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

Date: 25/05/2022

GM I/c(EnMD)/B-8/2022/

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 (October'2021 to March-2022) 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 I/c(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

भिलाई 490001, छत्तीसगढ़, फ़ैक्स 0788-2222010, वैबसाइट www.sail.co.in Bhilai 490 001, Chhattisgarh, Fax: 0788-2222010, Website www.sail.co.in

Half Yearly Compliance Report 2022 01 Jun(01 Oct - 31 Mar)

Acknowledgement

Proposal Name	Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by Mis Steel Authority of India Limited (SAIL) located at Bhilai, District Durg, Chhattisgarh- Amendment in Environment Clearance - regarding.
Name of Entity / Corporate Office	Ms.Uma Katoch
Village(s)	N/A
District	DURG

District

Proposal No.	IA/CG/IND/260774/2022 dtd 11/03/2022.
Plot / Survey / Khasra No.	N/A
State	CHHATTISGARH
MoEF File No.	F. No. IA-J- 1101112812007-IA 11 (I)

Category	Industrial Projects - 1
Sub-District	N/A
Entity's PAN	*****7062F
Entity name as per PAN	STEEL AUTHORITY OF INDIA LTD

Compliance Reporting Details

Reporting Year 2022

Remarks (if any)

April 2024 to September

2024

Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office Ms.Uma Katoch

	Project Area as per EC Granted	Actual Project Area in Possession
Private	3284.75	6286.75
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	3284.75	6286.75

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Coke from Coke Oven Battery,	Million Tons per Annum (MTPA)	31/07/2025	3.94	3.73	3.94
2	Hot Metal from Blast Furnace	Million Tons per Annum (MTPA)	31/07/2025	7.5	5.98	7.5
3	Bars and Rods from BAR and ROD Mills	Million Tons per Annum (MTPA)	31/07/2025	0.9	0.89	0.9
4	Crude Steel From Steel Melting Shops	Million Tons per Annum (MTPA)	31/07/2025	7.0	5.67	7.0
5	Refractories from Refractory Material Plant	Million Tons per Annum (MTPA)	31/07/2025	1.58	0.70	1.58
6	Sinters from Sinter Plant	Million Tons per Annum (MTPA)	31/07/2025	9.772	8.7	9.772
7	Rail and Structures from RSM	Million Tons per Annum (MTPA)	31/07/2025	2.20	0.437	2.20
8	Power and Steam from PBS	MW	31/07/2025	94	26.9	94
9	Plates from Plate Mill	Million Tons per Annum (MTPA)	31/07/2025	1.65	1.13	1.65
10	Merchant Products from Merchant Mill	Million Tons per Annum (MTPA)	31/07/2025	0.85	0.655	0.85
11	Wire Rods Products from Wire Rod Mill	Million Tons per Annum (MTPA)	31/07/2025	0.70	0.458	0.70
12	Oxygen from Oxygen Plant	Tons per Day (TPD)	31/07/2025	2350	542	2350

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Corporate Environmental Responsibility	All CER activities as committed in the reply to the ADS letter dared 02.01.2019 shall be completed in the financial year 2019-20.

PPs Submission: Complied

BSP has initiated action for completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. Due to the prevalence of COVID pandemic (Ist wave from March to November-2020 and 2nd wave from March to June-2021) there has been delay in completion of the projects. However presently the CER projects are progressing well and likely to be completed by December-2021. A detailed status report on CER activities enclosed at Flag-C

Date: 02/05/2025

2

WASTE MANAGEMENT

100 % SMS -Slag utilization shall be ensured after conditioning /steam curing.

PPs Submission: Complied

About 55 percent the BOF slag is presently being recycled back in to steel making process and also utilized in Road Making and filling of the low lying areas. BSP has also started selling BOF slag to the interested buyers (Cement Plants other Construction industries) since April-2021. A pilot scale study on Development of process for steam maturing of BOF slag at BSL was taken up by SAIL. The matured BOF slag can be utilised as an aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. Number of other R and D efforts are being taken-up by SAIL in association with other agencies, which are still in nascent stage. After the completion of these studies, exploring the options for commercial scale/bulk utilization of BOF slag will be taken-up. BSP has given an assignment to NIT-Raipur for Assessing the suitability of Twin Hearth Furnace(THF) Steel Slag as pavement material and feasibility of THF Steel slag in construction of the rural roads. NIT Raipur has submitted the final report in June-2021. The report was submitted to CECB and will be shared with all agencies involved in road making to promote the use of steel slag in Road making and other infrastructure projects.

Date: 02/05/2025

3

GREENBELT

Scheme for decommissioning of SMS-1 and its utilities along with green belt development in that area shall be submitted within six months to the Ministry and Regional Oflice of the MoEF&CC.

PPs Submission: Complied

SMS-1 phased-out in March-2021 Decommissioning plan along with greenbelt development will be submitted to MoEFCC.

Date: 02/05/2025

4

GREENBELT

Scheme for green belt development in the remaining area for covering 33% of total project area shall be submitted to the Regional office of the MoEF&CC.

PPs Submission: Complied

BSP has planted 4412482 nos of trees in an area covering about 1840 hectares till March-2021. In the year 2021-22(April-March) BSP has planted 7080 trees within the plant premises and township covering an area of about 15-20 hectares. In the year 2021-22 BSP has been planted 67080 Trees. 60,000 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. Till Sep.-2021 about 6000 trees have been planted. Further Green belt required to be developed to meet the 33 percentage criteria is about 280 Hectares . (However by excluding the two reservoirs/cooling ponds area of 1100 hectares from the total area of the project, BSPs green belt coverage comes to 35.48 Percentage.

Date: 02/05/2025

5

AIR QUALITY MONITORING AND PRESERVATION Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party,

PPs Submission: Complied

Standard Operating Procedures (SOPs) are developed for performance monitoring of pollution control devices and performance monitoring every year internally Performance monitoring of pollution control devices at every three year through an accredited third party will also be conducted.

Date: 02/05/2025

6 MISCELLANEOUS

In the Environmental Policy the hierarchy of reporting environmental non-compliances and emergencies should be clearly mentioned and submitted to the Regional Office of the MoEF&CC.

PPs Submission: Complied

The policy followed at SAIL for reporting environmental non-compliances and emergencies has already been submitted to MoEFCC-New Delhi.

Date: 02/05/2025

7

WASTE MANAGEMENT

Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.

PPs Submission: Complied

Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 will be complied.

Date: 02/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (prevention & Control of Pollution) Act 1974 from the concerned State pollution control Board/ Committee.

PPs Submission: Complied

Online application for Consent to Establish has been submitted to Chhattisgarh Environment Conservation Board (CECB) on 22/07/2019 The Consent to Establish was granted by CECB Ref.no. 8779/TS/CECB/2021,dated 08/01/2021 for Five Years.

Date: 02/05/2025

2

Statutory compliance

The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.

PPs Submission: Complied

No ground water will be used for the project.

Date: 02/05/2025

3

Statutory compliance

The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

PPs Submission: Complied

BSP has obtained the Authorization for the handling of the Hazardous Waste Generated in the Plant from Chhattisgarh Environment Conservation Board which is valid up to 16/04/2024. Copy of the authorization is enclosed at Flag-D

Date: 02/05/2025

4

AIR QUALITY MONITORING AND PRESERVATION The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules t986 vide G.S.R 277 {E) dated 3lst March 20l2(Integrated iron & Steel} G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal

power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. **PPs Submission:** Complied 31 nos of CEMs have been installed covering all the process stacks and connected to SPCB and Date: CPCB online servers and calibration of this system is being carried-out from time to time according 02/05/2025 to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. AIR OUALITY The project proponent shall monitor fugitive emissions in the plant MONITORING AND 5 premises at least once in every quarter through labs recognized under **PRESERVATION** Environment (Protection) Act, 1986. Date: **PPs Submission:** Complied 02/05/2025 Fugitive emissions are being monitored every quarter and report submitted to regulatory agencies. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g- PM10 and PM2.5 in AIR QUALITY MONITORING AND reference to PM emission, and SOx and NOx in reference to SO2 and 6 NOx emissions) within and outside the plant area at least at four **PRESERVATION** locations (one within and three outside the plant area at an angle of 1200 each), covering upwind and downwind directions PPs Submission: Complied 4 nos of Continuous Ambient Air Quality monitoring stations have been installed within and outside Date: the plant area covering upwind and downwind directions Twelve air pollutants, as per the National 02/05/2025 Ambient Air quality standards-2009, namely, PM10, PM2.5, Carbon Monoxide (CO), Sulphur Dioxide (SO2), Nitrogen Dioxide (NO2), Ammonia (NH3), ground level Ozone (O3), Lead, Arsenic, Nickel, Benzene and Benzo (a) Pyrene are being measured (Note: Benzene and Benzo (a) Pyrene is measured offline) The cameras shall be installed at suitable locations for 24X7 AIR QUALITY recording of battery emissions on the both sides of coke oven 7 MONITORING AND batteries and videos shall be preserved for at least one-month **PRESERVATION** recordings. Date: PPs Submission: Complied 02/05/2025 Cameras have been installed at Coke ovens for recording of battery emissions AIR OUALITY Sampling facility at process stacks and at quenching towers shall be 8 MONITORING AND provided as per CPCB guidelines for manual monitoring of emissions **PRESERVATION** Date: PPs Submission: Complied 02/05/2025 Sampling facilities at process stacks and at quenching towers have been provided as per CPCB guidelines for manual monitoring of emissions The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of AIR QUALITY manual stack monitoring and manual monitoring of air quality 9 MONITORING AND /fugitive emissions to Regional Office of MoEF&CC, Zonal office of **PRESERVATION** CPCB and Regional Office of SPCB along with six-monthly monitoring report,

Copies results		tinuous stack emission and air quality monitoring and anual monitoring of air quality /fugitive emissions d at Flag-E	Date: 02/05/2025
10	AIR QUALITY MONITORING AND PRESERVATION	Appropriate Air Pollution Control (APC) system s for all the dust generating points including fugitive of vulnerable sources, so as to comply prescribed stack fugitive emission standards.	dust from all
Air Pol fugitive		e been provided for all the dust generating points including The stack and fugitive emissions monitored are meeting	Date: 02/05/2025
11	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall provide leakage detection mechanised bag cleaning facilities for better maintenance.	
	Submission: Complied at maintenance of Bags is being dor	ne and are replaced whenever there are leakages.	Date: 02/05/2025
12	AIR QUALITY MONITORING AND PRESERVATION	Secondary emission control system shall be provide Converters.	ded at SMS
	Submission: Complied ary emission control system has be	een provided for SMS-3 Converters.	Date: 02/05/2025
13	AIR QUALITY MONITORING AND PRESERVATION	Pollution control system in the steel plant shall be the CREP Guidelines of CPCB.	provided as per
The Po treatme	ent of effluents of COCCD Seconda	nidelines of CREP have been provided BOD plant for the ary emission control system has been provided for SMS-3 have been provided for BF-8 and BF-7	Date: 02/05/2025
14	AIR QUALITY MONITORING AND PRESERVATION	Sufficient number of mobile or stationery vacuum provided to clean plant roads. shop floors, roofs, reg	
	Submission: Complied n cleaners are being used to clean p	plant roads. Shop floor etc, regularly.	Date: 02/05/2025
15	AIR QUALITY MONITORING AND PRESERVATION	Recycle and reuse Iron ore fines, coal and coke fir such other fines collected in the pollution control de cleaning devices in the process after briquetting/ agg	vices and vacuu
Iron or devices agglom	are being recycled back to the pro	nes and such other fines collected in the pollution control cess after appropriate treatment. A briquetting/ installed in next 3 years for increasing the utilization of	Date: 02/05/2025
16	AIR QUALITY MONITORING AND PRESERVATION	The project proponent use leak proof trucks/dump and other raw materials and cover them with tarpaul	

At BSI coal ar		or transportation of 95 Percent of the raw materials like tion of raw materials leak proof trucks/dumpers are	Date: 02/05/2025
17	AIR QUALITY MONITORING AND PRESERVATION	Facilities for spillage collection shall be provided fo on wharf of coke oven batteries (Chain conveyors, lan industrial vacuum cleaning facility)	
	Submission: Complied ies for spillage collection are provi	ided for coal and coke on wharf of coke oven batteries	Date: 02/05/2025
18	AIR QUALITY MONITORING AND PRESERVATION	Land-based APC system shall be installed to control emissions	coke pushing
	Submission: Complied based APC system has been install	ed to control coke pushing emissions in Coke oven Battery-	Date: 02/05/2025
19	A <mark>IR QUALITY</mark> MONITORING AND PRESERVATION	Monitor CO, HC and Oz in flue gases of the coke of detect combustion efficiency and cross leakages in the chamber	
Monito	Submission: Complied or CO, and O2 in flue gases of the es in the combustion chamber are	coke oven battery to detect combustion efficiency and cross being measured.	Date: 02/05/2025
20	AIR QUALITY MONITORING AND PRESERVATION	Vapour absorption system shall be provided in place compression system for cooling of coke oven gas in catype coke ovens	
	Submission: Complied stallation of the system shall be ex	plored in future based on feasibility	Date: 02/05/2025
21	AIR QUALITY MONITORING AND PRESERVATION	In case concentrated ammonia liquor is incinerated, temperature incineration to destroy Dioxins and Furan NOx control facility shall be provided 10 meet the prestandards	s. Suitable
Regula	Submission: Complied ar monitoring of coke oven stack e ovens are meeting the standards.	missions is being done and The Gaseous emissions from	Date: 02/05/2025
22	AIR QUALITY MONITORING AND PRESERVATION	The coke oven gas shall be subjected to desulphurize sulphur content in the coal exceeds 1%.	ation if the
	Submission: Complied P the imported coal has sulphur co	ntent less than 1 Percentage.	Date: 02/05/2025
	AIR QUALITY MONITORING AND	Wind shelter piles. fence and chemical spraying sharon the raw material stock piles	ll be provided
23	PRESERVATION	on the raw material stock piles	

02/05/2025 AIR QUALITY Design the ventilation system for adequate air changes as per 24 MONITORING AND ACGIH document for all tunnels, motor houses, Oil Cellars **PRESERVATION** Date: PPs Submission: Complied 02/05/2025 Ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars are installed. AIR QUALITY The project proponent shall install Dry Gas Cleaning Plant with bag 25 MONITORING AND filter for Blast Furnace and-SMS convertor- (to be decided on case to **PRESERVATION** case basis depending on type and size of plant) Date: PPs Submission: Complied 02/05/2025 At BSP consultant MECON has recommended wet gas cleaning systems for BFs and SMS convertors as the Dry Gas Cleaning Plant are not feasible. AIR **QUALITY** Dry quenching (CDQ) system shall be installed along with power MONITORING AND 26 generation facility from waste heat recovery from hot coke **PRESERVATION** Date: PPs Submission: Complied 02/05/2025 Dry quenching (CDQ) system along with power generation facility for waste heat recovery from hot coke has been installed for Coke Oven Battery-11. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 3ts(March 2012 {Integrated iron & Steel); G.S.R 414(E) dated 30 **WATER QUALITY** May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 27 **MONITORING AND** (E) dated 7th December 2015 (Thermal Power Plants) as amended **PRESERVATION** from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act 1986 or NABL accredited laboratories PPs Submission: Complied Date: continuous effluent monitoring systems have been installed for all three plant outlets VIz Outlet-A, 02/05/2025 B and C and are connected to SPCB and CPCB online servers Calibration of the systems is being carried-out regularly. The project Proponent shall monitor regularly ground water quality WATER QUALITY at least twice a year (pre and post monsoon) at sufficient numbers of MONITORING AND piezometer /sampling wells in the plant and adjacent areas through 28 **PRESERVATION** labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories. PPs Submission: Complied Date: Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas 02/05/2025 through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out The project proponent shall submit monthly summary report of WATER QUALITY continuous effluent monitoring and results of manual effluent testing MONITORING AND 29 and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB **PRESERVATION** along with six-monthly monitoring report.

