scrap/ Hi Fe Si Mn		0.100	0.151

**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 <b>Annexure-I</b>		



**PART - D**  
**HAZARDOUS WASTE**

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

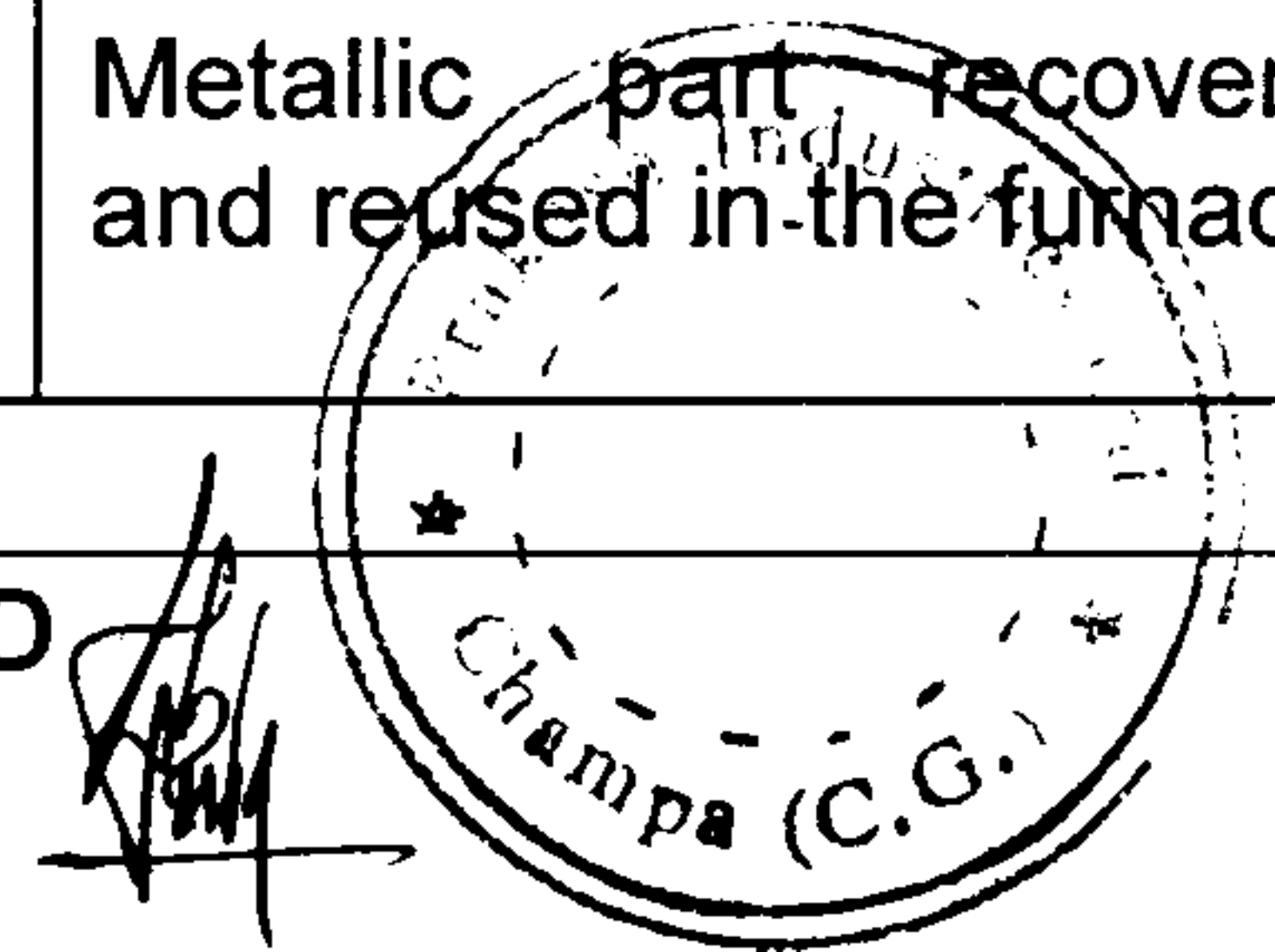
Hazardous Waste	Total Quantity (Kg)	
	During the previous financial year (2017-2018)	During the current financial year (2018-2019)
Used / Spent Oil*		
(a) From process	5250 Kg from all divisions of the plant	11500 Kg from all divisions of the plant
(b) From pollution control facilities	Nil	Nil

\* On dtd. 25.03.2019 & 27.03.2019, we have disposed of 5125 kg & 6375 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 2018 -19, when it will be generated then we will disposed of 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 Kiln Waste Power Plant IFD Slag	173739 MT Nil 222993 MT	255932 MT Nil 209959 MT
(b) From Pollution Control Facilities SID ESP Dust Power Plant ESP Dust  IFD	130979 MT 622295 MT (total quantity generated)  Nil	142415 MT 627470 MT (total quantity generated)  Nil
(c) 1. Quantity recycled or reutilized in the plant 1. SID 2. POWER PLANT 3. IFD	Nil 138784 MT 25271 MT Metallic part recovered and reused in the furnace.	Nil 201810 MT 28196 MT Metallic part recovered and reused in the furnace.



