Half Yearly Compliance Report
2024
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 lndia 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

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	2024
Remarks (if any)	October 2024 to March 2025
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

Conditions

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 or 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. All the CER projects have been completed. A detailed status report on CER activities enclosed at Flag C	Date: 26/06/2025

2	WASTE MANAGEMENT	l00 % SMS -Slag utilization shall be ensured after conditioning /steam curing.

PPs Submission: Complied About 89 percent the BOF slag is utilised by recycled back in to steel making process and also utilized in Road Making, filling of the low lying areas and also sold to outside agencies to the interested buyers (Cement Plants and 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. Numbers 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 or 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 or Steel Slag as pavement material and feasibility of THF or 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 shared with all agencies involved in road making to promote the use of steel slag in Road making and other infrastructure projects BSP has started making paver blocks in-house using BOF slag. A study is also being studied to increase the use of BOF slag percentage in the raw material mix	Date: 26/06/2025

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 Proposal for de-commissioning of Steel Melting Shop-1 was initiated on 05/10/2020. Application for de-registration of SMS-1 was submitted to the Inspector of Factories on 31/10/2020. Management approval for permanent closure of SMS-1 was granted on 07/11/2020. Generation of Survey Control 19/12/2021 Issue of NIT: 16/03/2023 Issue of Sale Order: 15/04/2023, to M/s Shakambhari Ispat and Power Limited, valid up to 16/03/2025. The party was also granted an extension of 90 days. Completion of dismantling and disposal of SMS-1: 14/06/2025	Date: 26/06/2025

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 Since 2019, BSP has done the plantation in additional areas to achieve the covering an area of 33 percent of the total project area. BSPs green belt coverage comes to 36.34 percent. In the year 2023-24 BSP has been planted 25942 Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2024-25(April-March), BSP has planted 8237 trees within the plant premises and township. BSP has planted 4563917 nos of trees covering an area of 1826 Hectares till Mar.-2025	Date: 26/06/2025

5	AIR QUALITY MONITORING AND	Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance

	PRESERVATION	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 conducted.		Date: 26/06/2025
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 MoEF and CC-New Delhi. The details are given below.		Date: 26/06/2025
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 is being complied.		Date: 26/06/2025

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, l98l 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. The latest Consent to operate issued by CECB in July-2024 is valid up to 31/07/2025. Fresh application for CTO for the year 25-26 has been submitted in Feb-2025 itself.		Date: 26/06/2025
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 is being used for the project.		Date: 26/06/2025
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 16/04/2029. Copy of the authorization is enclosed at Flag-D		Date: 26/06/2025
4	AIR QUALITY MONITORING AND	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with

	PRESERVATION	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 lron) 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 CEMs have been installed covering all the process stacks and connected to SPCB and CPCB online servers and calibration of this system is being carried-out from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.		Date: 26/06/2025
5	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
PPs Submission: Complied Fugitive emissions are being monitored every quarter and report submitted to regulatory agencies.		Date: 26/06/2025
6	AIR QUALITY MONITORING AND PRESERVATION	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 reference to PM emission, and SOx and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 12O0 each), covering upwind and downwind directions
PPs Submission: Complied 4 nos of Continuous Ambient Air Quality monitoring stations have been installed within and outside the plant area covering upwind and downwind directions Twelve air pollutants, as per the National 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. Benzo (a) Pyrene are being measured offline.		Date: 26/06/2025
7	AIR QUALITY MONITORING AND PRESERVATION	The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.
PPs Submission: Complied Cameras have been installed at Coke ovens for recording of battery emissions		Date: 26/06/2025
8	AIR QUALITY MONITORING AND PRESERVATION	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions
PPs Submission: Complied Sampling facilities at process stacks and at quenching towers have been provided as per CPCB guidelines for manual monitoring of emissions		Date: 26/06/2025
9	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly

		monitoring report,
PPs Submission: Complied Copies of monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality or fugitive emissions (October-2024 to March-2025) is enclosed at Flag-E		Date: 26/06/2025
10	AIR QUALITY MONITORING AND PRESERVATION	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
PPs Submission: Complied Air Pollution Control (APC) systems have been provided for all the dust generating points including fugitive dust from all vulnerable sources. The stack and fugitive emissions monitored are meeting the standards..		Date: 26/06/2025
11	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
PPs Submission: Complied Diligent maintenance of Bags is being done and are replaced whenever there are leakages. The leakages if any are detected from the control room itself and immediate measures are taken to arrest the leakages and also take suitable corrective action		Date: 26/06/2025
12	AIR QUALITY MONITORING AND PRESERVATION	Secondary emission control system shall be provided at SMS Converters.
PPs Submission: Complied Secondary emission control system/dog house connected to ESP has been provided for SMS-3 Converters.		Date: 26/06/2025
13	AIR QUALITY MONITORING AND PRESERVATION	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
PPs Submission: Complied The Pollution control system as per the guidelines of CREP have been provided BOD plant for the treatment of effluents of COCCD Secondary emission control system has been provided for SMS-3 Converters Cast house Defuming systems have been provided for BF-8 and BF-7		Date: 26/06/2025
14	AIR QUALITY MONITORING AND PRESERVATION	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads. shop floors, roofs, regularly.
PPs Submission: Complied Vacuum cleaners are being used to clean plant roads. Shop floor etc, regularly.		Date: 26/06/2025
15	AIR QUALITY MONITORING AND PRESERVATION	Recycle and reuse Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
PPs Submission: Complied Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices are being recycled back to the process after nodulising at sintering plants.		Date: 26/06/2025
16	AIR QUALITY	The project proponent use leak proof trucks/dumpers carrying coal

	MONITORING AND PRESERVATION	and other raw materials and cover them with tarpaulin.
PPs Submission: Complied At BSP railway wagons are being used for transportation of 95 percent of the raw materials like coal and Iron ore. For internal transportation of raw materials leak proof trucks/dumpers are being used after proper covering.		Date: 26/06/2025
17	AIR QUALITY MONITORING AND PRESERVATION	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility)
PPs Submission: Complied Facilities for spillage collection are provided for coal and coke on wharf of coke oven batteries.		Date: 26/06/2025
18	AIR QUALITY MONITORING AND PRESERVATION	Land-based APC system shall be installed to control coke pushing emissions
PPs Submission: Complied Land-based APC system has been installed to control coke pushing emissions in Coke oven Battery-11.		Date: 26/06/2025
19	AIR QUALITY MONITORING AND PRESERVATION	Monitor CO, HC and Oz in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber
PPs Submission: Complied Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber are being measured using gas analysers.		Date: 26/06/2025
20	AIR QUALITY MONITORING AND PRESERVATION	Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens
PPs Submission: Complied Vapour absorption system has be provided for Batt-11 coke oven gas cooling.		Date: 26/06/2025
21	AIR QUALITY MONITORING AND PRESERVATION	In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided 10 meet the prescribed standards
PPs Submission: Complied Ammonia liquor is not incinerated. However, Regular monitoring of coke oven stack emissions is being done and The Gaseous emissions from Coke ovens are meeting the standards.		Date: 26/06/2025
22	AIR QUALITY MONITORING AND PRESERVATION	The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.
PPs Submission: Complied At BSP imported coal has sulphur content less than 1 Percent.		Date: 26/06/2025
23	AIR QUALITY MONITORING AND PRESERVATION	Wind shelter piles. fence and chemical spraying shall be provided on the raw material stock piles

