

#### स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड STEEL AUTHORITY OF INDIA LIMITED भिलाई इस्पात संयंत्र BHILAI STEEL PLANT

GM I/c(EnMD)/B-8/2021/429

Date: 24/12/2021

To,

Integrated Regional Office,
Aranya Bhawan, North Block, Sector-19,
Naya Raipur,
Atal Nagar, Chhattisgarh
E-mail: iroraipur@gmail.com

Sub: Environmental Clearance of 7.0 MTPA Expansion at BSP – Submission of 6 monthly compliances Reports.

**Ref:** Environmental Clearance granted by MoEFCC's vide F.no. J-11011/28/2007- IA II (I) dated 24.05.2019.

Respected Sir,

Six monthly compliance report (April'2021 to September'2021) for the BSP's 7.0 MT Expansion / Modernization project vide letter under reference is enclosed.

The project details & pointwise information on the status of compliance of EC conditions along with relevant monitoring reports & other details etc. are also enclosed.

Thanking you,

(Uma Katoch)

GM (Env.MD)

Copy to:

In-Charge
Ministry of Environment & Forests and Climate Change,
Regional Office (West-Central Zone)
Ground Floor, East Wing
New Secretariat, Civil Line
Nagpur – 440001

#### **MONITORING REPORT DATA SHEET**

1	Project Type: River-valley/Mining/ Industry/ Thermal/Nuclear/Others (specify)	Industry – Integrated Iron & Steel Plant
2	Name of the project	Revised Configuration of Modernization- cum-expansion of 7.0 MTPA Bhilai Steel Plant
3	Clearance (s) OM No. and Date	F No. J-11011/28/2007-IAII(I) dtd 24 <sup>th</sup> May 2019
4	Location	
	a) District (s)	Durg
	b) State (s)	Chhattisgarh
	c) Location Latitude/longitude	Latitude.: 21 <sup>0</sup> 11 <sup>I</sup> to 21 <sup>0</sup> 13 <sup>I</sup> Longitude – 81 <sup>0</sup> 22 <sup>I</sup> to 81 <sup>0</sup> 24 <sup>I</sup>
5	Address for correspondence	
	a) Address of the concerned Project Chief Engineer (with Pin code & Telephone/ Telex/ Fax Number	Shri A K Bhatt ED (Project) Bhilai Steel Plant, Bhilai – 490001 Phone – 0788 – 2852100
	b) Address of the concerned Project Chief Engineer (with Pin code & Telephone/ Telex/ Fax Number	Mrs. Uma Katoch General Manager I/c (Environment) Bhilai Steel Plant, Bhilai – 490001 Phone – 0788 – 2860582 (M-9407981592)
6	Salient Features	
	a) Of the project	The summary of Revised Configuration of Modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant is given at annexure-1. The complete details are given in EIA & EMP Report already submitted to MoEFCC.
	b) of the Environment Management Plans	The Environment Management Programs/Plans have already been completed. However, further actions for environment Management are provided in the attached compliance report against the conditions of EC
7	Breakup of the Project Area	
	a) Submergence area : Forest & Non-forest	Nil
	b) Others	The proposed Revised Configuration of Modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant will take place within the 6286.75 Hectares under its possession. No additional land will be required for the expansion.
8	Break up of the Project affected population with enumeration of those losing Houses/ Dwelling units only	

	A suit sultane de la sultane de sultane de sultane succita de sultane de sult	211
	Agricultural land only, both dwelling units & agricultural land only, both dwelling units & agricultural land & landless labourers/ Artisans	ncultural
ı		NA
ı	a) SC, ST/Adivasi b) Others	NA NA
	l '	
	(Please indicate whether these figures are based	
	specific and systematic survey carried out or only	
	rovisional figures, if a survey is carried out give	details &
	year of survey)	
9	Financial details	
ı	<ul> <li>a) Project cost as originally planned and substee revised estimates and the year of price references.</li> </ul>	rence
	b) Allocation mode for environmental manage plans with item wise and year wise break-u	
	c) Benefit cost ratio/Internal rate of Return an year of assessment	d the NA Note: The Modernization /expansion of the plant already completed
	d) Whether(c) includes the cost of Environment Management as shown in the above.	NA Note: The Modernization /expansion of the plant already completed
	e) Actual expenditure incurred on the project	so far 11 Crores
	f) Actual expenditure incurred on the Environ	ment NA
	Management	Note: The proposed environment management programs under Modernization /expansion of the plant already completed against the earlier EC granted to BSP vide EC no. F No. J-11011/28/2007-IAII(I) Dtd 31.03.2018 However, further actions for environment Management are provided in the attached compliance report against the conditions
		of EC
10	Forest land requirement	of EC
10	Forest land requirement  a) The status of approval for diversion of fore for non-forestry use	of EC

	c) The status of compensatory afforestation, if any	NA
	Comments on the viability & sustainability of	
	compensatory afforestation program in the light of actual	
	field experience so far	
11	The status of clear felling in non-forest area (such as	NA
	submergence area of reservoir, approach roads), if any	
	with quantitative information information required	
12	Status of Construction (Actual and or planned)	-Given at Annexure-1
	a) Date of commencement	11/07/2009 (Earlier 7.0 MT Plant)
	(Actual and or planned)	
	b) Date of completion (Actual and or planned)	
13	<b>Reason for the delay</b> if the project is yet to start	NA

#### **Revised Configuration of BSP's 7.0 MT MODEX.**

Units already completed under EC no F No. J-11011/28/2007-IAII(I) dtd 31/03/2008.

SI. No.	Major Packages	Status
1	Coke Oven Complex	Completed
2	Sinter Plant Complex	Completed
3	Blast Furnace Complex	Completed
4	SMS-I	-
5	SMS-II	Completed
6	SMS-III	Completed
7	BBM	-
8	Plate Mill	Completed
9	RSM	Completed
10	Merchant Mill	Completed
11	Bar Rod Mill	Completed
12	Universal Beam Mill	Dropped/Not coming
13	Wire Rods	Completed
14	Lime & Dolo Plants	Completed
15	Oxygen Plant	Completed
16	Power & Blowing Station	Completed

Changes in the revised configuration for which EC was granted by MoEFCC vide EC No.

F No. J-11011/28/2007-IAII(I) dtd 24/05/2019.

a) **CO &CCD:** Nine Batteries can be operated out of 11 installed batteries and any 2 batteries will be non-operational (under cold repair/rebuilding) -- earlier, at a time, 8 batteries operations were permitted and 3 batteries were required to be kept under cold repair/rebuilding.

- b) **Operation of BF-1** for three more years is permitted till sequential capital repairs of BF-4,5,6 and stabilization of BF-8.
- c) **Operation of SMS-1, BBM and RMP-1** for three more years is permitted till stabilization of BF-8 and SMS-3.
- d) Sinter complex: Production capacity 9.772 MTPA Earlier it was 9.235 MTPA

Additional investment of 273 crores was proposed for the following changes in the Existing Unit in the revised configuration:

S.no	Proposed Change in the existing units	Status
1	SMS-3: Modification of 1x3 strand Beam Blank Caster into 1x3 strand Bloom-cum-Beam blank Caster of same capacity	Work to commence
2	SMS-3: Installation of 3x160t Argon Rinsing Unit (ARU)	Completed
3	Plate Mill: New Quenching & Tampering facility in Plate Mill.	Work to commence

## **Safety Mock Drills**

Period: April-Sep-21

## ENERGY MANAGEMENT DEPARTMENT BHILAI STEEL PLANT

Date:11-12-2021

Sub:-Mock Drill conducted in Plate Mill Booster Station of EMD

#### Background

Gas leakage incident took place around 11:30 AM on 11/12/21 at Plate Mill Booster station while electrical persons checking P3 booster which was tripped. The day before, mechanical persons opened the Man-hole of P2 booster for clearing choking of booster outlet line. 3 employees of Electrical maintenance, namely Karan Marandi, Shri Yuvraj Verma and Shri Chelaram were assigned to check the functioning of P3 motor as there was a complaint of Booster tripping.

While checking, unaware of gas leakage from P2 Booster manhole, as it was not closed fully, Shri Yuvraj Verma and Shri Chelaram were exposed to gas and fainted at the site. Immediately, the other employee Shri Karan Marandi from gas leakage area, informed to Plate Mill Booster station control room Operators. Station operator Shri K K Choudhury, who was in the control room, declared emergency by blowing siren.

Then, control room another Operator Shri S Dixit informed to Energy Centre and in charges Shri RK Soni and Shri Mukhesh Khtwa. They rushed to the location for managing the emergency situation. The Energy Centre immediately conveyed the gas leakage incident to Gas Safety, plant Control, CISF, Civil Defence, SED, MMP and Fire Brigade The concerned agencies were reached the incident spot immediately. The affected persons were shifted to Main Medical Post immediately by Ambulance. Thereafter, the gas leakage was arrested from inspection point by Gas Safety group and clearance was given for normalizing the area.

During the gas leakage incident, Fire Service personnel carried out the complete surveillance of the area. CISF personnel cordoned-off the entire area for restricting movement of people till clearance was given by Gas Safety. Chief Controller Shri Bidyut Kumar Sinha, GM(Opn) & DSO took control of the situation. Gas Safety group after rectification declared free from gas. Then the Chief Controller declared the emergency is over at 11:50 AM by blowing siren.

Details of events is in Annexure-L

Review meeting/Recommendations:

A review meeting was conducted by Shri VK Shrivastava ,CGM(EMD)on 11-12-2021 at 12 Noon and following observations/recommendations are noted:-

#### CISF-

- Stopped Video recording of incident by onlookers.
- Reached on time within 5 minutes of incident reported.
- Cordoning off area is not done to prevent heavy vehicle movement.

#### Fire Brigade

- Two vehicles reached the spot.
- Parking of vehicles done in a way, that ambulance way was obstructed.
- Entry of exit gate was blocked by Fire dept vehicle
- Handling of Gas affected person not done properly due to poor co-ordination among themselves.
- Providing of Oxygen mask to the injured person was delayed, while waiting for ambulance
- Fire Brigade personnel did not attend Post Mock Drill meeting

#### **Ambulance**

Driver received the emergency call instead of responsible person at MMP & Ambulance arrived late.

No personnel attended the Post Mock Drill meeting from OHS

#### SED

• Shri K C Agarwal from SED came late at Mock Drill and did not follow the route

#### **Civil Defence**

 Shri Swantantra Kumar from Civil Defence blocked the traffic movement as CISF did not cordoned off Road

#### **Gas Safety**

Gas Safety vehicle arrived late at 11.40 AM

Conclusion: The Mock drill was carried out successfully and all agencies performed satisfactorily

Bidyut Kumar sinhal GM(Oprn)& DSO Energy Management Deptt.

#### All Concerned

- 1. Dy. Director(IH & S)Durg,CG througf Actg.CGM(Safety and Fire)
- 2. Actg. CGM (safety& Fire)
- 3. Dy. Commandant (plant), CISF
- 4. Sr. Dy Director I/c (NOHSC)
- 5. Chief Fire Officer, BSP
- 6. CGM(EMD)
- 7. Sr. TA to ED (works)
- 8. Sr. TA to Director I/c
- 9. Plant Control
- 10. DSO(EMD)

## ENERGY MANAGENMENT DEPARTMENT

## BHILAI STEEL PLANT

ANNEXURE: I

S.N.	SEQUENCE OF EVENTS	AGENCY INFORMED TIME	AGENCY ARRIVAL AT SPOT TIME
1	GAS LEAKAGE INCIDENT	11:30	
2	ENERGY CENTRE	11:30	
3	GAS SAFETY	11:33	11:40
4	Shri. V.K. Srivastav – CGM & HOD- (EMD)	11:34	11.10
5	Shri. Bidyut Kumar Sinha – (GM I/c EMD & DSO)	11:33	11:35
6	Ms UV Subhadra – GM ( Oprn)EMD	11:31	11:33
7	Shri. Ravi kumar Soni – Sr. Mgr(4MT Oprn) EMD	11:30	11:32
8	PLANT CONTROL	11:31	11.52
9	CISF	11:31	
10	CISF (TEAM)	K SKATA	11:34
11	CIVIL DEFENCE		11:36
12	MMP	11:32	11:38
13	GAS VICTIM REMOVED	11.02	11:41
14	SED	11:33	11:56
15	FIRE BRIGADE	11:30	11:35
16	GAS SAFETY CLEARANCE		11:50

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# FLAG-B

Safety Training
Details

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**Safety Training For Non-Executives:** 

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		2	15.6.21	13	<u> </u>	
1.	Behavior Based Safety	2	23.6.21	14	27	
2.	Safety Proficiency In Plant Operation.	1	16.6.21	10	10	
3.	Safety Proficiency In Mech. Maint. and Material Handling.	1	17.6.21	13	13	
4	Safety Proficiency In Elect. Maint. and Operation.	1	21.6.21	11	11	
5.	Gas Safety In Steel Industry.	1	22.6.21	09	09	
6.	Achieving Awareness In Occupational Health & First Aid	1	24.6.21	10	10	
7	Safety Management For C/Man & Supervisor.	1	25.6.21	11	11	
8	Chemical Safety For COCCD	1	28.06.21	13	13	
	Total Number of Programme Conducted	9	Total I	Participants =	104	

**Safety Training For Contractor Workers:** 

S.NO	Module	# Prog.	Date	#Participants	#Total
1.	Safety Training For Contractor Workers.	1	18.6.21	16	
2	Refresher Safety Training at Works Area For Contractor Workers.	15	19,21,22,23,26,28,29	175	191
	Total Number of Programme Conducted		Total Participants =		191

<sup>\*</sup>TOTAL PROGRAMS (For REG. Employees) ORGANISED IN JUNE.-2021: 09 (All For Non-Exe.)