Monthly and mar		nt monitoring and results of manual effluent testing ty reports (October-2021 to March-2022) are	Date: 02/05/2025
30	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall provide the ETP for coproduct to meet the standards prescribed in G.S.R 27 March 2012 (integrated iron & Steel); G-S.R 414 (E) 2008 (Sponge Iron) as amended from time to time; S. dated 7e December 2015 (Thermal Power Plants) as a time to time as amended from time to time.	7 (E) dated 31st dated 30s May O. 3305 (E)
At BSP		ant has been installed and is working effectively and 7 (E) dated 31st March 2012 (integrated iron and Steel)	Date: 02/05/2025
31	WATER QUALITY MONITORING AND PRESERVATION	Adhere to 'Zero Liquid Discharge'	
BSP has 5000 m;		Outlet-A, B and C). Effluent from outlet-A (About e recycling schemes for Outlet-B (450 m3/hr) and of completion.	Date: 02/05/2025
32	WATER QUALITY MONITORING AND PRESERVATION	Sewage Treatment Plant shall be provided for treatment wastewater to meet the prescribed standards.	ment of domes
A 30 M	ubmission: Complied LD sewage recycling plant has been in ed in the Township.	nstalled for treatment of recycling of domestic sewage	Date: 02/05/2025
33	WATER QUALITY MONITORING AND PRESERVATION	Garland drains and collection pits shall be provided pile to arrest the runoff in the event of heavy rains an water pollution due to surface run off	
Garland	ubmission: Complied drains and collection pits have been per pollution due to surface run off	provided at the Raw Material handling area to check	Date: 02/05/2025
34	WATER QUALITY MONITORING AND PRESERVATION	Tyre washing facilities shall be provided at the entr	ance of the pla
PPs S	ubmission: Complied ed.		Date: 02/05/2025
35	WATER QUALITY MONITORING AND PRESERVATION	CO2 injection shall be provided in GCP of SMS to circulating water to ensure optimal recycling of treate converter gas cleaning	
At SMS	ubmission: Complied b, pH in circulating water of GCPs is beant. The option of CO2 injection is also	eing maintained through addition of Use of Dispersant o being explored.	Date: 02/05/2025
36	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall practice rainwater harv maximum possible extent	esting to

drains water. Techn Bhilai Bhawa of pon	a. Approx. 71500 m3 rain water is chann. Recharge pits were constructed near 73 Rain Water Harvesting structure were it ical Institute, S.S School Sector-VII and Township (Sector-3 near FSNL, Sectoran, Hospital Sector near D-23, Jayanti S	e from the rooftops of Plate Mill and Machine Shop- nelized to Maroda-I reservoir through storm water 3 existing borewell to arrest the over flow /excess installed at T A Building, Bhilai Niwas, Bhilai d G.S.S School-V. 5 Recharge ponds were dug in e-3 near BTI Hostel, Sector-5 behind Andhra tadium) with recharge bore well at middle bottom of about 1 lac m3 capacity was made Behind Bhilai use with bore well at Centre.	Date: 02/05/2025
37	WATER QUALITY MONITORING AND PRESERVATION	Treated water from ETP of CCIBP shall not be use quenching	ed for coke
	Submission: Complied DB11 dry quenching system has been ins	stalled.	Date: 02/05/2025
38	WATER QUALITY MONITORING AND PRESERVATION	Water meters shall be provided at the inlet to all ur the steel plants	nit processes in
	Submission: Complied meters are installed at strategic location	ns to measure water flow to the process plants.	Date: 02/05/2025
39	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall make efforts to minimic consumption in the steel plant complex by segregation practicing cascade use and by recycling treated water	on of used water
Water for all		reduced through adoption of local recycling systems SMS-3 and BF-8). The effluents from older units are tment for re-use as industrial water.	Date: 02/05/2025
40	Noise Monitoring & Prevention	Noise monitoring and prevention	
PPs Regulation	Noise Monitoring & Prevention Submission: Complied ar noise monitoring is done at all the potential and the potential articles.	Noise monitoring and prevention tential high noise generating areas like BFs, Power s, silencers etc have been provided at all the high noise	Date: 02/05/2025
PPs Regulation of the control of the	Noise Monitoring & Prevention Submission: Complied ar noise monitoring is done at all the pot, Rolling Mills etc. Acoustic enclosures	Noise monitoring and prevention tential high noise generating areas like BFs, Power s, silencers etc have been provided at all the high noise	02/05/2025
PPs Regulable plants zones PPs PPs Noise	Noise Monitoring & Prevention Submission: Complied ar noise monitoring is done at all the pot, Rolling Mills etc. Acoustic enclosures to prevent workmen to the high noise experience. Noise Monitoring & Prevention Submission: Complied	Noise monitoring and prevention tential high noise generating areas like BFs, Power s, silencers etc have been provided at all the high noise exposure. Noise level survey shall be carried as per the prescand report in this regard shall be submitted to Region	02/05/2025 ribed guidelines nal Officer of the
PPs Regularits cones 11 PPs Noise	Noise Monitoring & Prevention Submission: Complied ar noise monitoring is done at all the port, Rolling Mills etc. Acoustic enclosures to prevent workmen to the high noise experience. Noise Monitoring & Prevention Submission: Complied level survey is being carried as per the prevention.	Noise monitoring and prevention tential high noise generating areas like BFs, Power s, silencers etc have been provided at all the high noise aposure. Noise level survey shall be carried as per the presc, and report in this regard shall be submitted to Region Ministry as a part of six-monthly compliance report	02/05/2025 ribed guidelines nal Officer of the Date: 02/05/2025

The project proponent shall provide TRTs to recover energy from

43

ENERGY PRESERVATION

	MEASURES	top gases of Blast Furnaces	
	Submission: Complied v BF-8, TRTs to recover energy from to	op gases of Blast Furnace has been installed.	Date: 02/05/2025
44	ENERGY PRESERVATION MEASURES	Coke Dry Quenching (CDQ shall be provided for col for both recovery and non-recovery type coke ovens	ke quenching
	Submission: Complied v Coke oven Battaery-11, Coke Dry Qu	uenching (CDQ) has been installed	Date: 02/05/2025
45	ENERGY PRESERVATION MEASURES	Waste heat shall be recovered from Sinter Plants coo Machines	lers and Sinte
	Submission: Complied heat recovery systems have been insta	lled for Sinter Plants coolers and Sinter Machines of	Date: 02/05/2025
46	ENERGY PRESERVATION MEASURES	Use torpedo ladle for hot metal transfer as far as poss not used, provide covers for open top ladles	sible. If ladles
	Submission: Complied v BF-8, torpedo ladle is being used for	hot metal transfer	Date: 02/05/2025
47	ENERGY PRESERVATION MEASURES	Use hot charging of slabs and billets/blooms as far as	s possible
	Submission: Complied arging of slabs and billets/blooms is be	eing done at Rolling mills.	Date: 02/05/2025
48	ENERGY PRESERVATION	Waste heat recovery systems shall be provided in all the flue gas or process gas exceeds 300oC	units where
	MEASURES	the flue gas of process gas exceeds 5000C	
Waste	Submission: Complied	lled at Sinter Plants, Coke ovens, Blast Furnaces, Power	Date: 02/05/2025
Waste Plants	Submission: Complied	Totects if She is	02/05/2025 From BF stove
Waste Plants 49 PPs Waste Plants	Submission: Complied heat recovery systems have been insta ENERGY PRESERVATION MEASURES Submission: Complied heat recovery systems have been insta	Explore feasibility to install WHRS at Waste Gases f Sinter Machine; Sinter Cooler, and all reheating firm a feasible shall be installed lled at Sinter Plants, Coke ovens, Blast Furnaces, Power ed in new units under Modernization In future more	02/05/2025 From BF stove ces and if
Waste Plants 49 PPs Waste Plants such u	Submission: Complied heat recovery systems have been insta ENERGY PRESERVATION MEASURES Submission: Complied heat recovery systems have been insta WHRS systems have also been install	Explore feasibility to install WHRS at Waste Gases f Sinter Machine; Sinter Cooler, and all reheating firm a feasible shall be installed lled at Sinter Plants, Coke ovens, Blast Furnaces, Power ed in new units under Modernization In future more	02/05/2025 From BF stove ces and if
Waste Plants 49 PPs Waste Plants such u 50 PPs	Submission: Complied heat recovery systems have been insta ENERGY PRESERVATION MEASURES Submission: Complied heat recovery systems have been insta WHRS systems have also been install nits will be installed based on feasibilit ENERGY PRESERVATION	Explore feasibility to install WHRS at Waste Gases for Sinter Machine; Sinter Cooler, and all reheating firm a feasible shall be installed Illed at Sinter Plants, Coke ovens, Blast Furnaces, Power ed in new units under Modernization In future more ty.	02/05/2025 From BF stove ces and if

2x100		ps of Bhilai Niwas has been installed and provision ower generation has also been developed.	Date: 02/05/2025				
52 ENERGY PRESERVATION MEASURES Provide LED lights in their offices and residential and second residential and sec							
	Submission: Complied sive use of LED lights in their offices a	and residential areas is being practiced.	Date: 02/05/2025				
53	ENERGY PRESERVATION MEASURES	Ensure installation of regenerative type burners or furnaces	all reheating				
	Submission: Complied erative type burners are being used for a	all reheating furnaces	Date: 02/05/2025				
54	WASTE MANAGEMENT	An attrition grinding unit to improve the bulk dense granulated slag from 1.0 to 1.5 Kg/ I shall be installed river sand in construction industry					
All the		P is being supplied to Cement Industry. In future if and ent Industry BSP will offer the slag to construction	Date: 02/05/2025				
55	WASTE MANAGEMENT	In case of Non-Recovery coke ovens, the gas main gases to the boiler, shall be insulated to conserve he maximise heat recovery					
	Submission: Complied at BSP the coke ovens are of recovery t	ype.	Date: 02/05/202:				
56	WASTE MANAGEMENT	Tar Sludge and waste oil shall be blended with coorovens (applicable only to recovery type coke ovens)	_				
At BS being		al charged in coke ovens and waste lubrication oil is it and recycled back after recovery/regeneration. The clers	Date: 02/05/202				
skimm							
	WASTE MANAGEMENT	Carbon recovery plant to recover the elemental car GCP slurries for use in Sinter plant shall be installed					
57 PPs Present	WASTE MANAGEMENT Submission: Complied ntly BSP is in the process of setting-up	a sludge briquetting plant where all the sludges owever BSP will also explore the process of recovery of	Date: 02/05/202				
PPs Presen genera elemen	WASTE MANAGEMENT Submission: Complied ntly BSP is in the process of setting-up nted from the processes will be used. He	a sludge briquetting plant where all the sludges owever BSP will also explore the process of recovery of	Date: 02/05/202.				
PPs Present generate elements 58	WASTE MANAGEMENT Submission: Complied ntly BSP is in the process of setting-up nted from the processes will be used. He ntal carbon from GCP sludges in future WASTE MANAGEMENT Submission: Complied	a sludge briquetting plant where all the sludges towever BSP will also explore the process of recovery of each of the sludge slowever BSP will also explore the process of recovery of each of the sludges as well also explore the process of recovery of each of the sludges of th	Date: 02/05/202:				

Date: PPs Submission: Complied 02/05/2025 Being done. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway hack ballast and other applications. The project proponent shall install a waste recycling 60 WASTE MANAGEMENT facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for I00% reuse of rejects from Waste Recycling Plant **PPs Submission:** Complied At BSP SMS/BOF slag is being processed into different size fractions and recycled back to Sinter and BF as replacement of flux. BSP is also exploring methodologies for use of BOF slag for road making, railway ballast and other applications. We are seeking the services of Centre for Construction Development and Research National Council for Cement and Building Materials for exploring alternative applications for BOF slag. BSP has given an assignment to NIT-Raipur for assessing the suitability of steel slag as pavement material and feasibility of Steel slag in construction of the rural roads. The final report submitted in June-2021 is being shared with all govt Date: and pvt agencies involved in Construction/road making activities to promote its use as 02/05/2025 construction/pavement material. Other Central R and D initiatives in SAIL for BOF slag and BF Slag utilization: Pilot scale project on steam maturing of BOF Slag at BSL, Bokaro Field trial on assessing suitability of weathered BOF slag as rail track ballasts at BSL, Bokaro Supply of Air Cooled BF slag for construction of road under Four Laning Project of NH-32at WB Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development and Research of National Council for Cement and Building Materials (NCCBM), under the administrative control of Ministry of Commerce and Industry, Government of India, Study on use of BOF slag as soil ameliorating agent in agriculture through Indian Agricultural Research Institute (IARI), New Delhi. Use of steel slag in Open Graded Asphalt Friction Courses (OGAFC) through Department of Civil Engineering, IIT Guwahati 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization WASTE MANAGEMENT 61 and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office PPs Submission: Complied Date: 100 percent utilization of fly ash as per Fly-ash rules is being followed at BSP. At BSP fly ash 02/05/2025 generation is very less as the boilers are run mostly on By-product gases generated from steel plant operations. The limited quantity of ash generated is being used for reclamation of low lying areas within the plant premises as per the fly-ash rules. Oil Collection pits shall be provided in oil cellars to collect and 62 WASTE MANAGEMENT reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area Date: PPs Submission: Complied 02/05/2025 Being Complied. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising chrome plating mills etc. shall be disposed 63 WASTE MANAGEMENT of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens PPs Submission: Complied Date: The acid sludge and other hazardous wastes are disposed of as per the Hazardous and Other waste 02/05/2025 (Management and Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter is being recycled to coke ovens or sold to authorized recyclers.

DD 0			
	Submission: Complied n waste is composted and used for H	Horticulture as manure.	Date: 02/05/2025
65	GREENBELT	Green belt shall be developed in an area equal to 339 area with a native tree species in accordance with CPC The greenbelt shall inter alia cover the entire periphery	B guidelines.
BSP ha the year coverin 60,000 Vikas N develop reservo	r 2021-22(April-March), BSP has p ig an area of about 15-20 hectares. I saplings planted at Township and it Nigam. Till Sep2021 about 6000 tr bed to meet the 33 percent criteria is	n area covering about 1840 hectares till March-2021. In lanted 7080 trees within the plant premises and township in the year 2021-22 BSP has been planted 67080 Trees. It is surrounding area of Bhilai. Work awarded to C.G. Van bees have been planted. Further Green belt required to be about 280 Hectares. (However by excluding the two bares from the total area of the project, BSPs green belt	Date: 02/05/2025
66	GREENBELT	The project proponent shall prepare GHG emissions the plant and shall submit the programme for reduction including carbon sequestration including plantation.	
BSP ma		ry and also the emission data is submitted to world steel nmitment as member under Climate	Date: 02/05/2025
67	PUBLIC HEARING	Emergency preparedness plan based on the Hazard ic and Risk Assessment (HIRA) and Disaster Manageme implemented	
At BSP identifica approve EPP/DI	cation and Risk Assessment (HIRA ed by Factory Inspector. Regular mo	r own Emergency preparedness plan based on the Hazard) and Disaster Management Plan. The documents are ock-drills are organized to check the effectiveness of the nock drill review and also based on recommendations e safety management of BSP	Date: 02/05/2025
At BSP identificapprove EPP/DI from ex	Pall departments have prepared their cation and Risk Assessment (HIRA ed by Factory Inspector. Regular models and are updated based on the models.) and Disaster Management Plan. The documents are ock-drills are organized to check the effectiveness of the nock drill review and also based on recommendations	02/05/2025 lysis for the d provide
At BSP identification of the second of the s	P all departments have prepared their cation and Risk Assessment (HIRA ed by Factory Inspector. Regular modern MPs and are updated based on the magnetic agencies engaged to review the PUBLIC HEARING Submission: Complied all occupation Health Centre (NOHC)	and Disaster Management Plan. The documents are ock-drills are organized to check the effectiveness of the nock drill review and also based on recommendations e safety management of BSP The project proponent shall carry out heat stress anal workmen who work in high temperature work zone an Personal Protection Equipment(PPE) as per the norms Set-up at BSP regularly carry out heat stress analysis for the work zone. All the workmen are mandatorily provided	02/05/2025 lysis for the d provide
At BSP identification of the second of the s	Pall departments have prepared their cation and Risk Assessment (HIRA ed by Factory Inspector. Regular modern MPs and are updated based on the magnetic agencies engaged to review the PUBLIC HEARING Submission: Complied all occupation Health Centre (NOHC) when who work in high temperatur	and Disaster Management Plan. The documents are ock-drills are organized to check the effectiveness of the nock drill review and also based on recommendations e safety management of BSP The project proponent shall carry out heat stress anal workmen who work in high temperature work zone an Personal Protection Equipment(PPE) as per the norms Set-up at BSP regularly carry out heat stress analysis for the work zone. All the workmen are mandatorily provided	lysis for the d provide of Factory Ac Date: 02/05/2025 ion labour silities such as king water, in the form of

regular basis and records maintained as per the Factories Act Date: PPs Submission: Complied 02/05/2025 Being Complied. Occupational health surveillance of the workers is being done regularly. The project proponent shall comply with the provisions contained Corporate Environmental 71 in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May Responsibility 2018, as applicable, regarding Corporate Environment Responsibility PPs Submission: Complied Date: BSP has initiated action for completion of all identified CER activities/projects committed in the 02/05/2025 reply to the ADS letter dated 02.01.2019. Due to the prevalence of COVID pandemic there has been delay in completion of the projects. However, presently the CER projects are progressing well and likely to be completed by June-2021. A detailed status report on CER activities enclosed at Flag-C The Company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / Corporate Environmental deviation/ violation of the environmental / forest/ wildlife norms/ 72 Responsibility conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental / forest/ wildlife norms/ conditions and / or shareholders /stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six -monthly report PPs Submission: Complied BSP has well laid down environmental policy duly approve by the Board of Directors. An SOP for reporting of the non-compliance / infringements to Board of Directors (BoD) is also being followed. Accordingly, Complying to MoEFCC OM dtd. 26th April 2011, status of statutory compliances is reported to Board on quarterly basis and in case of non-compliance received by statutory authorities it is reported to Board along with action plan in the next board meeting. The Board Meetings are Date: held once every month. All the Environment and related Clearances and status of compliances are 02/05/2025 shown on companys website. Other information: As per the Annexure-IV of the Department of Public Enterprises (DPE) Guidelines on Corporate Governance and Part-A of the Schedule-II of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, detailed information in respect of fatal or serious accidents, dangerous occurrences, any material effluent or pollution problems, is placed before the Board of Directors of SAIL. As per the Part-A of Schedule-III of Securities Exchange Board of India (SEBI)s (Listing Obligations and Disclosure Requirements) Regulations, 2015, occurrence of emergency, accidents, etc., if material in nature, is disclosed to the Stock Exchanges through Board of Directors within 24 hours. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the Corporate Environmental 73 Responsibility control of senior Executive, who will directly to the head of the organization PPs Submission: Complied BSP has a separate Environmental Department with well-equipped laboratory. Adequate Qualified Date: executive and non-executive personnel have been posted to the department and Lab The department 02/05/2025 is headed by a senior officer of the rank of General Manger who reports to Executive Director (works). At corporate level a separate environment management Division has been set-up. At corporate level the division is headed by Executive Director who reports to Director (technical) Corporate Environmental Self-environmental audit shall be conducted annually. Every three 74 years third party environmental audit shall be carried out. Responsibility Date: PPs Submission: Complied 02/05/2025 Environmental Audits under EMS:ISO:14001 are being carried-out every year through external

agencies. The Last Audi was carried-out by M/s.TUV-Nord in August-2020.