PPs Submission: Complied Water sprinklers are installed for control of dust at raw material stock piles		Date: 26/06/2025
24	AIR QUALITY MONITORING AND PRESERVATION	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars
PPs Submission: Complied Ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars are installed.		Date: 26/06/2025
25	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and-SMS convertor- (to be decided on case to case basis depending on type and size of plant)
PPs Submission: Complied At BSP consultant MECON had recommended wet gas cleaning systems for BFs and SMS convertors as the Dry Gas Cleaning Plant was not feasible with the present plant gas network and gas volume generated.		Date: 26/06/2025
26	AIR QUALITY MONITORING AND PRESERVATION	Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke
PPs Submission: Complied Dry quenching (CDQ) system along with power generation facility for waste heat recovery from hot coke has been installed for Coke Oven Battery-11.		Date: 26/06/2025
27	WATER QUALITY MONITORING AND PRESERVATION	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 20I2 {Integrated iron & Steel); G.S.R 414(E) dated 30 May 2008 (Sponge lron) 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 recognised under Environment (Protection) Act 1986 or NABL accredited laboratories
PPs Submission: Complied continuous effluent monitoring systems have been installed for all three plant outlets VIz Outlet-A, B and C and are connected to SPCB and CPCB online servers Calibration of the systems is being carried-out regularly.		Date: 26/06/2025
28	WATER QUALITY MONITORING AND PRESERVATION	The project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer /sampling wells in the plant and adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories.
PPs Submission: Complied Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out.		Date: 26/06/2025
29	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB

		along with six-monthly monitoring report.
PPs Submission: Complied Monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality reports (October-2024 to March-2025) are enclosed Flag-F		Date: 26/06/2025
30	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 3lst March 2012 (integrated iron & Steel); G-S.R 414 (E)dated 30s May 2008 (Sponge lron) as amended from time to time; S.O. 3305 (E) dated 7e December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time.
PPs Submission: Complied At BSP ETP for coke oven and by-product plant has been installed and is working effectively and meeting the standards prescribed in G.S.R 277 (E) dated 3lst March 2012 (integrated iron and Steel);		Date: 26/06/2025
31	WATER QUALITY MONITORING AND PRESERVATION	Adhere to 'Zero Liquid Discharge’
PPs Submission: Complied BSP has three outlets carrying plant effluent (Outlet-A , B and C). Wastewater Treatment and recycling plants have been installed at all three outlets		Date: 26/06/2025
32	WATER QUALITY MONITORING AND PRESERVATION	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
PPs Submission: Complied A 30 MLD sewage recycling plant has been installed for treatment of recycling of domestic sewage generated in the Township		Date: 26/06/2025
33	WATER QUALITY MONITORING AND PRESERVATION	Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off
PPs Submission: Complied Garland drains and collection pits have been provided at the Raw Material handling area to check the water pollution due to surface run off.		Date: 26/06/2025
34	WATER QUALITY MONITORING AND PRESERVATION	Tyre washing facilities shall be provided at the entrance of the plant gates
PPs Submission: Complied Being considered for installation. Budgetary Offers being taken.		Date: 26/06/2025
35	WATER QUALITY MONITORING AND PRESERVATION	CO2 injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning
PPs Submission: Complied At SMS, pH in circulating water of GCPs is being maintained through addition of Dispersant Surfactant. The option of CO2 injection is also not presently required.		Date: 26/06/2025
36	WATER QUALITY MONITORING AND	The project proponent shall practice rainwater harvesting to maximum possible extent

	PRESERVATION	

PPs Submission: Complied At present rain water harvesting is being done from the rooftops of Plate Mill and Machine Shop-II area. Approx. 71500 m3 rain water is channelized to Maroda-I reservoir through storm water drains. Recharge pits were constructed near 73 existing borewell to arrest the over flow or excess water. Rain Water Harvesting structure were installed at T A Building, Bhilai Niwas, Bhilai Technical Institute, S.S School Sector-VII and G.S.S School-V. 5 Recharge ponds were dug in Bhilai Township (Sector-3 near FSNL, Sector-3 near BTI Hostel, Sector-5 behind Andhra Bhawan, Hospital Sector near D-23, Jayanti Stadium) with recharge bore well at middle bottom of pond at two locations. 1 big recharge pond of about 1 lac m3 capacity was made Behind Bhilai Institute of Technology (BIT) near Bhilai House with bore well at Centre. Rain water schemes implemented in 24-25:: In the year 2024-25 following additional schemes have been implanted: Maintenance Office Sector 2, Zone 1 Office Building Sector 4.Bokaro Hostel, Athletics Academy Sector 4,EMMS School Sector 6, Zone-II office Building, Maroda Sector,Tennis Court Indira Place,Zone 4 Office Building Sector 8,Sr Sec School Sector 10 Approximate Catchment Area Covered: Over 10,000 sq.m and Estimated Recharge Potential: Approx. 5.2 crore litres annually.	Date: 26/06/2025

37	WATER QUALITY MONITORING AND PRESERVATION	Treated water from ETP of CCIBP shall not be used for coke quenching

PPs Submission: Complied Complied. At COB 11 dry quenching system has been installed.	Date: 26/06/2025

38	WATER QUALITY MONITORING AND PRESERVATION	Water meters shall be provided at the inlet to all unit processes in the steel plants

PPs Submission: Complied Water meters are installed at strategic locations to measure water flow to the process plants.	Date: 26/06/2025

39	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water

PPs Submission: Complied Water consumption in the steel plant is being reduced through adoption of local recycling systems for all the Modernization units (URM, BRM, SMS-3 and BF-8). The effluents from older units are being recycled back to cooling pond after treatment for re-use as industrial water	Date: 26/06/2025

40	Noise Monitoring & Prevention	Noise monitoring and prevention

PPs Submission: Complied Complied.	Date: 26/06/2025

41	Noise Monitoring & Prevention	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report

PPs Submission: Complied Noise level survey is being carried as per the prescribed guidelines and report in this regard is enclosed (Flag-G) Regular noise monitoring is done at all the potential high noise generating areas like BFs, Power plants, Rolling Mills etc . Acoustic enclosures, silencers etc have been provided at all the high noise zones to prevent workmen to the high noise exposure.	Date: 26/06/2025

42	Noise Monitoring & Prevention	The ambient noise levels should conform to the standards prescribed under E(P)A Rules. 1986 viz.75 dB(A) during day time

		and 70 dB(A) during night time
PPs Submission: Complied Regular Noise monitoring is being done at different locations of township (Market area, schools, hospitals, residential area) and ambient noise levels are meeting the standards (Flag-G)		Date: 26/06/2025
43	ENERGY PRESERVATION MEASURES	The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces
PPs Submission: Complied At new BF-8, TRTs to recover energy from top gases of Blast Furnace has been installed.		Date: 26/06/2025
44	ENERGY PRESERVATION MEASURES	Coke Dry Quenching (CDQ shall be provided for coke quenching for both recovery and non-recovery type coke ovens
PPs Submission: Complied At new Coke oven Battaery-11, Coke Dry Quenching (CDQ) has been installed.		Date: 26/06/2025
45	ENERGY PRESERVATION MEASURES	Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines
PPs Submission: Complied Waste heat recovery systems have been installed for Sinter Plants coolers and Sinter Machines of SP-3.		Date: 26/06/2025
46	ENERGY PRESERVATION MEASURES	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles
PPs Submission: Complied At new BF-8, torpedo ladle is being used for hot metal transfer.		Date: 26/06/2025
47	ENERGY PRESERVATION MEASURES	Use hot charging of slabs and billets/blooms as far as possible
PPs Submission: Complied Hot charging of slabs and billets or blooms is being done at Rolling mills.		Date: 26/06/2025
48	ENERGY PRESERVATION MEASURES	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300oC
PPs Submission: Complied Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants		Date: 26/06/2025
49	ENERGY PRESERVATION MEASURES	Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating firm aces and if feasible shall be installed
PPs Submission: Complied Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants. WHRS systems have also been installed.		Date: 26/06/2025
50	ENERGY PRESERVATION MEASURES	Restrict Gas flaring to < l%
PPs Submission: Complied		Date:

Complied or Noted.		26/06/2025
51	ENERGY PRESERVATION MEASURES	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly
PPs Submission: Complied 2x100 Kw solar power generation on roof tops of Bhilai Niwas has been installed and provision for online monitoring and recording of the power generation has also been developed. 15MW floating solar unit installation in progress and likely commissioning in August 25		Date: 26/06/2025
52	ENERGY PRESERVATION MEASURES	Provide LED lights in their offices and residential areas
PPs Submission: Complied Extensive use of LED lights in their offices and residential areas is being practiced.		Date: 26/06/2025
53	ENERGY PRESERVATION MEASURES	Ensure installation of regenerative type burners on all reheating furnaces
PPs Submission: Complied Regenerative type burners are being used for all reheating furnaces.		Date: 26/06/2025
54	WASTE MANAGEMENT	An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/ I shall be installed to use slag as river sand in construction industry
PPs Submission: Complied All the BF-Granulated slag generated in BSP is being supplied to Cement Industry. In future if and when there is shortage of demand from Cement Industry BSP will offer the slag to construction industry through a viable mechanism.		Date: 26/06/2025
55	WASTE MANAGEMENT	In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery
PPs Submission: Complied NA, At BSP the coke ovens are of recovery type.		Date: 26/06/2025
56	WASTE MANAGEMENT	Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens)
PPs Submission: Complied At BSP Tar Sludge is being blended with coal charged in coke ovens and waste lubrication oil is being treated in a separate oil reclamation unit and recycled back after recovery or regeneration. The skimmed oil is being sold to authorized recyclers.		Date: 26/06/2025
57	WASTE MANAGEMENT	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed
PPs Submission: Complied Carbon recovery is being done through sludge filtration units. Sludge filtration units have been installed at SMS-3 and BF-8, the filtered sludge is being sold		Date: 26/06/2025
58	WASTE MANAGEMENT	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS

PPs Submission: Complied At BSP recovery of scrap, metallic and flux is being done. The recovered scrap, iron fines, Lime fines, Mill scales is being recycled to BF and Sinter plants.		Date: 26/06/2025
59	WASTE MANAGEMENT	Used refractories shall be recycled as far as possible
PPs Submission: Complied Being done.		Date: 26/06/2025
60	WASTE MANAGEMENT	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 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 or 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. 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-32 at 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.		Date: 26/06/2025
61	WASTE MANAGEMENT	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office
PPs Submission: Complied 100 percent utilization of fly ash as per Fly-ash rules is being followed at BSP. At BSP fly ash 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.		Date: 26/06/2025
62	WASTE MANAGEMENT	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area
PPs Submission: Complied Being Complied.		Date: 26/06/2025
63	WASTE MANAGEMENT	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising chrome plating mills etc. shall be disposed 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 The sludge and other hazardous wastes are disposed of as per the Hazardous and Other waste		Date: 26/06/2025

(Management and Trans boundary Movement) Rules, 2016. Coal tar sludge or decanter is being recycled to coke ovens or sold to authorized recyclers.		
64	WASTE MANAGEMENT	Kitchen waste shall be composted or converted to biogas for further use
PPs Submission: Complied Kitchen waste is composted and used for Horticulture as manure. (photo-SLRM) All wet waste and kitchen waste from plant canteens and households is composted at SLRM centre		Date: 26/06/2025
65	GREENBELT	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
PPs Submission: Complied Since 2019, BSP has done the plantation in additional areas to achieve the covering an area of 33 percent of the total project area. BSPs green belt coverage comes to 36.34 percent. In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2024-25(April-March), BSP has planted 8237 trees within the plant premises and township. BSP has planted 4563917 nos of trees covering an area of 1826 Hectares till Mar.-2025		Date: 26/06/2025
66	GREENBELT	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
PPs Submission: Complied BSP maintains its GHG emissions inventory and also the emission data is submitted to world steel association(WSA) every year under its commitment as member under Climate Action		Date: 26/06/2025
67	PUBLIC HEARING	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented
PPs Submission: Complied At BSP all departments have prepared their own Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan. The documents are approved by Factory Inspector. Regular mock-drills are organized to check the effectiveness of the EPP or DMPs and are updated based on the mock drill review and also based on recommendations from expert agencies engaged to review the safety management of BSP .		Date: 26/06/2025
68	PUBLIC HEARING	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment(PPE) as per the norms of Factory Act
PPs Submission: Complied National occupation Health Centre (NOHC) set-up at BSP regularly carry out heat stress analysis for the workmen who work in high temperature work zone . All the workmen are mandatorily provided with Personal Protection Equipment(PPE) as per the norms of Factory Act		Date: 26/06/2025
69	PUBLIC HEARING	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project
PPs Submission: Complied Complied (At BSP expansion job has already been completed)		Date:

			26/06/2025
70	PUBLIC HEARING	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	
PPs Submission: Complied Being Complied. Occupational health surveillance of the workers is being done regularly.			Date: 26/06/2025
71	Corporate Environmental Responsibility	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility	
PPs Submission: Complied A detailed status report on CER activities enclosed at Flag-C.			Date: 26/06/2025
72	Corporate Environmental Responsibility	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 / deviation/ violation of the environmental / forest/ wildlife norms/ 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 or 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 held once every month. All the Environment and related Clearances and status of compliances are 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.			Date: 26/06/2025
73	Corporate Environmental Responsibility	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the 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 executive and non-executive personnel have been posted to the department and Lab The department is headed by a senior officer of the rank of Chief General Manager 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)			Date: 26/06/2025
74	Corporate Environmental Responsibility	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	

PPs Submission: Complied 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 June-2024.		Date: 26/06/2025
75	Corporate Environmental Responsibility	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented
PPs Submission: Complied All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants have been complied.		Date: 26/06/2025
76	MISCELLANEOUS	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently
PPs Submission: Complied Complied. Advertisements given in English and local news papers on 08/06/2029 Environmental clearance granted to BSP has been placed in the web portal of SAIL.		Date: 26/06/2025
77	MISCELLANEOUS	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt
PPs Submission: Complied Complied		Date: 26/06/2025
78	MISCELLANEOUS	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half yearly basis
PPs Submission: Complied Complied.		Date: 26/06/2025
79	MISCELLANEOUS	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company
PPs Submission: Complied The monitoring data is being displayed at the Companys main gate and in a public place/market area located in Township thorugh large electronic Display Boards. The monitored data is also placed in Companys web portal		Date: 26/06/2025
80	MISCELLANEOUS	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal

PPs Submission: Complied Complied.		Date: 26/06/2025
81	MISCELLANEOUS	The project proponent shall submit the environmental statement for each financial year in Form-Y lo the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company
PPs Submission: Complied Complied.		Date: 26/06/2025
82	MISCELLANEOUS	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project
PPs Submission: Complied Complied.		Date: 26/06/2025
83	MISCELLANEOUS	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government
PPs Submission: Complied Complied.		Date: 26/06/2025
84	MISCELLANEOUS	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee
PPs Submission: Complied Complied.		Date: 26/06/2025
85	MISCELLANEOUS	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and climate Change (MoEF&CC)
PPs Submission: Complied Complied		Date: 26/06/2025
86	MISCELLANEOUS	Concealing factual data or submission of false /fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment(Protection) Act, 1986
PPs Submission: Complied Complied.		Date: 26/06/2025
87	MISCELLANEOUS	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory
PPs Submission: Complied Agreed.		Date: 26/06/2025
88	MISCELLANEOUS	The Ministry reserves the right to stipulate additional conditions if

		found necessary. The Company in a time bound manner shall implement these conditions
PPs Submission: Complied Agreed.		Date: 26/06/2025
89	MISCELLANEOUS	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 Submission: Complied Agreed.		Date: 26/06/2025
90	MISCELLANEOUS	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Counts and any other Court of Law relating to the subject matter
PPs Submission: Complied Agreed.		Date: 26/06/2025
91	MISCELLANEOUS	Any appeal against this EC shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Sction16 of the National Green Tribunal Act,2010
PPs Submission: Complied Agreed.		Date: 26/06/2025
92	Corporate Environmental Responsibility	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of, action plan shall be reported to the Ministry/ Regional Office along with the Six Monthly Compliance Report.
PPs Submission: Complied A Detailed action plan for implementation of EMPs along allocation of funds has been prepared and progress is being monitored on regular basis. Copy of the progress of implementation of action plan is enclosed (Flag-H)		Date: 26/06/2025
93	MISCELLANEOUS	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to the Regional Office of MoEFandCC. The project proponent shall arrange to provide training to employees on 'behavioral safety'.
PPs Submission: Complied Safety mock drill for gas pipeline maintenance are being conducted every six months (Report enclosed at Flag-A) Training to employees on 'behavioural safety is being organized regularly (Report enclosed at Flag-B)		Date: 26/06/2025

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	

Note: This acknowledgement is as per the details submitted by project proponent. In no way is this document to be considered as conclusion on any action on the compliance of the project. This is strictly for the project proponent's reference purpose.

भिलाई इस्पात संयंत्र BHILAI STEEL PLANT	BHILAI STEEL PLANT STEEL AUTHORITY OF INDIA LIMITED MOCK DRILL REPORT	सेल SAIL

FOR OFFICE USE ONLY		
REPORT NO. :	REVISION NO. :	REVISION DT. :

ZONE : BSP/SERVICES	DEPTT. :EMD	LOCATION :GAS BOOSTER STATION(P)	SECTION :4 MT OPERATION
DOC. NO. : IMS/BSP/EMD/2024/680		DATE & TIME : 11.12.2024 at 11.00 hrs.	

Description of the Scenario:

1.0 Background:

Mock Drill was planned on 11.12.2024 for emergency preparedness of gas leakage at Gas Booster Station(P),EMD of BSP. Pre-mock drill meeting was held with all stakeholders on 06.12.2024 at 3:30 PM in CGM(EMD) office under the chairmanship of CGM(EMD).

2.0 Brief about the Incident and Mitigation:

The gas mixing and boosting of the gas is done at Plate Mill Gas Booster Station. Mixed gas is fed to Reheating furnaces of Plate Mill at a pressure to 750-850 mm WC and Calorific Value of 2700 kcal/kg (approx.). There are total 6 nos. of boosters.