Participants: 175

## Safety Training Status of Reg. Employees at a Glance:

	No of pro	No of programmes		oloyees Covered	Total No. of
YEAR	Exe.	Non Exe	Exe. Non Exe		Employees Covered
Fin.Year-2021-22	0	9	0	104	104
Cal. Year-2021	15	41	347	920	1267

<sup>\*</sup>TOTAL PARTICIPANTS (For REG. Employees) ATTENDED IN JUNE.-2021: 104 (All Non-

<sup>\*</sup>Customized Safety Trg. For Contractor JUNE-2021: #Prog: 1, # Participants: 16

<sup>\*</sup> Refresher Safety Trg. For Contractor Workers at Works Area In JUNE-2021: #Prog: 15, #

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#### **Safety Training For Non-Executives:**

#	i£'k{kk dk;Zdzedk	dk; Zdze la	fnukd	#Parti cipant	Total # Participants.
1	Behavior Based		01.7.21	1	27
	Safety	2	19.7.21	1	27
2	Safety		05.7.21	1	26
	Proficiency In	2	26.7.21	1	26
3	Safety	1	06.7.21	1	12
4	Safety	1	07.7.21	1	14
5	Gas Safety In	1	08.7.21	1	17
6	Achieving		13.7.21	1	26
	Awareness In	2	20.7.21	1	26
7	Safety	1	27.7.21	1	16
8	Safety In Traffic	1	14.7.21	1	18
9	Safety Training	1	02.7.21	1	17
1	Safety Training	4	6 <sup>th</sup> to 9 <sup>th</sup>	1	100
1	Safety Training	8	12 <sup>th</sup> to 20th	î	180
	Total Num ber	24	Total Partic	ipants	453

#### **Safety Training For Executives:**

s.no	Module	# Prog	D	#Participant	#Total
1.	Electrical	1	15.7.	1	
2.	Gas Safety &	1	22.7.	1	
3.	Safety Training	2	6 <sup>th</sup> &	5	
4.	Leadership	1	8 <sup>th</sup> to 10 <sup>th</sup>	2	127
5.	Train The	1	13 <sup>th</sup> to 17 <sup>th</sup>	1	137
6.	Train The	1	19 <sup>th</sup> to 23 <sup>rd</sup>	1	
7.	Train The	2	26th to	О	
7 -	Train The	2	29 <sup>th</sup> to 31 <sup>st</sup>	0	
	Total	9		Total	137

#### **Safety Training For Contractor Workers:**

S.NO	Module	# Prog.	D a	#Participa nt	#Total
1.	Safety Training	2	09.7.21 &	2	
2	Safety Trainin	4	3 <sup>rd</sup> ,10 <sup>th</sup> ,17 <sup>th</sup> & 24 <sup>th</sup>	5 5	297
3.	Safety Training On Human	8	21 <sup>st</sup> ,22 <sup>nd</sup> , 23 <sup>rd</sup> ,24 <sup>th</sup> ,26 <sup>th</sup> ,27 <sup>th</sup>	2 1	
	Total Number of Programme Conducted	14	ı	Total Participa nts =	297

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## **Safety Training For Non-Executives:**

S.NO	o i f'k k k dk, Zhe dk uke dk, Zhe l a	fnukd	#Participant	Total #	
3.110	,	,	muşa	Covered	Participants.
			02.8.21	28	
1.	Behavior Based Safety	3	18.8.21	14	59
			23.8.21	17	
2.	Safety Proficiency In Plant Operation.	2	03.8.21	29	47
۷.	Safety Proficiency in Plant Operation.	2	24.8.21	18	47
3.	Safety Proficiency In Mech. Maint. and Material Handling.	1	04.8.21	26	26
4.	Safety Proficiency In Elect. Maint. and Operation.	1	09.8.21	20	20
5.	Gas Safety In Steel Industry.	1	10.8.21	22	22
6.	Achieving Awareness In Occupational Health & First Aid	2	17.8.21	19	37
0.			25.8.21	18	
7.	Safety Management For C/Man & Supervisor.	1	16.8.21	17	17
8.	Defensive Driving.	1	10.8.21	28	28
9.	Safety In Traffic Operation (For T & D)	1	11.8.21	16	16
			16.8.21	26	146
			17.8.21	22	
			18.8.21	25	
10.	Safety Training on Human Factors.	6	19.8.21	24	
			20.8.21	28	
			21.8.21	21	
	Total Number of Programme Conducted		Total Pa	articipants =	418

#### **Safety Training For Executives:**

S.NO	Module	# Prog	# Prog Date #		#Total
1	Behavior Based Safety.	2	05.08.21	21	20
1.   Be		2	12.08.21	18	39
2.	Statutory Requirements In Safety.	1	26.08.21	23	23
3.	Safety Training On Defensive Driving.	1	09.08.21	25	25
1	Leadership Training.	3	2.8.21 to 4.8.21 (3 Days)	23	74
4		3	5.8.21 to 7.8.21 (3 Days)	28	74

Total Number of Programme Conducted		12	Total Pa	articipants =	219	
0.	Bow-He Allalysis		23.8.21 to 24.8.21 (2Days)	21	39	
6.	Bow-Tie Analysis	2	20.8.21 to 21.8.21 (2Days)	18	39	
٦.	5. Train The Trainer on "Confined Space"	Trail The Trailer on Commed Space	2	26.8.21 to 28.8.21 (3 Days)	5	11
5		2	23.8.21 to 25.8.21 (3 Days)	6	11	
4.	Train The Trainer on "Defensive Driving"	1	19.8.21 to 21.8.21 (3 Days)	8	8	
			12.8.21 to 14.8.21 (3 Days)	23		

#### **Safety Training For Contractor Workers:**

S.NO	Module	# Prog.	Date	#Participant	TOTAL
			06.08.21	33	
1.	Safety Training For Contractor Workers.	3	13.08.21	22	72
			20.08.21	17	
	2 Safety Training For Contractor Workers. (Shunting Staff of T & D).		07.08.21	15	
2		3	21.08.21	15	43
			28.08.21	13	
			23.08.21	24	
		6	24.08.21	22	
3.	Safety Training On Human Factors		25.08.21	22	134
3.	Safety Training On Human Factors.		26.08.21	23	
			27.08.21	23	
			28.08.21	20	
	Total Number of Programme Conducted		Total Pa	articipants =	249

#### **Summary:**

#### **Safety Training Status of Reg. Employees at a Glance:**

YEAR	No of programmes		No. of emp	loyees Covered	Total No. of
TEAN	Exe.	Non Exe	Exe.	Non Exe	Employees Covered
Fin.Year-2021-22	21	52 35	356	975	1331
(1.4.21 to 30.8.21)	21		330	373	1331
Cal. Year-2021	26	84	703	1791	2494
(1.1.21 to 30.8.21)	1.21 to 30.8.21) 36		703	1791	2434

<sup>\*</sup>TOTAL PROGRAMS (For Regular Employees) ORGANISED IN <u>AUGUST.-2021</u>: **31 (19 NE + 12 Exe.)** 

<sup>\*</sup>TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN <u>AUGUST-2021</u>: **637 (418 NE & 219 Exe.)** 

<sup>\*</sup>Customized Safety Trg. For Contract Workers <u>AUGUST-2021</u>: # Prog: **12** , # Participants: **249** 

<sup>\*</sup> Refresher Safety Trg. For Contract Workers at Works Area in <u>AUG.2021</u>: # Prog: **35**, # Participants: **594** 

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## **Safety Training For Non-Executives:**

S.NO	i £7 k{k k dk; Zdze dk uke	dk, Zdze la	fnukd	#Participant Covered	Total # Participants.
1.	Behavior Based Safety	2	01.9.21	24	50
1.	Bellavior Baseu Salety	2	27.9.21	26	30
2.	Safety Proficiency In Mech. Maint. and Material Handling.	1	13.9.21	22	22
3.	Safety In Traffic Operation (For T & D)	1	15.9.21	11	11
4.	Gas Safety In Steel Industry.	1	16.9.21	21	21
5.	Cofety Training For Trade Appropria	2	24.9.21	75	150
5.	Safety Training For Trade Apprentice	2	25.9.21	75	130
6.	Defensive Driving	2	06.9.21	27	
0.	Defensive Driving		07.9.21	23	50
7.	Train The Trainer on "Defensive Driving"	1	20.9.21 to	06	06
/.	Trail the trailer on Detersive Driving	1	22.9.21	06	06
			09.9.21	25	- - 176
			10.9.21	25	
			11.9.21	20	
8.	Safety Training on Human Factors.	0	13.9.21	23	
٥.	Safety framing on Human Factors.	8	14.9.21	22	
			15.9.21	25	
			16.6.21	15	
			18.9.21	21	
	Total Number of Programme Conducted		Total Pa	articipants =	486

## **Safety Training For Executives:**

S.NO	Module	# Prog	Date	#Participant	#Total
			13.09.21	27	
			14.09.21	22	
1.	1. Interaction For Safety Encouragement & Engagement.(i-SEE)	5	15.09.21	27	128
			16.09.21	25	
			18.09.21	27	
2.	Train The Trainer on i-SEE	2	6.9.21 to 8.9.21 (3 Days)	7	1.0
2.	Train The Trainer on 1-SEE		9.9.21 to 11.9.21 (3 Days)	7	14
2	Leadership Training	3	2.9.21 to 4.9.21 (3 Days)	22	<b>CO</b>
3.	Leadership Training.	3	6.9.21 to 8.9.21 (3 Days)	25	69

Total Number of Programme Conducted		14	Total Pa	rticipants =	308
J.	BOW-TIE Attatysis	2	24.9.21 to 25.9.21 (2Days)	26	42
5	Bow-Tie Analysis	2	20.9.21 to 21.9.21 (2Days)	16	42
4. Incident Inve	meluent investigation		29.9.21 to 30.9.21 (2 Days)	26	<b>55</b>
	Incident Investigation	2	27.9.21 to 28.9.21 (2 Days)	29	55
			9.9.21 to 11.9.21 (3 Days)	22	

#### **Safety Training For Contractor Workers:**

S.NO	Module	# Prog.	Date	#Participant	TOTAL
1.	Safety Training For Contractor Workers.	2	14.09.21	11	
1.	(Shunting Staff of T & D).	2	28.09.21	11	22
			20.09.21	23	
	Safaty Training On Human Factors	6	21.09.21	20	
2.			22.09.21	25	1.42
2.	Safety Training On Human Factors.		23.09.21	26	143
			24.09.21	25	
			25.09.21	24	
	<b>Total Number of Programme Conducted</b>	8	Total Pa	articipants =	165

#### **Summary:**

\*TOTAL PROGRAMS (For Regular Employees) ORGANISED IN <u>SEPTEMBER.-2021</u>: **32 (18 NE + 14 Exe.)** 

\*TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN <u>AUGUST-2021</u>: **794 (486 NE & 308 Exe.)** 

\*Customized Safety Trg. For Contract Workers <a>SEPTEMBER-2021</a>: # Prog: 8 , #

Participants: 165

\* Refresher Safety Trg. For Contract Workers at Works Area in SEPT.2021: # Prog: 17

Participants: 236

#### Safety Training Status of Reg. Employees at a Glance:

YEAR	No of pro	grammes	No. of employees Covered		Total No. of
TEAR	Exe.	Non Exe	Exe.	Non Exe	Employees Covered
Fin.Year-2021-22	35	5 70	664	1461	2125
(1.4.21 to 30.9.21)	33	70	004	1401	2123
Cal. Year-2021	50	102	1011	2277	3288
(1.1.21 to 30.9.21)	50	102		22//	3200

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## **Safety Training For Non-Executives:**

S.NO	i £î k{k k dk; Zdze dk uke	dk, Zdze la	fnukd	#Participant Covered	Total # Participants.
1	Dehavior Deced Cafety	2	01.10.21	24	44
1.	Behavior Based Safety	2	22.10.21	20	44
2.	Safety Proficiency In Mech. Maint. and Material Handling.	1	05.10.21	17	17
3.	Safety Proficiency In Elect. Maint. and Operation.	1	06.10.21	13	13
4.	Safety In Traffic Operation (For T & D)	1	20.10.21	14	14
5.	Gas Safety In Steel Industry.	1	08.10.21	11	11
6.	Safety Proficiency In Plant Operation	2	04.10.21	16	40
0.	Safety Proficiency in Plant Operation	2	18.10.21	24	40
7.	Achieving Awareness In Occupational Health & First Aid.	1	11.10.21	23	23
8.	Safety Management For C/Man & Supervisor.	1	12.10.21	30	30
9.	Safety In Material Handling & Rigging Practices.	1	19.10.21	22	22
			18.10.21	24	160
			19.10.21	27	
10	Cofety Training on Human Factors		20.10.21	28	
10.	Safety Training on Human Factors.	6	21.10.21	34	
			22.10.21	25	
			23.10.21	22	
	Total Number of Programme Conducted	17	Total Pa	articipants =	374

#### **Safety Training For Executives:**

S.NO	Module	# Prog	# Prog Date #		#Total
1.	Defensive Driving	1	01.10.21	26	26
2.	Behavior Based Safety.	1	07.10.21	19	19
3.	DSO's Role & Responsibility.	1	21.10.21	20	20
4.	Leadership Training.	2	04.10.21 to 06.10.21 (3Days)	30	го
4.			07.10.21 to 09.10.21 (3Days)	28	58
5.	Train The Trainer On "High Hazard	2	18.10.21 to 20.10.21 (3Days)	04	11
J.	Process"		21.10.21 to 23.10.21 (3Days)	07	11
6	Train The Trainer On "Electrical Safety"	2	25.10.21 to 27.10.21 (3Days)	07	12

Total Number of Programme Conducted	0	28.10.21 to 30.10.21 (3Days)	rticipants -	1.16
Total Number of Programme Conducted	9	Total Participants =		146

#### **Safety Training For Contractor Workers:**

S.NO	Module	# Prog.	Date	#Participant	TOTAL
1.	Safety Training For Contractor Workers.	2	09.10.21	14	28
1.	(Shunting Staff of T & D).		23.10.21	14	20
			25.10.21	28	
			26.10.21	30	
2.	Safaty Training On Human Factors	6	27.10.21	25	150
۷.	Safety Training On Human Factors.	0	28.10.21	28	158
			29.10.21	28	
			30.10.21	19	
	Total Number of Programme Conducted		Total Pa	articipants =	186

#### **Summary:**

- \*TOTAL PROGRAMS (For Regular Employees) ORGANISED IN OCTOBER.-2021: 26 (17 NE
- + 9 Exe.)
- \*TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN <u>OCTOBER-2021</u>: **520 (374 NE & 146 Exe.)**
- \*Customized Safety Trg. For Contract Workers OCTOBER-2021: # Prog: 8 , # Participants: 186
- \* Refresher Safety Trg. For Contract Workers at Works Area in OCT.2021: # Prog: 32 Participants: 556

#### Safety Training Status of Reg. Employees at a Glance:

YEAR	No of pro	No of programmes		oloyees Covered	Total No. of	
ILAN	Exe.	Non Exe	Exe.	Non Exe	Employees Covered	
Fin.Year-2021-22 (1.4.21 to 30.10.21)	44	87	810	1835	2645	
Cal. Year-2021 (1.1.21 to 30.10.21)	59	119	1157	2651	3808	

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## **Safety Training For Non-Executives:**

S.NO	i £7' k{k k dk; Zdze dk uke	dk, Zdze la	fnukd	#Participant Covered	Total # Participants.
1.	Behavior Based Safety	1	08.11.21	22	22
2.	Safety Proficiency In Mech. Maint. and Material Handling.	1	12.11.21	22	22
3.	Safety Proficiency In Elect. Maint. and Operation.	1	13.11.21	17	17
4.	Safety In Traffic Operation (For T & D)	1	17.11.21	13	13
5.	Gas Safety In Steel Industry.	1	16.11.21	19	19
6.	Safety Proficiency In Plant Operation	1	09.11.21	14	14
7.	Achieving Awareness In Occupational Health & First Aid.	1	15.11.21	21	21
			08.11.21	28	
			09.11.21	27	
			10.11.21	28	
			11.11.21	26	
			12.11.21	27	269
8	Safety Training on Human Factors.	10	13.11.21	32	
			15.11.21	26	
			16.11.21	26	
			17.11.21	15	
			18.11.21	34	
			22.11.21 to	-	
_	T . T T . "	2	24.11.21(3Days)	7	
9	Train The Trainer on "Human Factor"		25.11.21 to	_	12
			27.11.21(3Days)	5	
			16.11.21	22	
			17.11.21	22	-
			18.11.21	19	
			19.11.21	22	204
10	Intensified Safety Training For RSM During CR	9	20.11.21	23	
			22.11.21	19	
			23.11.21	26	
			24.11.21	26	
			25.11.21	25	1
11	Safety Training For Trade Apprentice	1	26.11.21	75	75
12	Defensive Driving	2	29.11.21	29	56

		30.11.21	27	
Total Number of Programme Conducted	31	Total Pa	articipants =	744

#### **Safety Training For Executives:**

S.NO	Module	# Prog	Date #Particip		#Total
1.	Behavior Based Safety.	1	11.11.21	19	19
2.	Interaction On Safety Encouragement &	2	19.11.21	29	Ε0
۷.	Engagement. (i-see)	2	20.11.21	21	50
3.	Goal & Role of Safety Professionals.	1	15.11.21 to 16.11.21 (2Days)	24	24
4.	4	2	08.11.21 to 10.11.21 (3Days)	23	F0
4.	Leadership Training.		11.11.21 to 13.11.21 (3Days)	27	50
5.	Train The Trainer On "High Hazard	2	22.11.21 to 24.11.21 (3Days)	05	00
] 3.	Process"		25.11.21 to 27.10.21 (3Days)	04	09
To	tal Number of Programme Conducted	umber of Programme Conducted 8 Total Participants		articipants =	152

#### **Safety Training For Contractor Workers:**

S.NO	Module	# Prog.	Date	#Participant	TOTAL
1.	Safety Training For Contractor Workers.	1	20.11.21	13	12
1.	(Shunting Staff of T & D).	1	20.11.21	13	13
2.	Safety Training For Contracor Workers	1	18.11.21	25	25
۷.	(Crane Operators)	_	10.11.21	23	25
			19.11.21	27	
			20.11.21	28	
2.	Safety Training On Human Factors.	5	22.11.21	22	127
			23.11.21	28	
			24.11.21	22	
	Total Number of Programme Conducted		Total Pa	articipants =	165

#### **Summary:**

\*TOTAL PROGRAMS (For Regular Employees) ORGANISED IN NOVEMBER.-2021: 39 (31 NE + 8 Exe.)