**PRAKASH INDUSTRIES LTD., CHAMPA**

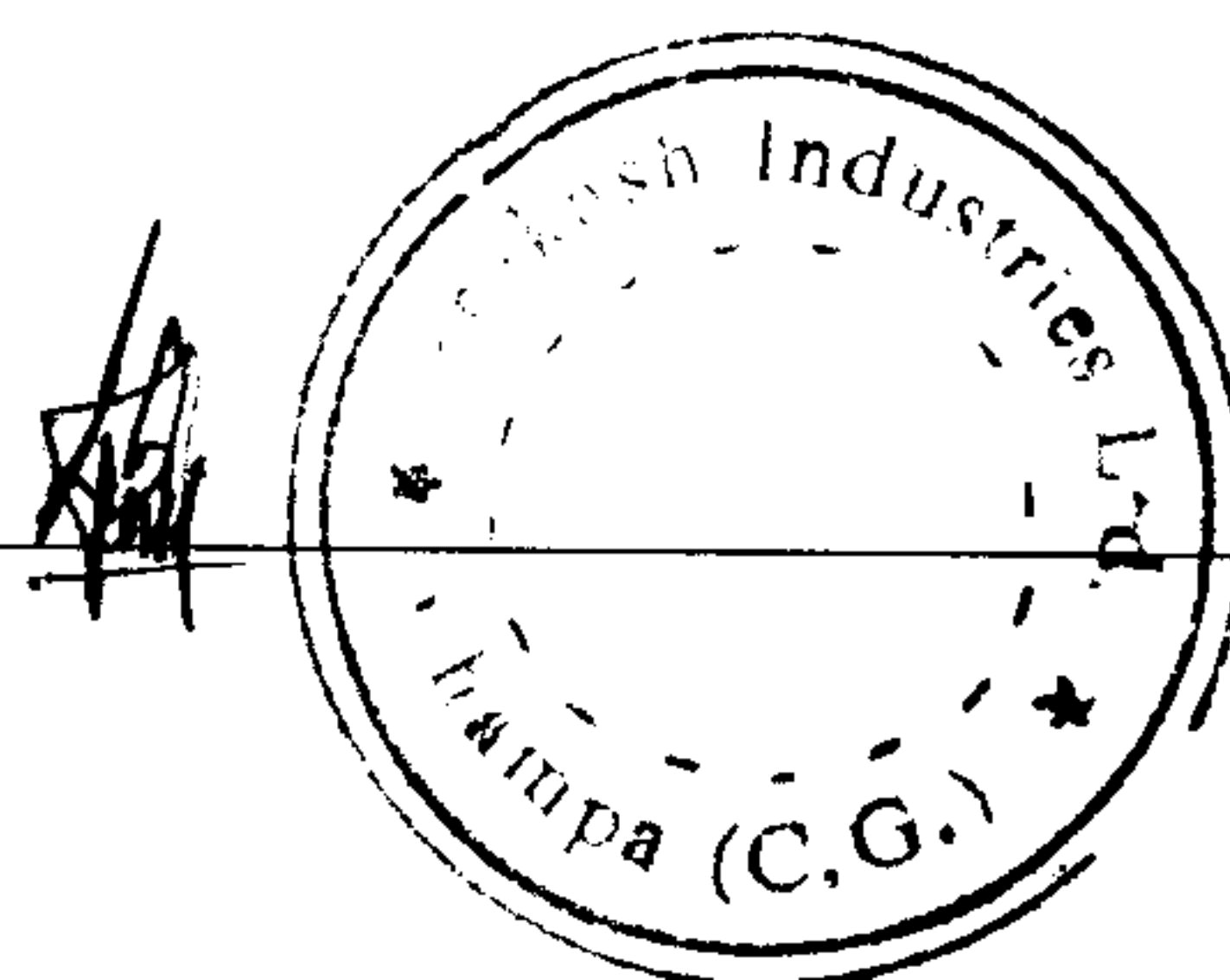
2. Sold		
1. SID	Nil	Nil
2. POWER PLANT	Nil	Nil
3. IFD	Nil	Nil
3. Disposed SID	165934 MT of ESP dust & wastes are disposed off in abandoned mines.	196537 MT of ESP dust & wastes are disposed off in abandoned mines.
POWER PLANT	234045 MT fly ash used for brick/block manufacturing and 388250 MT fly ash was disposed off in permitted abandoned mines.	307561 MT fly ash used for brick/block manufacturing and 319909 MT fly ash was disposed off in permitted abandoned mines.
IFD	197722 MT slag was used in road construction and filling of low lying areas.	181763 MT slag 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.**