75	Corporate Environmental Responsibility	All the recommendations made in the Charter on Co- Responsibility for Environment Protection (CREP) for Steel plants shall be implemented	
PPs S	Submission: Complied ed		Date: 02/05/2025
76	MISCELLANEOUS	The project proponent shall make public the environ clearance granted for their project along with the environ conditions and safeguards at their cost by prominently at least in two local newspapers of the District or State shall be in the vernacular language within seven days at this shall also be displayed in the project proponent's we permanently	conmental advertising it e, of which one and in addition
	Submission: Complied ed. Environmental clearance grante	ed to BSP has been placed in the web portal of SAIL.	Date: 02/05/2025
77	MISCELLANEOUS	The copies of the environmental clearance shall be s project proponents to the Heads of local bodies, Panch Municipal Bodies in addition to the relevant offices of Government who in turn has to display the same for 30 date of receipt	ayats and the
PPs S	Submission: Complied	ACCURATION OF THE PARTY OF THE	Date: 02/05/2025
78	MISCELLANEOUS	The project proponent shall upload the status of comstipulated environment clearance conditions, including monitored data on their website and update the same obasis	g results of
PPs S Compli	Submission: Complied ed	Protector of Sixe of State	Date: 02/05/2025
79	MISCELLANEOUS	The project proponent shall monitor the criteria pollunamely; PM10, SO2, NOx (ambient levels as well as sor critical sectoral parameters, indicated for the projecthe same at a convenient location for disclosure to the on the website of the company	tack emission ts and display
Complice/m		isplayed at the Companys main gate and in a public orugh large electronic Display Boards. The monitored data	Date: 02/05/2025
80	MISCELLANEOUS	The project proponent shall submit six-monthly repositatus of the compliance of the stipulated environment on the website of the ministry of Environment, Forest Change at environment clearance portal	al conditions
PPs S	Submission: Complied ed		Date: 02/05/2025
81	MISCELLANEOUS	The project proponent shall submit the environmenta each financial year in Form-Y lo the concerned State I Control Board as prescribed under the Environment (F	Pollution

		Rules, 1986, as amended subsequently and put on company	the website of the
PPs S Compli	lubmission: Complied ed		Date: 02/05/2025
82	MISCELLANEOUS	The project proponent shall inform the Regional the Ministry, the date of financial closure and final project by the concerned authorities, commencing development work and start of production operatio	approval of the the land
PPs S Compli	ubmission: Complied ed		Date: 02/05/2025
83	MISCELLANEOUS	The project authorities must strictly adhere to the by the State Pollution Control Board and the State	
PPs S Compli	Submission: Complied ed		Date: 02/05/2025
84	MISCELLANEOUS	The project proponent shall abide by all the commercommendations made in the EIA/EMP report conduring Public Hearing and also that during their pre- Expert Appraisal Committee	mmitment made
PPs S Compli	ubmission: Complied		Date: 02/05/2025
85	MISCELLANEOUS	No further expansion or modifications in the plar out without prior approval of the Ministry of Envir and climate Change (MoEF&CC)	
	ubmission: Complied Complied/agreed	Protects of She is Protects of She	Date: 02/05/2025
86	MISCELLANEOUS	Concealing factual data or submission of false /fa result in revocation of this environmental clearance under the provisions of Environment(Protection) A	e and attract actio
			100, 1700
PPs S Agreed	ubmission: Complied	e-Payments	Date: 02/05/2025
	ubmission: Complied MISCELLANEOUS	The Ministry may revoke or suspend the clearance implementation of any of the above conditions is n	Date: 02/05/2025
Agreed 87 PPs S			Date: 02/05/2025 ce, if not satisfactory Date:
Agreed 87	MISCELLANEOUS		Date: 02/05/2025 ce, if not satisfactory Date: 02/05/2025 conal conditions if

The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports					
PPs S	Submission: Complied		Date: 02/05/2025		
90	MISCELLANEOUS	The above conditions shall be enforced, inter-alia uprovisions of the Water (Prevention & Control of Pol 1974, the Air (Prevention & Control of Pollution) Ac Environment (Protection) Act, 1986, Hazardous and (Management and Transboundary Movement) Rules, Public Liability Insurance Act, 1991 along with their and Rules and any other orders passed by the Hon'ble of India / High Counts and any other Court of Law resubject matter	llution) Act, et, 1981, the other Wastes 2016 and the amendments e Supreme Cour		
PPs S Agreed	Submission: Complied		Date: 02/05/2025		
91	MISCELLANEOUS	Any appeal against this EC shall lie with the Nation Tribunal, if preferred within a period of 30 days as prescribing Sction 16 of the National Green Tribunal Act, 2010			
PPs S	Submission: Complied		Date: 02/05/2025		
92	Corporate Environmental Responsibility	Action plan for implementing EMP and environme along with responsibility matrix of the company shall shall be duly approved by competent authority. The yearmarked for environmental protection measures sha separate account and not to be diverted for any other wise progress of implementation of, action plan shall the Ministry/ Regional Office along with the Six Mor Compliance Report.	I be prepared an year wise funds all be kept in purpose. Year be reported to		
PPs S Compli prepare	Responsibility Submission: Complied ied. A detailed action plan for imple	along with responsibility matrix of the company shal shall be duly approved by competent authority. The yearmarked for environmental protection measures sha separate account and not to be diverted for any other wise progress of implementation of, action plan shall the Ministry/Regional Office along with the Six Mon	l be prepared anyear wise funds all be kept in purpose. Year be reported to nthly Date:		
PPs S Compli prepare	Responsibility Submission: Complied ied. A detailed action plan for impleed and progress is being monitored of	along with responsibility matrix of the company shal shall be duly approved by competent authority. The y earmarked for environmental protection measures sha separate account and not to be diverted for any other wise progress of implementation of, action plan shall the Ministry/ Regional Office along with the Six Mor Compliance Report.	l be prepared and rear wise funds all be kept in purpose. Year be reported to nithly Date: 02/05/2025		
PPs S Compli prepare of actio	Responsibility Submission: Complied ied. A detailed action plan for impled and progress is being monitored on plan is enclosed (Flag-H) MISCELLANEOUS Submission: Complied	along with responsibility matrix of the company shal shall be duly approved by competent authority. The yearmarked for environmental protection measures sha separate account and not to be diverted for any other wise progress of implementation of, action plan shall the Ministry/ Regional Office along with the Six Mor Compliance Report. The mentation of EMPs along allocation of funds has been on regular basis. Copy of the progress of implementation Safety mock drill for gas pipeline maintenance shall every six months and reported to the Regional Office MoEFandCC. The project proponent shall arrange to	l be prepared ar year wise funds all be kept in purpose. Year be reported to nthly Date: 02/05/2025 Il be conducted of provide trainin Date:		
PPs S Compliprepare of action 93	Responsibility Submission: Complied ied. A detailed action plan for impled and progress is being monitored on plan is enclosed (Flag-H) MISCELLANEOUS Submission: Complied	along with responsibility matrix of the company shal shall be duly approved by competent authority. The yearmarked for environmental protection measures sha separate account and not to be diverted for any other wise progress of implementation of, action plan shall the Ministry/ Regional Office along with the Six Mor Compliance Report. The mentation of EMPs along allocation of funds has been on regular basis. Copy of the progress of implementation Safety mock drill for gas pipeline maintenance shall every six months and reported to the Regional Office MoEFandCC. The project proponent shall arrange to	l be prepared ar year wise funds all be kept in purpose. Year be reported to nthly Date: 02/05/2025 Il be conducted of provide trainin		
PPs S Compliprepare of action 93 PPs S Agreed	Responsibility Submission: Complied ied. A detailed action plan for impled and progress is being monitored on plan is enclosed (Flag-H) MISCELLANEOUS Submission: Complied	along with responsibility matrix of the company shal shall be duly approved by competent authority. The yearmarked for environmental protection measures sha separate account and not to be diverted for any other wise progress of implementation of, action plan shall the Ministry/Regional Office along with the Six Mor Compliance Report. The mentation of EMPs along allocation of funds has been on regular basis. Copy of the progress of implementation Safety mock drill for gas pipeline maintenance shall every six months and reported to the Regional Office MoEFandCC. The project proponent shall arrange to to employees on 'behavioral safety'.	l be prepared and lear wise funds all be kept in purpose. Year be reported to anthly Date: 02/05/2025 Il be conducted to provide training the provide training the page 1.		



FLAG-A

Safety Mock Drill

Oct'22 to Mar'23

ENERGY MANAGEMENT DEPARTMENT BHILAI STEEL PLANT

SUB: MOCK DRILL CONDUCTED AT NEW LD GAS HOLDER FOR SMS3, EMD. Date:11/11/2022 Incident in Brief:

On 11/11/2022 after noon, EMD Mech group was engaged in bolt revisioning job of Quick acting check valve(QACV) flange of Inlet gas line(5 meters above ground level) at New LD Gas Holder. CO concentration of the site before start of the job was monitored by portable CO monitor found to be normal. At 3.25 PM, Saif Ali, contractual worker who was engaged in above mentioned job noticed sudden leakage of gas from flange due to rupture of packing of the flange. He informed to other group members who were on the same job. The portable CO monitor also started showing concentration above 2000 ppm. The group immediately moved away from the leakage site and came down. Meanwhile, Saif Ali and Doman Lal, both contractual workers felt uneasiness. They sat down on the ground and fell unconscious. Mr Ramesh Yadav, Supervisor, immediately alerted the other group members to move to safer place and report at Assembly point. He went to control room and informed the operators about the incident. T.K Sahu, Operator, informed the incident to Energy Centre and Mrs.U.V.Subhadra(GM & Section i/c). The Siren blown at 3.30 PM by the other operator to alert persons about the abnormal incident. Immediately, all the working persons of Gas Holder complex reported at Assembly point. Meanwhile, Energy Centre shift i/c informed about the incident to various agencies/persons(annexture-1 attached). All the agencies/persons immediately reached at New Gas Holder. Firstly, Fire Brigade rescued the two affected persons and sent to MMP in ambulance. Fire brigade searched the area for any other affected persons and found none. Head counting was carried out at Assembly point and found normal. Meanwhile, CISF had cordoned off the road and affected site. Later on, Gas Safety team arrested the gas leakage and after confirming CO concentration normal in the area, they gave clearance to Mr. B. K. Sinha(GM i/c & Chief Incident Controller)EMD. Finally, the Siren sound was blown to declare normalcy at 3.51 PM. Meanwhile, the gas affected persons were admitted in MMP at 3.54 PM. After giving treatment they were discharged at 4.30 PM from MMP.

Post Mock Drill review Meeting:

Post Mock drill review meeting was held at Gas Holder immediately after the mock drill to discuss about the incident and drill carried out.

Observations:

- 1. All the persons and agencies reached the site with required preparedness and time.
- 2. The communication system, rescue & evacuation, cordon off, risk mitigation and medical service found satisfactory.
- 3. The location board, assembly point, route signage, Siren, wind socks, Emergency control phone numbers, fixed and portable CO monitors, first aid kit and breathing apparatus exist at the site.
- 4. The Mock drill was conducted satisfactorily.

Recommendation:

- 1. Step Ladder required at Quick Acting Check Vave platform.
- 2. Siren sound volume needs to be improved to make it audible to all working persons inside the Gas Holder complex.
- 3. Director In Charge office needs to be informed prior to mock drill.

MEMBERS PRESENT:

- 1. B. K. SINHA(GM i/c)EMD
- 2. S K DASHORE, GM(EMD)
- 3 U V SUBHADRA, GM, 4 MT operation(EMD)
- 4 S.RAMANI, GM, Gas safety(EMD)
- 5. Y Y KONNUR, GM & DSO(EMD)
- 6. R K SONI, AGM, 4 MT oprn(EMD)
- 7. SANJAY DHAWAS, DY CFO(FIRE BRIGADE)
- 8 .S R DHRUW Sr Mgr, GS(EMD)
- 9. V K SHRIVASTAVA Sr Mgr, Mech(EMD)
- 10. TRIPTI VERMA, AM, Energy CentreAM(EMD)
- 11. J L MESHRAM, MGR(SED)
- 12. SWATANTRA KUMAR, MASTER INST(CIVIL DEFENCE HRDC)
- 13. H S SHUKLA, ASI/Exe(CISF)

Y Y KONNUR GM&DSO(EMD)

S.NO	AGENCY/PERSON	INFORMED TIME	ARRIVAL TIME
1	Information to Energy centre and Section	3.31 pm	3.41 pm(section I/C)
	I/C by Gas Holder operator.	a Saw many disk Oliv	T Assem Surface T-100 (ALL) II and
	Information by Energy Centre to	was maketa trastom Marik	See select to memory With Principal
	following agencies/persons		
2	Fire brigade	3.31 pm	3.41 pm
3	MMP	3.31 pm	3.43 pm
4	Gas Safety	3.31 pm	3.43 pm
5	CISF	3.31 pm	3.43 pm
6	HOD	3.32 pm	3.42 pm
7	DSO	3.32 pm	3.42 pm
8	SED	3.34 pm	3.44 pm
9	Civil Defence	3.34 pm	3.44 pm
10	Plant control	3.34 pm	-
11	Energy centr I/C	3.35 pm	

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FLAG-B

Safety Training Details

Oct'22 to Mar'23

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant	Total #
			11.10.22	24	
			12.10.22	22	
			13.10.22	26	
1.	Safety Training On Human Factor.	7	14.10.22	24	158
			15.10.22	23	
			27.10.22	19	
			28.10.22	20	
			01.10.22	30	81
2.	Defensive Driving Two wheeler	4	15.10.22	19	
۷.	Defensive Driving-Two wheeler	4	22.10.22	19	91
			29.10.22	13	
			17.10.22	26	140
			18.10.22	23	
3.	DIC Induction.		19.10.22	28	
3.	Die maaction.	6	20.10.22	23	140
			21.10.22	20	
			22.10.22	20	
Total	Number of Programme Conducted	17	Total	Participants =	379

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Standard's Awareness On Permit to Work.	1	06.10.22	26	26
2.	Standard's Awareness On Confines Space.	1	07.10.22	20	20
			11.10.22	24	
			12.10.22	19	
			13.10.22	26	
3.	Under Standing Your Culture	7	14.10.22	17	139
			17.10.22	17	
			18.10.22	18	
			19.10.22	18	
4.	TTT On Energy Isolation.	1	27.10.22 – 29.10.22	08	08
5.	Safety Training On Human Factor	1	10.10.22	26	26
6.	Standard's Awareness On HIRA/JSA.	1	27.10.22	22	22
7	Total Number of Programme Conducted	12	Total	Participants =	241

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
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1.	Safety Training On Human Factor	1	29.10.22	32	32
Total Number of Programme Conducted		1	Total Pa	rticipants =	32

Summary:

- * TOTAL PROGRAMS (For Regular Employees) ORGANISED IN OCT.-2022: 29 (17 NE + 12 Exe.)
- * TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN OCT. -2022: 620 (379 NE & 241 Exe.)
- * Safety Training for Contract Workers at Works Area in OCT. 2022: #Prog: 29 Participants 407

Safety Training Status of Reg. Employees at a Glance:

	No of Pro	grammes	mmes No. of employees Covered		Total No. of
YEAR Exe.		Non Exe	Exe.	Non Exe.	Employees Covered
Fin.Year-2022-23	89	78	1366	1968	3334
(01.04.22-31.10.22)	89	76	1300	1908	5554
Cal. Year-2022	105	108	1503	2645	4148
(01.01.22-31.10.22)	105	108	1303	2045	4140

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant	Total #
			01.11.22	29	
			04.11.22	28	
1.	Safety Training On Human Factor.	5	05.11.22	26	135
			21.11.22	27	
			22.11.22	25	
2.	Safety In Traffic Operation.	1	03.11.22	19	19
3.	Safety Training For Crane Operators.	1	17.11.22	31	31
4.	Gas Safety In Steel Industries.	1	24.11.22	28	28
5.	Human Factor Trg. For BRM	1	16.11.22	20	20
6.	Safety Circle Training.	1	29.11.22	23	23
Total	Total Number of Programme Conducted		Total	Participants =	256

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
			10.11.22	14	
1.	Under Standing Your Culture	3	11.11.22	21	51
			12.11.22	16	
2.	TTT On HIRS/JSA.	1	07.11.22 to 09.11.22	08	08
3.	TTT On PPE's	1	10.11.22 to 12.11.22	08	08
4.	Training By 'National Safety Council'.	1	09.11.22 to 11.11.22	15	15
5.	Standard's Awareness On High Hazard Process.	1	14.11.22	22	22
6.	Standard's Awareness On Confined Space.	1	15.11.22	19	19
7.	Interaction On Safety Encouragement & Engagement.	1	16.11.22	22	22
8.	Standard's Awareness On Working at Height.	1	23.11.22	25	25
9.	Standard's Awareness On Permit to Work.	1	28.11.22	19	19
			12.11.22	19	
10.	Defensive Driving-Four wheeler	3	19.11.22	13	47
			26.11.22	15	
7	Total Number of Programme Conducted		Total	Participants =	236

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1	1. Safety Training On Human Factor	2	25.11.22	25	54
1.			26.11.22	29	
2.	Safety Training For Shunting Staff of T & D	1	02.11.22	20	20
	Total Number of Programme Conducted		Total Pa	rticipants =	74

Summary:

- * TOTAL PROGRAMS (For Regular Employees) ORGANISED IN NOV.-2022: 24 (10 NE + 14 Exe.)
- * TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN NOV. -2022: 492 (256 NE & 236 Exe.)
- * Safety Training for Contract Workers at Works Area in NOV. 2022: #Prog: 26 Participants 489

Safety Training Status of Reg. Employees at a Glance:

No of Program		grammes	rammes No. of employees (Total No. of
YEAR	Exe.	Non Exe	Exe.	Non Exe.	Employees Covered
Fin.Year-2022-23 (01.04.22-30.11.22)	103	88	1602	2224	3826
Cal. Year-2022 (01.01.22-30.11.22)	119	118	1739	2901	4640

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant	Total #
	Safaty Training On Human Factor		05.12.22	27	
1.		4	06.12.22	30	109
1.	Safety Training On Human Factor.	4	07.12.22	29	
			08.12.22	23	
2	2. Safety In Traffic Operation.	2	01.12.22	15	28
۷.		2	26.12.22	13	20
3.	Chemical Safety For COCCD.	1	02.12.22	23	23
	Defensive Driving For Two Wheelers		03.12.22	13	
4.		4	10.12.22	16	61
4.		4	17.12.22	18	01
			24.12.22	14	
5.	Gas Safety In Steel Industries.	1	16.12.22	28	28
			20.12.22	18	
_	DIC Induction	4	21.12.22	24	07
6.	Dic illuuction	4	22.12.22	23	87
			23.12.22	22	
Total	Number of Programme Conducted	16	Total	Participants =	336

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Standard's Awareness On HIRA & JSA.	1	01.12.22	28	28
2.	Standard's Awareness On Permit to Work.	1	09.12.22	26	26
3.	Standard's Awareness On HHP.	1	12.12.22	19	19
4.	Standard's Awareness On Confined Space.	1	13.12.22	14	14
5.	Standard's Awareness On PPE's.	1	14.12.22	17	17
6.	Standard's Awareness On Working At Height.	1	15.12.22	17	17
7.	Interaction On Safety Encouragement & Engagement (i-SEE).	1	19.12.22	21	21
8.	Safety Circle Training.	1	24.12.22	21	21
	Total Number of Programme Conducted		Total P	articipants =	163

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training For Shunting Staff of T & D	1	27.12.22	20	20
	Total Number of Programme Conducted		Total Pa	rticipants =	20

Summary:

- * TOTAL PROGRAMS (For Regular Employees) ORGANISED IN DEC.-2022: 24 (16 NE + 8 Exe.)
- * TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN <u>DEC. -2022</u>: 498 (336 NE & 163 Exe.)
- * Safety Training for Contract Workers at Works Area in <u>DEC. 2022</u>: # Prog : 32 Participants: 469