\*TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN  $\underline{\text{NOVEMBER-2021}}$ : 896 (744 NE & 152 Exe.)

\*Customized Safety Trg. For Contract Workers NOVEMBER -2021: # Prog: 7 , #

Participants: 165

\* Refresher Safety Trg. For Contract Workers at Works Area in NOV.2021: # Prog: 13

Participants: 174

## <u>Safety Training Status of Reg. Employees at a Glance:</u>

YEAR	No of programmes		No. of employees Covered		Total No. of
TEAN	Exe.	Non Exe	Exe.	Non Exe	Employees Covered
Fin.Year-2021-22	52	118	962	2579	3541
(1.4.21 to 30.11.21)	32	110	302	2373	3341
Cal. Year-2021	67	150	1309	3395	4704
(1.1.21 to 30.11.21)	07	130	1309	3393	4704

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## **Safety Training For Non-Executives:**

S.NO	i <b>£</b> 'k k k dk, <b>Z</b> he dk uke	dk, Zdze la	fnukd	#Participant	Total #
			•	Covered	Participants.
1.	Behavior Based Safety.	1	01.12.21	24	24
2.	Safety Proficiency In Plant Operation	1	02.12.21	15	15
3.	Safety Proficiency In Mech. Maint. and Material Handling.	1	03.12.21	20	20
4.	Safety Proficiency In Elect. Maint. and Operation.	1	04.12.21	13	13
5.	Achieving Awareness In Occupational Health & First Aid.	1	06.12.21	20	20
6.	Gas Safety In Steel Industries.	1	07.12.21	24	24
7.	Safety In Traffic Operation (For T & D)	1	08.12.21	12	12
			06.12.21	28	
	Safety Training on Human Factors.	9	07.12.21	27	226
			08.12.21	22	
			09.12.21	26	
8			10.12.21	25	
			11.12.21	28	
			13.12.21	19	
			14.12.21	24	
			15.12.21	27	
			03.12.21	15	
	Intensified Sefety Training For DRM Dusing CD	4	04.12.21	20	67
9	Intensified Safety Training For BRM During CR	4	06.12.21	16	
			07.12.21	16	
	Total Number of Programme Conducted 20 Total Participants =				421

#### **Safety Training For Executives:**

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Leadership Training.	1	02.12.21 to 04.12.21 (3Days)	21	21
2.	Train The Trainer On "Defensive Driving"	1	06.12.21 to 08.12.21 (3Days)	10	10
3.	Incident Investigation.	1	09.12.21 to 10.12.21 (2Days)	22	22

4	Audit Training For Executives	1	11.12.21	1	23
_	Train The Trainer On "Working at	2	13.12.21 to 15.12.21 (3Days)	7	1.4
5. Height"	Height"		16.12.21 to 18.12.21 (3Days)	7	14
То	tal Number of Programme Conducted	6	Total Participants =		90

#### **Safety Training For Contractor Workers:**

S.NO	Module	# Prog.	Date	#Participant	TOTAL
			16.12.21	30	135
	Safety Training On Human Factors.		17.12.21	29	
1.		5	18.12.21	26	
			20.12.21	20	
			21.12.21	30	
	Total Number of Programme Conducted		Total Pa	articipants =	135

#### **Summary:**

- \*TOTAL PROGRAMS (For Regular Employees) ORGANISED IN <u>DECEMBER.-2021</u>: **26 (20 NE + 6 Exe.)**
- \*TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN <u>DECEMBER-2021</u>: **511 (421 NE & 90 Exe.)**
- \* Safety Trg. For Contractor Workers in <u>DECEMBER -2021</u>: # Prog: **5**, # Participants: **135**
- \* Refresher Safety Trg. For Contract Workers at Works Area in <u>DEC.2021</u>: # Prog: ..

Participants: ...

#### Safety Training Status of Reg. Employees at a Glance:

YEAR	No of programmes		No. of employees Covered		Total No. of
TEAR	Exe.	Non Exe	Exe.	Non Exe	Employees Covered
Fin.Year-2021-22	58	138	1052	3000	4052
(1.4.21 to 31.12.21)	30	130	1001	3000	
Cal. Year-2021	73	170	1399	3816	5215
(1.1.21 to 31.12.21)	/3	1/0	1333	3010	3215

## FLAG-C

## Corporate Environment Responsibility

Status As On December 2021

Activity / Projects being carried out through Budget for ESC (Enterprise Social Commitment)/CER (Corporate Environment Responsibility)

(Status as on Dec. 2021)

Ministry of Environment Forests & Climate change (MoEFCC) has granted Environmental Clearance (EC) vide MoEFCC F.No.J-11011/28/2007-IA-II(I) dated 24.05.2019 for "Revised Configuration of Modernization-cum-Expansion of 7.0 MTPA Bhilai Steel Plant". The following schemes are to be implemented against Corporate Environment Responsibility (CER) identified during public hearing a value of approx 232.25 Lakhs. For implementation of the CER schemes, management has accorded approval for Rs. 229.75 lakhs under the capital budget.

	S. No.	SAIL Plant /Unit	Locati on	Name of Project/Activity (Brief detail of the project, duration)	Approx. Amount earmarked for the project	Status (as on Dec. 2021)
	1. BSP	BSP	Selud, Durg	I. New Bore well fitted with Solar operated pump with storage tank at three places to be provided.	15.00	Digging of 03 nos. bore-wells is completed in village Selud, .Bore wells will to be fitted with solar pumps through CREDA. Extension of time is granted to complete the work.
				II. Four Seater Sulabh Shauchalya at Bazar Chowk to be constructed.	6.00	Completed. (Image attached)
				III. Sports equipments for boys and girls to be provided.	0.50	Completed

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## Village - Selud (Status as on Dec. 2021)



Public toilet
Bazaar Chowk (side by Gram Panchayat office)

S.No	SAIL Plant/ Unit	Locati on	Name of Project/Activity (Brief detail of the project, duration <sup>)</sup>	Approx.Amou nt earmarked for the project	Status
2.	BSP	Khapri (Kutel abhata ),Durg	I. Construction of Boundary wall of Panchayat Bhawan along with tree plantation all around the periphery.	10.00	Completed.
			II. New Bore wells at 2 locations fitted with Solar operated Pumps to be provided.	10.00	Digging of 02 nos. bore-wells is completed in village Khapri. Bore wells will to be fitted with solar pumps through CREDA
			III. Two extra rooms in Govt. Primary School to be constructed.	10.00	Completed.
			IV. Dustbin for 10 villages to be provided	0.50	Completed
			V. Beautification and tree plantation around Shitala Talab to be provided.	2.00	Completed

S.No.	SAIL Plant/ Unit	Locat ion	Name of Project/Activity (Brief detail of the project, duration <sup>)</sup>	Approx.Amo unt earmarked for the project	Status (as on Dec. 2021)
3.	BSP	Duma rdih ,Durg	I. Service road from main road cremation ground approx700 meters to be cemented	10.00	Construction of concrete road to cremation ground At village Dumardih 50% of road work completed. Extension of time ugranted to complete the work.(Image attached)
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	7.00	Providing and fixing GI pipe line for drinking water not started.
4.	BSP	P Pauw ara,D urg	I. Sanitary Pad Machine women group to be provided	3.00	Tendering process for the same in progress. Delay due to COVID and lockdown.
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	7.00	Work not started Extension of time is granted to complete the work.
			III. Tree plantation at new talab to be provided	1.00	Completed
			IV. Funds to be provided Sarpanch for cleaning of Wells with supervision / monitoring by BSP.	1.00	Completed
			V. Syntax tank with pump to		

## Village - Dumardih Status (as on Dec. 2021)



Construction of concrete road to cremation ground

S.No.	SAIL Plant/ Unit	Locat ion	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amoun t earmarked for the project	Status
5.			I. Garage for School Bus at Muskan School to be constructed.	1.00	Completed.
6.	BSP	Durg	I. Four Seater Sulabh Shauchalya at Govt. Middle school for boys to be constructed. II. Boundary wall at high school of length 165 meter(Cancelled) CC road to be constructed.	3.00 15.00	Work completed. (Image attached)  CC road Work not started Extension of time up to 13.11.2021 is granted to complete the work. Extra extension of time
	Dan	Dnuara	I. Four seater Sulabh Shauchalya at Khadan Talab for both men and women to be constructed.  II. Additional 2 class rooms at High school premise to be constructed.	12.00 10.00	granted with penalty. Completed. (Image attached)  Completed.
7.	BSP	bhatta, Durg	<ul><li>III. Boundary wall of approx.</li><li>380 meters to be constructed at high school</li></ul>	20.00	Completed.

## Village- Dhaurabhata (Status as on Dec. 2021)



Construction of Four seater Sulabh Shauchalya at Khadan Talab Completed.



Construction of separate toilet for boys Completed.



Construction of separate toilet for girls Completed

## Village -Patora (Status as on Dec. 2021)



Four Seater Sulabh Shauchalya at Govt. Middle school for boys .(completed)

S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx. Amount earmarked for the project	Status (as on Dec. 2021)
		Mahakaka la- Mudpaar, Durg	I. Pipeline for drinking water pipeline to be extended further by 1000 m approx. meters in ward no 01,06,04	7.00	GI pipeline work 80% completed. Work is in progress . (Image attached)
8.	BSP		II. C.C. road to be constructed at ward no 05 for approx. 250 meters.	4.00	Concrete road infront of school & panchayat completed.
			III. C.C. road to be constructed at ward no 04 for approx. 250 meters.	4.00	50% work completed.
			IV. Four seater Sulabh Shauchalya for boys and girls to be constructed.	12.00	Completed. (Image attached)
		Aundhi,Du rg	I. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	7.00	Completed.
9.	BSP		II. C.C. road to be constructed from Ward No 14 Ward No 20 Will be taken up through CSR department of BSP	10.00	Completed.
		Pahandor	I. New Bore wells at required location fitted with solar	40.00	Two Boring was done.
10.	BSP		operated Pumps to be provided.	10.00	
	231		II Pineline for drinking water		Work is in progress

## **Status of CER Projects MahakakalaAs on Dec 2021**









Toilet for school students 1 for boys and 1 for girls: Completed. (Mahakakala)

Pipeline work for drinking water (Mahakakala)

S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on Dec. 2021)
11.	BSP		I. One E-rickshaw to be provided facilitate the plantation activities	3.00	Completed
			II. One Power driven portable drilling machine facilitate the plantation activities	1.00	Completed
			I. New Bore well fitted with Solar operated pump with storage tank at one place to be provided	5.00	Completed.
12.	BSP	urd, Durg	II. Four seater Sulabh Shauchalya for men and women to be constructed	12.00	Completed. (Image attached)
			Total	232.25	

## Village-Mahakakhurd (Status of CER Projects As on Dec. 2021)



Combined Public toilet (Both men & women) Completed:

Mahaka khurd

## Note:

Bore wells to be fitted with solar pumps through CREDA. Value approx Rs. 45,44,000

PO of value Rs 46,44,085.3 has been placed for Construction of Sulabh Shauchalya at 6 locations.

# FLAG-D



#### CHHATTISGARH ENVIRONMENT CONSERVATION BOARD

## PARYAVAS BHAWAN, NORTH BLOCK, SECTOR -19, ATAL NAGAR, RAIPUR (C.G.) 492002

E-mail: hocecb@gmail.com, Ph. No. 0771-2512220

No. 7022/HSMD/HO/CECB/2019

Raipur, Date 18/11/2019

To,

M/s Bhilai Steel Plant, Ispat Bhawan, Bhilai, Distt. - Durg (C.G.)

Sub:-

Renewal of authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

Ref:-

- 1. Grant of authorization No. 956/HO/HSMD/CECB/2018 Dated 17/04/2018.
- 2. Your Online application no. 2531743 dated 11/03/2019 & Subsequent Correspondence ending dated 03/04/2019.

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The authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 is hereby renewed for the period of **Five Years** i.e. from **17/04/2019 to 16/04/2024.** The details of authorization along with terms & conditions are given as per below:-

## FORM 2 [See rule 6 (2)]

GRANT OF AMENDMENT AND SUBSEQUENT RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

- 1. Number of authorization 278/HO/HSMD/CECB/ATAL NAGAR, RAIPUR.
- 2. Reference of Online application no. 2531743 dated 11/03/2019 & Subsequent Correspondence ending dated 03/04/2019.
- 3. The operator of facility i.e. occupier M/s Bhilai Steel Plant, Ispat Bhawan, Bhilai, Distt. Durg (C.G.) is hereby granted an authorization based on the signed inspection report from RO for generation, collection, storage, transport, treatment, reuse, recycle and disposal of hazardous wastes in the premises situated at Ispat Bhawan, Bhilai, Distt. Durg (C.G.).

## **Detail of Authorisation**

Sl.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilization or coprocessing etc.	Quantity (Tonnes/Annum)
1.	Benzol acid sludge / Acid Tar Sludge (Schedule-I, Cat.No 3.3)	Incineration in the CTSDF of other state / co-processing in cement kiln	2500 T/Year
2.	Tar storage tank residue (Schedule-I, Cat.No 13.5)	To be sold to authorized reprocessor / Incineration in the CTSDF / co-processing in cement kiln	1500 T/Year
3.	Decanter tank tar sludge (Schedule-I, Cat.No 13.4)	To be sold to authorized reprocessor / Incineration in the CTSDF / / co-processing in cement kiln	4000 T/Year
4.	Used or spent oil (Schedule-I, Cat.No 5.1)	To be sold to authorized recyclers	500 T/Year
5.	Spent solvents (Schedule-I, Cat.No 20.2)	To be sold to authorized recyclers	500 T/Year
6.	Oil and grease skimming (Schedule-I, Cat.No 35.4)	To be sold to authorized recyclers	100 T/Year
7.	Chemical sludge from waste water treatment (Schedule-I, Cat.No 35.3)	Reuse in the coke making process / Incineration in the CTSDF / co-processing in cement kiln	2500 T/Year
8.	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (Schedule-I, Cat.No 33.1)	To be sold to authorized recyclers	275 T/Year
9.	Process acidic residue, filter cake, dust (Schedule-I, Cat.No 17.1)	To be disposed in to CTSDF	500 T/Year
10.	Copper Compound (Schedule II, A 66)	To be sold to authorized recyclers	400 T/Year
11.	Lead and Lead Compounds (Schedule II, A 5)	To be sold to authorized recyclers	50 T/Year
12.	Asbestos (Schedule II B 1)	To be disposed in to CTSDF	80 T/Year

- (1) The authorization shall be valid for the period of Five Years i.e. from 17/04/2019 to 16/04/2024.
- (2) The authorization is subject to the following conditions:

#### TERMS & CONDITIONS OF AUTHORIZATION

- 1. The authorization shall comply with the provisions of Environment (protection) Act, 1986 and the rules made there-under.
- 2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Chhattisgarh Environment Conservation Board.
- 3. The person authorized shall not rent, lend, sell transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Chhattisgarh Environment Conservation Board.
- 4. Any unauthorized change in personnel, equipment, or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- 5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
- 6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
- 7. It is the duty of the authorized person to take prior permission of the Chhattisgarh Environment Conservation Board to close down the facility.
- 8. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 9. Industry shall prepare emergency response plan (ERP) and ensure implementation the same at the event of any accident occurs due to handling and transporting of hazardous waste as per CPCB guideline.
- 10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per standard operating procedures/guidelines issued by CPCB from time to time.
- 11. An application for the renewal of an authorisation shall be made three months before the expiry of authorization as laid down in the Rules.
- 12. Annual return in form IV shall be filed by June 30th for the period ending 31st March of the last financial year.
- 13. The wastes shall be collected and stored properly with adequate safety measures as per rule.
- 14. Authorized person shall comply with the provisions of rule 17, 18 and 19 for packing, labeling and transport of Hazardous Waste.
- 15. The authorized person should maintain the record of Hazardous Waste as per Form-3 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
- 16. The occupier shall follow the guidelines (if any) issued by Central Pollution Control Board or MoEF & CC for management of Hazardous waste from time to time.
- 17. The industry shall display data outside factory gate on quantity and nature of hazardous chemicals and wastes being used in the plant, water and air emissions and solid wastes generated within the factory premises.
- 18. Industry shall ensure disposal of hazardous waste generated during the production process through authorized recycler/Co-processing in cement plant/captive disposal facility/arrangement for sharing of authorized disposal facility/common TSDF as per rule. Failing which this authorization shall be treated as cancelled and appropriate action would be initiated against the industry.