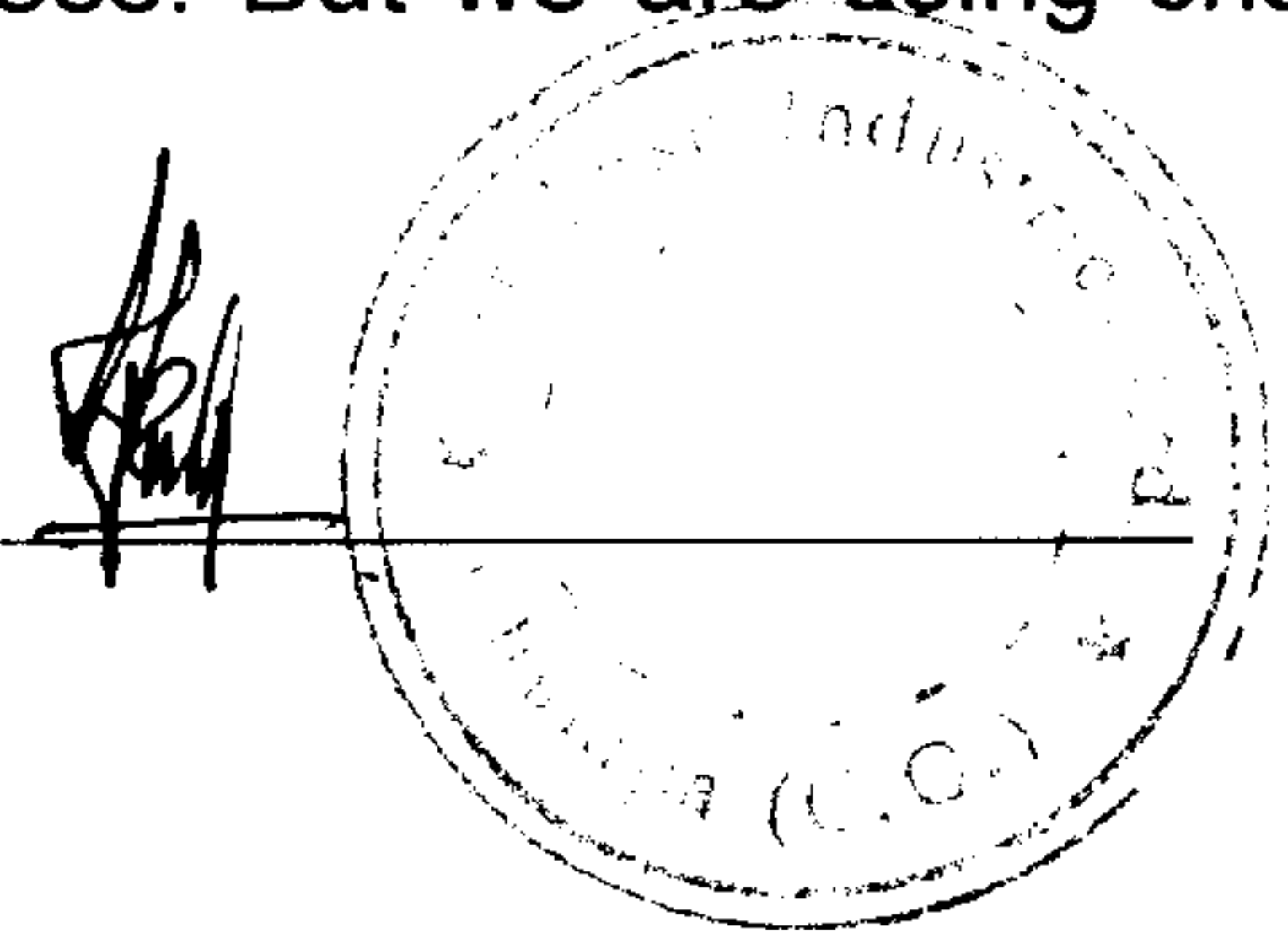
We have placed on road cleaning machine for better house keeping of the plant. We have made all roads pucca to minimize dust emission during vehicular movements. We have installed three more bag filters at product separation area, I bin area and finished product storage silo area to control the fugitive emission in respective areas. Time to time, we have made retrofitting work of ESPs to improve the efficiency of ESP 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 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.

**(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 47 MW power generation. The generated power from the process is used for industrial use and also for domestic 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 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 char is generated. This char is wastage after the process. But 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.