On 11.12.2024 at 10.00 hrs, mechanical group was engaged in valve revision job of Booster no.P-5. Three persons of mechanical group were working near P-5 and one supervisor was monitoring the job. The CO concentration in CO monitor was normal before start of the work. At around 10.58 hrs, due to sudden leakage of mixed gas from the valve flange, gas started leaking and two persons working got exposed to gas and they came out of machine hall and fainted in front entrance. Simultaneously, portable CO monitor was showing 1900 ppm. Mr. Akhilesh Kumar Yadav(Supervisor, Mech) immediately informed the incident to operators present in Booster Control Room. Mr Kiran Choudhary (Senior operator) informed to Emergency Control Centre(Energy Centre) and Ravi Soni (AGM & Incident Controller, EMD). Another operator in Control Room raised the emergency siren indicating emergency. All the persons evacuated the site and Control Room and gathered at Assembly point.

Mr. Ravi Soni (AGM & Incident Controller, EMD) arrived at site after informing Ms U V Subhadra (GM & Work Incident Controller, EMD). After assessing the impact, area was barricaded. Meanwhile, Energy Centre informed all agencies for controlling the onsite emergency. Ms U V Subhadra(GM & Work Incident Controller, EMD) arrived at site and managed the situation till the arrival of Mr. C. Chandrashekhar, (GM I/C & Chief Incident Controller) at the site. All the agencies/persons immediately reached the site as per response time(indicated below). Fire brigade rescued both injured persons. Ambulance carried both injured persons to MMP. Meanwhile, CISF had cordoned off the road. Later on, Gas Safety team arrested the gas leakage by tightening the bolts of the flange. Head counting was done at Assembly point by HR representative and found normal. After confirming CO concentration nil in the area, Gas Safety gave clearance to Mr. C. Chandrashekhar, (GM I/C & Chief Incident Controller). After assessing the situation, finally the Siren was blown to declare

normalcy at 11.30 hrs. Meanwhile, Environment Management Department representative assessed the situation for impact on environment. The affected persons Dev Lal Sahu and Pankaj Kumar Rajak, both Contractual workers were given treatment at MMP and later discharged. Civil Defence assisted the rescue operation. DSO and SED representative were the Observers of the Mock Drill.

3.0 Post Mock Drill Review Meeting:

Post Mock drill review meeting was held at Office of CGM(EMD) immediately after the mock drill to discuss about the drill carried out. Mock Drill review meeting was chaired by C. Chandrashekhar, (GM I/C & Chief Incident Controller).

Observations:

1. All the persons and agencies reached the site with required preparedness in time except Ambulance. The exact location was communicated by Energy Centre at MMP. The issue was discussed in the meeting in detail and communicated to MMP representative to take necessary measures.
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, Barricading tools etc. exist at the site.
4. Impact on Environment due to gas leak was avoided by timely arresting the gas leakage.
5. Operators are found well trained to use breathing apparatus and have proficiency to handle emergency and mitigation.
6. Overall the Mock drill was conducted satisfactorily.

1.	**Name of Key Persons involved in Mock Drill:(S/Shree)**	
	Chief Incident Controller at Site	C. Chandrashekhar(GM i/c EMD)
	Main Medical Post-1	Shubhshree Prashant(ACMO), Dinesh Gwal
	Safety Engineering Department	Suraj Verma(AM),R K Bansal(JE)
	Fire Brigade	VPS Dhama(DGM)
	Personnel Department	Dr.Upendra Kumar Sharma(JO), Sajid Khan(ALWO)
	CISF	Uday Vir Singh(Inspector), Pankaj Kumar(SI)
	Civil Defense Organization	Swatantra Kumar(SO)
	Gas Safety	S. Ramani(GM)
	EnMD	B.Anuradha(AGM), K S Bhuarya, Angad Lal Shrivastava(JO)
	Work Incident Controller	U V Subhadra(GM-EMD)
	Incident Controller	Ravi Soni(AGM-EMD)
	DSO	Y Y Konnur(GM-EMD)
	Mech Incharge	Kamal(GM-EMD)
	Energy Centre Incharge	Bonya Mukherjee(GM-EMD), Ashok Thakur(DM-EMD)

2.	**Type of Emergency:** (As defined in EPP if applicable)	Gas Leakage

3.	Description	Standard Duration	Start Time	End Time	Actual Duration
	Emergency Siren	15 sec - on 5 sec - off 2 minutes.	11.00 hrs	11.02 hrs	2 min
	Evacuation	-	11.06 hrs	11.11 hrs	5 min
	Fire mitigation (In case of fire)(Not Applicable in this case))	-	-	-	-
	Gas Leakage Arrest (In case of Gas leakage)	-	11.08 hrs	11.20 hrs	12 min
	All Clear Siren	2 minutes	11 28.00 hrs	11.30.00 hrs	2 minutes

4.	Emergency Preparedness Responses:					
	Agencies	**Standard Response Time**	**Time of intimation**	**Time of arrival**	**Actual Response Time**	**Action taken by Agency**
	MMP-1	5-15 min	11.02	11.24	22 min	Provide Ambulance equipped with First Aid, shifting and transportation of 2 injured persons to MMP.
	SED	5-15 min	11.03 hrs	11.06 hrs	3 min	Assess severity,Give guidence, Keep record, Collect evidence.
	Fire Brigade	5-15 min	11.01 hrs	11.06 hrs	5 min	Rescue of 2 injured persons from site.
	Personnel Department	5-15 min	11.05 hrs	11.15	10 min	Head count.
	CISF	5-15 min	11.01 hrs	11.08 hrs	7 min	Cordon off and restrict unauthorized persons, maintain law and order, help in rescue and evacuation as per requirement.
	Civil Defence	5-15 min	11.04 hrs	11.08 hrs	4 min	Assisting rescue operation.
	Gas Safety	5-15 min	11.02 hrs	11.08 hrs	6 min	Gas leakage arrest

5.	**Assembly Point No: AP/EMD/PMBS/1**

6.	Total Head Count:			
	As per Attendance Record	At Assembly point	Short fall	Remarks
	10	8	2	2 gas affected persons were shifted to MMP

7.	Corrective & Preventive Actions:			
S.No.	Observation	Corrective / Preventive Actions	Responsibility	Target Date
1	The Ambulance arrived late at the site.	Ensure the ambulance arrives at the designated location within standard response time in future mock drills / emergencies.	Shubhshree Prashant(ACMO)M&HS	Immediate.

U V Subhadra(GM-EMD & Work Incident Controller)	C. Chandrashekhar(GM I/C EMD)
Subhadra 14/12/24	14.12.2024

Copy To:

CGM Safety & Fire Services – Hard Copy

All members present – Scanned Copy via E-mail

	REPORT OF SAFETY TRAINING AND WORK SHOP			
	SUMMERY REPORT		**Oct24-Mar25**	
			Progs.	**Participants**
	EXECUTIVES		263	1708
	NON EXECUTIVES		613	5699
	REGULAR EMPLOYEES		**876**	**7407**
	CONTRACTUAL WORKERS		27	508
Sl.	**Name of the Programme**	**Duration**	**Yearly Cumulative**	
		(Days)	**Progs.**	**Participants**
EXECUTIVES				
1	Achieving Awareness In Occupational Health And First Aid		2	12
2	Contractor Safety Management		10	134
3	Defensive Driving For 2 Wheeler		19	41
4	Defensive Driving For 4 Wheeler		11	127
5	Electrical Safety Training		5	9
6	Gas Safety and Emergency Preparedness plan		2	4
7	General Safety Awareness		15	283
8	Human Factor Training		31	105
9	Incident Investigation Training		8	114
10	Interaction For Safety Encouragement And Engagement(ISEE)		6	19
11	Near Miss Training		1	9
12	On site Emergency Preparedness Plan		1	1
13	Safety Circle Training		3	49
14	Safety Training For Shunting Staff		0	0
15	Safety in Traffic Operation		0	0
16	Safety in Welding in Gas cutting		1	13
17	Job Specific training		1	1
18	Standard Awareness On Competence Mgmt. Process		0	0