Safety Training Status of Reg. Employees at a Glance:

No of Programmes		No. of emp	oloyees Covered	Total No. of		
YEAR	Exe.	Non Exe	Exe.	Non Exe.	Employees Covered	
Fin.Year-2022-23	111	104	1765	2560	4325	
(01.04.22-31.12.22)	111	104	1703	2300	4323	
Cal. Year-2022	127	134	1002	3237	E120	
(01.01.22-31.12.22)	127	154	1902	3237	5139	

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant	Total #
1.	Safety Training On Human Factor.	2	04.01.23	29	60
1.	Safety Training Off Fluinair Factor.	2	05.01.23	31	
2.	Safety In Traffic Operation.	1	06.01.23	17	17
			07.01.23	25	
3.	Defensive Driving For Two Wheelers	3	21.01.23	24	67
			28.01.23	29 31 17 25	
4.	Achieving Awareness In Occupational Health & First Aid.	1	27.01.23	39	39
5.	Safety Circle Training.	1	28.01.23	21	21
Total	Number of Programme Conducted	8	Total P	articipants =	204

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Standard's Awareness On Confined Space.		09.01.23	24	24
2.	Standard's Awareness On Electrical safety.	1	10.01.23	24	24
3.	Standard's Awareness On HIRA & JSA.	1	11.01.23	27	27
4.	4. Interaction On Safety Encouragement & Engagement (i-SEE).		16.01.23	26	26
5.	Standard's Awareness On PPE's.	1	17.01.23	21	21
6.	Standard's Awareness On Working At Height.	1	18.01.23	25	25
7.	Standard's Awareness On Permit to Work.	1	19.01.23	23	23
8.	Standard's Awareness On HHP.	1	23.01.23	16	16
9.	Defensive Driving-Two-Wheeler	1	13.01.23	20	20
	Total Number of Programme Conducted		Total P	articipants =	206

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Refresher Training For Contractor Workers.	1	02.01.23	25	
2.	Safety Training On Human Factor For Contractor Workers	1	03.01.23	26	73
3.	Safety Training For Shunting Staff of T & D	1	30.01.23	22	
	Total Number of Programme Conducted		Total Pa	rticipants =	73

Summary:

- * TOTAL PROGRAMS (For Regular Employees) ORGANISED IN JAN.-2023: 17 (8 NE + 9 Exe.)
- * TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN JAN. -2023: 410 (204 NE & 206 Exe.)
- * Safety Training for Contract Workers in JAN. 2023: # Prog: 3 Participants: 73
- * Safety Training for Contract Workers at Works Area in JAN. 2023: # Prog: 46 Participants:598

Safety Training Status of Reg. Employees at a Glance:

No of Program		grammes	No. of emp	Total No. of		
YEAR	Exe.	Non Exe	Exe.	Non Exe.	Employees Covered	
Fin.Year-2022-23	120	112	1971	2764	4735	
(01.04.22-31.01.23)	120	112	19/1	2704	4/35	
Cal. Year-2023	9	8	206	204	410	
(01.01.23-31.01.23)	9	8	206	204	410	

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant	Total #
			02.02.23	33	
1.	Safety Training On Human Factor.	3	03.02.23	32	88
			20.02.23	23	
2.	Safety In Traffic Operation.	1	15.02.23	13	13
			04.02.23	19	
3.	Defensive Driving For Two Wheelers	4 -	11.02.23	20	67
3.			17.02.23	14	67
			25.02.23	14	
4.	Gas Safety In Steel Industry.	1	09.02.23	28	28
5.	Safety In Material Handling.	1	10.02.23	30	30
6.	Safety Circle Training.	1	23.02.23	14	14
			13.02.23	25	
7	Safety Training On Human Factor.(For M. Mill)	3	14.02.23	24	69
			15.02.23	20	
Total	Number of Programme Conducted	14	Total P	articipants =	309

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Standard's Awareness On Confined Space.	1	06.02.23	15	15
2.	Standard's Awareness On Electrical safety.	1	07.02.23	20	20
3.	Standard's Awareness On Permit to Work.	2	08.02.23	22	37
3.		2	22.02.23	15	
4.	Standard's Awareness On Energy Isolation.	1	13.02.23	26	26
5.	Standard's Awareness On PPE's.	1	14.02.23	17	17
6.	Interaction On Safety Encouragement and	1	16.02.23	16	16
0.	Engagement. (i-SEE)				
7.	Standard's Awareness On Working at Height.	1	21.02.23	22	22
8.	Standard's Awareness On HIRA/JSA.	1	27.02.23	16	16
9.	Intensified Safety Training For Executives	1	22.02.23	20	20
10.	'e- Software' Hand Holding Prog.	2	27.02.23	25	25
10.	e- Software Transitionaling Flog.		28.02.23	33	33
	Total Number of Programme Conducted		Total P	articipants =	247

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Refresher Training For Contractor Workers.	1	01.02.23	35	59
2.	Safety Training For Shunting Staff of T & D	1	24.02.23	24	
Total Number of Programme Conducted		2	Total Pa	rticipants =	59

Summary:

- * TOTAL PROGRAMS (For Regular Employees) ORGANISED IN FEB.-2023: 26 (14 NE + 12 Exe.)
- * TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN FEB. -2023: 556 (309 NE & 247 Exe.)
- * Safety Training for Contract Workers in FEB. 2023: # Prog: 2 Participants: 59
- * Safety Training for Contract Workers at Works Area in FEB. 2023: # Prog: 21 Participants:284

Safety Training Status of Reg. Employees at a Glance:

	No of Programmes		No. of emp	oloyees Covered	Total No. of	
YEAR	Exe.	Non Exe	Exe.	Non Exe.	Employees Covered	
Fin.Year-2022-23	132	126	126 2218	3073	5291	
(01.04.22-28.02.23)	132	120			3291	
Cal. Year-2023	21	22	453	513	966	
(01.01.23-28.02.23)	21	22	455	213	900	

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant	Total #
1	Cafety Training On Human Factor	2	07.03.23	24	57
1.	1. Safety Training On Human Factor.		10.03.23	33	
2.	Safety In Traffic Operation.	1	06.03.23	12	12
			03.03.23	26	
3.	Defensive Driving For Two Wheelers	4	11.03.23	14	72
3.	Defensive Driving For Two Wheelers	4	18.03.23	17	
			25.03.23	15	
4.	Gas Safety In Steel Industry.	1	27.03.23	27	27
5.	Safety In Material Handling.	1	23.03.23	21	21
6.	Safety Circle Training.	1	28.03.23	30	30
7.	Safety In Crane Operation & Maintenance.	1	16.03.23	21	21
8.	Achieving Awareness In Occupational Health & First Aid.		24.03.23	32	32
	Interaction On Safety Encouragement and	2	15.03.23	25	25
9	Engagement. (i-SEE)- For Safety Warriors		22.03.23	26	26
Total Number of Programme Conducted		14	Total P	articipants =	323

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Standard's Awareness On Electrical safety.	1	02.03.23	23	23
2.	Standard's Awareness On Permit to Work.	1	13.03.23	13	13
3.	Standard's Awareness On Energy Isolation.	1	14.03.23	23	23
4.	Standard's Awareness On HIRA/JSA.	1	20.03.23	21	21
5.	Standard's Awareness On Working at Height.	1	21.03.23	20	20
		3 02.03.23 30	01.03.23	35	
6.	'e- Software' Hand Holding Prog.		30	101	
			04.03.23	36	
	Total Number of Programme Conducted		Total P	Participants =	201

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total	
1.	Safety Refresher Training For Contractor	1	01.03.23	38		
1.	Workers.		01.03.23	30	54	
2.	Safety Training For Shunting Staff of T & D	1	17.03.23	16		
3.	Safaty Training On Human Factor	2	29.03.23	27	46	
3.	Safety Training On Human Factor		30.03.23	19	40	
	Total Number of Programme Conducted		Total Pa	rticipants =	100	

Summary:

- * TOTAL PROGRAMS (For Regular Employees) ORGANISED IN MARCH-2023: 22 (14 NE + 8 Exe.)
- * TOTAL PARTICIPANTS (REG. Employees) ATTENDED IN MARCH -2023: 524 (323 NE & 201 Exe.)
- * Safety Training for Contract Workers in MARCH 2023: # Prog: 4 Participants: 100
- * Safety Training for Contract Workers at Works Area in MARCH 2023: # Prog: 37 Participants:643

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-2022-23	140	140	2419	3396	5815	
(01.04.22-31.03.23)	140	140			3613	
Cal. Year-2023	29	36	654	836	1490	
(01.01.23-31.03.23)	29	30	034	030	1450	

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FLAG-C

Corporate Environment Responsibility

Status As On March 2023

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

(Status as on March 2023)

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 March 2023)
1.	BSP	Selud, Durg	I. New Bore well fitted with Solar operated pump with storage tank at three places to be provided.	15.00	Completed. To be handed over to Sarpanch.
			II. Four Seater Sulabh Shauchalya at Bazar Chowk to be constructed.	6.00	Completed.To be handed over to Sarpanch.
			III. Sports equipments for boys and girls to be provided.	0.50	Completed. Handed over to School.

S. N o.	SAIL Plant /Unit	Location	Name of Project/Activity (Brief detail of the project, duration ⁾	Approx.Amou nt earmarked for the project	Status
2.	BSP	Khapri (Kutelabh ata),Durg	I. Construction of Boundary wall of Panchayat Bhawan along with tree plantation all around the periphery.	10.00	Completed. Handed over to Sarpanch.
			II. New Bore wells at 2 locations fitted with Solar operated Pumps to be provided.		Completed. Handed over to Sarpanch.
			III. Two extra rooms in Govt. Primary School to be constructed.	10.00	Completed. Handed over to Sarpanch.
			IV. Dustbin for 10 villages to be provided	0.50	Completed. Handed over to Sarpanch.
			V. Beautification and tree plantation around Shitala Talab to be provided.	2.00	Completed. Handed over to Sarpanch.

S.No.	SAIL Plant/ Unit	Locat ion	Name of Project/Activity (Brief detail of the project, duration ⁾	Approx.Amo unt earmarked for the project	Status (as on March 2023)
3.	BSP	Duma rdih ,Durg	I. Service road from main road cremation ground approx700 meters to be cemented	10.00	Completed. Handed over to Sarpanch.
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	7.00	Completed. Handed over to Sarpanch.
4.	BSP	Pauw ara,D	I. Sanitary Pad Machine women group to be provided	3.00	Tendering process for the same in progress.
		urg	II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	7.00	Not started by Contractor. Re-tendering work is in process.
			III. Tree plantation at new talab to be provided	1.00	Completed. Handed over to Sarpanch.
			IV. Funds to be provided Sarpanch for cleaning of Wells with supervision / monitoring by BSP.	1.00	Completed. Handed over to Sarpanch.
			V. Syntax tank with pump to be provided at Health Center.	0.25	Completed. Handed over to Sarpanch.

S.No.	SAIL Plant/ Unit	Locat ion	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on March 2023)
5.			I. Garage for School Bus at Muskan School to be constructed.	1.00	Completed. To be handed over to School.
		Patora.	I. Four Seater Sulabh Shauchalya at Govt. Middle school for boys to be constructed.	3.00	Completed. To be handed over to Sarpanch.
6.	BSP		II. Boundary wall at high school of length 165 meter shall be constructed. CC road to be constructed.		Not started by Contractor. Re-tendering work is in process.
			I. Four seater Sulabh Shauchalya at Khadan Talab for both men and women to be constructed.	12.00	Completed.To be handed over to Sarpanch.
7.	DCD	Dhuara	II. Additional 2 class rooms at High school premise to be constructed.	10.00	Completed. To be handed over to School
7.	DSI	BSP bhatta , Durg	III. Boundary wall of approx.380 meters to be constructed at high school premise.	20.00	Completed. To be handed over to School

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 March 2023)
		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		Completed.To be handed over to Sarpanch.
8.	BSP		II. C.C. road to be constructed at ward no 05 for approx. 250 meters.	4.00	Completed. To be handed over to Sarpanch.
		Durg	III. C.C. road to be constructed at ward no 04 for approx. 250 meters.	4 0 0	Completed. To be handed over to Sarpanch.
		I I S	IV. Four seater Sulabh Shauchalya for boys and girls to be constructed.	40.00	Completed. To be handed over to Sarpanch.
		Aundhi,Du rg	I. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	- 00	Completed. To be handed over to Sarpanch.
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.To be handed over to Sarpanch.
			I. New Bore wells at required location fitted with solar		Completed. To be handed over to Sarpanch.
10.	BSP	Pahandor, Durg	operated Pumps to be provided. IL Pipeline for drinking water		Not started by Contractor

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 March 2023)
11.	BSP		I. One E-rickshaw to be provided facilitate the plantation activities	3.00	Completed. Handed over
			II. One Power driven portable drilling machine facilitate the plantation activities		Completed. Handed over
			I. New Bore well fitted with Solar operated pump with storage tank at one place to be provided	5.00	Completed.To be handed over to Sarpanch.
12.	BSP	urd, Durg	II. Four seater Sulabh Shauchalya for men and women to be constructed	12.00	Completed.To be handed over to Sarpanch.
			Total	232.25	

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.

---00---

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, 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.)

October 2022 to March 2023

FLAG E

E-1

Stack emission

October 2022 to March 2023

Month- October 2022

A.						Stack	emission							
Name of the Plan	t con		Height of the stack (m)	of the	Pollution Control unit provided	(duration)	Production fig. of the unit, during the	Flow rate of the flue gas	Parameters (whichever a	are applica (9	•			
(1)	the	me of unit) (2)	(3)	(4)	(Name) (5)	1 () 1	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/ Nm3)	SO ₂ (250mg/N m3)	NO _x (150mg/N m3)	CO (Norm: 1%)		
						Blast Furna	nce							
BF-4 (Process)) Sto	oves	60	2.5	do	15 Oct, 11:00-12:05 (65 Minute)	2555	121488	18.81	122.50	136.80	0.65% V/V		
						SMS-2								
LF-1	Ladle I	Furnace	60	1.65	Bag Filter	19 Oct, 11:00-11:35 (35 Minute)	1920	116632	46.77	68.20	-	-		
LF-2	Ladle I	Furnace	50	1.5	Bag Filter	17 Oct, 11:00-11:40 (40 Minute)	2160	121989	38.66	72.86	-	-		
						SMS-3								
SMS – 3 ((Seconda	-	Liquid Steel	-	-	-	25 Oct, 11:00-11:35 (35 Minute)	-	-	44.23	-	-	-		
A.			•			Stacl	k emission							
Name of Plant	C	Stack connected to	stack	Diameter of the stack (m)	provided	Date & Time of the monitoring (duration)	Production fig. of the unit, durin	of the	e (whichever are applicable)		(whichever are applicable)			
(1)		(Name of the unit) (2)		(4)	(Name) (5)	(6)	the period monitoring (7)	of	Particulate matter(PM) (Norm:50) g/Nm3)			CO (Norm: 3 kg/T of Coke		
				T .	. 1	Coke Ove		1				1		
Battery N	lo. 3	Battery	100	3.5	5 Nil	13 Oct, 10:45-11:45	384	128580) 44.20	169.3	0 198.50			

October 2022 to March 2023

					(60 Minute)							2.50Kg/T
												coke
Battery No. 5	Battery	100	3.5	5 Nil	14 Oct, 10:00-11:00 (60 Minute)	625	13	1561	45.96	148.30	154.00	2.59Kg/T coke
Battery No. 6	Battery	100	3.5	5 Nil	14 Oct, 11:20-12:20 (60 Minute)	625	11	9744	47.45	155.80	168.30	2.61Kg/T coke
Battery No. 9	Battery	100	3.5	5 Nil	12 Oct, 11:00-12:00 (60 Minute)	1226	23	4301	44.56	142.60	162.90	2.68Kg/T coke
Battery No. 1	0 Battery	120	4.7	2 Nil	01 Oct, 10:50-11:50 (60 Minute)	1407	23	8881	37.78	41.30	98.50	2.63Kg/T coke
Battery No. 1	1 Battery	120	4.7	2 Nil	03 Oct, 11:00-12:00 (60 Minute)	1829	18	39974	43.63	165.00	105.00	2.52Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.0	Absorption Tower	21 Oct, 09:30-10:20 (50 Minute)	76	g	978	-	1.716 Kg/T H ₂ SO4	-	-
A.					Stack emi	ission						
Name of the Plant	Stack connected	Height of the stack		Pollution Control unit	Date & Time of the monitoring(duration)	Production the unit, du	ring	Flow rate of	Parameter applicable	-	ver are	
(1)	to (Name of the unit) (2)	(m) (3)	of the stack (m) (4)	provided (Name) (5)	(6)	the period of monitoring (7)		the flue gas (8)	Particulate matter(PM) (Norm:50mg /Nm3)	(Norm:		/
		•	, , ,		SP-2				•	•	1	•
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	19 Oct, 11:45-12:20 (35	Minute)	2001	255633	46.42	63.38	-	-
					SP-3						•	
SP-3 (M/c-1)	Sintering	400	_	ECD	07 Oct, 10:40-11:20 (40	Minute)	6706	490246	39.78	-	_	-
	Machine	120	7	ESP	07 000, 10:10 11:20 (10							
SP-3 (M/c-2)	Machine Sintering Machine	120	7	ESP	08 Oct, 10:20-11:00 (40	,	5017	464596	43.87	-	-	-

					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	04 Oct, 09:30-10:15 (45 Minute)	2402	120000	35.28	127.70	143.80	-
Boiler 2	Boiler	80	4.3	ESP	04 Oct, 10:20-11:00 (40 Minute)	2390	116469	41.50	60.90	65.60	
Boiler 3	Boiler	80	4.3	Wet Scrubber	05 Oct, 09:45-10:30 (45 Minute)	2005	86932	39.15	53.50	98.40	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	18 Oct, 10:00-10:40 (40 Minute)	2050	87096	38.07	63.90	83.50	-
Boiler 6	Boiler	80	4.3	ESP	21 Oct, 11:00-11:40 (40 Minute)	1705	332585	36.71	122.00	127.40	-
					Mills						
URM	RHF	-	-	-	24 Oct., 08:30-09:30 (60 Minute)	-	-	19.42	-	-	
BRM	RHF	-	-	-	22 Oct., 11:00-12:00 (60 Minute)	-	-	18.13	-	-	