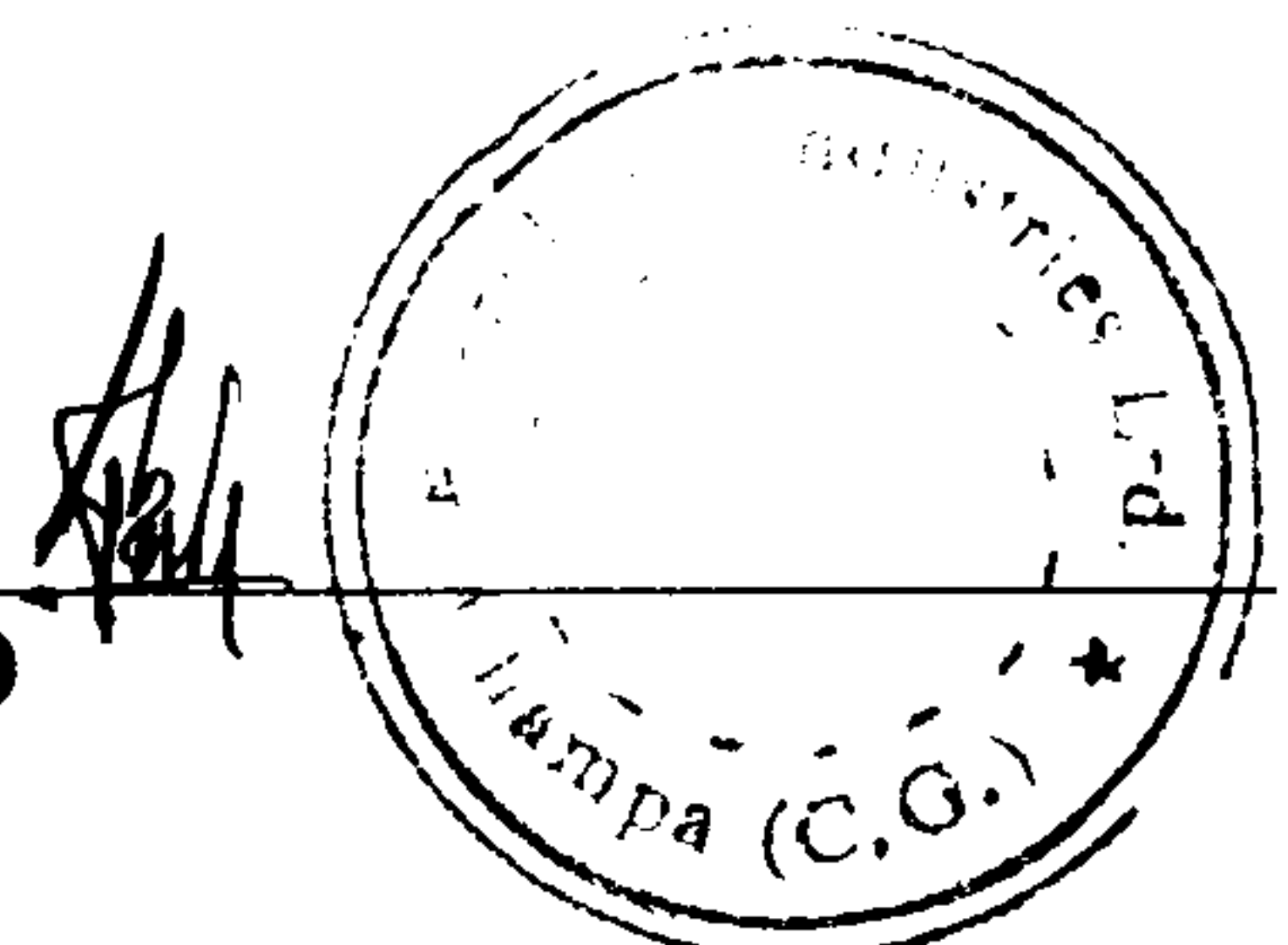
**(iii) SLAG CRUSHER:**

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 – 7.80
BOD 3 days 27 ° C.	:	6.00 – 7.00 mg/lit.
COD	:	30.00 – 40.00 mg/lit.
S.S.	:	6.87 – 8.50 mg/lit.
O&G	:	0.50 – 0.60 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	:	7.67 – 7.93
BOD 3 days 27 ° C.	:	9.00 – 9.50 mg/lit.
COD	:	40.00 – 45.00 mg/lit.
S.S.	:	7.64 – 9.57 mg/lit.
O&G	:	0.60 – 0.70 mg/lit.

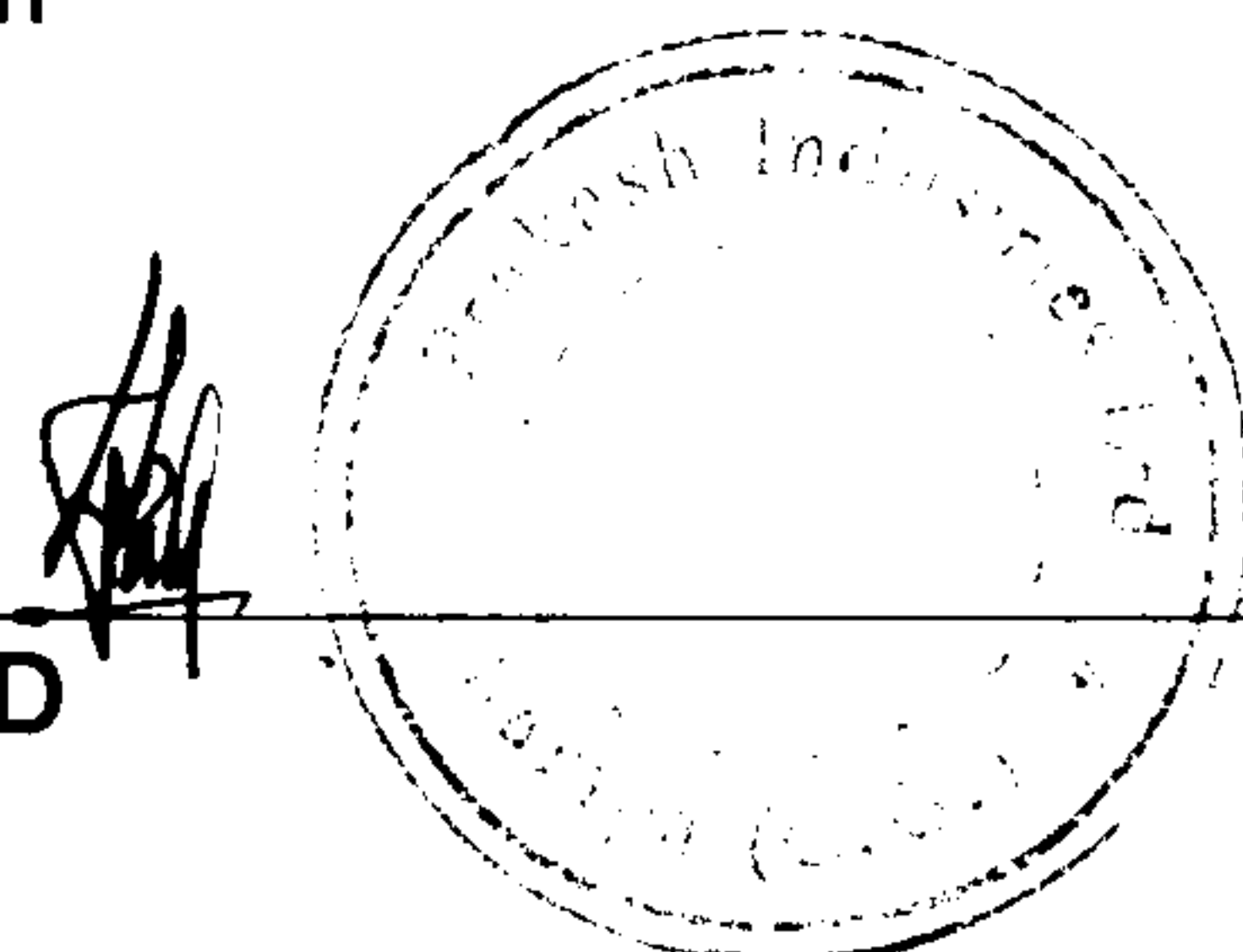
Ambient air quality and Stack monitoring is being done on regular basis and observed results (average) are given as below:

**Ambient Air Quality**

SPM	:	265.63 – 336.10 µg/m <sup>3</sup>
SO <sub>2</sub>	:	8.64 – 18.10 µg/ m <sup>3</sup>
NO <sub>x</sub>	:	13.44 – 25.76 µg/ m <sup>3</sup>
CO	:	BDL ppm

**Stack Monitoring Results:**

PM	:	20.29 – 41.39 mg/ Nm <sup>3</sup>
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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: 07819-245367 Web. – www.prakash.com