19	Standard Awareness On Barricading And Safety Signage		13	73
20	Standard Awareness On Confined Space		13	94
21	Standard Awareness On Electrical Safety		9	49
22	Standard Awareness On Energy Isolation		12	46
23	Standard Awareness On High Hazard Process		2	19
24	Standard Awareness On HIRA and JSA		18	85
25	Standard Awareness On Illumination At Work Place		5	11
26	Standard Awareness On Permit To Work		31	252
27	Standard Awareness On PPE Management		15	47
28	Standard Awareness On Rail & Road Safety		1	20
29	Standard Awareness On Storage , Handling And Use Of Gas Cylinders		5	8
30	Standard Awareness On Working At Height		15	67
31	Standard Awareness Operation And Maintenance Of Conveyor Belts		7	10
32	Sustenance of Safety Standards		1	6
33	TTT on Working at Height		0	0
		Total	**263**	**1708**
	As per System		**263**	**1708**
NON-EXECUTIVES				
1	Achieving Awareness In Occupational Health And First Aid		3	53
2	Awareness In Chemical Hazards And Prevention		5	47
3	Contractor Safety Management		1	1
4	Defensive Driving For 2 Wheeler		86	998
5	Defensive Driving For 4 Wheeler		4	33
6	Electrical Safety Training		11	99
7	Fire Safety		1	8
8	Gas Safety And Emergency Preparedness Plan		8	73
9	General Safety Awareness		16	347
10	Human Factor Training		119	1098
11	Incident Investigation Training		9	54

12	Interaction For Safety Encouragement And Engagement(ISEE)		10	61
13	Job Specific Safety Training		1	3
14	Near Miss Training		4	30
15	On-site Emergency Preparedness Plan		2	7
16	Specialised Safety Training On Fatality And Risk Control		4	52
17	Safety Circle Training		3	37
18	Safety During Hot Metal Handling		0	0
19	Safety In Hydraulic And Pneumatics		0	0
20	Safety In Material Handling		6	64
21	Safety In Traffic Operation		6	107
22	Safety in Welding in Gas cutting		1	11
23	Safety Training For Fork-Lift Truck Operators		0	0
24	Safety Training For Shunting Staff		0	0
25	Standard Awareness On Barricading And Safety Signage		30	301
26	Standard Awareness On Confined Space		36	252
27	Standard Awareness On Electrical Safety		24	154
28	Standard Awareness On Energy Isolation		34	321
29	Standard Awareness On High Hazard Process		5	26
30	Standard Awareness On HIRA and JSA		28	230
31	Standard Awareness On Illumination At Work Place		10	85
32	Standard Awareness On Permit To Work		52	393
33	Standard Awareness On PPE Management		35	360
34	Standard Awareness On Storage , Handling And Use Of Gas Cylinders		20	137
35	Standard Awareness On Working At Height		27	186
36	Standard Awarness Operation And Maintenance Of Conveyor Belts		11	60
37	Sustenance of Safety Standards		1	11
38	TTT on Working at Height		0	0
		Total	**613**	**5699**
	As per System		**613**	**5699**

CONTRATUAL WORKERS AT HRDD				
1	Achieving Awareness In Occupational Health And First Aid		0	0
2	Awareness In Chemical Hazards And Prevention		5	59
3	Gas Safety And Emergency Preparedness Plan		0	0
4	Human Factor Training		7	138
5	Safety Circle Training		1	11
6	Safety In Material Handling		0	0
7	Safety Proficiency For Crane Operators		1	11
8	Safety Training For Fork-Lift Truck Operators		0	0
9	Safety Training For Shunting Staff		6	113
10	Safety Training For Welder & Gas Cutter		1	25
11	Specialised Safety Training On Fatality And Risk Control		6	151
		Total	**27**	**508**

FLAG-C

Corporate Environment Responsibility

Status As On March 2025

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

(Status As On March 2025)

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	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx. Amount earmarked for the project	Status (as on Mar. 2024)
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.
			II. Four Seater Sulabh Shauchalya at Bazar Chowk to be constructed.	**6.00**	Completed.
			III. Sports equipments for boys and girls to be provided.	**0.50**	Completed.

S. No.	SAIL Plant /Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on Mar. 2024)
2.	BSP	Khapri (Kutelabhata),Durg	I. Construction of Boundary wall of Panchayat Bhawan along with tree plantation all around the periphery .	**10.00**	Completed.
			II. New Bore wells at 2 locations fitted with Solar operated Pumps to be provided.	**10.00**	Completed.
			III. Two extra rooms in Govt. Primary School to be constructed.	**10.00**	Completed.
			IV. Dustbin for 10 villages to be provided	**0.50**	Completed.
			V. Beautification and tree plantation around Shitala Talab to be provided.	**2.00**	Completed.

S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on Mar. 2024)
3.	BSP	Dumardih ,Durg	I. Service road from main road cremation ground approx..700 meters to be cemented	**10.00**	Completed.
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	**7.00**	Completed.
4.	BSP	Pauwara,Durg	I. Sanitary Pad Machine women group to be provided	**3.00**	Completed.
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	**7.00**	Completed.
			III. Tree plantation at new talab to be provided	**1.00**	Completed.
			IV. Funds to be provided Sarpanch for cleaning of Wells with supervision / monitoring by BSP.	**1.00**	Completed.
			V. Syntax tank with pump to be provided at Health Center.	**0.25**	Completed.

S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on Mar. 2024)
5.	BSP	**Muskan ,Durg**	I. Garage for School Bus at Muskan School to be constructed.	**1.00**	Completed.
6.	BSP	**Patora, Durg**	I. Four Seater Sulabh Shauchalya at Govt. Middle school for boys to be constructed.	**3.00**	Completed.
			II. Boundary wall at high school of length 165 meter shall be constructed. CC road to be constructed.	**15.00**	Completed.
7.	BSP	**Dhuara bhatta, Durg**	I. Four seater Sulabh Shauchalya at Khadan Talab for both men and women to be constructed.	**12.00**	Completed.
			II. Additional 2 class rooms at High school premise to be constructed.	**10.00**	Completed.
			III. Boundary wall of approx. - 380 meters to be constructed at high school premise.	**20.00**	Completed.
			IV. Construction of separate		Completed.

S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx. Amount earmarked for the project	Status (as on Mar. 2024)
8.	BSP	**Mahakakala-Mudpaar, Durg**	I. Pipeline for drinking water pipeline to be extended further by 1000 m approx. meters in ward no 01,06,04	**7.00**	Completed.
			II. C.C. road to be constructed at ward no 05 for approx. 250 meters.	**4.00**	Completed.
			III. C.C. road to be constructed at ward no 04 for approx. 250 meters.	**4.00**	Completed.
			IV. Four seater Sulabh Shauchalya for boys and girls to be constructed.	**12.00**	Completed.
9.	BSP	**Aundhi,Durg**	I. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	**7.00**	Completed.
			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.
10.	BSP	**Pahandor, Durg**	I. New Bore wells at required location fitted with solar operated Pumps to be provided.	**10.00**	Completed.
			II. Pipeline for drinking water		Completed.

S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on Mar. 2024)
11.	BSP	**Bhilai, Durg**	I. One E-rickshaw to be provided facilitate the plantation activities	**3.00**	Completed.
			II. One Power driven portable drilling machine facilitate the plantation activities	**1.00**	Completed.
12.	BSP	**Mahakakhurd, Durg**	I. New Bore well fitted with Solar operated pump with storage tank at one place to be provided	**5.00**	Completed.
			II. Four seater Sulabh Shauchalya for men and women to be constructed	**12.00**	Completed.
			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

Hazardous Wastes Authorization

Details

Oct'24 to Mar'25

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD

PARYAVAS BHAWAN, NORTH BLOCK, SECTOR- 19,
NAVA RAIPUR ATAL NAGAR, RAIPUR (C.G.) 492002
E-mail : hocecb@gmail.com, Ph. No. 0771-2512220

No. 1681/HSMD/HO/CECB/2024 Nava Raipur Atal Nagar, Date 27/05/2024

To,

M/s Steel Authority of India Limited,
Bhilai Steel Plant, Bhilai,
District - Durg (C.G.)

Sub:- Grant of amendment and subsequent renewal of authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

Ref:- Your Online application no. 14352806 dated 23/12/2023 & Subsequent Correspondence ending dated 03/05/2024.