- 19. Industry shall create new website for Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 and upload all the information above the waste in the website.
- 20. The waste must be given thermal/biological/physico-chemical treatment; the waste should be completely dewatered, detoxified, and proper conditioned and any possible recovery is made before their disposal.
- 21. The industry should constitute a hazardous waste management cell to take care of the management aspect to the hazardous waste generated in the plant.
- 22. An on-site storage of the hazardous wastes for a maximum period of 90 days should be provided and it shall be ensured that there is no leakage or seepage from the surrounding walls or bottom. The site should be covered and properly protected to prevent the entry of rain water in storage area.
- 23. At least four nos. of peizometric points should be provided around the storage site of H.W. to monitor the leaching of the waste and monitoring report shall be submitted to the board in every six months. Each type of waste shall be stored in a separate storage cell.
- 24. The discarded containers of Hazardous waste and chemical shall not be used for storage of food grade products. At the storage site "Hazardous waste storage site & danger signboard" shall be provided with all safety devices.
- 25. In the event of any accident due to handling of hazardous waste the authorized person must inform immediately to the Concerned Regional Office and H.O., Atal Nagar, Raipur of the Board by fax/telephone or by E-mail about the incident and details report be sent in form no. 11 [see rule 22].
- 26. The authorization obtained by the Chhattisgarh Environment Conservation Board should be prominently displayed.
- 27. Used batteries shall be disposed of as per the Batteries (Management & Handling) Rules, 2001.
- 28. Board reserves the right to cancel/amend the above condition and add new conditions as and when deemed necessary.

**Member Secretary** 

C.G. Environment Conservation Board Atal Nagar, Raipur (C.G.)

Endt. No. 7023/H.O./HSMD/CECB/2019 Atal Nagar, R

Atal Nagar, Raipur, Date 18/11/2019

Copy to:- Regional Officer, Regional office, Chhattisgarh Environment Conservation Board, Durg (C.G.) please ensure compliance and report, if any condition/conditions are violated by the industry.

Sd/Member Secretary
C.G. Environment Conservation Board
Atal Nagar, Raipur (C.G.)

April 2021 to Sep. 2021

# FLAG E

**E-1** 

## **Stack emission**

April 2021 to Sep. 2021

## Month- April 2021

A.						Stack emission					
Name of the Plant	Stack connected to (Name of the	Height of the stack	Diameter of the stack (m)	Pollution Control unit	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue gas	Parameter (whichever	s are applicab (9)	le)	
(1)	unit) (2)	(m) (3)	(4)	provided (Name) (5)	(6)	monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg /Nm3)	SO <sub>2</sub> (250mg/Nm3)	NO <sub>x</sub> (150mg/Nm 3)	CO (Norm : 1%)
	•				Blas	t Furnace					
BF-5 (Process)	Stoves	60	3	.5 GCP (Scrub ber)	07 Apr, 09:45- 10:50 (65 Minute)	2653	116185	19.15	112.00	135.20	0.78 %V/V
BF-7 (Process)	Stoves			do	26 Apr, 10:00- 11:10 (70 Minute)	3255	98847	20.89	114.60	136.00	0.77 %V/V
BF-7 (Spa				GCP (Scrub ber)	09 Apr, 10:45- 11:25 (40 Minute)	-	-	49.18	-	-	
					9	SMS-2		•	•	•	
LF-1	Ladle Furnace	60	1.6	Bag Filter	06 Apr, 10:45- 11:05 (20 Minute)	2280	103581	49.01	95.30		-
LF-2	Ladle Furnace	50	1	.5 Bag Filter	19 Apr, 09:45- 10:30 (45 Minute)	3480	104910	25.21	73.80		-
A.						Stack emission					
Name of the Plant	to (Name	Height of the stack	r of the stack	Pollution Control unit	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue	Parameters (whichever are applicable) (9)			
(1)	of the unit) (2)	(m) (3)	•	provided (Name) (5)	(6)	monitoring (7)	gas (8)	Particulate matter(PM) (Norm:50 mg/Nm3)	<b>SO<sub>2</sub></b> (Norm:800 mg/Nm3 <sub>)</sub>	NO <sub>x</sub> (Norm:500 mg/Nm3)	CO (Norm: 3 kg/T of Coke

					Coke Oven							
Battery No. 1	Battery	100	3.5	5 Nil	27 Apr, 09:40-10:45 (65 Minute)	659	115583	45.20	140.00	158	8.90	2.63 Kg/T coke
Battery No. 3	Battery	100	3.5	5 Nil	17 Apr, 09:15-10:15 (60 Minute)	715	114865	47.82	115.20	120	6.30	2.71Kg/T coke
Battery No. 4	Battery	100	3.5	5 Nil	17 Apr, 10:30-11:30 (60 Minute)	670	118186	46.09	108.40	118	8.00	2.66 Kg/T coke
Battery No. 5	Battery	100	3.5	5 Nil	24 Apr, 09:15-10:15 (60 Minute)	860	114857	42.42	95.60	202	2.40	2.58 Kg/T coke
Battery No. 6	Battery	100	3.5	5 Nil	24 Apr, 10:30-11:30 (60 Minute)	860	115501	44.14	94.80	164	4.00	2.67 Kg/T coke
Battery No. 9	Battery	100	3.5	5 Nil	01 Apr, 09:45-10:50 (65 Minute)	1789	212899	48.74	146.20	154	4.50	2.52 Kg/T coke
Battery No. 11	Battery	120	4.2	2 Nil	02 Apr, 10:00-11:00 (60 Minute)	1729	193741	44.32	99.90	245	5.00	2.64 Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	3.0	Absorp tion Tower	13 Apr, 10:15-10:50 (35 Minute)	84	10195	-	2.340 Kg/T H <sub>2</sub> SO4		-	-
A.					Stack e	mission						
Name of the Plant	Stack connected	Height of the	Diam eter	Pollution Control	Date & Time of the monitoring(duration)	Production fig. of the	Flow rate of	Parameter (whichever		licabla)	<b>\</b>	
the Flant	to (Name	stack	of the	unit	(6)	unit,	the flue	(will cheve	i are app	(9)		
(1)	of the unit) (2)	(m) (3)	stack (m) (4)	provided (Name) (5)		during the period of monitoring (7)	gas (8)	Particulate matter(PM) (Norm:50mg m3)		n:600	NO, (Norm 0mg/N	:60 <b>CO</b>
					Sinter Plant							
	Cintoring			Multi-	SP-2 20 Apr, 09:05-09:45 (40							
SP-2 (M/c-1)	Sintering Machine	100	6	Cyclone	Minute)	6010	246829	42.05	93	3.40	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	Multi- Cyclone	20 Apr, 10:00-10:40 (40 Minute)	6010	245475	47.35	87	7.90	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	Multi- Cyclone	10 Apr, 11:45-12:20 (35 Minute)	8120	241237	47.81	70	0.50	-	-

SP-2 (M/c-4)	Sintering Machine	100	6		10 Apr, 11:00-11:20 (20 Minute)	8120	246986	48.64	58.27	-	-
SP-2, (Space dedusting)				FYP	29 Apr, 10:00-10:45 (45 Minute)	-	-	48.22	-	-	-
	•			·	SP-3		·				•
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	03 Apr, 10:35-11:15 (40 Minute)	7732	490196	35.62	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	05 Apr, 10:10-10:55 (45 Minute)	6086	504043	48.15	-	-	-
	•				TPP/CPP		•				
Boiler 1	Boiler	80	4.3	ESP	22 Apr, 08:50-09:25 (35 Minute)	2360	115390	38.16	94.60	110.20	-
Boiler 2	Boiler	80	4.3	ESP	22 Apr, 09:45-10:30 (45 Minute)	1930	116642	41.12	98.20	102.40	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	15 Apr, 10:45-11:30 (45 Minute)	1950	82660	47.40	98.20	108.60	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	15 Apr, 11:35-12:15 (45 Minute)	2080	80090	46.75	101.40	119.00	
					RMP2						
RK	Rotary Kiln	60	2	Bag Filter	14 Apr, 10:45-11:30 (45 Minute)		41.2				

April 2021 to Sep. 2021

## Month- May 2021

A.						9	Stack emission					
Name of the Plant	conn	Stack nected to ne of the	Height of the stack	of the	Pollution Control unit	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue gas	Parameter (whichever	s are applical (9)	•	
(1)		init) (2)	(m) (3)	(4)	provided (Name) (5)	(6)	monitoring (7)	(8)	Particulate matter(PM)(N orm:50mg/N m3)	SO <sub>2</sub> (250mg/Nm3)	NO <sub>x</sub> (150mg/Nm 3)	CO (Norm : 1%)
	I			-		Blast	Furnace			1		
BF-1 (Process)	S	toves	60	2.	GCP (Scrub ber)	11 May, 09:00- 10:10 (70 Minute)	1853	56297	20.02	110.00	119.00	0.76 % V/V
BF-8 (Process)	S	toves			do	29 May, 08:45- 09:45 (60 Minute)	7003	152759	21.79	78.60	86.80	0.78% V/V
BF-7 (Spa					GCP (Scrub ber)	20 May, 10:45- 11:30 (45 Minute)	-	-	43.91	-	-	-
_	•					S	MS-2					
LF-1	Ladle	Furnace	60	1.6	5 Bag Filter	18 May, 10:30- 11:00 (30 Minute)	2040	106323	48.96	97.50		-
LF-2	Ladle	Furnace	50	1.	5 Bag Filter	17 May, 10:05- 10:50 (45 Minute)	2880	103227	43.15	78.20		-
A.							Stack emission					
Name of Plant		Stack connecte d to	Height of the stack	Diamete r of the stack	Pollution Control unit	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue	Parameters (whichever are applicable) (9)			
(1)		(Name of the unit) (2)	(m)	(m) (4)	provided (Name) (5)	(6)	monitoring (7)	gas (8)	Particulate matter(PM)( Norm:50m	<b>SO</b> <sub>2</sub> (Norm:800 mg <sub>/</sub> Nm3 <sub>)</sub>	NO <sub>x</sub> (Norm:500 mg/Nm3)	CO (Norm: 3 kg/T of Coke

								g/Nm3 <b>)</b>				
					Coke Oven							
Battery No. 1	Battery	100	3.5	5 Nil	01 May, 08:50-10:00 (70 Minute)	670	119557	34.46	152.80	165	5.20	2.58 Kg/T coke
Battery No. 3	Battery	100	3.5	5 Nil	22 May, 09:30-10:30 (60 Minute)	715	118734	43.31	108.60	122	2.42	2.69Kg/T coke
Battery No. 4	Battery	100	3.5	5 Nil	22 May, 10:45-11:45 (60 Minute)	670	121508	44.54	113.20	119	9.35	2.68 Kg/T coke
Battery No. 5	Battery	100	3.5	5 Nil	27 May, 11:10-12:00 (50 Minute)	782	112289	46.70	124.00	329	9.00	2.61 Kg/T coke
Battery No. 6	Battery	100	3.5	5 Nil	29 May, 11:20-12:20 (60 Minute)	804	118392	45.58	94.00	208	3.00	2.65 Kg/T coke
Battery No. 8	Battery	100	3.5	5 Nil	04 May, 09:30-10:30 (60 Minute)	670	111954	48.60	82.40	105	5.80	2.64 Kg/T coke
Battery No. 9	Battery	100	3.5	5 Nil	04 May, 10:45-11:45 (60 Minute)	1669	234064	43.03	113.80	160	0.20	2.55 Kg/T coke
Battery No. 11	l Battery	120	4.2	2 Nil	11 May, 11:15-12:15 (60 Minute)	1246	180509	42.12	196.00	235	5.80	2.61 Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	3.0	Absorp tion Tower	15 May, 11:00-11:35 (35 Minute)	76	10381	-	2.491 Kg/T H₂SO4		-	-
A.	·				Stack e	mission						
Name of the Plant	Stack connected to (Name	Height of the stack	Diam eter of the	Pollution Control unit	Date & Time of the monitoring(duration) (6)	Production fig. of the unit,	Flow rate of the flue	Parameter (whichever	r are appli	cable) (9)		
(1)	of the unit) (2)	(m) (3)	stack (m) (4)	provided (Name) (5)		during the period of monitoring (7)	gas (8)	Particulate matter(PM) (Norm:50mg m3)			NO <sub>x</sub> (Norm: 0mg/Nr	60 <b>CO</b>
					Sinter Plant				•			•
		1	,	,	SP-2	T	1				Γ	
SP-2 (M/c-2)	Sintering Machine	100	6	Multi- Cyclone	13 May, 09:40-10:25 (45 Minute)	2014	247763	46.47	79	.60	-	-
SP-2 (M/c-3)	Sintering	100	6	Multi-	08 May, 09:05-09:45 (40	2263	233764	47.17	70	.35	-	-

	Machine			Cyclone	Minute)						
SP-2 (M/c-4)	Sintering Machine	100	h		08 May, 10:00-10:45 (45 Minute)	2263	236252	48.82	65.40	-	-
					SP-3						
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	20 May, 09:50-10:30 (40 Minute)	4222	520745	45.34	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	06 May, 09:45-10:30 (45 Minute)	4914	521814	43.15	-	-	-
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	27 May, 09:05-09:50 (45 Minute)	2545	115773	47.04	98.20	114.00	-
Boiler 2	Boiler	80	4.3	ESP	27 May, 10:00-10:45 (45 Minute)	2645	114477	48.95	102.50	116.40	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	25 May, 09:10-09:55 (45 Minute)	2140	85163	48.26	120.62	128.60	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	25 May, 10:00-10:45 (45 Minute)	2745	82478	46.61	122.32	135.20	

April 2021 to Sep. 2021

## Month-June 2021

A.						9	Stack em	ssion					
Name of the Plant	Stac connect (Name o	ed to	of the	of the	Pollution Control unit	Date & Time of the monitoring (duration)	Production the unit, of the period	luring 1 of	Flow rate of the flue gas	Parameters (whichever	s are applicat (9)	ole)	
(1)	unit (2)	-	(m)		provided (Name) (5)	(6)	monitorii (7	•	(8)	Particulate matter(PM) (Norm:50mg /Nm3)	SO <sub>2</sub> (250mg/Nm3)	NO <sub>x</sub> (150mg/Nm 3)	CO (Norm : 1%)
	•			•		Blast	Furnace			, ,			
BF-6 (Process)	Stove	es	60	3.	GCP (Scrub ber)	30 Jun, 08:00- 09:05 (65 Minute)	13	40	117185	18.19	110.00	124.00	0.81 % V/V
BF-5 (Spa					Bag filter	26 Jun, 10:00- 10:45 (45 Minute)		-	-	42.02	-	-	-
						S	MS-2				_		
LF-1	Ladle Fur	rnace	60	1.6	5 Bag Filter	04 Jun, 11:25- 12:00 (35 Minute)	20	40	110006	47.48	106.00		-
LF-2	Ladle Fur	rnace	50	1.	5 Bag Filter	29 Jun, 11:45- 12:30 (45 Minute)	27	60	107727	48.45	79.60		-
A.							Stack e	mission					
Name of t Plant	con d to	necte O	Height of the stack	Diamete r of the stack	Pollution Control unit	Date & Time of the monitoring (duration)	Producti the unit, the perio	during od of	Flow rate of the flue		are applicabl (9)	e)	
(1)	the	ime of unit) (2)	(m) (3)	(m) (4)	provided (Name) (5)	(6)	monitori	ng 7)	gas (8)	Particulate   SO <sub>2</sub>   NO <sub>x</sub>   (Norm:500   Norm:500   3 kg/*			CO (Norm: 3 kg/T of Coke
						Col	ke Oven						
Battery N	o. 1 Ba	attery	100	3.5	Nil	07 Jun, 10:30-11:3 Minute)	30 (60	882	123371	46.33	129.40	144.30	2.62 Kg/T coke