**PIL/EHS/ENV-STATEMENT/2019/1781**

**Date: 21.05.2019**

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

**Sub.: Environment Statement for Submerged Arc Furnace (SAF)  
Division for 2018-2019.**

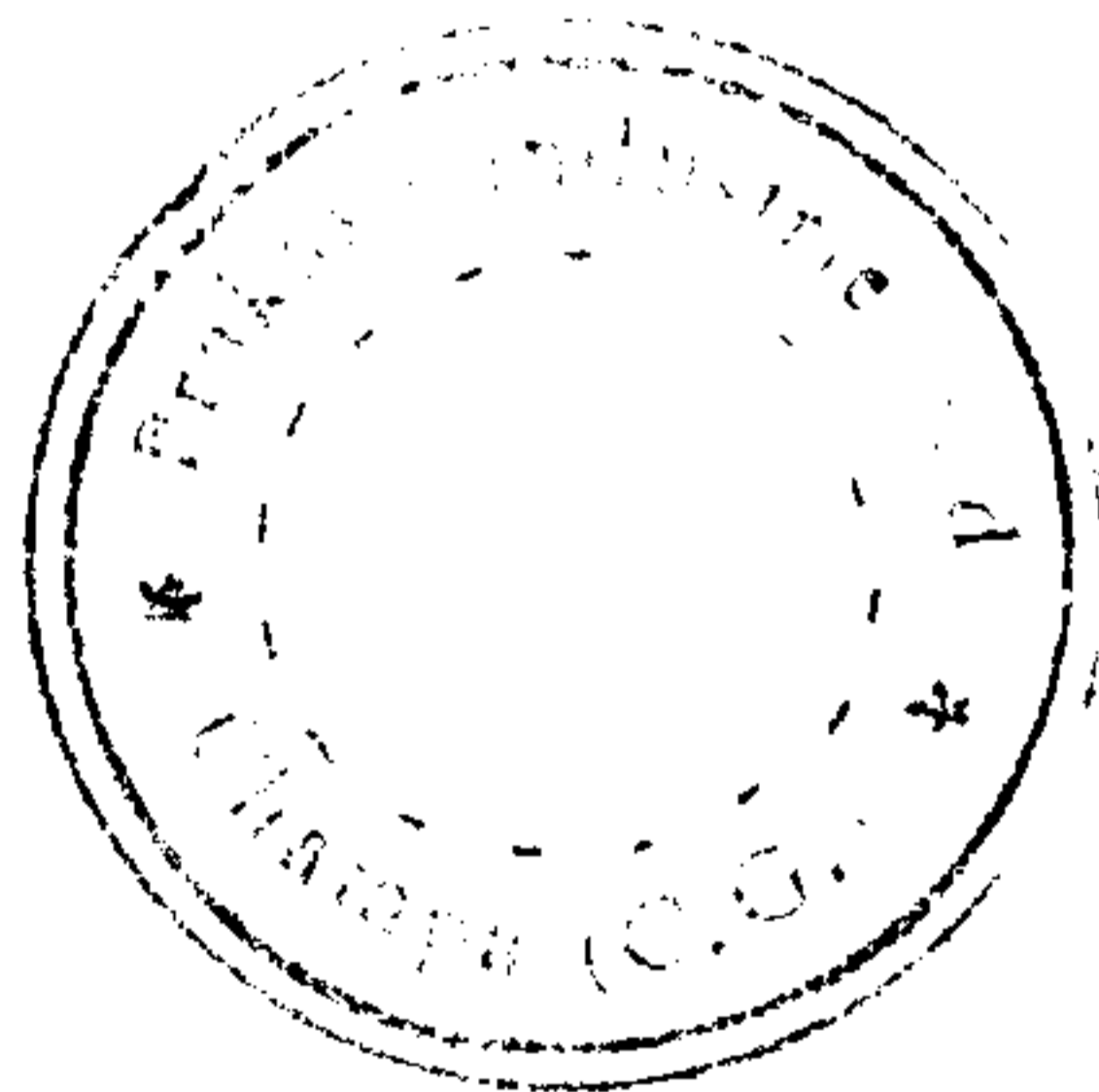
Sir,

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 **2018-19, ended on 31.03.2019.**

We hope you will find the same in order.