October 2022 to March 2023

November 2022

A.						Stack	emission						
Name of the Plan	-	Stack connecte d to	Height of the stack (m)	of the	Pollution Control unit provided	the monitoring (duration)	Production fig. of the unit, during the	Flow rate of the flue gas	Parameters (whichever a	re applica (9)	•		
(1)		Name of the unit) (2)	(3)	(4)	(Name) (5)		period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/ Nm3)	SO ₂ (250mg/N m3)	NO _x (150mg/N m3)	CO (Norm: 1%)	
						Blast Furna	ce						
BF-5 (Process)) :	Stoves	60	3.5	GCP (Scrubber)	03 Nov, 11:30-12:30 (60 Minute)	936	117251	23.10	154.30	143.90	0.68% V/V	
BF-5 (Spa dedusting					Bag filter	26 Nov, 10:30-11:15 (45 Minute)	-	-	35.55	-	-	-	
BF-6 (Spa dedusting					Bag filter	25 Nov, 11:15-12:15 (60 Minute)	-	-	33.25	-	-	-	
						SMS-2							
LF-1	Lad	le Furnace	60	1.65	Bag Filter	02 Nov, 10:35-11:15 (30 Minute)	1920	114600	48.73	78.94	-	-	
LF-2	Lad	le Furnace	50	1.50	Bag Filter	01 Nov, 10:50-11:30 (40 Minute)	3360	120278	41.17	67.28	-	-	
		•	•			SMS-3				T			
SMS -3 ((Second		/ Liquid Steel	-	-	-	15 Nov, 11:30-12:05 (35 Minute)	-	-	47.97	-	-	-	
A.							emission						
Name of Plant		Stack connecte d to	stack	Diameter of the stack (m)	provided	Date & Time of the monitoring (duration)	Production fig. of the unit, during	of the	(whicheve	Parameters (whichever are applicable) (9)			
(1))	(Name o the unit) (2)		(4)	(Name) (5)	(6)	the period of monitoring (7)		Particulate matter(PM) (Norm:50n g/Nm3)	Norm: 800mg /Nm3)		CO (Norm: 3 kg/T of Coke	

					Coke Oven							
Battery No. 1	Battery	100	3.5	Nil	29 Nov, 10:30-11:30 (60 Minute)	815	12	29849	36.56	330.00	223.00	2.46Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	16 Nov, 11:00-12:00 (60 Minute)	793	12	22865	44.06	223.80	114.60	2.52Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	17 Nov, 11:40-12:40 (60 Minute)	849	12	27134	39.20	159.85	161.00	2.58Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	17 Nov, 10:30-11:30 (60 Minute)	849	12	22402	42.56	162.30	174.90	2.62Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	04 Nov, 11:00-12:00 (60 Minute)	1206	24	12357	42.26	144.80	164.60	2.65Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	18 Nov, 11:30-12:30 (60 Minute)	1528	23	33328	41.62	220.50	186.80	2.59Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	05 Nov, 10:00-11:00 (60 Minute)	1829	19	93916	43.59	138.90	110.00	2.58Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	14 Nov, 11:10-11:50 (40 Minute)	81	8	3508	-	2.064 Kg/T H ₂ SO4	-	-
A.					Stack em	ission						
Name of the Plant	Stack connected	Height of the stack	Diam eter	Pollution Control unit	Date & Time of the monitoring(duration)	Production the unit, du	ring	Flow rate of	Parameter applicable	-	ver are	
(1)	to (Name of the unit)	(m) (3)	of the stack (m) (4)	provided (Name) (5)	(6)	the period monitoring (7)		the flue gas (8)	Particulate matter(PM) (Norm:50mg /Nm3)		NO _x (Norm 600mg Nm3)	n: CO
		1			SP-2							
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	08 Nov, 11:10-11:45 (35	Minute)	2035	250490	43.43	61.23	-	-
					SP-3							
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	07 Nov, 11:30-12:15 (45	Minute)	7406	492797	42.82	-	-	-

SP-3 (M/c-2)	Sintering Machine	120	7	ESP	09 Nov, 10:40-11:20 (40 Minute)	8540	489505	44.87	-	-	-
					RMP-2						
RK	Rotary Kiln	60	2	Wet Scrubber	22 Nov, 11:15-12:00 (45 Minute)	117	58612	42.69	66.30	-	-
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	10 Nov, 10:50-11:35 (45 Minute)	2495	121501	43.00	135.40	160.60	-
Boiler 2	Boiler	80	4.3	ESP	10 Nov, 11:45-12:20 (35 Minute)	2625	116709	39.31	63.73	69.25	
Boiler 3	Boiler	80	4.3	Wet Scrubber	11 Nov, 10:15-10:55 (40 Minute)	1958	86311	43.56	56.95	60.23	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	11 Nov, 11:00-11:40 (40 Minute)	2080	86153	42.64	61.30	83.50	-
Boiler 6	Boiler	80	4.3	ESP	19 Nov, 11:50-12:35 (45 Minute)	1998	323847	36.40	121.80	126.00	-
					Mills						
Merchent Mill	RHF	-	-	-	21 Nov., 11:30-12:30 (60 Minute)	-	-	17.65	-	-	
BRM	RHF	-	-	-	24 Nov., 11:00-12:00 (60 Minute)	-	-	17.37	-	-	