SP-2 (M/c-4)	Sintering Machine	100	6	Multi- Cyclone	22 Jun, 11:50-12:35 (45 Minute)	1938	231802	46.95		72.8	30	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	Multi- Cyclone	22 Jun, 11:00-11:40 (40 Minute)	1938	232387	48.32		60.9	00	-	-
SP-2 (M/c-2)	Sintering Machine	100	6		29 Jun, 10:50-11:30 (40 Minute)	2053	244293	47.74	1	82.4	10		
SP-2 (M/c-1)	Sintering Machine	100	6	Multi- Cyclone	29 Jun, 10:00-10:40 (40 Minute)	2053	239501	45.58		62.3	30	-	-
			, l.		SP-2	•	•	•					
(1)	of the unit) (2)	(m) (3)	stack (m) (4)	provided (Name) (5)		during the period of monitoring (7)	gas (8)	Particulate matter(PM (Norm:50n m3)	1)	SO <sub>2</sub> (Norm: mg/Nm	600	NO <sub>x</sub> (Norm:60 0mg/Nm <sup>2</sup>	
the Plant	connected to (Name	of the stack	eter of the	Control unit	monitoring(duration) (6)	fig. of the unit,	rate of the flue	(whichev		e applic (9	-		
A. Name of	Stack	Height	Diam	Pollution	Stack e	mission Production	Flow	Paramete	) MC				
DCDA Acid Plant	DCDA Acid Plant	40	0.0	Absorp tion Tower	18 Jun, 11:15-11:50 (35 Minute)	84	9328	-	К	041 g/T S04	-		-
Battery No. 11		120	4.2	2 Nil	03 Jun, 10:15-11:15 (60 Minute)	1568	178461	44.39	10	7.00	205	.00	.60 Kg/T coke
Battery No. 9	Battery	100	3.	5 Nil	02 Jun, 10:50-11:35 (45 Minute)	1729	225683	47.03	11	2.00	124	.00	.58 Kg/T coke
Battery No. 8	Battery	100	3	5 Nil	02 Jun, 09:20-10:20 (60 Minute)	648	116254	45.00	86	5.40	136	.20	.59 Kg/T coke
Battery No. 6	Battery	100	3.5	5 Nil	24 Jun, 11:30-12:30 (60 Minute)	826	120574	45.33	93	3.00	177	.00	63 Kg/T coke
Battery No. 5	Battery	100	3.	5 Nil	24 Jun, 10:20-11:20 (60 Minute)	860	116795	47.90	12	3.00	215	.00	.64 Kg/T coke
Battery No. 4	Battery	100	3.5	5 Nil	23 Jun, 10:35-11:35 (60 Minute)	648	121573	46.56	11	8.00	126	.90	67 Kg/T coke
Battery No. 3	Battery	100	3.5	5 Nil	23 Jun, 09:30-10:30 (60 Minute)	838	119076	43.64	11	0.20	128	.40	65 Kg/T coke

SP-3 (M/c-1)	Sintering Machine	120	7	ESP	17 Jun, 11:00-11:45 (45 Minute)	4813	499937	42.29	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	15 Jun, 11:00-11:40 (40 Minute)	8566	519042	39.30	-	-	-
SP-3, M/c- 1(Space dedusting)				ESP	30 Jun, 09:30-10:10 (40 Minute)	-	-	46.53			
SP-3, M/c- 2(Space dedusting)				ESP	09 Jun, 10:45-11:30 (45 Minute)	-	-	48.14			
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	01 Jun, 11:00-11:45 (45 Minute)	2570	115146	47.97	102.00	125.30	-
Boiler 2	Boiler	80	4.3	ESP	01 Jun, 11:55-12:40 (45 Minute)	2625	118167	47.41	122.40	131.70	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	30 Jun, 12:30-01:15 (45 Minute)	1875	86329	40.77	118.50	124.00	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	10 Jun, 10:45-11:30 (45 Minute)	2198	83914	45.12	126.10	138.50	
Boiler 5	Boiler	80	4.3	ESP	28 Jun, 10:15-11:00 (45 Minute)	2360	117445	42.45	91.50	128.00	
Boiler 6	Boiler	80	4.3	ESP	28 Jun, 12:50-01:30 (40 Minute)	1255	347932	42.10	90.63	120.00	
					RMP-2						
RK	Rotary Kiln	60	2	Bag Filter	29 Jun, 12:50-13:40 (50 Minute)	114	53234	46.96	-	-	-
					Mills						
Wire Rod Mill	RHF				12 Jun, 11:05-12:05 (60 Minute)	-	-	18.18	71.80	-	
Merchant Mill	RHF				30 Jun, 11:05-12:05 (60 Minute)	-	-	23.31	81.70	38.60	
Rail Mill	RHF				11 Jun, 11:30-12:30 (60 Minute)	-	-	19.27	72.80	-	

April 2021 to Sep. 2021

## Month-July 2021

A.						St	ack emission					
Name of the Plant	con	Stack nected to me of the	Height of the stack	of the	Pollution Control unit	Date & Time of the monitoring (duration)	Production fig. of the unit, during the	Flow rate of the flue gas	Parameters (whichever	are applicab (9)	le)	
(1)		unit) (2)	(m) (3)		provided (Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg /Nm3)	SO <sub>2</sub> (250mg/Nm3)	NO <sub>x</sub> (150mg/Nm 3)	CO (Norm : 1%)
	ı		I	L		Blast F	urnace	L	, , , , , , , , ,			
BF-1 (Process)	:	Stoves	60	2.	GCP (Scrub ber)	29 Jul, 10:50-11:50 (60 Minute)	1638	57758	22.51	127.80	136.00	0.87% V/V
BF-7 (Process)	:	Stoves	70	3.	5do	17 Jul, 11:45-12:45 (60 Minute)	3209	115659	21.47	54.90	62.40	0.78% V/V
BF-8) (Process)	:	Stoves			do	03 Jul, 09:55-11:00 (65 Minute)	8031	157366	19.20	107.90	146.50	0.81% V/V
BF-7 (Spadedusting					GCP (Scrub ber)	21 Jul, 11:40-12:20 (40 Minute)	-	-	41.30	-	-	-
							S-2		_	_		
LF-1	Ladle	e Furnace	60	1.6	5 Bag Filter	15 Jul, 11:10- 11:45 (35 Minute)	2160	114608	48.32	96.50		-
LF-2	Ladle	e Furnace	50	1.	5 Bag Filter	14 Jul, 09:55- 10:40 (45 Minute)	3000	107328	38.96	73.40		-
A.							Stack emission					
Name of t Plant	the	Stack connecte d to	Height of the stack	Diamete r of the stack	Pollution Control unit	the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue	Parameters (whichever are applicable) (9)			
(1)		(Name of the unit) (2)	(m) (3)	(m) (4)	provided (Name) (5)	(6)	monitoring (7)	gas (8)	Particulate matter(PM) (Norm:50	<b>SO</b> <sub>2</sub> (Norm:800 mg/Nm3 <sub>)</sub>	NO <sub>x</sub> (Norm:500 mg/Nm3)	CO (Norm: 3 kg/T

								mg/Nm3 <b>)</b>					of Co	ke
					Coke Ov									
Battery No. 1	Battery	100	3.5	Nil	09 Jul, 10:45-11:45 (60 Minute)	804	121465	36.50	12	3.40	135	5.00	2.49 Kg coke	
Battery No. 3	Battery	100	3.5	Nil	26 Jul, 10:30-11:30 (60 Minute)	882	121043	47.50	12	5.10	135	5.00	2.67 Kg coke	
Battery No. 4	Battery	100	3.5	Nil	26 Jul, 11:45-12:45 (60 Minute)	771	121375	49.43	12	0.60	128	3.00	2.54 Kg coke	
Battery No. 5	Battery	100	3.5	Nil	22 Jul, 10:15-11:15 (60 Minute)	860	117425	45.25	12	4.00	145	5.00	2.58 Kg coke	
Battery No. 6	Battery	100	3.5	Nil	22 Jul, 11:30-12:30 (60 Minute)	827	119931	43.91	93	3.00	120	0.00	2.65 Kg coke	
Battery No. 8	Battery	100	3.5	Nil	16 Jul, 11:00-12:00 (60 Minute)	648	116561	41.58	13	5.40	142	2.60	2.61 Kg coke	,
Battery No. 9	Battery	100	3.5	Nil	06 Jul, 10:00-11:05 (65 Minute)	1568	212021	45.72	12	4.00	0 119.60		2.52 Kg coke	
Battery No. 12	1 Battery	120	4.2	Nil	08 Jul, 11:00-12:00 (60 Minute)	1649	173886	46.46	20	6.30	162	2.50	2.63 Kg coke	
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorp tion Tower	27 Jul, 11:10-11:50 (60 Minute)	80	8992	-		Kg/T SO4		-	-	
A.						ck emission								
Name of the Plant	Stack connected to (Name	Height of the stack	eter of the	Pollution Control unit	Date & Time of the monitoring(duration) (6)	Production fig. of the unit,	Flow rate of the flue	Paramete (whichev			able) 9)			
(1)	of the unit) (2)	(m) (3)		provided (Name) (5)		during the period of monitoring (7)	gas (8)	Particulate matter(PM (Norm:50n m3)	4)	SO <sub>2</sub> (Norm: mg/Nm		NO: (Norm 0mg/N	:60	CO
					SP-2									
SP-2 (M/c-1)	Sintering Machine	100	6	Multi- Cyclone	12 Jul, 11:55-12:35 (40 Minute)	1682	237295	47.76	, ,	72.8	30	-		-
SP-2 (M/c-2)	Sintering Machine	100	6	Multi- Cyclone	12 Jul, 11:00-11:45 (45 Minute)	1874	240203	47.50	)	64.9	00			

SP-2 (M/c-3)	Sintering Machine	100	h		20 Jul, 09:45-10:20 (35 Minute)	2010	230230	46.23	78.00	-	-
SP-2 (M/c-4)	Sintering Machine	100	6		20 Jul, 10:25-11:05 (40 Minute)	2098	222346	48.43	79.80	-	-
					SP-3						
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	13 Jul, 10:40-11:25 (45 Minute)	8398	490222	45.72	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	23 Jul, 11:30-12:10 (40 Minute)	7945	528143	46.85	-	-	-
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	01 Jul, 09:55-10:40 (45 Minute)	2474	115327	49.22	120.40	126.20	-
Boiler 2	Boiler	80	4.3	ESP	01 Jul, 10:50-11:35 (45 Minute)	2285	119991	47.72	120.50	135.00	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	05 Jul, 10:00-10:40 (40 Minute)	1795	83620	47.07	118.00	109.50	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	05 Jul, 11:00-11:45 (45 Minute)	2400	85439	44.79	122.30	119.40	
Boiler 5	Boiler	80	4.3	ESP	07 Jul, 09:45-10:30 (45 Minute)	2252	120820	45.84	93.25	130.01	
Boiler 6	Boiler	80	4.3	ESP	24 Jul, 10:15-11:00 (45 Minute)	1424	334954	46.33	135.2	98.50	
					RMP-2						
RK	Rotary Kiln	60		2 Wet Scrubber	20 Jul, 11:15-12:00 (45 Minute)	108	61453	46.26	-	-	-
					Mills						
Wire Rod Mill	RHF				10 Jul, 10:00-11:10 (70 Minute)	-	-	17.75	-	-	
Plate Mill	RHF				2 Jul, 10:25-11:25 (60 Minute)	-	-	19.57	-	-	
Rail Mill	RHF				10 Jul, 11:30-12:35 (65 Minute)	-	-	17.10	-	-	

April 2021 to Sep. 2021

## Month- Aug. 2021

A.							Stack emission					
Name of the Plant	conn	Stack nected to ne of the	Height of the stack	Diameter of the stack (m)	on	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue gas		s · are applicat (9)	le)	
(1)	1	unit) (2)	(m) (3)	(4)	unit provid ed (Name) (5)	(6)	monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg /Nm3)	SO <sub>2</sub> (250mg/Nm3)	NO <sub>x</sub> (150mg/Nm 3)	CO (Norm : 1%)
						Blast	Furnace					_
BF-4 (Process)	S	Stoves	60	2.5	do	28 Aug, 11:30- 12:30 (60 Minute)	2146	120559	1919.	132.50	145.00	0.79% V/V
BF-5 (Process)	S	Stoves	60	3.5	do	04 Aug, 11:45- 12:45 (60 Minute)	1746	119876	22.86	118.50	142.00	0.80% V/V
BF-6 (Process)	S	Stoves	60	3.5	do	24 Aug, 12:15- 13:15 (60 Minute)	2139	118186	20.42	130.40	136.00	0.84% V/V
							MS-2					
LF-1	Ladle	Furnace	60	1.65	Bag Filter	10 Aug, 10:45- 11:20 (35 Minute)	2520	118123	48.82	92.80		-
LF-2	Ladle	Furnace	50	1.5	Bag Filter	25 Aug, 10:05- 10:50 (45 Minute)	3600	111575	46.26	80.10		-
A.							Stack emission			-	_	
Name of Plant	the	Stack connecte d to	Height of the stack	r of the stack	Pollution Control unit	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of	Flow rate of the flue	,	are applicabl (9)	e)	
(1)		(Name of the unit) (2)	(m)	•	provided (Name)	(6)	monitoring (7)	gas	Particulate matter(PM)	<b>SO</b> <sub>2</sub> (Norm:800	NO <sub>x</sub> (Norm:500	CO (Norm:

		(3)		(5)			(8)	(Norm:50 mg/Nm3)	mg/Nm3 <sub>)</sub>	mg/	Nm3)	3 kg/T of Coke
					Coke Oven	1	<u>,                                    </u>	<u> </u>	l.	<b>.</b>	<u>"</u>	
Battery No. 1	Battery	100	3.5	5 Nil	19 Aug, 10:45-11:45 (60 Minute)	793	120629	43.74	125.00	128	3.60	2.52 Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	27 Aug, 10:45-11:45 (60 Minute)	815	120055	45.85	118.60	128	3.30	2.71 Kg/T coke
Battery No. 4	Battery	100	3.5	5 Nil	27 Aug, 11:55-13:00 (65 Minute)	648	122146	48.01	116.80	122	2.40	2.60 Kg/T coke
Battery No. 5	Battery	100	3.5	5 Nil	17 Aug, 11:00-12:00 (60 Minute)	838	120545	46.77	125.00	132	2.00	.67 Kg/T coke
Battery No. 6	Battery	100	3.5	5 Nil	17 Aug, 12:10-13:10 (60 Minute)	815	117503	44.71	102.40	136	5.00	2.56 Kg/T coke
Battery No. 8	Battery	100	3.5	5 Nil	02 Aug, 11:30-12:30 (60 Minute)	681	113582	47.76	141.00	148	3.40	.72 Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	13 Aug, 10:00-11:05 (65 Minute)	1829	212264	48.71	114.30	139	0.50 <sup>2</sup>	.68 Kg/T coke
Battery No. 11	Battery	120	4.2	2 Nil	16 Aug, 10:45-11:45 (60 Minute)	1829	178221	39.70	95.00	121	00	.58 Kg/T coke
A.					Stack (	emission						
Name of the Plant	Stack connected to (Name	Height of the stack	eter of the	Pollution Control unit	Date & Time of the monitoring(duration) (6)	Production fig. of the unit,	Flow rate of the flue		er are app	olicable) (9)		
(1)	of the unit) (2)	(m) (3)	stack (m) (4)	provided (Name) (5)		during the period of monitoring (7)	gas (8)	Particulat matter(PM (Norm:50n m3)	<b>1)</b>   SO <sub>2</sub>	rm:600 'Nm3)	NO <sub>x</sub> (Norm:6 0mg/Nn )	
					SP-2							
SP-2 (M/c-1)	Sintering Machine	100	6	Multi- Cyclone	03 Aug, 12:30-13:10 (40 Minute)	2064	238703	47.37	· 6	58.30	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	Multi- Cyclone	03 Aug, 11:45-12:20 (35 Minute)	2068	237398	48.63	6	66.90		
SP-2 (M/c-3)	Sintering Machine	100	6	Multi- Cyclone	06 Aug, 11:50-12:25 (35 Minute)	2069	243444	49.19	7	73.80	-	-