---00---

Chhattisgarh Environment Conservation Board had granted of authorization under Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 vide letter no. 7022/HSMD/HO/CECB/2019 dated 18/11/2019 for following hazardous waste, category and quantity subject to fulfillment of the terms and conditions mentioned therein. :-

S. No.	Name of Hazardous Waste	Category	Quantity/Year
1.	Benzol acid sludge / Acid Tar Sludge	(Schedule-I, Cat.No.- 3.3)	2500 T/Year
2.	Tar storage tank residue	(Schedule-I, Cat.No.- 13.5)	1500 T/Year
3.	Decanter tank tar sludge	(Schedule-I, Cat.No.- 13.4)	4000 T/Year
4.	Used or spent oil	(Schedule-I, Cat.No.- 5.1)	500 T/Year
5.	Spent solvents	(Schedule-I, Cat.No.- 20.2)	500 T/Year
6.	Oil and grease skimming	(Schedule-I, Cat.No.- 35.4)	100 T/Year
7.	Chemical sludge from waste water treatment	(Schedule-I, Cat.No.- 35.3)	2500 T/Year
8.	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	(Schedule-I, Cat.No.- 33.1)	275 T/Year
9.	Process acidic residue, filter cake, dust	(Schedule-I, Cat.No.- 17.1)	500 T/Year
10.	Copper Compound	(Schedule II, A 66)	400 T/Year
11.	Lead and Lead Compounds	(Schedule II, A 5)	50 T/Year
12.	Asbestos	(Schedule II B1)	80 T/Year

Industry, vide their online application no. 14352806 dated 23/12/2023 has requested for an amendment and subsequent renewal with respect to hazardous waste and their corresponding

quantities mentioned therein. Based on the inspection report from R.O. Durg and after considering the application, facts and materials in records the board has decided to issue amendment and subsequent renewal of authorization with respect to hazardous wastes and their corresponding quantities mentioned below:-

S. No.	Name & Category of Hazardous Waste as per Schedules	Authorized mode of disposal or recycling or utilization or co- processing etc.	Quantity/Year
1.	Benzol acid sludge / Acid Tar Sludge (Schedule-I, Cat.No.- 13.3)	Captive landfill/ Co-Processing in Cement Kiln	2500 T/Year
2.	Tar storage tank residue (Schedule-I, Cat.No.- 13.5)	Recovery and reuse captive/ Sale to authorized recyclers	1500 T/Year
3.	Decanter tank tar sludge (Schedule-I, Cat.No.- 13.4)	Recovery and reuse captive/ Sale to authorized recyclers	4000 T/Year
4.	Used or spent oil (Schedule-I, Cat.No.- 5.1)	Recovery and reuse captive/ Sale to authorized recyclers	500 T/Year
5.	Spent solvents (Schedule-I, Cat.No.- 20.2)	Recovery and reuse captive/ Sale to authorized recyclers	500 T/Year
6.	Oil and grease skimming (Schedule-I, Cat.No.- 35.4)	Recovery and reuse captive/ Sale to authorized recyclers	100 T/Year
7.	Chemical sludge from waste water treatment (Schedule-I, Cat.No.- 35.3)	Recovery and reuse captive	2500 T/Year
8.	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (Schedule-I, Cat.No.- 33.1)	Recovery and reuse captive/ Sale to authorized recyclers	275 T/Year
9.	Process acidic residue, filter cake, dust (Schedule-I, Cat.No.- 17.1)	Recovery and reuse captive	500 T/Year
10.	Copper Compound (Schedule II, A 66)	Sale to authorized recyclers	400 T/Year
11.	Lead and Lead Compounds (Schedule II, A 5)	Sale to authorized recyclers	50 T/Year
12.	Asbestos (Schedule II B1)	Captive landfill	80 T/Year
13.	Wastes or residues containing oil (Schedule-I, Cat. No.- 5.2)	Co-processing in steel melting shop- Captive	5 T/Year

The amendment and renewal of authorization shall be valid for the period of Five Years i.e. from 17/04/2024 to 16/04/2029. 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 634/HO/HSMD/CECB/NAVA RAIPUR ATAL NAGAR, RAIPUR
2. Reference of Online application no. 14352806 dated 23/12/2023 & Subsequent Correspondence ending dated 03/05/2024.

3. The operator of facility i.e. occupier M/s Steel Authority of India Limited, Bhilai Steel Plant, Bhilai, District - Durg (C.G.) is hereby granted an amendment and subsequent renewal of 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 Bhilai Steel Plant, Bhilai, District - Durg (C.G.).

Detail of Authorization

S. No.	Name & Category of Hazardous Waste as per Schedules	Authorized mode of disposal or recycling or utilization or co- processing etc.	Quantity/Year
1.	Benzol acid sludge / Acid Tar Sludge (Schedule-I, Cat.No.- 13.3)	Captive landfill/ Co-Processing in Cement Kiln	2500 T/Year
2.	Tar storage tank residue (Schedule-I, Cat.No.- 13.5)	Recovery and reuse captive/ Sale to authorized recyclers	1500 T/Year
3.	Decanter tank tar sludge (Schedule-I, Cat.No.- 13.4)	Recovery and reuse captive/ Sale to authorized recyclers	4000 T/Year
4.	Used or spent oil (Schedule-I, Cat.No.- 5.1)	Recovery and reuse captive/ Sale to authorized recyclers	500 T/Year
5.	Spent solvents (Schedule-I, Cat.No.- 20.2)	Recovery and reuse captive/ Sale to authorized recyclers	500 T/Year
6.	Oil and grease skimming (Schedule-I, Cat.No.- 35.4)	Recovery and reuse captive/ Sale to authorized recyclers	100 T/Year
7.	Chemical sludge from waste water treatment (Schedule-I, Cat.No.- 35.3)	Recovery and reuse captive	2500 T/Year
8.	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes (Schedule-I, Cat.No.- 33.1)	Recovery and reuse captive/ Sale to authorized recyclers	275 T/Year
9.	Process acidic residue, filter cake, dust (Schedule-I, Cat.No.- 17.1)	Recovery and reuse captive	500 T/Year
10.	Copper Compound (Schedule II, A 66)	Sale to authorized recyclers	400 T/Year
11.	Lead and Lead Compounds (Schedule II, A 5)	Sale to authorized recyclers	50 T/Year
12.	Asbestos (Schedule II B1)	Captive landfill	80 T/Year
13.	Wastes or residues containing oil (Schedule-I, Cat. No.- 5.2)	Co-processing in steel melting shop- Captive	5 T/Year

(1) The amendment and renewal of authorization shall be valid for the period of Five Years i.e. from 17/04/2024 to 16/04/2029.

(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. Industry shall have to register in EPR portal of CPCB, Delhi as per Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 as amended if it comes under the categories of used oil producer, importer, recyclers/utilizers and collection agent.
5. 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.
6. The person authorized shall implement Emergency Response Procedure (ERP) which this authorization 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.
7. The person authorized 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".
8. It is the duty of the authorized person to take prior permission of the Chhattisgarh Environment Conservation Board to close down the facility.
9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
10. Industry shall prepare emergency response plan (ERP) and ensure implementation of the same at the time of any accident occurs during handling and transportation of hazardous waste as per CPCB guidelines.
11. The hazardous and other waste, generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed off as per standard operating procedures/guidelines issued by CPCB from time to time.
12. An application for the renewal of an authorization shall be made three months before the expiry of authorization as laid down in the Rules.
13. Annual return in form IV shall be filed by June 30th for the period ending 31st March of the last financial year.
14. The wastes shall be collected and stored properly with adequate safety measures as per rule.
15. Authorized person shall comply with the provisions of rule 17, 18 and 19 for packing, labeling and transport of Hazardous Waste.
16. The authorized person should maintain the record of Hazardous Waste as per Form-3 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
17. 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.
18. The industry shall display data outside factory gate, about on quantity and nature of hazardous chemicals and wastes being used in the plant, water quality and air emissions and solid wastes generated within the factory premises. The display board shall be made and placed as per CPCB guidelines.
19. At a time only one type/ Category of Hazardous waste shall be co-processed in the cement kiln. A log book of the waste co-process shall be maintained including emission monitoring result during co-processing.

20. Industry shall ensure that the transportation of hazardous wastes should be carried out through GPS enable dedicated vehicles of authorized transporters only.

21. 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.

22. Before the wastes given for thermal/biological/physico-chemical treatment; should be completely dewatered, detoxified, and proper conditioned and any possible recovery is made before their disposal.

23. The industry should constitute a hazardous waste management cell to take care of the management aspect to the hazardous waste generated in the plant.

24. 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.

25. At least four nos. of piezometric points should be provided around the storage site of H.W. to monitor the leaching of the waste and the monitoring report of the same shall be submitted to the board every six monthly. Each type of waste shall be stored in a separate storage cell.

26. 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.

27. In the case 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].

28. The authorization obtained by the Chhattisgarh Environment Conservation Board should be prominently displayed.

29. Used batteries shall be disposed of as per the Batteries (Management & Handling) Rules, 2001.

30. 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
Nava Raipur Atal Nagar, Raipur (C.G.)