October 2022 to March 2023

Month- December 2022

A.						Stack	emission					
Name of the Plan		Stack onnecte d to	Height of the stack (m)	of the	Pollution Control unit provided	Date & Time of the monitoring (duration)	Production fig. of the unit, during the	Flow rate of the flue gas	Parameters (whichever a	re applica	,	
(1)	•	lame of ne unit) (2)	(3)	(4)	(Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/ Nm3)	SO ₂ (250mg/N m3)	NO _x (150mg/N m3)	CO (Norm: 1%)
						Blast Furna	nco.					
BF-6 (Process)	S	toves	60	3.5	do	08 Dec, 11:15-12:15 (60 Minute)	2026	124326	26.13	128.60	145.40	0.72% V/V
BF-7 (Process)	S	toves	70	3.5	do	23 Dec, 10:00-11:00 (60 Minute)	3682	112862	21.14	126.80	142.60	0.67% V/V
BF-8) (Process)	S	toves			do	17 Dec, 11:15-12:15 (60 Minute)	7368	168007	22.12	138.50	145.72	0.64% V/V
						SMS-2						
LF-1	Ladle	e Furnace	60	1.65	Bag Filter	06 Dec, 11:15-11:50 (35 Minute)	2640	117373	48.76	48.70	-	-
LF-2	Ladle	e Furnace	50	1.50	Bag Filter	12 Dec, 12:00-12:45 (45 Minute)	2530	112417	35.19	61.50	-	-
~~~~		1		1	T	SMS-3			T		1	
SMS –3 (DDSY (Secondar	ry))	Liquid Steel	-	-	ESP	23 Dec, 11:40-12:15 (35 Minute)	-	-	46.97	-	-	-
Α.							k emission					
Name of Plant	the	Stack connected to (Name	stack	Diameter of the stack (m)	Pollution Control unit provided	Date & Time of the monitoring (duration)	Production of the unit, during the	fig. Flow rat of the flu gas	(whichever are applicable) (9)			
(1)		of the unit) (2)	(m) (3)	(4)	(Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50m	SO ₂ (Norm: 800mg)	`	CO (Norm: 3 kg/T of

								/N	(m3)	Nm3 ₎	m3)	Coke	
	<u> </u>	<u>.                                      </u>		•	Coke Oven			<u> </u>	<u>.</u>				
Battery No. 1	Battery	100	3.5	Nil	15 Dec, 10:30-11:30 (60 Minute)	614	1	19183	43.63	146.90	174.00	2.51Kg/7 coke	
Battery No. 2	Battery	100	3.5	Nil	15 Dec, 11:45-12:45 (60 Minute)	635	12	28347	35.78	221.72	183.60	2.53Kg/coke	
Battery No. 3	Battery	100	3.5	Nil	01 Dec, 12:00-01:00 (60 Minute)	827	12	29711	37.08	208.00	226.00	2.60Kg/ coke	
Battery No. 5	Battery	100	3.5	Nil	24 Dec, 11:00-12:00 (60 Minute)	674	1:	31415	34.45	442.78	317.72	2.69Kg/7 coke	
Battery No. 6	Battery	100	3.5	Nil	24 Dec, 12:15-01:10 (55 Minute)	681	1:	37802	36.34	372.04	131.60	2.72Kg/T coke	
Battery No. 9	Battery	100	3.5	Nil	05 Dec, 11:30-12:30 (60 Minute)	1126	2:	35671	44.56	180.60	198.20	2.68Kg/T coke	
Battery No. 10	) Battery	120	4.2	Nil	05 Dec, 12:40-01:40 (60 Minute)	1186	2:	32511	42.59	42.59 214.30 189.4			
Battery No. 11	Battery	120	4.2	Nil	07 Dec, 11:00-12:00 (60 Minute)	1769	19	90990	40.16	160.32	145.70	2.73Kg/7 coke	
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	28 Dec, 10:30-11:20 (50 Minute)	66	;	8082	-	2.18 Kg/T H ₂ SO4	-	-	
A.					Stack emi	ission							
Name of the Plant	Stack connected	Height of the stack	Diame ter of	Pollution Control unit	Date & Time of the monitoring(duration)	Production f the unit, dur	ing	Flow rate of the	Parameters applicable)	`	er are		
(1)	to (Name of the unit) (2)	(m) (3)	the stack (m) (4)	provided (Name) (5)	(6)	the period of monitoring (7)	f	flue gas (8)	Particulate matter(PM) (Norm:50mg Nm3)		NO _x (Norm: 600mg/N m3)		
					SP-2			_			_		
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	27 Dec, 11:00-11:35 (35 )	Minute)	1449	253721	46.37	69.20	-	-	
					SP-3	•		•		•			

SP-3 (M/c-1)	Sintering	120	7	ESP	16 Dec, 11:40-12:25 (45 Minute)	8563	483240	39.42	71.35	_	
SF-3 (WI/C-1)	Machine	120	/	LSF	10 Dec, 11.40-12.23 (43 Williate)	8303	463240	39.42	71.33	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	21 Dec, 11:50-12:35 (45 Minute)	4103	454032	44.05	74.61	-	-
					RMP-2						
RK	Rotary Kiln	60	2	Wet Scrubber	15 Dec, 12:00-12:45 (45 Minute)	110	59165	41.46	62.50	-	-
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	10 Dec, 10:00-10:45 (45 Minute)	2016	119646	35.50	128.60	164.20	-
Boiler 2	Boiler	80	4.3	ESP	10 Dec, 11:05-11:50 (45 Minute)	2128	117305	38.37	125.00	136.80	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	19 Dec, 10:30-11:15 (45 Minute)	1826	86699	41.78	89.32	79.53	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	02 Dec, 11:30-12:45 (45 Minute)	2083	86658	39.84	76.50	81.10	-
Boiler 5	Boiler	80	4.3	ESP	30 Dec, 11:30-12:10 (40 Minute)	2310	120206	39.57	84.50	126.00	-
Boiler 6	Boiler	80	4.3	ESP	19 Dec, 11:25-12:10 (45 Minute)	1833	335720	39.22	126.20	137.00	-
					Mills						
WRM	RHF	_	_	_	27 Dec., 12:00-01:00 (60 Minute)	_	_	21.16	_	_	
Rail Mill	RHF	_	-	-	22 Dec., 12:05-01:05 (60 Minute)	-	-	19.39	-	-	_
Plate Mill	RHF	_	-	-	26 Dec., 02:00-03:00 (60 Minute)	-	-	19.19	-	-	-
BRM	RHF	-	-	-	22 Dec., 10:45-11:45 (60 Minute)	-	-	20.26	-	-	-

October 2022 to March 2023

## Month-January'23

A.						Stack	emission						
Name of the Plan		Stack onnecte d to	Height of the stack (m)	of the	Pollution Control unit provided	Date & Time of the monitoring (duration)	of the unit, during the	Flow rate of the flue gas	Parameters (whichever a	re applica (9)	•		
(1)		Name of ne unit) (2)	(3)	(4)	(Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/ Nm3)	SO ₂ (250mg/N m3)	NO _x (150mg/N m3)	CO (Norm: 1%)	
						Blast Furna	ice						
BF-8 (Process)	S	toves	70	3.5	do	07 Jan, 12:20-01:20 (60 Minute)	7814	171452	22.00	197.00	49.30	0.59% V/V	
BF-7 (Spa dedusting					GCP (Scrubber)	27 Jan, 11:55-12:35 (40 Minute)	-	-	48.43	-	-	-	
						SMS-2							
LF-1	Ladle	e Furnace	60	1.65	Bag Filter	11 Jan, 11:15-11:45 (30 Minute)	2400	117146	48.54	62.90	-	-	
LF-2	Ladle	e Furnace	50	1.50	Bag Filter	02 Jan, 11:05-11:50 (45 Minute)	3120	116157	42.19	74.80	-	-	
		T	T	1		SMS-3			1		1		
SMS –3 (DDSY (Seconda:	ry))	Liquid Steel	-	-	ESP	20 Jan, 11:00-11:35 (35 Minute)	-	-	39.58	-	-	-	
A.							k emission						
Name of Plant	the	Stack connected to (Name	stack	Diameter of the stack (m)	Pollution Control unit provided	Date & Time of the monitoring (duration)	Production f of the unit, during the	ig. Flow rate of the flugas	ue (whichever	Parameters (whichever are applicable) (9)			
(1)		of the unit) (2)	(m) (3)	(4)	(Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50m /Nm3)	g   SO ₂ (Norm: 800mg/ Nm3)	NO _x (Norm:5 00mg/N m3)	CO (Norm: 3 kg/T of Coke	

October 2022 to March 2023

					October 2022 to War	2023						
					Coke Oven							
Battery No. 1	Battery	100	3.5	Nil	09 Jan, 09:50-10:50 (60 Minute)	838	13	33791	44.37	128.00	170.50	2.44Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	09 Jan, 11:05-12:05 (60 Minute)	838	12	22513	47.54	159.00	211.00	2.51Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	16 Jan, 11:35-12:35 (60 Minute)	916	12	24038	41.30	230.60	210.00	2.62Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	17 Jan, 11:15-12:15 (60 Minute)	793	12	21088	45.49	377.00	112.80	2.58Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	17 Jan, 12:30-01:30 (60 Minute)	759	12	27074	42.82	107.00	148.50	2.66Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	24 Jan, 11:30-12:30 (60 Minute)	1588	22	23666	38.85	227.00	193.64	2.63Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	12 Jan, 12:05-04:05 (60 Minute)	1588	20	04207	41.44 260.80 153.00			2.65Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	03 Jan, 11:00-12:00 (60 Minute)	1809	18	37543	42.04	158.85	149.50	2.71Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	31 Jan, 11:00-11:50 (50 Minute)	90	1	0229	-	1.834 Kg/T H ₂ SO4	-	-
					G. I	• •						
<b>A.</b>	G		T-0.	D II 4	Stack em		o	T	T =			
Name of the Plant	Stack connected	Height of the stack	Diame ter of	Pollution Control unit	Date & Time of the monitoring(duration)	Production the unit, du	ring	Flow rate of the	Parameters( applicable)(9		er are	
(1)	to (Name of the unit) (2)	(m) (3)	the stack (m) (4)	provided (Name) (5)	(6)	the period o monitoring (7)	f	flue gas (8)	Particulate matter(PM)         SO2 (Norm: 600mg/ 600mg		NO _x (Norm: 600mg/l m3)	
					SP-2			<u> </u>				
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	06 Jan, 10:30-11:10 (40 I	Minute)	2078	251360	45.03	66.90	-	-

SP-3

05 Jan, 11:30-12:15 (45 Minute)

477748

8473

40.88

90.05

Sintering Machine

120

7

**ESP** 

SP-3 (M/c-1)

SP-3 (M/c-2)	Sintering Machine	120	7	ESP	23 Jan, 11:10-12:00 (50 Minute)	8961	493141	46.21	70.60	-	-
					RMP-2						
LK-1	Vertical Kiln	53.2	1.2	Wet Scrubber	25 Jan, 11:00-11:40 (40 Minute)	157	53565	45.81	71.43	-	-
LK-2	Vertical Kiln	53.2	1.2	Wet Scrubber	25 Jan, 12:00-12:40 (40 Minute)	194	53684	47.69	69.70	-	-
RK	Rotary Kiln	60	2	Wet Scrubber	10 Jan, 11:45-12:30 (45 Minute)	144	63117	47.27	58.14	-	-
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	13 Jan, 11:30-12:15 (45 Minute)	2191	119142	39.32	138.40	158.30	-
Boiler 2	Boiler	80	4.3	ESP	13 Jan, 12:30-01:15 (45 Minute)	2338	118474	37.30	86.40	91.35	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	04 Jan, 11:15-12:00 (45 Minute)	2063	85148	39.28	90.08	78.45	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	14 Jan, 10:00-11:00 (60 Minute)	2293	85652	41.19	73.50	83.10	-
Boiler 5	Boiler	80	4.3	ESP	18 Jan, 10:30-11:10 (40 Minute)	2430	118693	40.84	85.90	96.30	-
Boiler 6	Boiler	80	4.3	ESP	18 Jan, 11:30-12:05 (35 Minute)	1865	330478	38.07	105.20	125.60	-
				T-	Mills				_		
WRM	RHF	-	-	-	31 Jan.,12:30-01:30 (60 Minute)	-	-	19.51	-	-	-
Rail Mill	RHF	-	-	-	31 Jan., 09:30-10:30 (60 Minute)	-	-	18.39	-	-	-
Plate Mill	RHF	ı	-	-	26 Jan., 09:50-10:50 (60 Minute)	-	-	23.69	-	-	-
BRM	RHF	-	-	-	19 Jan., 11:30-12:30 (60 Minute)	-	-	25.14	-	-	-

October 2022 to March 2023

## Month-February'23

A.						Stack	emission					
Name of the Plant	conr		the stack	Diameter of the stack (m)	Pollution Control unit provided	the monitoring	of the unit, during the	Flow rate of the flue gas	Parameters (whichever a	re applica (9)	•	
(1)	the	me of unit) 2)	(3)		(Name) (5)	1 ( ) 1	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/ Nm3)	SO ₂ (250mg/N m3)	NO _x (150mg/N m3)	CO (Norm: 1%)
						Blast Furna	Ce .					
BF-6 (Process)	Stov	ves	60	3.5	do	22 Feb, 11:50-12:50 (60 Minute)		120679	24.14	215.00	50.42	0.63% V/V
BF-7 (Process)	Stov	ves	70	3.5	do	22 Feb, 10:45-11:45 (60 Minute)	3719	112873	27.22	241.00	45.04	0.58% V/V
						SMS-2						
LF-1	Ladle F	Furnace	60	1.65	Bag Filter	03 Feb, 11:10-11:50 (40 Minute)	2280	117778	47.32	67.54	-	-
LF-2	Ladle F	Furnace	50	1.50	Bag Filter	18 Feb, 11:00-11:40 (40 Minute)	1680	124349	44.52	75.80	-	-
			1	_	T	SMS-3		,			1	
SMS –3 (DDSY (Secondary		Liquid Steel	-	-	ESP	20 Feb, 12:10-12:45 (35 Minute)	-	-	42.34	-	-	-
<b>A.</b>							k emission					
Name of the Plant	coto	tack onnected o (Name	stack	Diameter of the stack (m)	Pollution Control unit provided	Date & Time of the monitoring (duration)	Production f of the unit, during the	ig. Flow rat of the flu gas	(whichever are applicable) (9)			
(1)		f the nit) (2)	(m) (3)	(4)	(Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50m /Nm3)	SO ₂ (Norm: 800mg/ Nm3)	`	CO (Norm: 3 kg/T of Coke
	•					Coke Over	l	•				

October 2022 to March 2023

SP-2 (M/c-3)	Sintering Machine	100	6	ESP	28 Feb, 01:00-01:40 (40	Minute)	1785	221459	46.80	83.84	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	27 Feb, 12:10-12:50 (40	Minute)	1802	258758	48.29	78.50	-	-
			- <del></del>		SP-2		1		•	T	T	
(1)	of the unit) (2)	(3)	stack (m) (4)	(5)		(7)		(8)	matter(PM) (Norm:50mg Nm3)		(Norm: 600mg/N m3)	CO
(4)	to (Name	(m)	the	provided (Name)	(6)	the period o	f	flue gas	Particulate	SO ₂	NO _x	
the Plant	connected	the stack	ter of	Control unit	monitoring(duration)	the unit, du	ring	of the	applicable	`	i dic	
Name of	Stack	Height of	Diame	Pollution	Date & Time of the	Production	fig. of	Flow rate	Parameter	s(whicheve	er are	
Α.					Stack em	iccion						
Plant	Plant		0.0	Tower	(40 Minute)					H ₂ SO4		
DCDA Acid	DCDA Acid	40	0.8	Absorption	28 Feb, 11:20-12:00	90	1	0098	-	2.0106 Kg/T	-	_
Battery No. 1	1 Battery	120	4.2	Nil	02 Feb, 11:15-12:15 (60 Minute)	1809	18	36673	40.50	160.25	151.00	2.68Kg/T coke
Battery No. 1	0 Battery	120	4.2	Nil	10 Feb, 11:40-12:40 (60 Minute)	1548	20	07263	42.36	433.60	246.30	2.61Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	10 Feb, 10:30-11:30 (60 Minute)	1488	23	33873	37.22	474.22	201.16	2.64Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	17 Feb, 12:15-01:15 (60 Minute)	849	13	31728	40.85	503.90	315.84	2.62Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	17 Feb, 11:05-12:05 (60 Minute)	849	12	26408	42.15	386.44	284.00	2.53Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	08 Feb, 10:30-11:30 (60 Minute)	927	12	25310	42.19	224.85	218.22	2.59Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	13 Feb, 11:40-12:40 (60 Minute)	849	12	22998	48.54	290.00	287.00	2.50Kg/T coke
Battery No. 1	Battery	100	3.5	Nil	13 Feb, 10:30-11:30 (60 Minute)	849	13	31848	45.16	480.00	368.00	2.48Kg/T coke

28 Feb, 12:10-12:50 (40 Minute)

224706

44.37

0.00

1785

SP-2 (M/c-4)

100

Sintering

Machine

6

**ESP** 

					SP-3						
SP-3, M/c- 1(Space dedusting)				ESP	15 Feb, 11:15-12:00 (45 Minute)	-	-	48.30	-	-	-
SP-3, M/c-2 (Space de- dusting)				ESP	23 Feb, 10:50-11:30 (40 Minute)	-	-	47.90	-	-	-
					RMP-2						
LK-1	Vertical Kiln	53.2	1.2	Wet Scrubber	23 Feb, 12:00-12:40 (40 Minute)	194	36261	46.75	67.80	-	-
RK	Rotary Kiln	60	2	Wet Scrubber	07 Feb, 11:30-12:15 (45 Minute)	436	60324	46.75	61.25	-	-
					TPP/CPP						
Boiler 1	Boiler	80	4.3	ESP	06 Feb, 11:05-11:45 (40 Minute)	2115	118505	41.64	66.75	50.45	-
Boiler 2	Boiler	80	4.3	ESP	06 Feb, 11:55-12:40 (45 Minute)	2100	116201	39.83	90.40	62.80	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	04 Feb, 10:00-10:45 (45 Minute)	764	83348	38.80	87.56	71.18	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	11 Feb, 10:25-11:20 (55 Minute)	2250	84790	40.88	78.23	85.51	-
Boiler 5	Boiler	80	4.3	ESP	16 Feb, 10:40-11:20 (40 Minute)	2380	118098	38.71	86.80	94.52	-
	,	T	1	T	Mills		Т			1 1	
WRM	RHF	-	-	-	15 Feb.,11:30-12:30 (60 Minute)	-	-	18.02	-	-	-
Rail Mill	RHF	-	-	-	16 Feb., 09:50-10:50 (60 Minute)	-	-	17.82	-	-	-
Merchant Mill	RHF	-	-	-	25 Feb., 11:55-12:55 (60 Minute)	-	-	23.83	-	-	-
BRM	RHF	-	-	-	20 Feb., 10:30-11:30 (60 Minute)	-	-	26.47	-	-	-

October 2022 to March 2023

## Month-March'23

A.						Stack	emission						
Name of the Plant	Stack connec d to		ne stack	Diameter of the stack (m)	Pollution Control unit provided	the monitoring (duration)	Production fig. of the unit, during the	Flow rate of the flue gas	Parameters (whichever a	re applica	-		
(1)	(Name the un (2)		(3)		(Name) (5)	(6)	period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg/ Nm3)	SO ₂ (250mg/N m3)	NO _x (150mg/N m3)	CO (Norm: 1%)	
						Blast Furna	CE						
BF-4 (Process)	Stoves		60	2.5	do	28 Mar, 11:25-12:25 (60 Minute)		122135	26.64	151.00	60.20	0.60% V/V	
BF-5 (Process)	Stoves		60	3.5	do	28 Mar, 12:35-01:35 (60 Minute)	2379	126008	22.29	184.00	52.60	0.54% V/V	
BF-5 (Space dedusting)	-		-	-	Bag filter	22 Mar, 12:20-01:05 (45 Minute)	-	-	37.52	-	-		
BF-6 (Space dedusting)	-		-	-	Bag filter	22 Mar, 11:10-12:10 (60 Minute)	-	-	35.24	-	-		
	•					SMS-2							
LF-1 I	Ladle Furr	ace	60	1.65	Bag Filter	02 Mar, 11:00-11:40 (40 Minute)	2520	122875	48.08	72.20	-	-	
LF-2	Ladle Furr	ace	50	1.50	Bag Filter	08 Mar, 08:45-09:30 (45 Minute)	1080	122878	25.13	68.40	-	-	
				_		SMS-3							
SMS –3 (DDSY (Secondary	Ste	uid el	-	-	ESP	25 Mar, 10:20-10:55 (35 Minute)	-	-	48.84	-	-	-	
Α.		•	_	_			k emission				•		
Name of the Plant	e Stac conn		Height of the	Diameter of the stack	Pollution Control unit	Date & Time of the monitoring	Production of the unit,	fig. Flow ra					

	to (Name	stack	(m)	provided	(duration)	during the	ga	s		(9)			
(1)	of the unit) (2)	(m) (3)	(4)	(Name) (5)	(6)	period of monitoring (7)		(8)	Particulate matter(PM) (Norm:50mg /Nm3)	SO ₂ (Norm: 800mg/ Nm3)	NO _x (Norm:5 00mg/N m3)	CO (Norm: 3 kg/T of Coke	
	1	l I			Coke Oven			<b>'</b>		, , ,			
Battery No. 1	Battery	100	3.5	Nil	07 Mar, 08:30-09:30 (60 Minute)	849	12	22931	43.93	535.35	308.32	2.53Kg/T coke	
Battery No. 2	Battery	100	3.5	Nil	07 Mar, 09:40-10:40 (60 Minute)	849	12	22065	45.39	324.90	154.16	2.51Kg/T coke	
Battery No. 3	Battery	100	3.5	Nil	17 Mar, 12:15-01:15 (60 Minute)	938	12	26821	44.53	219.58	203.82	2.62Kg/T coke	
Battery No. 5	Battery	100	3.5	Nil	23 Mar, 09:20-10:20 (60 Minute)	815	13	33784	45.57	569.90	295.00	2.55Kg/T coke	
Battery No. 6	Battery	100	3.5	Nil	23 Mar, 10:30-11:30 (60 Minute)	815	13	31672	42.29	C			
Battery No. 9	Battery	100	3.5	Nil	16 Mar, 11:10-12:10 (60 Minute)	1427	24	16963	39.70	39.70 455.20 195.54 ^{2.6}			
Battery No. 10	Battery	120	4.2	Nil	16 Mar, 12:20-01:20 (60 Minute)	1568	22	22829	43.44	482.00	250.58	2.57Kg/T coke	
Battery No. 11	Battery	120	4.2	Nil	06 Mar, 10:50-11:50 (60 Minute)	1809	18	36513	47.35	243.00	236.00	2.60Kg/T coke	
A					Staals ami	lagion							
the Plant	Stack connected	Height o	ter of	Pollution Control unit	Stack emi Date & Time of the monitoring(duration)	Production fi	ing	Flow ra	applicable	e)( <b>9</b> )	er are		
(1)	to (Name of the unit) (2)	(m) (3)	the stack (m) (4)	provided (Name) (5)	(6)	the period of monitoring (7)		flue gas (8)	Particulate matter(PM (Norm:50m Nm3)	(Norm)		: CO	
,	_		· · · · · · · · · · · · · · · · · · ·		SP-2					•			
SP-2(M/c-1)	Sintering Machine	100	6	ESP	13 Mar, 10:30-11:05 (35	Minute)	1763	24855	1 46.40	83.40	-	-	
SP-2 (M/c-2)	Sintering	100	6	ESP	13 Mar, 11:15-11:50 (35	Minute)	1763	25479	7 47.71	69.84	1 -	-	

	Machine											
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	20 Mar, 10:35-11:15 (40 Minute)	1828	228866	45.33	86.52	-	-	
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	20 Mar, 11:30-12:10 (40 Minute)	1828	223491	46.07	63.80	-	-	
SP-3												
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	01 Mar, 10:45-11:30 (45 Minute)	8776	473782	49.34	-	-	-	
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	21 Mar, 11:30-12:15 (45 Minute)	8335	493401	48.71	-	-	-	
RMP-2												
LK-1	Vertical Kiln	53.2	1.2	Wet Scrubber	24 Mar, 09:10-09:50 (40 Minute)	163	51862	44.65	73.50	-	-	
LK-2	Vertical Kiln	53.2	1.2	Wet Scrubber	24 Mar, 10:00-10:40 (40 Minute)	118	54102	46.54	66.82	-	-	
RK	Rotary Kiln	60	2	Wet Scrubber	27 Mar, 10:00-10:45 (45 Minute)	144	59239	47.18	68.25	-	-	
				•	TPP/CPP	1			•	1		
Boiler 1	Boiler	80	4.3	ESP	03 Mar, 10:30-11:15 (45 Minute)	2433	119323	46.93	72.80	68.60	-	
Boiler 2	Boiler	80	4.3	ESP	03 Mar, 11:30-12:15 (45 Minute)	2628	118310	49.24	64.50	86.90	-	
Boiler 3	Boiler	80	4.3	Wet Scrubber	04 Mar, 10:15-11:00 (45 Minute)	1997	83828	35.79	76.00	82.15	-	
Boiler 4	Boiler	80	4.3	Wet Scrubber	15 Mar, 12:00-12:45 (45 Minute)	1899	83981	41.34	81.00	88.50	-	
Boiler 5	Boiler	80	4.3	ESP	18 Mar, 11:20-12:00 (40 Minute)	2360	118830	45.81	94.40	98.25	-	
					7.500							
Mills												
Plate Mill	RHF	-	-	-	09 Mar., 10:30-11:30 (60 Minute)	1		19.66			Ī	
Rail Mill BRM	RHF RHF	-	-	-	28 Mar., 10:00-11:00 (60 Minute) 29 Mar, 10:10-11:10 (60 Minute)	-	-	25.36 30.09	<u> </u>	-	-	
DIVIM	IXI II	-	_		23 Mai, 10.10-11.10 (00 Millute)			30.03				

FUGITIVE EMISSION STATUS October 2022 to March 2023

# FLAG E

**E-2** 

## **Fugitive Emission**

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Fugitive Emissions Status Month- October 2022**