SP-2 (M/c-4)	Sintering Machine	100	6		06 Aug, 10:50-11:30 (40 Minute)	2069	236598	49.1	76.30	-	-
					SP-3						
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	05 Aug, 11:15-12:00 (45 Minute)	8692	518151	41.48	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	09 Aug, 10:45-11:30 (45 Minute)	8035	520411	46.30	-	-	-
SP-3, M/c- 1(Space dedusting)				ESP	20 Aug, 11:00-11:45 (45 Minute)	-	-	47.20			
SP-3, M/c-2 (Space de- dusting)				ESP	21 Aug, 10:50-11:35 (45 Minute)	-	-	43.63			
					TPP/CPP			•			
Boiler 1	Boiler	80	4.3	ESP	18 Aug, 10:30-11:15 (45 Minute)	2491	118121	41.44	105.70	128.00	-
Boiler 2	Boiler	80	4.3	ESP	18 Aug, 11:25-12:10 (45 Minute)	2460	123364	39.22	98.40	130.60	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	07 Aug, 11:30-12:15 (45 Minute)	2570	84448	37.73	120.80	119.40	
Boiler 5	Boiler	80	4.3	ESP	12 Aug, 10:30-11:15 (45 Minute)	2135	117829	45.04	103.00	130.01	
Boiler 6	Boiler	80	4.3	ESP	31 Aug, 10:50-11:35 (45 Minute)	1320	313532	35.58	124.1	98.50	
					RMP-2						
RK	Rotary Kiln	60	2	Wet Scrubber	23 Aug, 10:45-11:30 (45 Minute)	128	57532	42.01	-	-	-
					Mills						
Wire Rod Mill	RHF	_			16 Aug, 11:00-12:10 (70 Minute)	-	-	19.82	-		
Plate Mill	RHF				25 Aug, 12:10-13:10 (60 Minute)	-	-	16.96	-	-	

April 2021 to Sep. 2021

Rail Mill	RHF				14 Aug, 13:00-14:05 (65 Minute)	-	-	18.28	-	-		
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## Month- Sep. 2021

A.					Stack e	mission					
Name of the Plant	Stack connected to (Name of	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during	Flow rate of the flue gas	Parameters (whichever are a	pplicable) (9)		
(1)	the unit) (2)	(3)	(4)	(5)	(6)	the period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/Nm3)	SO <sub>2</sub> (250mg/N m3)	NO <sub>x</sub> (150m g/Nm3	CO (Norm : 1%)
		•			Blast Furnac	e					
BF-6	Stoves	60	3.5	GCP (Scrubber)	24 Sep,10:40- 11:40 (60 minute)	2210	118013	20.42	115.80	128.4 0	0.81% V/V
BF-5	Stoves	60	3.5	GCP (Scrubber)	23 Sep, 11:15- 12:00 (45 Minute)	1860	114084	45.44	-	-	0.77% V/V
		•			SMS-2						
LF-1	Ladle Furnac	e 60	1.65	Bag Filter	10 Sep, 10:30- 11:00 (30 Minute)	1800	119056	48.59	98.60		-
LF-2	Ladle Furnac	e 50	1.5	Bag Filter	06 Sep, 11:15- 12:00 (45 Minute)	2825	112100	34.21	84.50		-
A.		•			Stack	emission	•		•		•
Name of t Plant	connect d to	stack	Diameter of the stack (m)	(Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during	Flow rate of the flue gas	Parameters (whichever are	applicable	e)	
(1)	(Name the uni	. ,	(4)	(5)	(6)	the period of monitoring	(8)	Particulate matter(PM) SO	N	O <sub>x</sub>	CO (Norm:

	(2)	(3)				(7)		(Norm:50 mg/Nm3)	(Norm:8 00mg/N m3)	(Norm: 500mg /Nm3)	3 kg/T of Coke
					Coke Oven		_		•		
Battery No. 1	Battery	100	3.5	Nil	04 Sep, 11:15-12:15 Minute)	804	123512	43.09	125.60	146.30	2.49 Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	22 Sep, 10:35-11:35 Minute)	793	121347	45.47	120.60	139.40	2.68 Kg/T coke
Battery No. 4	Battery	100	3.5	Nil	22 Sep, 11:45-12:45 Minute)	648	117112	46.66	125.00	139.10	2.54 Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	27 Sep, 10:30-11:30 Minute)	838	123504	47.00	120.00	128.80	2.63 Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	27 Sep, 11:45-12:45 Minute)	838	117932	46.13	114.60	138.20	2.48 Kg/T coke
Battery No. 8	Battery	100	3.5	Nil	01 Sep, 11:00-12:00 Minute)	0 (60 648	116954	48.75	132.80	148.20	2.64 Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	08 Sep, 10:00-11:05 Minute)	1608	216842	45.65	113.00	123.00	2.61 Kg/T coke
Battery No. 12	Battery	120	4.2	Nil	03 Sep, 11:30-12:30 Minute)	(60 1830	182612	41.61	151.00	127.00	2.51
A.					Stack e	mission					
Name of the Plant	Stack connected the stack of the of t					-					
(1)	of the unit) (2)	(3)	stack (m) (4)	(5)		the period monitors	of gas	Particulate matter(PM) (Norm:50mg 3)	SO <sub>2</sub> g/Nm (No	orm:60 (N g/Nm 6	NO <sub>x</sub> Norm: CO Oomg Nm3)

						SP-2						
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyc	CIANA	17 Sep, 12:50-01:20 (30 Minute)	2023	163589	48.67	68.20	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	Multi-Cyc		28 Sep, 11:05-11:50 (45 Minute)	2376	239153	42.55	72.50		
SP-2 (M/c-3)	Sintering Machine	100	6	Multi-Cyo	CIANA	09 Sep, 10:00-10:38 (38 Minute)	2176	236219	47.58	69.80	1	ı
SP-2 (M/c-4)	Sintering Machine	100	6	Multi-Cyc	CIANA	09 Sep, 11:00-11:40 (40 Minute)	2085	229555	45.08	74.60	-	1
						SP-3						
SP-3 (M/c-1)	Sintering Machine	120	7	ESP		02 Sep, 12:10-12:55 (45 Minute)	8573	526401	47.61	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP		13 Sep, 09:30-10:10 (40 Minute)	8217	526422	44.80	-	-	1
SP-3, M/c- 1(Space dedusting)	-	-	-	ESP		15 Sep, 10:30-11:15 (45 Minute)	-	-	42.15			
SP-3, M/c-2 (Space de- dusting)	-	-	_	ESP		04 Sep, 09:30-10:15 (45 Minute)	-	-	45.72			
<u> </u>				<b>'</b>		TPP/CPP		•	•	1		
Boiler 1	Boiler	80		4.3	ESP	29 Sep, 11:45-12:30 (45 Minute)	1700	116486	48.30	115.00	122.40	-
Boiler 2	Boiler	80		4.3	ESP	15 Sep, 12:20-13:00 (40 Minute)	1950	121728	47.97	103.60	114.80	-
Boiler 3	Boiler	80		4.3	Wet Scrubber	29 Sep, 10:45-11:30 (45 Minute)	2015	85743	48.48	124.20	126.50	
Boiler 4	Boiler	80		4.3	Wet Scrubber	20 Sep, 11:30-12:15 (45 Minute)	1780	82740	47.19	102.40	122.00	
Boiler 5	Boiler	80		4.3	ESP	21 Sep, 11:45-12:25 (40 Minute)	1730	84366	45.84	89.26	129.60	
Boiler 6	Boiler	80		4.3	ESP	21 Sep, 10:50-11:35 (45 Minute)	1330	221906	48.12	128.4	108.50	

	RMP-2													
RK	Rotary Kiln	60	2	Wet Scrubber	07 Sep, 09:45-10:30 (45 Minute)	128	57532	42.01	-	-	-			
	Mills													
Wire Rod Mill	RHF				07 Sep, 11:00-12:10 (70 Minute)	-	-	19.82	-	-				
Plate Mill	RHF				15 Sep, 13:15-14:20 (60 Minute)	-	-	16.96	-	-				
Rail Mill	RHF				16 Sep, 14:00-15:05 (65 Minute)	-	-	18.28	-	-				

# FLAG E

**E-2** 

## **Fugitive Emission**

## **Fugitive Emissions Status Month- April 2021**

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)			P	arameters	s (as appl (6)	icable)	
					PM <sub>10</sub> μg/m <sup>3</sup> (4000)	SO <sub>2</sub> μg/m 3 (200)	NOx μg/m <sup>3</sup> (150)	Pb* μg/m³ (2)	CO (5000	BaP** 2000ng/m	Remarks*
1	Coke Oven area	In front of Batt		08 Apr -09:30	1440	-	-	-	-	300 ng/m <sup>3**</sup>	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near Exhauster Area)		08 Apr -09:45	1220	-	-	-	-	-	-
3	Blast Furnace	BF # 7, Near furnace		26 Apr -08:30- 12:30	631	35.50	49.68	0.165*	1728	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LF-1		06 Apr -10:30- 13:15	825	38.60	56.20	0.103*	936	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant- 1	Near Boiler-1 & 2		27 Apr -09:25	556	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		27 Apr -08:45	582	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		08 Apr -10:10	1100	-	-	-	-	-	-

NT- not Traceable

Note: \* Heavy metal analysis & CO results submitted by RDCIS (Sample collected in June-2020)

\*\* BaP monitoring done by RDCIS in May 2020 and result submitted in August 2020.

## **Fugitive Emissions Status Month- May 2021**

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)			F	Parameters	s (as appl (6)	icable)	
					PM <sub>10</sub> μg/m <sup>3</sup> (40 00)	SO <sub>2</sub> μg/m 3 (200)	NOx μg/m <sup>3</sup> (150)	Pb* μg/m <sup>3</sup> (2)	CO (5000	BaP** 2000ng/m	Remarks*
1	Coke Oven area	In front of Batt9		13 May -08:50	1620	-	-	-	-	300 ng/m <sup>3**</sup>	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near Exhauster Area)		13 May -09:10	1600	-	-	-	-	-	•
3	Blast Furnace	BF # 7, Near furnace		29 May -08:40- 12:40	615	38.70	49.50	0.165*	-	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LF-1		18 May -09:40- 12:05	818	34.92	42.80	0.103*	-	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant- 1	Near Boiler-1 & 2		25 May -11:05	1020	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		25 May -09:30	698	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		13 May -09:45	1230	-	-	-	-	-	-

NT- not Traceable

Note: \* Heavy metal analysis & CO results submitted by RDCIS (Sample collected in June-2020)

\*\* BaP monitoring done by RDCIS in May 2020 and result submitted in August 2020.

## **Fugitive Emissions Status Month- June 2021**

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)							
					PM <sub>10</sub> μg/m <sup>3</sup> (4000)	SO <sub>2</sub> μg/m 3 (200)	NOx μg/m <sup>3</sup> (150)	Pb* μg/m <sup>3</sup> (2)	CO (5000 )	BaP** 2000ng/m	Remarks*	
1	Coke Oven area	In front of Batt9		02 Jun -08:50	1210	-	-	-	-	300 ng/m <sup>3**</sup>	Norms as per GSR 277 (E) dtd 30/03/2012	
2	Sinter Plant	SP-II (Near Exhauster Area)		22 Jun -09:30	1310	-	-	-	-	-	-	
3	Blast Furnace	BF # 6, ( Cast House area)		30 Jun -08:00- 12:00	952	40.60	44.80	0.370*	1087	-	Norms as per GSR 277 (E) dtd 30/03/2012	
4	Steel Melting Shop-2	Near LF-1		29 Jun -09:00- 01:00	1267	37.40	41.50	0.390*	1642	-	Norms as per GSR 277 (E) dtd 30/03/2012	
5	Thermal Power Plant- 1	Near Boiler-1 & 2		01 Jun -08:45	1150	-	-	-	-	-		
6	Lime dolomite plant- 1	RMP-1 (Entrance)		01 Jun -09:30	798	-	-	-	-	-	-	
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		25 Jun -10:30	1160	-	-	-	-	-	-	

NT- not Traceable

Note: \* Heavy metal analysis results submitted by RDCIS in June 2021 (Sample collected in January-2021)

\*\* BaP monitoring done by RDCIS in January 2021 and results awaited.

## **Fugitive Emissions Status Month- July 2021**

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)								
					PM <sub>10</sub> μg/m <sup>3</sup> (4000)	SO <sub>2</sub> μg/m 3 (200)	NOx μg/m <sup>3</sup> (150)	Pb* μg/m <sup>3</sup> (2)	CO (5000)	BaP** 2000 ng/m³	Remarks*		
1	Coke Oven area	In front of Batt3 & 4 (Batt6 for BaP)		29 Jul -11:35	1490	-	-	-	-	NT**	Norms as per GSR 277 (E) dtd 30/03/2012		
2	Sinter Plant	SP-II (Near Exhauster Area)		29 Jul -12:15	1690	-	-	-	-	-	-		
3	Blast Furnace	BF # 7, Near furnace		07 Jul -10:45- 12:20	340	38.70	42.50	0.370*	1095	-	Norms as per GSR 277 (E) dtd 30/03/2012		
4	Steel Melting Shop-2	Near LF-1		15 Jul -11:00- 13:00	430	34.80	40.03	0.390*	1678	-	Norms as per GSR 277 (E) dtd 30/03/2012		
5	Thermal Power Plant- 1	Near Boiler-1 & 2		29 Jul -10:25	1530	-	-	-	-	-			
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		29 Jul -09:35	918	-	-	-	-	-	-		
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		29 Jul -11:10	1590	-	-	-	-	-	-		

NT- not Traceable

Note: \* Heavy metal analysis results submitted by RDCIS in June 2021 (Sample collected in January-2021)

\*\* BaP monitoring done by RDCIS in March 2021 and results submitted in July 2021.

## **Fugitive Emissions Status Month- Aug. 2021**

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)								
					PM <sub>10</sub> μg/m <sup>3</sup> (4000)	SO <sub>2</sub> μg/m 3 (200)	NOx μg/m <sup>3</sup> (150)	Pb* μg/m <sup>3</sup> (2)	CO (5000)	BaP** 2000 ng/m³	Remarks*		
1	Coke Oven area	In front of Batt3 & 4 (Batt6 for BaP)		02 Aug -11:40	1760	-	-	-	-	NT**	Norms as per GSR 277 (E) dtd 30/03/2012		
2	Sinter Plant	SP-II (Near Exhauster Area)		03 Aug -12:50	1880	-	-	-	-	-	-		
3	Blast Furnace	BF # 7, Near furnace		28 Aug -10:00- 14:00	317	36.80	41.60	0.370*	1255	-	Norms as per GSR 277 (E) dtd 30/03/2012		
4	Steel Melting Shop-2	Near LF-1		10 Aug -10:30- 12:15	1980	39.70	43.60	0.390*	1724	-	Norms as per GSR 277 (E) dtd 30/03/2012		
5	Thermal Power Plant- 1	Near Boiler-1 & 2		07 Aug -12:20	1490	-	-	-	-	-			
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		28 Aug -12:40	1630	-	-	-	-	-	-		
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		23 Aug -12:05	1740	-	-	-	•	-	-		

NT- not Traceable

Note: \* Heavy metal analysis results submitted by RDCIS in June 2021 (Sample collected in January-2021)

\*\* BaP monitoring done by RDCIS in March 2021 and results submitted in July 2021.