Yours faithfully,  
**FOR PRAKASH INDUSTRIES LTD.,**

  
21/5/2019  
**Santosh Thawait**  
**Sr. Manager – EHS**



**Encl:** As above

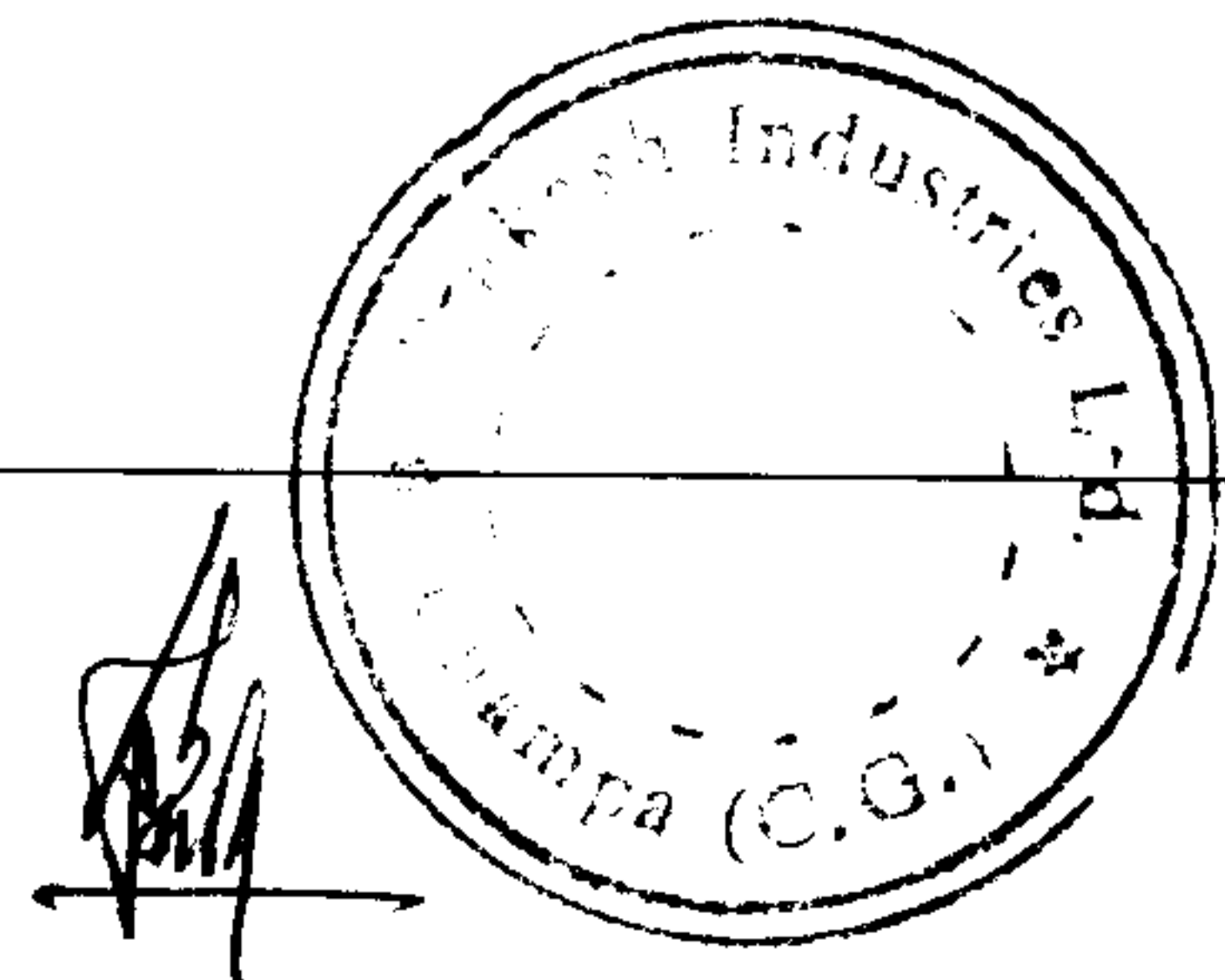
**CC TO:**

- 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 Secretariate Building,  
Civil Line, Nagpur – 440001 (M.S.)**
- 2. The Regional Officer,  
Chhattisgarh Environment Conservation Board,  
Vyapar Vihar, Near Dindayal Upadhyay Park,  
Bilaspur (C.G.) 495001**

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

**(YEAR 2018 - 2019)  
PERIOD ENDED 31.03.2019**

**By  
PRAKASH INDUSTRIES LIMITED  
CHAMPA**



**FORM - V  
(SEE RULE-14)**

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL  
YEAR ENDING 31<sup>ST</sup> MARCH 2019**

**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** : **7500KVA X 9 Nos**
- (iii) **Year of Establishment** : **2005, 2007, 2008 ,2013,  
2015 and 2017**
- (iv) **Date of the Environmental Statement  
Submitted** : **05.05.2018**

**PART - B**

**WATER AND RAW MATERIAL CONSUMPTION**

(1) **WATER CONSUMPTION (m<sup>3</sup>/day)**

Process (Boiler)	=	Nil
Cooling	=	888.10
Domestic	=	13.53

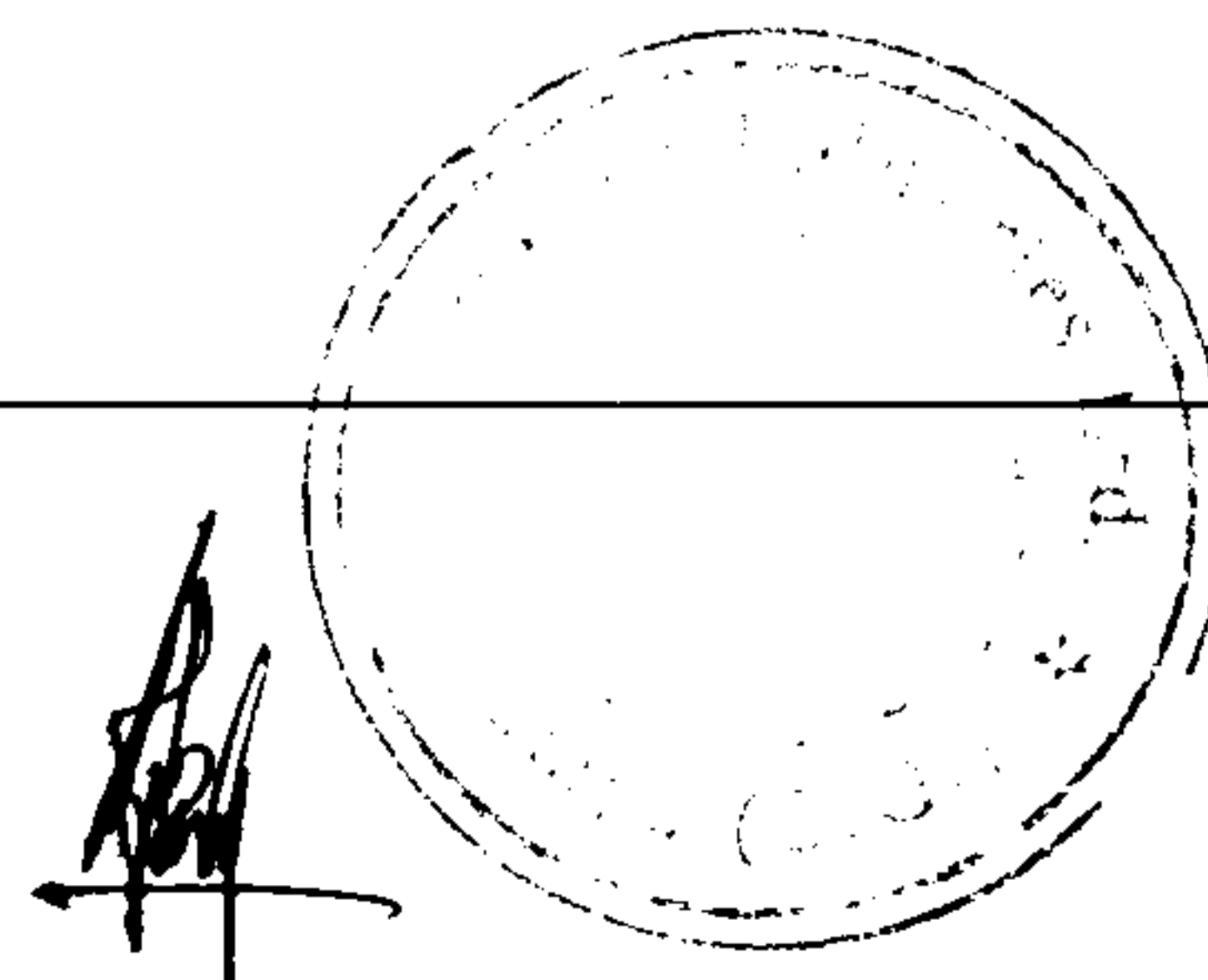
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<b>NAME OF THE PRODUCTS</b>	<b><u>Process Water Consumption Per Unit of Product Output</u></b>	
	<b>During the previous Financial year 2017-2018 (1)</b>	<b>During the current Financial year 2018-2019 (2)</b>