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 ₁₀ μg/m ³ (4000)	SO ₂ μg/m ³ (200)	NOx μg/m ³ (150)	Pb* μg/m ³ (2)	CO (5000	BaP** 2000ng/m	Remarks*	
1	Coke Oven area	In front of Batt5		14 Oct -11:00	1640	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012	
2	Sinter Plant	SP-II (Near M/c-1)		19 Oct -10:50	1890	-	-	-	-	-	-	
3	Blast Furnace	BF-4 #, Near Furnace		26 Oct - 10:00-02:00	802	59.20	69.60	NT*	836	-	Norms as per GSR 277 (E) dtd 30/03/2012	
4	Steel Melting Shop-2	Near Chimney		28 Oct - 11:30-03:30	526	48.50	60.30	NT*	1074	-	Norms as per GSR 277 (E) dtd 30/03/2012	
5	Thermal Power Plant-1	Near Boiler-4		05 Oct -10:00	945	-	-	-	-	-		
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		05 Oct -10:25	1060	-	-	-	-	-	-	
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		26 Oct -11:25	1680	-	-	-	-	-	-	

FUGITIVE EMISSION STATUS October 2022 to March 2023

### **Fugitive Emissions Status Month-November 2022**

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 ₁₀ μg/m ³ (4000)	SO ₂ μg/m 3 (200)	NOx μg/m ³ (150)	Pb* μg/m ³ (2)	CO (5000	BaP** 2000ng/m	Remarks*
1	Coke Oven area	In front of Batt 11		05 Nov -11:30	1650	ı	-	-	-	990*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1 & 2)		08 Nov -11:55	1730	-	-	-	-	-	-
3	Blast Furnace	BF # 5, Near Furnace		03 Nov -10:20- 02:00	870.91	59.30	62.00	0.192*	920*	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Beside of RH Degassar (Ground level)		02 Nov -10:00- 02:00	971.78	51.90	56.30	0.536*	1204*	162*	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant- 1	Near Boiler-1		10 Nov -10:50	1690	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		22 Nov -11:40	1480	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		22 Nov -10:30	1680	-	-	-	-	-	-

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Fugitive Emissions Status Month-December 2022**

Name of the Unit (2)	Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)			•	ar amete.	rs (as appl (6)	icabicj	
	• •			PM ₁₀ μg/m ³ (4000)	SO ₂ μg/m ³ (200)	NOx μg/m ³ (150)	Pb* μg/m ³ (2)	CO (5000)	BaP** 2000ng/m	Remarks*
Coke Oven area	In front of Batt3		01 Dec -10:00	1670	-	-	-	-	990*	Norms as per GSR 277 (E) dtd 30/03/2012
Sinter Plant	SP-II (Near M/c-1)		20 Dec -11:15	1820	-	-	-	1	=	-
Blast Furnace	BF # 6, Near Furnace		29 Dec -10:00- 02:00	840.21	61.20	49.50	0.062*	985	271*	Norms as per GSR 277 (E) dtd 30/03/2012
Steel Melting Shop-2	Near LF-1 Chimney		06 Dec -11:00- 02:30	908.55	48.50	56.10	0.014*	1367	162*	Norms as per GSR 277 (E) dtd 30/03/2012
Thermal Power Plant-1	Near Boiler-4		02 Dec -11:00	1790	-	1	1	ı	•	
Lime dolomite plant- 1	RMP-1 (Entrance)		15 Dec -11:40	1600	-	-	-	-	-	-
Lime dolomite plant-2	RMP-2 (Near welfare building)		15 Dec -10:45	1800	-	-	-	-	-	-
	Coke Oven area Sinter Plant Blast Furnace Steel Melting Shop-2 Thermal Power Plant-1 Lime dolomite plant- 1 Lime dolomite	Coke Oven area  Sinter Plant  Blast Furnace  Steel Melting Shop-2  Thermal Power Plant-1  Lime dolomite plant- 1  Lime dolomite plant- 1  Lime dolomite welfare building)  RMP-2 (Near welfare building)	Unit (distance) (3)  Coke Oven area  In front of Batt3  Sinter Plant  SP-II (Near M/c-1)  BF # 6, Near Furnace  Steel Melting Shop-2  Thermal Power Plant-1  Lime dolomite plant- 1  Lime dolomite dolomite dolomite welfare building)	Unit (distance) (3) the monitoring (5)  Coke Oven area In front of Batt3  01 Dec -10:00  Sinter Plant SP-II (Near M/c-1) 20 Dec -11:15  Blast Furnace Furnace 29 Dec -10:00-02:00  Steel Melting Shop-2 Chimney 02:30  Thermal Power Plant-1 Near Boiler-4 02 Dec -11:00  Lime dolomite plant-1 Lime dolomite RMP-1 (Entrance) 15 Dec -11:40  RMP-2 (Near welfare building) 15 Dec -10:45	Unit (2)         Station (distance) (3)         / Bown wind (4)         the monitoring (5)           Coke Oven area         In front of Batt3         01 Dec -10:00         1670           Sinter Plant         SP-II (Near M/c-1)         20 Dec -11:15         1820           Blast Furnace         BF # 6, Near Furnace         29 Dec -10:00- 02:00         840.21           Steel Melting Shop-2         Near LF-1 Chimney         06 Dec -11:00- 02:30         908.55           Thermal Power Plant-1 Lime dolomite plant-1         Near Boiler-4         02 Dec -11:40         15 Dec -11:40         1600           Lime dolomite welfare building         RMP-2 (Near welfare building)         15 Dec -10:45         1800	Unit (2) (3) (4) (5) (5) (7) (8) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	Unit (distance) (3)	Unit (2)         Station (distance) (3)         / Down wind (4)         the monitoring (5)           Coke Oven area         In front of Batt3         01 Dec -10:00         1670         -         -         -         -           Sinter Plant         SP-II (Near M/c-1)         20 Dec -11:15         1820         -         -         -         -           Blast Furnace         BF # 6, Near Furnace         29 Dec -10:00- 02:00         840.21         61.20         49.50         0.062*           Steel Melting Shop-2         Near LF-1 Chimney         06 Dec -11:00- 02:30         908.55         48.50         56.10         0.014*           Thermal Power Plant-1 Lime dolomite plant-1         RMP-1 (Entrance)         15 Dec -11:40         1600         -         -         -         -           Lime dolomite weaffare building)         15 Dec -10:45         1800         -         -         -         -	Unit (2)   Coke Oven area   In front of Batt3   O1 Dec -10:00   1670   -   -   -   -	Unit (2)   Coke Oven area   In front of Batt3   O1 Dec -10:00   1670   -1   -1   -1   -1   -1   -1   -1   -

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Fugitive Emissions Status Month-January'23**

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)				Paramete	ers (as app (6)	licable)	
					PM ₁₀ μg/m ³ (4000)	SO ₂ μg/m 3 (200)	NOx μg/m ³ (150)	Pb* μg/m ³ (2)	CO (5000)	BaP** 2000ng/m	Remarks*
1	Coke Oven area	In front of Batt		09 Jan -11:50	1730	-	-	-	-	990*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		06 Jan -10:50	1840	-	-	-	-	-	-
3	Blast Furnace	BF # 6, Near Cast House		14 Jan -10:30-02:30	805.00	59.60	48.30	0.062*	1125	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LD Convertor		24 Jan -10:00-01:00	1284.5	50.60	46.70	0.014*	1472	162*	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant- 1	Near Boiler-3		04 Jan -11:30	1810	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		10 Jan -12:00	1630	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		10 Jan -10:35	1860	-	-	-	-	-	-

FUGITIVE EMISSION STATUS October 2022 to March 2023

## Fugitive Emissions Status Month-February'23

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)				Parameter	s (as app (6)	licable)	
					PM ₁₀ μg/m ³ (4000)	SO ₂ μg/m ³ (200)	NOx μg/m ³ (150)	Pb* _{μg/m} ³ (2)	CO (5000)	BaP** 2000ng/m ³	Remarks*
1	Coke Oven area	In front of Batt3		08 Feb -10:45	1700	-	-	-	-	990*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		27 Feb -10:45	1880	-	-	-	-	-	-
3	Blast Furnace	BF # 7, Near Furnace		23 Feb -10:30- 02:15	1217. 92	58.6 0	46.9 0	0.062*	943	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LF-1		23 Feb -10:00- 02:00	1163. 00	48.3 0	39.3 0	0.014*	1247	162*	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-3		04 Feb -10:45	1840	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		07 Feb -11:10	1880	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		07 Feb -11:45	1900	-	-	-	-	-	-

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Fugitive Emissions Status Month-March'23**

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)			Pa	arameters	s (as applic (6)	able)	
					PM ₁₀ μg/m ³ (4000)	SO ₂ μg/m ³ (200)	NOx μg/m ³ (150)	Pb* μg/m ³ (2)	CO (5000)	BaP** 2000 ng/m³	Remarks*
1	Coke Oven area	In front of Batt		06 Mar -10:35	1710	1	-	-	1	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		13 Mar -10:45	1890	-	-	-	-	-	-
3	Blast Furnace	BFs-6 Near Furnace		31 Mar - 10:40-02:30	1034.04	55.80	48.3 0	0.062*	910	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LD Convertor		31 Mar - 10:00-02:00	964.57	49.30	40.6 0	0.014*	1147	162*	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-1 & 2		03 Mar -10:50	1790	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 ( Entrance)		27 Mar -11:10	1700	-	-	-	ı	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		27 Mar -10:30	1890	-	-	-	-	-	-

FUGITIVE EMISSION STATUS October 2022 to March 2023

# FLAG E

**E-3** 

**AMBIENT AIR QUALITY** 

					AMB	IENT A	IR QUA	LITY							
					Mo	onth-O	ctober'2	22							
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Param	ieters (as	applicat	ole)				
1	2	3	4						5						
				$PM_{2.5}$	PM ₁₀	$SO_2$	$NO_2$	$NH_3$	CO	BaP*	$0_3$	Pb*	As*	Ni*	$C_6H_6**$
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	1	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			21.89	51.57	11.98	12.71	1.49	227	NT	44.97	NT	NT	5.200	1.43
2	OP-2			20.18	42.21	12.98	14.50	1.54	256	NT	55.68	NT	NT	12.00	1.03
3	Rail Mill			26.44	54.92	13.27	15.83	2.41	520	NT	56.82	NT	NT	11.00	1.29
4	Ispat Bhavan			22.13	51.46	14.65	13.86	1.95	294	1.00	NA**	NT	NT	4.900	NA**

^{**} 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.

					AMB	IENT A	IR QUA	LITY							
						Mont	th-Nove	mber'	22						
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Param	ieters (as	applicat	ole)				
1	2	3	4						5						
				$PM_{2.5}$	$PM_{10}$	$SO_2$	$NO_2$	$NH_3$	CO	BaP*	$0_3$	Pb*	As*	Ni*	$C_6H_6**$
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	ı	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			26.72	56.87	16.07	17.23	1.37	238	NT	43.21	NT	NT	5.200	1.58
2	OP-2			22.06	45.21	18.80	19.34	1.43	249	NT	54.19	NT	NT	12.00	1.12
3	Rail Mill			27.88	56.47	19.22	20.12	2.33	515	NT	55.37	NT	NT	11.00	1.18
4	Ispat Bhavan			24.31	53.29	16.48	18.73	1.87	283	1.00	NA**	NT	NT	4.900	NA**

^{**} 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.

					AMB	IENT A	IR QUA	LITY							
						Mon	th-Dece	mber'	22						
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 ₁₀	SO ₂	$NO_2$	$NH_3$	со	BaP*	03	Pb*	As*	Ni*	C ₆ H 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/m³	
1	Civic Centre			29.99	59.70	19.43	21.08	1.43	259	NT	49.21	0.025	NT	2.000	1.52
2	OP-2			25.39	48.55	21.84	22.08	1.40	286	NT	52.14	0.034	NT	2.000	1.20
3	Rail Mill			29.98	59.24	23.59	24.70	2.38	507	NT	54.18	0.040	NT	4.000	1.19
4	Ispat Bhavan			27.03	55.72	19.87	21.22	1.88	278	1.00	NA**	0.056	NT	3.000	NA**

^{**} 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.

					AMB	IENT A	IR QUA	LITY							
						Mor	ıth- Jan	uary'2	3						
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Param	ieters (as	applicat	ole)				
1	2	3	4						5						
				PM _{2.5}	PM ₁₀	SO ₂	$NO_2$	NH ₃	СО	BaP*	03	Pb*	As*	Ni*	C ₆ H 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/m³	
1	Civic Centre			27.80	60.71	15.99	16.67	1.88	295	NT	46.92	NT	NT	5.200	2.06
2	OP-2			25.79	47.12	16.81	18.15	2.24	403	NT	68.43	NT	NT	12.00	1.02
3	Rail Mill			30.64	59.83	18.44	20.21	3.36	587	NT	69.91	NT	NT	11.00	1.56
4	Ispat Bhavan			27.31	56.46	16.70	17.52	3.02	398	1.00	NA**	NT	NT	4.900	NA**

^{**} 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.

## AMBIENT AIR QUALITY Month- February'23

S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Parame	eters (as	applica	ble)				
1	2	3	4						5						
				PM _{2.5}	PM ₁₀	SO ₂	$NO_2$	NH ₃	со	BaP*	$0_3$	Pb*	As*	Ni*	C ₆ H 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	3							ng/m³	
1	Civic Centre			28.35	59.84	16.77	18.82	1.38	240	NT	48.11	0.025	NT	2.000	1.48
2	OP-2			24.51	47.34	19.28	19.77	1.41	269	NT	51.78	0.034	NT	2.000	1.21
3	Rail Mill			27.83	58.70	21.66	22.98	2.24	485	NT	53.33	0.040	NT	4.000	1.14
4	Ispat Bhavan			26.69	54.28	17.80	19.42	1.65	266	1.00	NA**	0.056	NT	3.000	NA**

^{**}Monitoring is done through online Continious Ambient Monitoring system.At Ispat Bhavan, for monitoring of Ozone & Bengene is not done as no analyzers are installed for there parameters.

#### BHILAI STEEL PLANT Oct. 2022 to March 2023

				B. AMBIE	NT AIR Q	UALITY	AND FUGI	JTIVE EN	MISSION						
						Moi	nth- Ma	rch'23							
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring					Parame	eters (as	applica	ble)				
1	2	3	4						5						
				$PM_{2.5}$	PM ₁₀	SO ₂	$NO_2$	$NH_3$	co	BaP*	$0_3$	Pb*	As*	Ni*	C ₆ H 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	3							ng/m³	
1	Civic Centre			26.65	59.05	15.93	18.34	1.40	235	NT	47.89	0.025	NT	2.000	1.45
2	OP-2			23.14	46.01	18.11	19.12	1.43	258	NT	50.52	0.034	NT	2.000	1.19
3	Rail Mill			25.66	56.82	20.58	21.50	2.19	422	NT	51.06	0.040	NT	4.000	1.16
4	Ispat Bhavan			25.38	52.88	16.35	18.67	1.62	247	NT	NA**	0.056	NT	3.000	NA**

^{**}Monitoring is done through online Continious Ambient Monitoring system.At Ispat Bhavan, for monitoring of Ozone & Bengene is not done as no analyzers are installed for there parameters.

FUGITIVE EMISSION STATUS October 2022 to March 2023

# FLAG - F

## **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

FUGITIVE EMISSION STATUS October 2022 to March 2023

## Month-October 2022

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Para	meters	monito	red (mg	/l, exce	pt pH)		Remarks
				рН	TSS	Phei	nol Cy an id e		COD	Amm. Nitrogen	0 & G	
Norm				6.0- 8.5	100 (50 for BF)	1	0. 2	30	250	50	10	
	I.		COBI	P Effluent	101 21 )				I			
26 Oct, 09:45:00 AM	Inlet to BOD plant	Physiochemical & Biological	153	9.24	-	150	11.20	-	2200	319.5	8.60	Treated water used for quenching
26 Oct, 09:50:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.90	73	0.310	0.22	13	241	45.08	3.40	Treated water used for quenching
15 Oct, 10:00:00 AM	Sinter Plant-2	Settling Tank	1400	7.35	98	-	-	-	-	-	1.05	Recycled back
15 Oct, 09:50:00 AM	Steel Melting Shop-2	Settling Tank	1650	7.68	40	-	-	-	-	-	1.29	Recycled
13 Oct, 09:45:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	7.21	42	BDL	0.15	-	-	30.00	1.58	Recycled Back
14 Oct, 10:20:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	7.82	52	-	-	-	-	-	2.42	Recycled Back
07 Oct, 10:45:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.04	37	-	-	-	-	-	1.92	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Quality of various effluent streams at the Boundary line of the plant**

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream			Para	meters (m	ng/l, except	pH and	temp.)			
			Temp.	рН	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	Remarks
Norms			•	6.5-8.5	100	1	0.2	30	250	50	10	
04, 11, 18, 25, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	28.93	7.89	33	BDL	BDL	14	43	3.58	2.04	
04, 11, 18, 25, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.58	7.72	40	BDL	BDL	22	56	5.61	2.73	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	28.78	7.96	26	0.12	0.05	21	54	3.64	1.29	

## **Status of Sewage Treatment Plant (STP)**

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Par	rameters (mg/l,	except pH an	d temp.)		
			Temp.	рН	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
25 Oct, 10:40 AM	30 MLD	1150	29	7.29	15	9	15	
31 Oct, 07:40 AM	Bhilai House (Oxi. Pond)	475	27	7.88	59	22	61	
31 Oct, 08:30 AM	Risali (Oxi. Pond)	700	27	8.05	51	19	56	
22 Oct, 10:45 AM	Works area	390	28	7.20	38	19	42	

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Month- November 2022**

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Para	ameters	monito	red (mg	/l, exce _l	pt pH)		Remarks
			•	рН	TSS	Phen ol	Cya nide	BOD	COD	Amm. Nitrogen	0 & G	
Norm				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			COBI	<b>Effluent</b>								
30 Nov, 11:10:00 AM	Inlet to BOD plant	Physiochemical & Biological	153	9.41	-	175	14.00	1	2450	380.5	7.82	Treated water used for quenching
30 Nov, 11:30:00 AM	Outlet to BOD plant	Physiochemical & Biological	1	7.85	70	0.375	0.18	11	230	44.70	3.58	Treated water used for quenching
04 Nov, 09:30:00 AM	Sinter Plant-2	Settling Tank	1400	8.27	39	-	-	-	-	-	1.21	Recycled back
04 Nov, 09:45:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.21	88	-	-	-	-	-	1.10	Recycled
05 Nov, 10:15:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	6.92	45	BDL	0.14	-	-	24.20	1.46	Recycled Back
04 Nov, 09:50:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	7.91	48	1	-	-	-	-	2.20	Recycled Back
12 Nov, 10:55:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.38	34	-	-	-	-	-	2.19	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Quality of various effluent streams at the Boundary line of the plant**

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream			Para	meters (m	g/l, except	pH and t	emp.)			
			Temp.	рН	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	28.35	7.93	37	BDL	BDL	14	44	4.44	1.81	
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	26.60	7.63	52	BDL	BDL	18	52	8.03	2.66	
03, 07, 14, 21, 8:00 to 12:30, Grab	Stream -	COBPP, SP-II, SP-III, Coke Ovens and Mills	25.15	8.00	27	0.11	0.06	18	49	4.29	1.52	

## **Status of Sewage Treatment Plant (STP)**

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Par	rameters (mg/l,	except pH an	d temp.)		
			Temp.	рН	SS	BOD	COD	
	Norms		<del>-</del>	6.5 -8.5	100	30	250	
15 Nov, 11:02 AM	30 MLD	1150	26	7.30	19	8	13	
24 Nov, 03:10 PM	Bhilai House (Oxi. Pond)	475	26	8.47	68	25	66	
15 Nov, 11:15 AM	Risali (Oxi. Pond)	700	26	8.32	50	26	71	
10 Nov, 10:48 AM	Works area	390	27	7.63	32	17	47	

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Month- December 2022**

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Para	ameters	monito	red (mg	/l, exce	pt pH)		Remarks
			•	рН	TSS	Phen ol	Cya nide	BOD	COD	Amm. Nitrogen	0 & G	
Norm				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			<u>COBI</u>	<u> Effluent</u>								
14 Dec, 11:05:00 AM	Inlet to BOD plant	Physiochemical & Biological	118	9.49	-	161	21.40	-	2139	409.8	7.97	Treated water used for quenching
14 Dec, 11:10:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.92	71	0.383	0.18	9	216	44.78	3.23	Treated water used for quenching
09 Dec, 10:30:00 AM	Sinter Plant-2	Settling Tank	1400	8.41	40	-	-	1	-	-	1.28	Recycled back
09 Dec, 11:00:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.25	54	-	-	1	-	-	1.47	Recycled
10 Dec, 09:40:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	7.01	42	BDL	0.18	-	-	27.80	1.48	Recycled Back
10 Dec, 10:00:00 AM	Mills (Rail Mill)	Settling Tank with oil separators		8.00	50	_	-	-	-	-	2.13	Recycled Back
02 Dec, 10:30:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.30	32	-	-	-	-	-	2.10	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

FUGITIVE EMISSION STATUS October 2022 to March 2023

## Quality of various effluent streams at the Boundary line of the plant

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream			Para	meters (m	ng/l, except	pH and t	emp.)			
			Temp.	рН	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	0&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	26.30	7.79	48	BDL	BDL	13	42	5.71	1.53	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	25.98	7.37	57	BDL	BDL	17	51	5.07	2.96	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	25.23	7.98	30	0.09	0.08	17	49	4.64	1.48	