## **Fugitive Emissions Status Month- Sep. 2021**

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)								
					PM <sub>10</sub> μg/m <sup>3</sup> (4000)	SO <sub>2</sub> μg/m 3 (200)	NOx μg/m <sup>3</sup> (150)	Pb* μg/m <sup>3</sup> (2)	CO (5000)	BaP** 2000 ng/m³	Remarks*		
1	Coke Oven area	In front of Batt		03 Sep -11:25	1780	-	-	-	-	NT**	Norms as per GSR 277 (E) dtd 30/03/2012		
2	Sinter Plant	SP-II (Near M/c-3 & 4)		09 Sep -10:45	1870	-	-	-	-	-	-		
3	Blast Furnace	BF # 6, Near Weighbridge		30 Sep -10:25- 02:00	985	41.00	49.70	0.370*	1147	-	Norms as per GSR 277 (E) dtd 30/03/2012		
4	Steel Melting Shop-2	Near LF-1 Chimney		28 Sep -10:15- 02:15	965	36.40	39.70	0.390*	1528	-	Norms as per GSR 277 (E) dtd 30/03/2012		
5	Thermal Power Plant- 1	Near Boiler-2		15 Sep -10:30	1400	-	-	-	ı	-			
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		18 Sep -11:35	1540	-	-	-	-	-	-		
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		18 Sep -10:50	1700	-	-	-	•	-	-		

Note: \* Heavy metal analysis results submitted by RDCIS in June 2021 (Sample collected in January-2021)

Coke Oven (Battery6) BaP monitoring done in March 2021 and analysis results submitted by RDCIS in July 2021.

<sup>\*\*</sup> NT- not Traceable

BHILAI STEEL PLANT FUGITIVE EMISSION STATUS April 2021 to Sep.2021

## FLAG E

E-3

**AMBIENT AIR QUALITY** 

					AMB	IENT A	IR QUA	LITY									
					M	onth-A	pril										
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Paran	neters (as	applicab	ole)						
1	2	3	4						5								
				$PM_{2.5}$	PM <sub>10</sub>	$SO_2$	NO <sub>2</sub>	NH <sub>3</sub>	CO	BaP*	<b>O</b> 3	Pb*	As*	Ni*	C <sub>6</sub> H <sub>6**</sub>		
		Norms	24 hrs	60 100 80 80 400 2000 (8 hrs) - 180 1													
			Annual	40	nrs)   1000(1												
	Unit					μg/m	3							ng/n	$n^3$		
1	Civic Centre			22.97	50.65	14.21	13.77	2.93	450	NT	37.42	0.046	NT	0.021	0.59		
2	OP-2			21.88	53.18	15.63	12.42	2.45	550	NT	47.46	0.100	NT	0.010	0.31		
3	Rail Mill			23.13	54.36	18.14	13.63	2.02	610	NT	38.91	0.058	NT	0.016	1.95		
4	Ispat Bhavan			18.28	51.78	15.94	14.86	1.89	260	NT	NA**	0.110	NT	0.013	NA**		

Note: if monitoring of CO is done on 8 hourly basis, then Norm is  $2000\mu g/m^3$ . Otherwise, norm is  $4000\mu g/m^3$ , when monitoring of CO is done for 1 hr \* Not done regularly. NT- not Traceable.

					AMB	IENT A	IR QUA	LITY								
					M	onth-M	lay									
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Paran	neters (as	applicab	ole)					
1	2	3	4						5							
				$PM_{2.5}$	$PM_{10}$	$SO_2$	NO <sub>2</sub>	NH <sub>3</sub>	CO	BaP*	<b>O</b> 3	Pb*	As*	Ni*	C <sub>6</sub> H <sub>6**</sub>	
		Norms	ns 24 hrs 60 100 80 80 400 2000 (8 hrs) - 180 1													
			Annual	40 60 50 40 100 hrs) 1 100 0.5 6 20 5												
	Unit					μg/m	3							ng/n	$n^3$	
1	Civic Centre			25.04	55.79	14.67	15.22	2.93	410	NT	41.53	0.046	NT	0.021	3.36	
2	OP-2			22.61	54.13	16.34	14.22	2.17	580	NT	46.91	0.100	NT	0.010	0.29	
3	Rail Mill			24.47	57.63	17.01	13.84	1.67	660	NT	50.4	0.058	NT	0.016	1.55	
4	Ispat Bhavan			20.63	53.44	13.16	12.91	1.88	270	NT	NA**	0.110	NT	0.013	NA**	

Note: if monitoring of CO is done on 8 hourly basis, then Norm is  $2000\mu g/m^3$ . Otherwise, norm is  $4000\mu g/m^3$ , when monitoring of CO is done for 1 hr \* Not done regularly. NT- not Traceable.

					AMB	IENT A	IR QUA	LITY								
					M	onth-J	une									
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Paran	neters (as	applicab	ole)					
1	2	3	4						5							
				$PM_{2.5}$	PM <sub>10</sub>	$SO_2$	NO <sub>2</sub>	NH <sub>3</sub>	СО	BaP*	<b>O</b> <sub>3</sub>	Pb*	As*	Ni*	C <sub>6</sub> H <sub>6</sub> **	
		Norms	24 hrs	60 100 80 80 400 2000 (8 hrs) - 180 1												
			Annual	40 60 50 40 100 4000(1 hrs) 1 100 0.5 6 20 5												
	Unit					μg/m	3							ng/n	$n^3$	
1	Civic Centre			25.23	49.36	12.95	14.38	1.94	210	NT	47.32	0.060	NT	0.009	3.36	
2	OP-2			21.73	53.24	15.16	13.63	2.76	470	NT	53.16	0.060	NT	0.003	0.27	
3	Rail Mill			25.19	58.11	17.63	14.37	1.78	590	NT	54.77	0.020	NT	0.011	1.06	
4	Ispat Bhavan			18.48	57.42	11.75	13.15	1.90	240	NT	NA**	0.060	NT	0.016	NA**	

<sup>\*</sup> Not done regularly. Heavy metal analysis & CO results submitted by RDCIS in June 2021 (Sample collected in January-2021)

<sup>\*</sup> NT- not Traceable

					AMB	IENT A	IR QUA	LITY								
					M	onth-Ju	uly									
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Paran	neters (as	applicab	ole)					
1	2	3	4						5							
				$PM_{2.5}$	$PM_{10}$	$SO_2$	NO <sub>2</sub>	NH <sub>3</sub>	CO	BaP*	<b>O</b> 3	Pb*	As*	Ni*	C <sub>6</sub> H <sub>6</sub> **	
		Norms	24 hrs	60 100 80 80 400 2000 (8 - 180 1												
			Annual	40 60 50 40 100 hrs) 100 100 100 50 50 40 100 hrs) 1 100 0.5 6 20 5												
	Unit					μg/m	3							ng/n	$n^3$	
1	Civic Centre			24.31	49.28	13.89	15.97	1.91	232	NT	45.16	0.060	NT	0.009	3.23	
2	OP-2			20.08	53.81	16.01	14.72	2.87	487	NT	54.45	0.060	NT	0.003	0.32	
3	Rail Mill			25.40	57.22	17.78	15.17	1.68	585	NT	56.17	0.020	NT	0.011	1.42	
4	Ispat Bhavan			20.61	56.27	13.18	14.62	1.98	251	NT	NA**	0.060	NT	0.016	NA**	

<sup>\*</sup> Not done regularly. Heavy metal analysis & CO results submitted by RDCIS in June 2021 (Sample collected in January-2021 \* NT- not Traceable

				B. AMBII	ENT AIR (	QUALITY	AND FUG	UTIVE E	MISSION							
						M	onth-A	ugust								
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Param	eters (as	applicab	ole)					
1	2	3	4						5							
				$PM_{2.5}$	$PM_{10}$	$SO_2$	$NO_2$	NH <sub>3</sub>	CO	BaP*	<b>O</b> 3	Pb*	As*	Ni*	$C_6H_6**$	
		Norms	24 hrs	60 100 80 80 400 2000 (8 hrs) - 180 1												
			Annual	40 60 50 40 100 4000(1 hrs) 1 100 0.5 6 20 5												
	Unit					μg/m	3							ng/n	<b>1</b> 3	
1	Civic Centre			24.18	46.09	13.77	14.63	1.97	247	NT	46.08	0.060	NT	0.009	3.84	
2	OP-2			20.62	50.96	16.20	13.96	2.93	461	NT	55.21	0.060	NT	0.003	0.63	
3	Rail Mill			26.18	54.81	18.10	14.12	1.75	572	NT	58.37	0.020	NT	0.011	1.57	
4	Ispat Bhavan			21.04	53.63	13.24	13.83	2.12	274	NT	NA**	0.060	NT	0.016	NA**	

<sup>\*</sup> Not done regularly. Heavy metal analysis & CO results submitted by RDCIS in June 2021 (Sample collected in January-2021)

<sup>\*</sup> NT- not Traceable

<sup>\*\*</sup> Monitoring is done through online Continious Ambient Monitoring system. At Ispat Bhavan, for monitoring of Ozone & Benzene is not done as no analyzers are installed for there parameters.

				B. AMBII	ENT AIR	QUALITY	AND FUG	UTIVE E	MISSION							
						Mo	nth-Sep	tembe	r							
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Param	ieters (as	applicab	ole)					
1	2	3	4						5							
				$PM_{2.5}$	PM <sub>10</sub>	$SO_2$	$NO_2$	$NH_3$	CO	BaP*	$0_3$	Pb*	As*	Ni*	$C_6H_6**$	
		Norms	24 hrs	60 100 80 80 400 2000 (8 hrs) - 180 1												
			Annual	40 60 50 40 100 4000(1 hrs) 1 100 0.5 6 20 5												
	Unit					μg/m	3							ng/n	n <sup>3</sup>	
1	Civic Centre			23.52	46.48	13.99	14.47	1.88	273	NT	44.57	0.060	NT	0.009	2.89	
2	OP-2			21.33	49.73	15.97	14.65	2.76	489	NT	61.27	0.060	NT	0.003	0.78	
3	Rail Mill			27.10	55.98	17.75	15.10	1.92	594	NT	60.11	0.020	NT	0.011	1.78	
4	Ispat Bhavan			22.67	54.10	14.02	14.54	2.04	287	NT	NA**	0.060	NT	0.016	NA**	

<sup>\*</sup> Not done regularly. Heavy metal analysis & CO results submitted by RDCIS in June 2021 (Sample collected in January-2021)

<sup>\*</sup> NT- not Traceable

<sup>\*\*</sup> Monitoring is done through online Continious Ambient Monitoring system. At Ispat Bhavan, for monitoring of Ozone & Benzene is not done as no analyzers are installed for there parameters.

# FLAG - F

### **Water Pollution Status**

Water Pollution Status: Water consumption / tonne of Steel produced:
Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain / land etc.)
Quantity of the treatment effluent reused / recirculate and for what purpose

#### Month-April 2021

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters m	onitore	ed (mg	g/l, exce	pt pH)		Remarks
				рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	0 & G	
Norms				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
	<b>,</b>	<u>,                                      </u>	COBP E	<u>Effluent</u>								
28 Apr, 09:15:00 AM	Inlet to BOD plant	Physiochemical & Biological	100	9.7	-	346	7.30	-	3650	292.7	9.25	Treated water used for quenching
28 Apr, 09:35:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.76	72	0.280	0.17	21	220	3.68	2.13	Treated water used for quenching
Shutdown			-	-	-	-	-	-	-	-	-	
02 Apr, 09:30:00 AM	Sinter Plant-2	Settling Tank	1400	8.25	51	-		-	-	-	1.54	Recycled back
02 Apr, 09:00:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.30	60	-	-	ı	-	-	1.60	Recycled
30 Apr, 10:20:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	6.29	47	BDL	0.19	1	-	38.60	2.21	Recycled Back
16 Apr, 09:20:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	8.23	44	-	-	1	-	-	3.11	Recycled Back
15 Apr, 10:40:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.01	35	-	-	-	-	-	3.27	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Water Pollution Status: Water consumption / tonne of Steel produced:
Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain / land etc.)
Quantity of the treatment effluent reused / recirculate and for what purpose

#### **Month- May 2021**

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters m	onitore	ed (mg	g/l, exce	pt pH)		Remarks
				рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	0 & G	
Norms				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			COBP I	<u>Effluent</u>								
26 May, 09:30:00 AM	Inlet to BOD plant	Physiochemical & Biological	100	9.78	-	322	3.70	-	4100	366.3	8.50	Treated water used for quenching
26 May, 09:40:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.66	86	0.313	0.18	19	230	3.23	2.05	Treated water used for quenching
Shutdown			-	-	-	-	-	-	-	-	-	
05 May, 09:40:00 AM	Sinter Plant-2	Settling Tank	1400	8.25	57	-	-	-	-	-	1.77	Recycled back
05 May, 09:30:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.13	73	-	-	-	-	-	1.53	Recycled
14 May, 09:30:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	7.02	47	BDL	0.17	-	-	28.60	2.36	Recycled Back
15 May, 11:30:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	7.36	45	-	-	-	-	-	2.96	Recycled Back
20 May, 10:15:00 AM	Plate Mill	Settling Tank with oil separators	16000	7.94	43	-	-	-	-	-	3.10	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Water Pollution Status: Water consumption / tonne of Steel produced:
Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain / land etc.)
Quantity of the treatment effluent reused / recirculate and for what purpose

#### Month-June 2021

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters m	onitore	ed (mg	g/l, exce	pt pH)		Remarks
				рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	0 & G	
Norms				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			COBP I	<u>Effluent</u>					1			
30 Jun, 08:30:00 AM	Inlet to BOD plant	Physiochemical & Biological	100	9.72	-	276	3.80	-	4400	408.3	9.19	Treated water used for quenching
30 Jun, 08:35:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.41	90	0.185	0.18	16	247	12.93	2.72	Treated water used for quenching
Shutdown			-	-	-	-	-	-	-	-	-	
03 Jun, 08:35:00 AM	Sinter Plant-2	Settling Tank	1400	7.81	65	ı		1	-	-	1.82	Recycled back
03 Jun, 08:25:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.17	70	-	-	ı	-	-	1.79	Recycled back
11 Jun, 08:50:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	7.19	47	BDL	0.17	ı	-	33.30	2.12	Recycled Back
04 Jun, 08:35:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	6.50	46	-	-	ı	-	-	3.60	Recycled Back
18 Jun, 09:10:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.13	32	-	-	-	-	-	3.63	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Water Pollution Status: Water consumption / tonne of Steel produced:
Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain / land etc.)
Quantity of the treatment effluent reused / recirculate and for what purpose

#### Month-July 2021

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters m	onitore	ed (mg	g/l, exce	pt pH)		Remarks
				рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	0 & G	
Norms				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
		<u> </u>	<u>COBP I</u>	<u>Effluent</u>								
28 Jul, 09:35:00 AM	Inlet to BOD plant	Physiochemical & Biological	100	9.38	-	219	7.80	-	3870	738.3	8.54	Treated water used for quenching
28 Jul, 09:30:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.56	81	0.21	0.19	13	245	46.09	2.50	Treated water used for quenching
Shutdown			-	-	-	-	-	-	-	-	-	
02 Jul, 08:45:00 AM	Sinter Plant-2	Settling Tank	1400	7.80	55	-	-	-	-	-	1.89	Recycled back
02 Jul, 08:55:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.25	65	-	-	-	-	-	1.51	Recycled back
15 Jul, 08:30:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	6.57	47	BDL	0.16	-	-	39.00	2.49	Recycled Back
14 Jul, 09:20:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	6.82	49	-	-	-	-	-	3.90	Recycled Back
10 Jul, 08:30:00 AM	Plate Mill	Settling Tank with oil separators	16000	7.24	41	-	-	-	-	-	2.93	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