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

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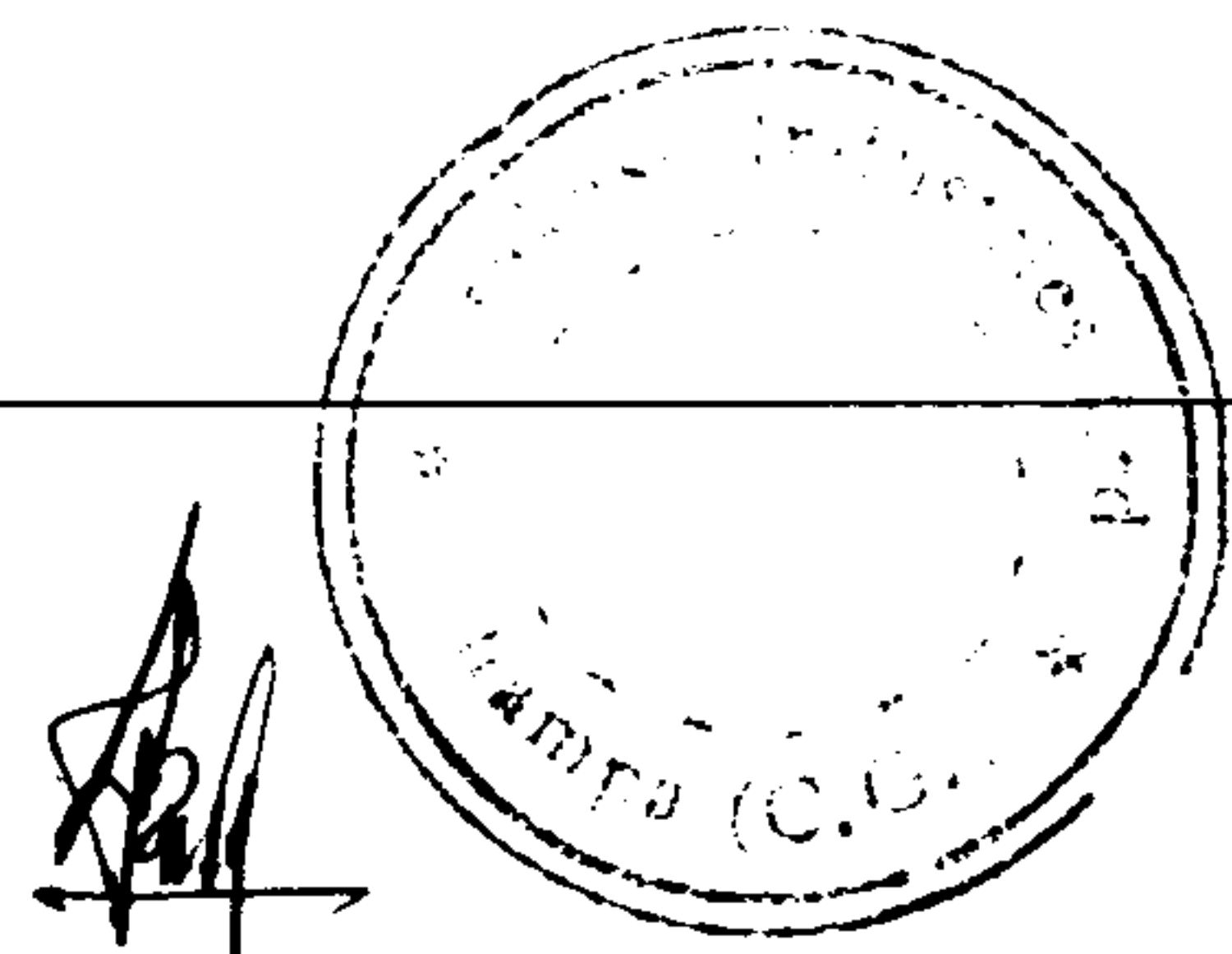
**(2) RAW MATERIAL CONSUMPTION**

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	1.229	0.082
2. Coal		0.441	0.509
3. Coke		0.525	1.276
4. Dolomite		0.198	0.180
5. Quartz		0.054	0.029
6. Ferro Mn-Slag		0.005	Nil
7. Ele. Carbon Paste		0.016	0.015
8. Iron Ore Fines		0.255	0.207
9. Mill Scale		0.267	0.647
10. Kiln Accretion		0.295	0.247
11. Lime Stone		0.068	0.181
12. Flour Spar		0.015	0.044

**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. Air pollutant discharged are within the range of prescribed standards. Average results of concentration of pollutants attached as <b>Annexure-I</b>		Not Applicable
(b) Air			