## **Status of Sewage Treatment Plant (STP)**

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Para	ameters (mg/l, o	except pH an	d temp.)		
			Temp.	рН	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
22 Dec, 11:40 AM	30 MLD	1150	25	7.41	45	8	12	
21 Dec, 09:30 AM	Bhilai House (Oxi. Pond)	475	26	8.35	71	25	57	
30 Dec, 01:00 PM	Risali (Oxi. Pond)	700	27	8.44	69	25	60	
22 Dec, 11:50 AM	Works area	390	26	7.47	35	15	42	

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Month- January 2023**

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	
Norm				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			COBP I	Effluent	,				•			
11 Jan, 10:40:00 AM	Inlet to BOD plant	Physiochemical & Biological	135	10.51	ı	178	21.80	-	2211	828.0	8.26	Treated water used for quenching
11 Jan, 11:00:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	8.10	75	0.463	0.18	11	221	44.23	3.46	Treated water used for quenching
05 Jan, 10:35:00 AM	Sinter Plant-2	Settling Tank	1400	7.25	42	-	-	-	-	-	1.20	Recycled back
05 Jan, 10:20:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.05	65	1	-	-	-	-	1.13	Recycled
12 Jan, 09:50:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	7.22	46	BDL	0.19	-	1	40.80	1.59	Recycled Back
05 Jan, 11:00:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	8.15	49	-	-	-	-	-	2.27	Recycled Back
19 Jan, 10:30:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.35	40	ı	-	-	-	-	1.88	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

FUGITIVE EMISSION STATUS October 2022 to March 2023

## Quality of various effluent streams at the Boundary line of the plant

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream			Para	meters (m	ng/l, except	pH and t	emp.)			
			Temp.	рН	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	24.38	7.72	49	BDL	BDL	14	44	2.74	1.39	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	24.28	7.54	53	BDL	BDL	20	54	4.86	2.10	
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	23.04	8.36	27	0.14	0.06	19	54	4.04	1.64	

## **Status of Sewage Treatment Plant (STP)**

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Par	rameters (mg/l, o	except pH an	d temp.)		
			Temp.	рН	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
03 Jan, 11:10 AM	30 MLD	1150	25	7.71	32	8	13	
21 Jan, 12:40 PM	Bhilai House (Oxi. Pond)	475	26	8.09	77	22	86	
21 Jan, 12:00 PM	Risali (Oxi. Pond)	700	25	7.96	71	19	77	
27 Jan, 10:20 AM	Works area	390	26	7.46	38	17	46	

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Month- February 2023**

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Paran	neters n	onitore	ed (mg	g/l, exce	ept pH)		Remarks
			,	рН	TSS	Phen ol	Cya nide	BO D	COD	Amm. Nitrog en	0 & G	
Norm				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			<u>COBP</u>	<u>Effluent</u>		•			•		•	
22 Feb, 10:13:00 AM	Inlet to BOD plant	Physiochemical & Biological	170	9.52	-	170	15.3 0	-	261 2	744.0	10.23	Treated water used for quenching
22 Feb, 10:16:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.71	70	0.360	0.18	12	239	44.88	3.20	Treated water used for quenching
03 Feb, 10:10:00 AM	Sinter Plant-2	Settling Tank	1400	8.27	52	-	-	-	-	-	1.36	Recycled back
03 Feb, 10:20:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.42	78	-	-	-	-	-	1.46	Recycled
04 Feb, 10:00:00 AM	Blast Furnace- RST	Settling Tank /Cooling Pond	12500	6.56	46	BDL	0.17	-	-	37.30	1.73	Recycled Back
02 Feb, 11:40:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	7.81	46	-	-	-	-	-	1.21	Recycled Back
07 Feb, 10:00:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.12	48	-	-	-	-	-	2.14	Recycled Back
22 Feb, 10:13:00 AM	Inlet to BOD plant	Physiochemical & Biological	170	9.52	-	170	15.3 0	-	261 2	744.0	10.23	Treated water used for quenching
	CPP/TPP	Ash Dyke										Recycled Back

FUGITIVE EMISSION STATUS October 2022 to March 2023

## Quality of various effluent streams at the Boundary line of the plant

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream			Para	meters (m	ıg/l, except	pH and t	emp.)			
			Temp.	рН	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	0&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
09, 14, 21, 28, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	29.95	7.77	33	BDL	BDL	16	46	7.00	1.31	
09, 14, 21, 28, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	28.53	8.42	54	BDL	BDL	19	56	33.20	2.15	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	28.48	8.07	28	0.12	0.08	18	50	6.67	1.70	

#### **Status of Sewage Treatment Plant (STP)**

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp. pH SS BOD COD					
	Norms			6.5 -8.5	100	30	250	
09 Feb, 12:00 PM	30 MLD	1150	27	7.17	33	9	14	
09 Feb, 11:00 AM	Bhilai House (Oxi. Pond)	475	28	8.48	59	24	77	
09 Feb, 11:30 AM	Risali (Oxi. Pond)	700	27	8.21	62	25	81	
17 Feb, 11:00 AM	Works area	390	26	7.11	40	17	44	

FUGITIVE EMISSION STATUS October 2022 to March 2023

## Month- March 2023

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr		Para	meters m	onitore	ed (mg	z/l, exce	pt pH)		Remarks
			,	рН	TSS	Phenol	Cya nid e	BO D	COD	Amm. Nitrogen	0 & G	
Norm				6.0- 8.5	100 (50 for BF)	1	0.2	30	250	50	10	
			COBP I	Effluent								
31 Mar, 10:50:00 AM	Inlet to BOD plant	Physiochemical & Biological	170	9.88	-	179	23.8	1	271 5	991.0	12.40	Treated water used for quenching
31 Mar, 10:24:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	7.85	71	0.418	0.18	13	231	45.74	3.26	Treated water used for quenching
16 Mar, 09:55:00 AM	Sinter Plant- 2	Settling Tank	1400	8.00	46	-	-	-	-	-	1.16	Recycled back
16 Mar, 09:50:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.24	59	-	-	1	1	1	1.27	Recycled
03 Mar, 10:00:00 AM	Blast Furnace-RST	Settling Tank /Cooling Pond	12500	6.42	46	BDL	0.16	-	1	24.20	1.43	Recycled Back
02 Mar, 09:55:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	7.92	63	-	-	-	ı	-	2.16	Recycled Back
24 Mar, 11:50:00 AM	Plate Mill	Settling Tank with oil separators	16000	8.21	56	-	-	-	1	-	1.96	Recycled Back
	CPP/TPP	Ash Dyke	_				•					Recycled Back

FUGITIVE EMISSION STATUS October 2022 to March 2023

## **Quality of various effluent streams at the Boundary line of the plant**

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream		Parameters (mg/l, except pH and temp.)								
			Temp.	рН	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
07, 14, 21, 27, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	29.75	7.96	45	BDL	BDL	15	43	6.55	1.37	
07, 14, 21, 27, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.23	7.21	56	BDL	BDL	19	53	19.43	2.17	
06, 13, 18, 25, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	28.38	7.92	31	0.07	0.06	20	53	5.93	1.74	

#### **Status of Sewage Treatment Plant (STP)**

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp. pH SS BOD COD					
	Norms			6.5 -8.5	100	30	250	
14 Mar, 11:25 AM	30 MLD	1150	30	7.26	31	11	15	
21 Mar, 12:22 PM	Bhilai House (Oxi. Pond)	475	28	8.41	70	25	70	
21 Mar, 12:48 PM	Risali (Oxi. Pond)	700	27	8.46	78	28	76	
17 Mar, 10:30 AM	Works area (Oxi. Pond)	390	27	7.32	42	16	45	

FUGITIVE EMISSION STATUS October 2022 to March 2023

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## **Noise Pollution Control Status**

## Noise Pollution Control Status Month-October 2022

#### 1. Noise Monitoring in Work Zone

Location	Date of Monitorin g	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitori ng (time)	Rema rks
Oxygen plant-2 (Control Room)	31-0ct	5 m	Air tight control Room	65.5	2 Minute	
Blast Furnace-4(Control Room)	15-0ct	5 m	Acoustic Room	68.9	2 Minute	
Mills (Rolling / forgoing) Rail Mill	31-0ct	5 m	Acoustic pulpit	86.4	2 Minute	
TPP/CPP (Turbines-3) (Control Room)	05-Oct	5 m	Acoustic cabins	65.3	2 Minute	
SP-2, (M/c-1) Operator's room	19-0ct	5 m	Acoustic Room	68.1	2 Minute	
Coke-oven area (Batt10) (Control Room)	01-Oct	5 m	Air Tight control Room	68.4	2 Minute	
Others						

^{*} Noise level map of the plant may beattached along with the report

#### 2. Ambient Noise Monitoring

Noiga Zono	Noise Level	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)				
Industrial Area (at boundary of plant)				
Near OP-2	75	52.8	48.5	
Near Joratarai Gate	75	54.3	51.6	
Near Main Gate	75	53.9	51.5	
Near Khursipar Gate	75	68.9	65.8	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	54.7	43.0	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	54.2	49.0	
Sector-09 (Goal Market)	65 Day & 55 Night	53.1	48.6	
Maroda Sector (BSP Market)	65 Day & 55 Night	43.5	53.2	
Risali Sector (BSP Market)	65 Day & 55 Night	50.3	54.1	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	42.0	42.3	
Sector-05 (Street No 32)	55 Day & 45 Night	40.2	40.3	
Sector-07 (Street No 17)	55 Day & 45 Night	39.8	43.9	
Sector-08 (Street No 05)	55 Day & 45 Night	40.9	43.1	
Sector-10 (Street No 25)	55 Day & 45 Night	42.8	41.9	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	40.8	39.4	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	43.9	38.1	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	46.4	38.5	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	39.4	36.3	
Maroda Sector (Estate Court )	50 Day & 40 Night	41.7	37.4	

Noise Monitoring in township area done (Quarterly) in the month of September-22

## **Month- November 2022**

## 1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	24-Nov	5 m	Air tight control Room	61.5	2 Minute	
Blast Furnace-5(Control Room)	03-Nov	5 m	Acoustic Room	67.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	24-Nov	5 m	Acoustic pulpit	88.3	2 Minute	
TPP/CPP (Turbines-3 ) (Control Room)	10-Nov	5 m	Acoustic cabins	67.9	2 Minute	
SP-2, (M/c-1 & 2) Operator's room	08-Nov	5 m	Acoustic Room	64.3	2 Minute	
Coke-oven area (Batt9) (Control Room)	04-Nov	5 m	Air Tight control Room	68.4	2 Minute	
Others						

#### 2. Ambient Noise Monitoring

Noise Zone	Noise Level	Un	it: dB (A)
Noise zone	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Industrial Area (at boundary of plant)			
Near OP-2	75	56.3	51.4
Near Joratarai Gate	75	57.8	52.5
Near Main Gate	75	55.2	51.7
Near Khursipar Gate	75	65.9	62.1
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	54.7	43.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.2	49.0
Sector-09 (Goal Market)	65 Day & 55 Night	53.1	48.6
Maroda Sector (BSP Market)	65 Day & 55 Night	43.5	53.2
Risali Sector (BSP Market)	65 Day & 55 Night	50.3	54.1
Residential Area			
Sector-01 (Street No 23)	55 Day & 45 Night	42.0	42.3
Sector-05 (Street No 32)	55 Day & 45 Night	40.2	40.3
Sector-07 (Street No 17)	55 Day & 45 Night	39.8	43.9
Sector-08 (Street No 05)	55 Day & 45 Night	40.9	43.1
Sector-10 (Street No 25)	55 Day & 45 Night	42.8	41.9
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	40.8	39.4
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	43.9	38.1
Sector-07 (English Medium Middle School)	50 Day & 40 Night	46.4	38.5
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	39.4	36.3
Maroda Sector (Estate Court )	50 Day & 40 Night	41.7	37.4

Noise Monitoring in township area done (Quarterly) in the month of September-22

## **Month- December 2022**

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitorin g (time)	Remark s
Oxygen plant-2 (Control Room)	31-Dec	5 m	Air tight control Room	68.9	2 Minute	
Blast Furnace-6(Control Room)	08-Dec	5 m	Acoustic Room	68.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	22-Dec	5 m	Acoustic pulpit	87.4	2 Minute	
TPP/CPP (Turbines-3 ) (Control Room)	19-Dec	5 m	Acoustic cabins	69.4	2 Minute	
SP-2, (M/c-1) Operator's room	20-Dec	5 m	Acoustic Room	67.4	2 Minute	
Coke-oven area (Batt11) (Control Room)	07-Dec	5 m	Air Tight control Room	68.4	2 Minute	
Oxygen plant-2 (Control Room)	31-Dec	5 m	Air tight control Room	68.9	2 Minute	
Others						

^{*} Noise level map of the plant may be attached along with the report

#### Bhilai Steel Plant Noise Pollution Status October 2022 to March 2023

#### 2. Ambient Noise Monitoring

Noise Zone	Noise Level	Uni	t: dB (A)
Noise Zone	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	58.9	53.8
Near Joratarai Gate	75	59.4	57.4
Near Main Gate	75	57.9	53.3
Near Khursipar Gate	75	68.6	66.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	56.3	53.4
Sector-06 (Near 'B' Market)	65 Day & 55 Night	50.9	48.6
Sector-09 (Goal Market)	65 Day & 55 Night	56.5	52.0
Maroda Sector (BSP Market)	65 Day & 55 Night	46.9	45.9
Risali Sector (BSP Market)	65 Day & 55 Night	60.1	49.5
Residential Area			
Sector-01 (Street No 23)	55 Day & 45 Night	49.1	44.7
Sector-05 (Street No 32)	55 Day & 45 Night	46.6	43.7
Sector-07 (Street No 17)	55 Day & 45 Night	41.6	40.2
Sector-08 (Street No 05)	55 Day & 45 Night	50.5	42.6
Sector-10 (Street No 25)	55 Day & 45 Night	42.8	41.6
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	46.0	39.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	41.0	37.8
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.3	38.5
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	43.9	39.2
Maroda Sector (Estate Court )	50 Day & 40 Night	44.9	37.9

Noise Monitoring in township area done (Quarterly) in the month of  $\,$  December-22

## Month - January 2023

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-Jan	5 m	Air tight control Room	68.1	2 Minute	
Blast Furnace-6(Control Room)	07-Jan	5 m	Acoustic Room	66.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	26-Jan	5 m	Acoustic pulpit	85.2	2 Minute	
TPP/CPP (Turbines-3) (Control Room)	04-Jan	5 m	Acoustic cabins	68.3	2 Minute	
SP-2, (M/c-1) Operator's room	06-Jan	5 m	Acoustic Room	65.3	2 Minute	
Coke-oven area (Batt3) (Control Room)	16-Jan	5 m	Air Tight control Room	65.8	2 Minute	
Oxygen plant-2 (Control Room)	27-Jan	5 m	Air tight control Room	68.1	2 Minute	
Others						

^{*} Noise level map of the plant may be attached along with the report

#### Bhilai Steel Plant Noise Pollution Status October 2022 to March 2023

#### 2. Ambient Noise Monitoring

Noise Zone	Noise Level	Uni	t: dB (A)
Noise Zone	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	58.9	53.8
Near Joratarai Gate	75	59.4	57.4
Near Main Gate	75	57.9	53.3
Near Khursipar Gate	75	68.6	66.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	56.3	53.4
Sector-06 (Near 'B' Market)	65 Day & 55 Night	50.9	48.6
Sector-09 (Goal Market)	65 Day & 55 Night	56.5	52.0
Maroda Sector (BSP Market)	65 Day & 55 Night	46.9	45.9
Risali Sector (BSP Market)	65 Day & 55 Night	60.1	49.5
Residential Area			
Sector-01 (Street No 23)	55 Day & 45 Night	49.1	44.7
Sector-05 (Street No 32)	55 Day & 45 Night	46.6	43.7
Sector-07 (Street No 17)	55 Day & 45 Night	41.6	40.2
Sector-08 (Street No 05)	55 Day & 45 Night	50.5	42.6
Sector-10 (Street No 25)	55 Day & 45 Night	42.8	41.6
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	46.0	39.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	41.0	37.8
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.3	38.5
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	43.9	39.2
Maroda Sector (Estate Court )	50 Day & 40 Night	44.9	37.9

Noise Monitoring in township area done (Quarterly) in the month of December-22

## Month - February 2023

## 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)	28-Feb	5 m	Air tight control Room	62.3	2 Minute	
Blast Furnace-6(Control Room)	04-Feb	5 m	Acoustic Room	69.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	28-Feb	5 m	Acoustic pulpit	89.3	2 Minute	
TPP/CPP (Turbines-3) (Control Room)	04-Feb	5 m	Acoustic cabins	64.6	2 Minute	
SP-2, (M/c-1 & 2) Operator's room	07-Feb	5 m	Acoustic Room	66.7	2 Minute	
Coke-oven area (Batt11) (Control Room)	02-Feb	5 m	Air Tight control Room	69.8	2 Minute	
Oxygen plant-2 (Control Room)	28-Feb	5 m	Air tight control Room	62.3	2 Minute	
Others						

^{*} Noise level map of the plant may be attached along with the report

#### Bhilai Steel Plant Noise Pollution Status October 2022 to March 2023

#### 2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)				
Near OP-2	75	58.9	53.8	
Near Joratarai Gate	75	59.4	57.4	
Near Main Gate	75	57.9	53.3	
Near Khursipar Gate	75	68.6	66.7	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	56.3	53.4	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	50.9	48.6	
Sector-09 (Goal Market)	65 Day & 55 Night	56.5	52.0	
Maroda Sector (BSP Market)	65 Day & 55 Night	46.9	45.9	
Risali Sector (BSP Market)	65 Day & 55 Night	60.1	49.5	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	49.1	44.7	
Sector-05 (Street No 32)	55 Day & 45 Night	46.6	43.7	
Sector-07 (Street No 17)	55 Day & 45 Night	41.6	40.2	
Sector-08 (Street No 05)	55 Day & 45 Night	50.5	42.6	
Sector-10 (Street No 25)	55 Day & 45 Night	42.8	41.6	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	46.0	39.1	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	41.0	37.8	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.3	38.5	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	43.9	39.2	
Maroda Sector (Estate Court )	50 Day & 40 Night	44.9	37.9	

Noise Monitoring in township area done (Quarterly) in the month of December-22

## Month - March 2023

#### 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)	Remar ks
Oxygen plant-2 (Control Room)	30-Mar	5 m	Air tight control Room	67.3	2 Minute	
Blast Furnace-7(Control Room)	04-Mar	5 m	Acoustic Room	69.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	30-Mar	5 m	Acoustic pulpit	83.6	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	03-Mar	5 m	Acoustic cabins	68.4	2 Minute	
SP-2, (M/c-1 & 2) Operator's room	13-Mar	5 m	Acoustic Room	68.4	2 Minute	
Coke-oven area (Batt11) (Control Room)	07-Mar	5 m	Air Tight control Room	68.8	2 Minute	
Others						

^{*} Noise level map of the plant may be attached along with the report

#### Bhilai Steel Plant Noise Pollution Status October 2022 to March 2023

#### 2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)		
Noise Zone	Standard	Day Time	Night time	
Industrial Area (at boundary of plant)				
Near OP-2	75	53.4	51.8	
Near Joratarai Gate	75	54.6	52.3	
Near Main Gate	75	56.3	52.9	
Near Khursipar Gate	75	67.3	65.7	
Commercial Area				
Sector-05 (Market area)	65 Day & 55 Night	60.6	53.2	
Sector-06 (Near 'B' Market)	65 Day & 55 Night	53.6	52.0	
Sector-09 (Goal Market)	65 Day & 55 Night	57.6	54.0	
Maroda Sector (BSP Market)	65 Day & 55 Night	56.3	53.0	
Risali Sector (BSP Market)	65 Day & 55 Night	63.9	54.9	
Residential Area				
Sector-01 (Street No 23)	55 Day & 45 Night	42.5	44.3	
Sector-05 (Street No 32)	55 Day & 45 Night	45.0	43.8	
Sector-07 (Street No 17)	55 Day & 45 Night	49.6	44.0	
Sector-08 (Street No 05)	55 Day & 45 Night	48.6	44.2	
Sector-10 (Street No 25)	55 Day & 45 Night	47.8	44.8	
Silence Area				
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.0	38.2	
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	46.2	37.5	
Sector-07 (English Medium Middle School)	50 Day & 40 Night	47.9	38.0	
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.8	39.2	
Maroda Sector (Estate Court )	50 Day & 40 Night	45.9	38.9	

Noise Monitoring in township area done (Quarterly) in the month of March-23