## C. Water Pollution Status: Water consumption / tonne of Steel produced: Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain / land etc.) Quantity of the treatment effluent reused / recirculate and for what purpose

#### **Month- August 2021**

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters m	onitore	ed (mg	g/l, exce	pt pH)		Remarks
				рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	0 & G	
Norms				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			COBP I	<u>Effluent</u>	T							
18 Aug, 08:35:00 AM	Inlet to BOD plant	Physiochemical & Biological	100	9.78	-	279	5.20	-	3919	658.8	9.12	Treated water used for quenching
18 Aug, 08:50:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.60	45	0.240	0.18	12	239	39.30	2.29	Treated water used for quenching
Shutdown			-	-	-	-	-	-	-	-	-	
07 Aug, 08:10:00 AM	Sinter Plant-2	Settling Tank	1400	7.76	57	-		-	-	-	1.76	Recycled back
07 Aug, 08:00:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.13	70	1		1	-	-	1.62	Recycled back
20 Aug, 10:10:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	6.62	47	BDL	0.17	ı	-	43.90	2.59	Recycled Back
19 Aug, 09:00:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	6.74	56	-	-	-	-	-	4.80	Recycled Back
20 Aug, 08:30:00 AM	Plate Mill	Settling Tank with oil separators	16000	7.45	48	1	-	-	-	-	3.14	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

## C. Water Pollution Status: Water consumption / tonne of Steel produced: Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain / land etc.) Quantity of the treatment effluent reused / recirculate and for what purpose

#### **Month- September 2021**

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters m	onitore	ed (mg	g/l, exce	pt pH)		Remarks
				рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	O & G	
Norms				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			<u>COBP I</u>	<u>Effluent</u>								
29 Sep, 10:00:00 AM	Inlet to BOD plant	Physiochemical & Biological	100	9.92	-	205	11.20	-	4019	357.3	10.43	Treated water used for quenching
29 Sep, 10:20:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.87	81	0.333	0.17	13	215	33.33	2.34	Treated water used for quenching
Shutdown			1	-	-	-	-	•	-	-	-	
24 Sep, 08:10:00 AM	Sinter Plant-2	Settling Tank	1400	7.68	51	-	-	ı	-	-	1.92	Recycled back
24 Sep, 08:00:00 AM	Steel Melting Shop-2	Settling Tank	1650	7.92	58	-	-	ı	-	-	1.57	Recycled back
10 Sep, 10:30:00 AM	Blast Furnace- RST	Settling Tank	12500	7.12	47	BDL	0.13	ı	-	41.80	3.12	Recycled Back
01 Sep, 02:20:00 PM	Mills (Rail Mill)	Settling Tank with oil separators	-	8.00	16	-	-	1	-	-	4.56	Recycled Back
11 Sep, 08:10:00 AM	Plate Mill	Settling Tank with oil separators	16000	7.23	43	-	-	-	-	-	4.12	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

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## Noise Pollution Control Status

	Noise I	Pollution Cont Month-April 202				
1. Noise Monitoring in Work Zone						
Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	29-Apr	5 m	Air tight control Room	66.8	2 Minute	
Blast Furnace-5(Control Room)	07-Apr	5 m	Acoustic Room	70.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	27-Apr	5 m	Acoustic pulpit	78.9	2 Minute	
TPP/CPP (Turbines-3) (Control Room)	15-Apr	5 m	Acoustic cabins	61.4	2 Minute	
SMS-1 (GCP-4) (Control Room)	Shutdown	5 m	Acoustic Control Room	Shutdown	2 Minute	
SP-2, (M/c-3 & 4) Operator's room	10-Apr	5 m	Acoustic Room	66.4	2 Minute	
Coke-oven area (Batt9) (Control Room)	01-Apr	5 m	Air Tight control Room	70.2	2 Minute	
Others						

<sup>\*</sup> Noise level map of the plant may be attached along with the report.

Noise Zone	Noise Level	Un	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time		
Industrial Area (at boundary of plant)					
Near OP-2	75	61.2	54.9		
Near Joratarai Gate	75	61.4	55.3		
Near Main Gate	75	63.4	59.6		
Near Khursipar Gate	75	68.6	63.4		
Commercial Area					
Sector-05 (Market area)	65 Day & 55 Night	55.9	52.0		
Sector-06 (Near 'B' Market)	65 Day & 55 Night	63.3	54.2		
Sector-09 (Goal Market)	65 Day & 55 Night	51.1	45.2		
Maroda Sector (BSP Market)	65 Day & 55 Night	58.8	51.1		
Risali Sector (BSP Market)	65 Day & 55 Night	64.1	53.9		
Residential Area					
Sector-01 (Street No 23)	55 Day & 45 Night	47.5	44.3		
Sector-05 (Street No 32)	55 Day & 45 Night	45.2	44.1		
Sector-07 (Street No 17)	55 Day & 45 Night	42.0	43.6		
Sector-08 (Street No 05)	55 Day & 45 Night	44.8	43.9		
Sector-10 (Street No 25)	55 Day & 45 Night	40.2	44.5		
Silence Area					
Sector-02 (English Medium Middle School)	50 Day & 40 Night	49.0	38.1		
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	44.2	37.6		
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.4	38.5		
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.2	36.9		
Maroda Sector (Estate Court )	50 Day & 40 Night	49.3	39.1		

<sup>•</sup> Noise Monitoring in township area done (Quarterly) in the month of March-21

1. Noise Monitoring in Work Zone						
Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	31-May	5 m	Air tight control Room	67.9	2 Minute	
Blast Furnace-1(Control Room)	11-May	5 m	Acoustic Room	70.0	2 Minute	
Mills (Rolling / forgoing) Rail Mill	31-May	5 m	Acoustic pulpit	88.4	2 Minute	
TPP/CPP (Turbines-3 & 4) (Control Room)	25-May	5 m	Acoustic cabins	67.8	2 Minute	
SMS-1 (GCP-4) (Control Room)	Shutdown	5 m	Acoustic Control Room	Shutdown	2 Minute	
SP-2, (M/c-4) Operator's room	08-May	5 m	Acoustic Room	65.8	2 Minute	
Coke-oven area (Batt1) (Control Room)	01-May	5 m	Air Tight control Room	67.8	2 Minute	
Others						

<sup>\*</sup> Noise level map of the plant may be attached along with the report.

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)			<u> </u>	
Near OP-2	75	61.5	58.4	
Near Joratarai Gate	75	63.5	60.3	
Near Main Gate	75	63.4	59.9	
Near Khursipar Gate	75	66.9	64.8	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	55.9	52.0	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	63.3	54.2	
Sector-09 (Goal Market)	65 Day & 55 Night	51.1	45.2	
Maroda Sector (BSP Market)	65 Day & 55 Night	58.8	51.1	
Risali Sector (BSP Market)	65 Day & 55 Night	64.1	53.9	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	47.5	44.3	
Sector-05 (Street No 32)	55 Day & 45 Night	45.2	44.1	
Sector-07 (Street No 17)	55 Day & 45 Night	42.0	43.6	
Sector-08 (Street No 05)	55 Day & 45 Night	44.8	43.9	
Sector-10 (Street No 25)	55 Day & 45 Night	40.2	44.5	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	49.0	38.1	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	44.2	37.6	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.4	38.5	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.2	36.9	
Maroda Sector (Estate Court )	50 Day & 40 Night	49.3	39.1	

Noise Monitoring in township area done (Quarterly) in the month of March-21

1. Noise Monitoring in Work Zone						
Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	29-Jun	5 m	Air tight control Room	66.3	2 Minute	
Blast Furnace-7(Control Room)	05-Jun	5 m	Acoustic Room	68.9	2 Minute	
Mills (Rolling / forgoing) Rail Mill	11-Jun	5 m	Acoustic pulpit	89.4	2 Minute	
TPP/CPP (Turbines-3 & 4) (Control Room)	01-Jun	5 m	Acoustic cabins	64.6	2 Minute	
SMS-1 (GCP-4) (Control Room)	Shutdown	5 m	Acoustic Control Room	Shutdown	2 Minute	
SP-2, (M/c-3 & 4) Operator's room	22-Jun	5 m	Acoustic Room	68.6	2 Minute	
Coke-oven area (Batt8) (Control Room)	02-Jun	5 m	Air Tight control Room	67.9	2 Minute	
Others						

<sup>\*</sup> Noise level map of the plant may be attached along with the report.

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zoile	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)				
Near OP-2	75	60.2	56.6	
Near Joratarai Gate	75	62.0	59.3	
Near Main Gate	75	61.4	56.7	
Near Khursipar Gate	75	69.7	67.9	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	59.5	54.9	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.6	52.4	
Sector-09 (Goal Market)	65 Day & 55 Night	49.2	51.2	
Maroda Sector (BSP Market)	65 Day & 55 Night	48.6	53.1	
Risali Sector (BSP Market)	65 Day & 55 Night	54.5	52.6	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	50.6	43.5	
Sector-05 (Street No 32)	55 Day & 45 Night	49.4	41.9	
Sector-07 (Street No 17)	55 Day & 45 Night	52.1	44.2	
Sector-08 (Street No 05)	55 Day & 45 Night	51.3	42.8	
Sector-10 (Street No 25)	55 Day & 45 Night	46.0	43.4	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	49.2	39.4	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.0	38.7	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	39.1	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.3	38.5	
Maroda Sector (Estate Court )	50 Day & 40 Night	48.6	38.2	

<sup>•</sup> Noise Monitoring in township area done (Quarterly) in the month of June-21

### Noise Pollution Control Status Month-July 2021

#### 1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	31-Jul	5 m	Air tight control Room	64.9	2 Minute	
Blast Furnace-7(Control Room)	03-Jul	5 m	Acoustic Room	68.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	10-Jul	5 m	Acoustic pulpit	82.0	2 Minute	
TPP/CPP (Turbines-1 & 2 ) (Control Room)	01-Jul	5 m	Acoustic cabins	63.9	2 Minute	
SMS-1 (GCP-4) (Control Room)	Shutdown	-	Acoustic Control Room	Shutdown	-	
SP-2, (M/c-1 & 2) Operator's room	12-Jul	5 m	Acoustic Room	66.8	2 Minute	
Coke-oven area (Batt9) (Control Room)	06-Jul	5 m	Air Tight control Room	67.8	2 Minute	
Others						

<sup>\*</sup> Noise level map of the plant may be attached along with the report.

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)		-		
Near OP-2	75	55.6	53.4	
Near Joratarai Gate	75	53.9	51.6	
Near Main Gate	75	58.9	54.8	
Near Khursipar Gate	75	70	67.3	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	59.5	54.9	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.6	52.4	
Sector-09 (Goal Market)	65 Day & 55 Night	49.2	51.2	
Maroda Sector (BSP Market)	65 Day & 55 Night	48.6	53.1	
Risali Sector (BSP Market)	65 Day & 55 Night	54.5	52.6	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	50.6	43.5	
Sector-05 (Street No 32)	55 Day & 45 Night	49.4	41.9	
Sector-07 (Street No 17)	55 Day & 45 Night	52.1	44.2	
Sector-08 (Street No 05)	55 Day & 45 Night	51.3	42.8	
Sector-10 (Street No 25)	55 Day & 45 Night	46.0	43.4	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	49.2	39.4	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.0	38.7	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	39.1	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.3	38.5	
Maroda Sector (Estate Court )	50 Day & 40 Night	49.6	38.2	

<sup>•</sup> Noise Monitoring in township area done (Quarterly) in the month of June-21

#### Noise Pollution Control Status Month-Aug. 2021

#### 1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	24-Aug	5 m	Air tight control Room	67.1	2 Minute	
Blast Furnace-7(Control Room)	04-Aug	5 m	Acoustic Room	69.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	11-Aug	5 m	Acoustic pulpit	83.5	2 Minute	
TPP/CPP (Turbines-1 & 2 ) (Control Room)	07-Aug	5 m	Acoustic cabins	66.7	2 Minute	
SMS-1 (GCP-4) (Control Room)	Shutdown	-	Acoustic Control Room	Shutdown	-	
SP-2, (M/c-1 & 2) Operator's room	03-Aug	5 m	Acoustic Room	66.3	2 Minute	
Coke-oven area (Batt9) (Control Room)	02-Aug	5 m	Air Tight control Room	68.4	2 Minute	
Others						

<sup>\*</sup> Noise level map of the plant may be attached along with the report.

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)			g	
Near OP-2	75	55.6	53.4	
Near Joratarai Gate	75	53.9	51.6	
Near Main Gate	75	58.9	54.8	
Near Khursipar Gate	75	70	67.3	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	59.5	54.9	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.6	52.4	
Sector-09 (Goal Market)	65 Day & 55 Night	49.2	51.2	
Maroda Sector (BSP Market)	65 Day & 55 Night	48.6	53.1	
Risali Sector (BSP Market)	65 Day & 55 Night	54.5	52.6	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	50.6	43.5	
Sector-05 (Street No 32)	55 Day & 45 Night	49.4	41.9	
Sector-07 (Street No 17)	55 Day & 45 Night	52.1	44.2	
Sector-08 (Street No 05)	55 Day & 45 Night	51.3	42.8	
Sector-10 (Street No 25)	55 Day & 45 Night	46.0	43.4	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	49.2	39.4	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.0	38.7	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	39.1	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.3	38.5	
Maroda Sector (Estate Court )	50 Day & 40 Night	49.6	38.2	

<sup>•</sup> Noise Monitoring in township area done (Quarterly) in the month of June-21

### Noise Pollution Control Status Month-Sep. 2021

#### 1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	27-Sep	5 m	Air tight control Room	66.8	2 Minute	
Blast Furnace-6(Control Room)	15-Sep	5 m	Acoustic Room	71.0	2 Minute	
Mills (Rolling / forgoing) Rail Mill	27-Sep	5 m	Acoustic pulpit	83.9	2 Minute	
TPP/CPP (Turbines-3) (Control Room)	29-Sep	5 m	Acoustic cabins	68.4	2 Minute	
SP-2, (M/c-3 & 4) Operator's room	09-Sep	5 m	Acoustic Room	68.9	2 Minute	
Coke-oven area (Batt3 & 4) (Control Room)	22-Sep	5 m	Air Tight control Room	69.4	2 Minute	
Others						

<sup>\*</sup> Noise level map of the plant may be attached along with the report.

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zoile	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)				
Near OP-2	75	56.3	52.7	
Near Joratarai Gate	75	57.1	54.8	
Near Main Gate	75	55.7	53.9	
Near Khursipar Gate	75	69.8	66.9	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	54.5	48.6	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	60.0	46.6	
Sector-09 (Goal Market)	65 Day & 55 Night	55.0	52.2	
Maroda Sector (BSP Market)	65 Day & 55 Night	55.2	49.4	
Risali Sector (BSP Market)	65 Day & 55 Night	61.4	53.4	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	46.6	44.2	
Sector-05 (Street No 32)	55 Day & 45 Night	49.0	44.3	
Sector-07 (Street No 17)	55 Day & 45 Night	49.6	41.9	
Sector-08 (Street No 05)	55 Day & 45 Night	52.6	43.7	
Sector-10 (Street No 25)	55 Day & 45 Night	49.6	44.4	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.6	38.1	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.0	39.2	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	47.7	38.9	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	48.5	39.1	
Maroda Sector (Estate Court )	50 Day & 40 Night	47.2	39.2	

<sup>•</sup> Noise Monitoring in township area done (Quarterly) in the month of Sep.-21