**PART - D**  
**HAZARDOUS WASTE**

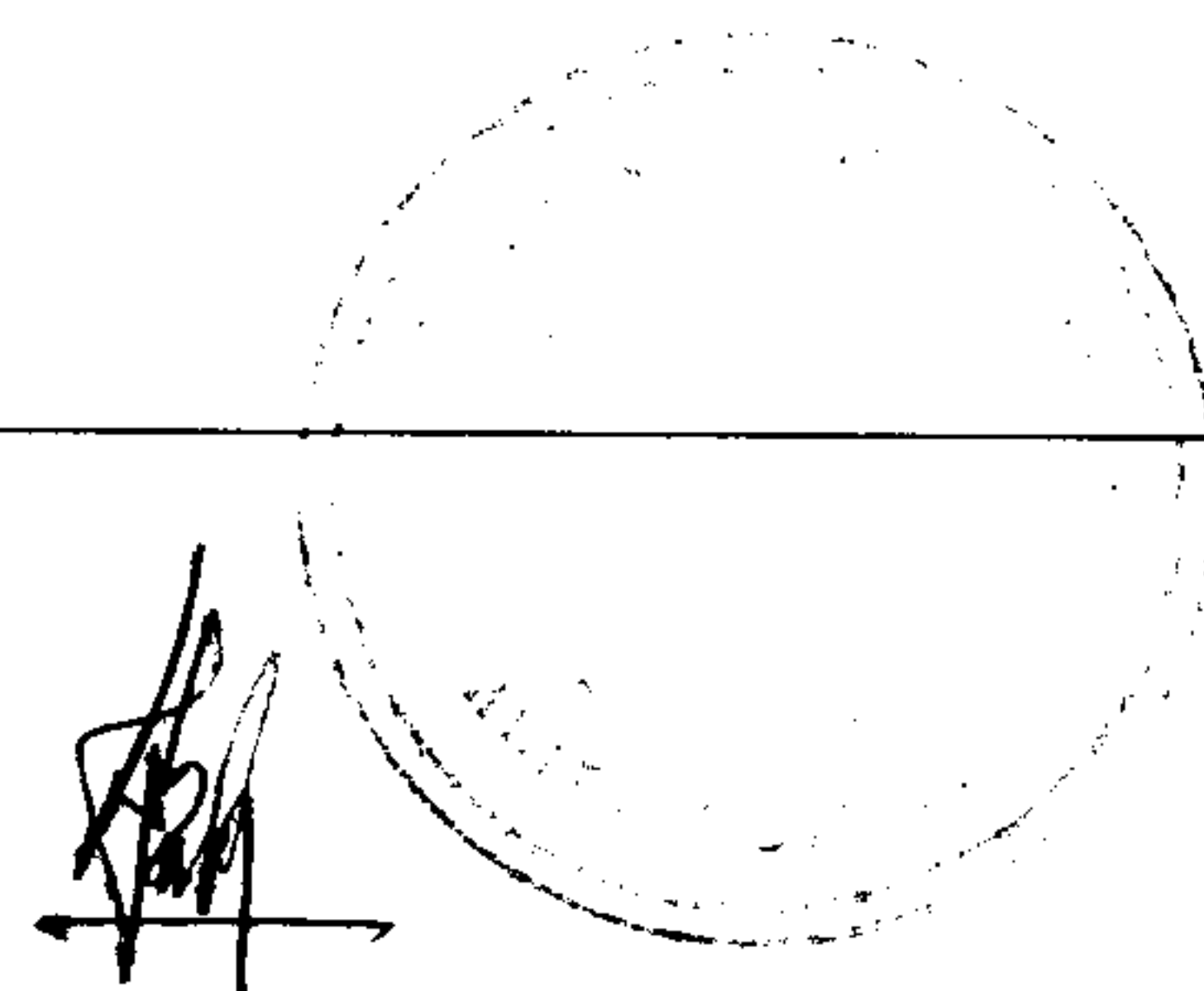
**As Specified Under [Hazardous Wastes  
(Management, Handling and Transboundary Movement) Rules, 2016]**

Hazardous Waste	Total Quantity (Kg)	
	During the previous financial year (2017-2018)	During the current financial year (2018-2019)
Used / Spent Oil*		
(a) From process	5250 Kg from all divisions of the plant	11500 Kg from all divisions of the plant
(b) From pollution control facilities	Nil	Nil

\* On dtd. 25.03.2019 & 27.03.2019, we have disposed of 5125 kg & 6375 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	73858 MT	55553 MT
(b) From Pollution Control Facilities - Bag Filter dust	6619 MT	7774 MT
(c) 1. Quantity recycled or reutilized within the unit	Around 5 % metals recovered from slag and rest disposed off as road construction and filling of low line areas and Bag filter dust is being disposed off in mines.	Around 5 % metals recovered from slag and rest disposed off as road construction and filling of low line areas and Bag filter dust is being disposed off in mines.
2. Sold	Nil	Nil
3. Disposed	As per the requirement in and around the premises.	As per the requirement in and around the premises.



**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.

Bag Filter dust generated from the plant is utilized as Raw material for better productivity.

**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 and bag filter dust (solid waste from furnace) 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 – 7.80
BOD 3 days 27 ° C.	:	6.00 – 7.00 mg/lit.
COD	:	30.00 – 40.00 mg/lit.
S.S.	:	6.87 – 8.50 mg/lit.
O&G	:	0.50 – 0.60 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	:	7.67 – 7.93
BOD 3 days 27 ° C.	:	9.00 – 9.50 mg/lit.
COD	:	40.00 – 45.00 mg/lit.
S.S.	:	7.64 – 9.57 mg/lit.
O&G	:	0.60 – 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**

SPM	:	265.63 – 336.10 µg/m <sup>3</sup>
SO <sub>2</sub>	:	8.64 – 18.10 µg/ m <sup>3</sup>
NO <sub>x</sub>	:	13.44 – 25.76 µg/ m <sup>3</sup>
CO	:	BDL ppm

**Stack Monitoring Results:**

PM	:	26.96 – 41.34 mg/ Nm <sup>3</sup>
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