Endt. No. 1682/H.O./HSMD/CECB/2024 Nava Raipur Atal Nagar, Date 27/05/2024

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
Nava Raipur Atal Nagar, Raipur (C.G.)

BHILAI STEEL PLANT

Oct. 2024 to March 2025

FLAG E

E-1

Stack emission

Oct.'24 to Mar.'25

BHILAI STEEL PLANT

Oct. 2024 to March 2025

Month- Oct. 2024

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/Nm3)**	**NO_x (150mg/Nm3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-4 (Process)	Stoves	60	2.5	--do--	21 Oct 10:20-11:20 (60 Minute)	2252	130477	18.41	52.40	35.72	0.60% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	08 Oct 11:30-12:30 (60 Minute)	2007	134595	16.98	97.30	54.82	0.65% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	08 Oct 12:40-01:40 (60 Minute)	3781	124030	20.14	81.22	103.40	0.51% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	12 Oct 10:05-11:05 (60 Minute)	8110	192695	19.00	62.65	95.88	0.46% V/V
BF-7 (Space dedusting)				GCP (Scrubber)	14 Oct 11:00-11:45 (45 Minute)	-	-	47.23	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	15 Oct, 10:20-11:05 (45Minute)	1920	123063	47.57	41.92	30.1	
LF-2	Ladle Furnace	50	1.5	Bag Filter	15 Oct, 11:30-12:15 (45Minute)	1320	118059	33.60	40.16	33.58	
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	24 Oct, 11:05-11:45 (45Minute)	-	-	42.21	-	-	-

A.	Stack emission								
Name of the Plant	**Stack connected to (Name**	**Height of the stack**	**Diameter of the stack (m)**	**Pollution Control unit provided**	**Date & Time of the monitoring (duration)**	**Production fig. of the unit, during**	**Flow rate of the flue gas**	**Parameters (whichever are applicable) (9)**	

BHILAI STEEL PLANT

Oct. 2024 to March 2025

(1)	of the unit) (2)	(m) (3)	(4)	(Name) (5)	(6)	the period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50mg /Nm3)	SO_2 (Norm: 800mg/ $Nm3_)$	NO_x (Norm: 500mg/ Nm3)	CO (Norm: 3 kg/T of Coke	PM for quen ching g/ TCP
Coke Oven												
Battery No. 2	Battery	100	3.5	Nil	07 Oct, 11:10-12:10 (60 Minute)	871	123567	45.53	246.30	180.85	2.44K g/T coke	22
Battery No. 3	Battery	100	3.5	Nil	07 Oct, 10:00-11:00 (60 Minute)	882	118591	39.71	466.40	233.50	2.57K g/T coke	28
Battery No. 5	Battery	100	3.5	Nil	01 Oct, 11:50-12:50 (60 Minute)	759	117146	44.16	406.10	235.00	2.52K g/T coke	26
Battery No. 6	Battery	100	3.5	Nil	01 Oct, 10:40-11:40 (60 Minute)	759	123739	43.04	136.24	360.96	2.38Kg /T coke	17
Battery No. 9	Battery	100	3.5	Nil	23 Oct, 11:30-12:30 (60 Minute)	1468	243345	48.32	115.30	218.10	2.47Kg /T coke	19
Battery No. 10	Battery	120	4.2	Nil	23 Oct, 10:15-11:15 (60 Minute)	1508	240649	46.12	298.70	272.60	2.50Kg /T coke	21

A.	Stack emission										
Name of the Plant (1)	Stack connected to (Name of the unit) (2)	Height of the stack (m) (3)	Diameter of the stack (m) (4)	Pollution Control unit provided (Name) (5)	Date & Time of the monitoring(duration) (6)	Production fig. of the unit, during the period of monitoring (7)		Flow rate of the flue gas (8)	Parameters(whichever are applicable)(9)			
									Particulate matter(PM) (Norm:50mg/Nm3)	SO_2 (Norm:600 mg/Nm3)	NO_x (Norm: 600mg/Nm 3)	CO
SP-2												
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	02 Oct, 10:30-11:05 (35 Minute)	2614	251740	33.76	60.26	-	-	
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	02 Oct, 11:10-11:45 (45 Minute)	2013	254770	46.99	55.60	-	-	
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	11 Oct, 11:45-12:20 (35 Minute)	2110	264912	48.91	58.60	-	-	
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	11 Oct, 11:00-11:35 (35 Minute)	2110	258960	49.32	56.39	-	-	

BHILAI STEEL PLANT

Oct. 2024 to March 2025

SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	10 Oct, 10:35-11:10 (35 Minute)	8962	534745	49.28	60.39	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	17 Oct, 10:45-11:30 (45 Minute)	4039	514863	48.24	70.58	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				31 Oct, 07:30-08:10 (40 Minute)	-	-	46.98	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	28 Oct, 10:30-11:10 (40 Minute)	144	63564	38.93	-	-	-
RMP-3											
VK-3	Vertical Kiln	80	1.4		25 Oct, 11:40-12:25 (45 Minute)	248	67315	39.58	-	-	-
VK-5	Vertical Kiln	80	1.4		25 Oct, 10:45-11:30 (45 Minute)	319	68176	34.83	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	05 Oct, 11:30-12:10 (40 Minute)	2110	126239	41.97	20.58	39.65	-
Boiler 2	Boiler	80	4.3	ESP	05 Oct, 12:20-01:00 (40 Minute)	2205	121206	40.23	24.82	42.48	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	18 Oct, 10:45-11:30 (45 Minute)	2350	85527	33.97	62.88	65.80	-
Boiler 5	Boiler	80	4.3	ESP	09 Oct, 10:45-11:30 (45 Minute)	740	116278	38.84	18.34	43.24	-
Boiler 6	Boiler	80	4.3	ESP	09 Oct, 11:50-12:35 (45 Minute)	1300	319507	35.43	144.10	99.64	-
Boiler 8	Boiler	80	4.3	ESP	26 Oct, 10:30-11:15 (45 Minute)	3116	172234	25.68	35.32	88.46	-
Boiler 9	Boiler	80	4.3	ESP	26 Oct, 12:00-12:45 (45 Minute)	3069	177539	23.14	30.12	82.56	-
Mills											
Wire Rod Mill	RHF	-	-	-	30 Oct, 11:15-12:15 (60 Minute)	-	-	18.77	-	-	-
Merchant mill	RHF	-	-	-	29 Oct, 10:50-11:50 (60 Minute)	-	-	17.72	-	-	-
Rail Mill	RHF	-	-	-	30 Oct, 10:00-10:55 (55 Minute)	-	-	18.96	-	-	-
Plate Mill	RHF-J1	-	-	-	16 Oct, 12:30-01:30 (60 Minute)	-	-	17.40	-	-	-
Plate Mill	RHF-J2	-	-	-	16 Oct, 11:15-12:15 (60 Minute)	-	-	19.57	-	-	-
BRM	RHF	-	-	-	19 Oct, 10:30-11:30 (60 Minute)	-	-	18.40	-	-	-
URM	RHF	-	-	-	21 Oct, 11:40-12:40 (60 Minute)	-	-	22.72	-	-	-

BHILAI STEEL PLANT

Oct. 2024 to March 2025

Month - Nov. 2024

A.	Stack emission										
Name of the Plant (1)	Stack connected to (Name of the unit) (2)	Height of the stack (m) (3)	Diameter of the stack (m) (4)	Pollution Control unit provided (Name) (5)	Date & Time of the monitoring (duration) (6)	Production fig. of the unit, during the period of monitoring (7)	Flow rate of the flue gas (8)	Parameters (whichever are applicable) (9)			
								Particulate matter(PM) (Norm:50mg/ Nm3)	SO_2 (250mg/Nm3)	NO_x (150mg/Nm3)	CO (Norm: 1%)
Blast Furnace											
BF-4 (Process)	Stoves	60	2.5	--do--	12Nov 10:50-11:50 (60 Minute)	2578	132348	18.24	55.20	49.60	0.57% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	12Nov 12:05-01:05 (60 Minute)	828	134180	18.75	49.78	43.24	0.62% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	21 Nov 10:30-11:30 (60 Minute)	4008	113634	19.29	62.88	111.48	0.48% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	09 Nov 11:05-12:05 (60 Minute)	8020	193346	22.16	144.10	94.00	0.49% V/V
BF-7 (Space dedusting)				GCP (Scrubber)	25 Nov10:25-11:25 (60 Minute)	-	-	48.3	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	07 Nov, 10:45-11:25 (40Minute)	2040	114041	48.00	59.60	70.4	
LF-2	Ladle Furnace	50	1.5	Bag Filter	07 Nov, 12:00-12:40 (40Minute)	1920	121926	37.34	66.80	84.3	
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	15 Nov, 10:00-10:40 (40Minute)	-	-	35.61		-	-

A.	Stack emission								
Name of the Plant	Stack connected	Height of the	Diameter of the stack	Pollution Control unit	Date & Time of the monitoring	Production fig. of the	Flow rate of the flue	Parameters (whichever are applicable)	

BHILAI STEEL PLANT

Oct. 2024 to March 2025

(1)	to (Name of the unit) (2)	stack (m) (3)	(m) (4)	provided (Name) (5)	(duration) (6)	unit, during the period of monitoring (7)	gas (8)	(9)				
								Particulate matter(PM) (Norm:50mg /Nm3)	**SO_2** (Norm: 800mg/ $Nm3_)$	**NO_x** (Norm: 500mg/ Nm3)	**CO** (Norm: 3 kg/T of Coke	PM for quen ching g/ TCP
Coke Oven												
Battery No. 2	Battery	100	3.5	Nil	04 Nov, 10:00-11:00 (60 Minute)	894	128252	41.95	117.90	203.04	2.40Kg/ T coke	23
Battery No. 3	Battery	100	3.5	Nil	04 Nov, 11:20-12:20 (60 Minute)	905	127123	39.12	62.88	110.56	2.51Kg /T coke	28
Battery No. 5	Battery	100	3.5	Nil	02 Nov, 11:30-12:25 (55 Minute)	692	130713	42.03	118.34	224.47	2.56Kg /T coke	20
Battery No. 6	Battery	100	3.5	Nil	02 Nov, 12:30-01:20 (50 Minute)	827	136303	42.91	225.32	221.84	2.34Kg/ T coke	18
Battery No. 9	Battery	100	3.5	Nil	18 Nov, 10:30-11:30 (60 Minute)	1508	245597	47.44	57.64	238.76	2.43Kg/ T coke	26
Battery No. 10	Battery	120	4.2	Nil	18 Nov, 12:00-01:00 (60 Minute)	1568	244702	48.51	214.84	411.72	2.52Kg/ T coke	16

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring(duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters(whichever are applicable)(9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm:600 mg/Nm3)	**NO_x** (Norm: 600mg/Nm 3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	11 Nov, 10:30-11:10 (40 Minute)	2481	212157	42.69	62.50	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	11 Nov, 11:30-12:10 (40 Minute)	2481	213821	43.79	45.60	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	28 Nov, 11:20-12:00 (40 Minute)	2000	269049	46.39	36.68	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	28 Nov, 10:35-11:10 (35 Minute)	2000	267784	48.33	44.54	-	-
SP-3											

BHILAI STEEL PLANT

Oct. 2024 to March 2025

SP-3 (M/c-1)	Sintering Machine	120	7	ESP	05 Nov, 10:30-11:10 (40 Minute)	8568	491730	48.80	67.00	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	06 Nov, 10:50-11:35 (45 Minute)	7466	507804	47.66	47.16	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				16 Nov, 11:10-11:55 (45 Minute)	-	-	46.70	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	22 Nov, 11:30-12:15 (45 Minute)	458	58861	35.07	-	-	-
RMP-3											
VK-1	Vertical Kiln	80	1.4		29 Nov, 10:45-11:30 (45 Minute)	187	66355	25.11	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	08 Nov, 11:40-12:25 (45 Minute)	1825	119019	33.46	24.57	56.40	-
Boiler 2	Boiler	80	4.3	ESP	08 Nov, 12:30-01:15 (45 Minute)	1960	124032	33.22	28.69	48.90	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	14 Nov, 11:15-11:45 (30 Minute)	2170	86029	34.64	41.92	48.88	-
Boiler 5	Boiler	80	4.3	ESP	01 Nov, 11:40-12:25 (45 Minute)	1990	120131	40.46	31.44	28.20	-
Boiler 6	Boiler	80	4.3	ESP	01 Nov, 10:45-11:30 (45 Minute)	1685	332613	48.84	22.70	43.24	-
Boiler 8	Boiler	80	4.3	ESP	27 Nov, 10:45-11:30 (45 Minute)	3111	181841	21.40	41.90	56.60	-
Boiler 9	Boiler	80	4.3	ESP	27 Nov, 11:40-12:25 (45 Minute)	3149	188948	25.15	47.20	60.30	
Mills											
Wire Rod Mill	RHF	-	-	-	13 Nov, 11:50-12:50 (60 Minute)	-	-	19.15	-	-	-
Merchant mill	RHF	-	-	-	26 Nov, 11:50-12:50 (60 Minute)	-	-	18.45	-	-	-
Rail Mill	RHF	-	-	-	26 Nov, 10:30-11:30 (60 Minute)	-	-	16.03	-	-	-
Plate Mill	RHF-J1	-	-	-	23 Nov, 10:20-11:20 (60 Minute)	-	-	14.17	-	-	-
Plate Mill	RHF-J2	-	-	-	23 Nov, 10:05-11:05 (60 Minute)	-	-	12.36	-	-	-
BRM	RHF	-	-	-	20 Nov, 10:45-11:45 (60 Minute)	-	-	19.22	-	-	-
URM	RHF	-	-	-	13 Nov, 10:45-11:45 (60 Minute)	-	-	20.36	-	-	-

BHILAI STEEL PLANT

Oct. 2024 to March 2025

Month- Dec. 2024

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/Nm3)**	**NO_x (150mg/Nm3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-4 (Process)	Stoves	60	2.5	--do--	07Dec 10:15-11:15 (60 Minute)	2303	131082	18.82	57.64	54.52	0.50% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	25Dec 11:35-12:35 (60 Minute)	2506	134084	17.42	55.02	48.88	0.54% V/V
BF-6 (Process)	Stoves	60	3.5	--do--	25Dec 12:45-01:45 (60 Minute)	2286	133827	19.86	49.78	50.76	0.46% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	12Dec 10:15-11:15 (60 Minute)	4149	115379	17.42	20.96	19.36	0.48% V/V
BF-8 (Process)	Stoves	70	3.5	--do--	07Dec 11:30-12:30 (60 Minute)	7666	174641	22.28	115.28	120.70	0.59% V/V
BF-5 (Space dedusting)	-	-	-	Bag filter	31Dec 02:15-03:00 (45 Minute)	-	-	47.99	-	-	-
BF-6 (Space dedusting)	-	-	-	Bag filter	31Dec 03:15-03:55 (40 Minute)	-	-	46.19	-	-	-
BF-7 (Space dedusting)	-	-	-	GCP (Scrubber)	23Dec 12:45-01:30 (45 Minute)	-	-	46.47	-	-	-
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	21 Dec, 10:30-11:10 (40Minute)	1560	119364	49.06	34.06	47.00	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	21 Dec, 11:15-12:00 (45Minute)	1920	116542	32.20	44.54	45.12	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	25 Dec, 10:45-11:20 (35Minute)	-	-	32.91		-	-

BHILAI STEEL PLANT

Oct. 2024 to March 2025

A.	Stack emission											
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**				
								Particulate matter(PM) (Norm:50mg /Nm3**)**	**SO_2** (Norm: 800mg/ $Nm3_)$	**NO_x** (Norm: 500mg/ Nm3)	**CO** (Norm: 3 kg/T of Coke	PM for quenching g/ TCP
Coke Oven												
Battery No. 2	Battery	100	3.5	Nil	27 Dec, 10:30-11:30 (60 Minute)	916	127236	42.18	125.80	404.20	238Kg/ T coke	29
Battery No. 3	Battery	100	3.5	Nil	02 Dec, 10:45-11:45 (60 Minute)	938	119822	45.96	131.00	295.20	2.44Kg /T coke	27
Battery No. 5	Battery	100	3.5	Nil	17 Dec, 10:45-11:45 (60 Minute)	827	127358	33.89	186.00	443.70	2.53Kg /T coke	25
Battery No. 6	Battery	100	3.5	Nil	17 Dec, 11:55-12:55 (60 Minute)	838	127901	38.93	125.80	409.80	2.37Kg/ T coke	28
Battery No. 9	Battery	100	3.5	Nil	06 Dec, 10:10-11:10 (60 Minute)	1448	248396	44.95	146.72	178.78	2.40Kg/ T coke	30
Battery No. 10	Battery	120	4.2	Nil	06 Dec, 11:25-12:25 (60 Minute)	1488	278099	46.73	196.50	347.98	2.56Kg/ T coke	21

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring(duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters(whichever are applicable)(9)**			
								Particulate matter(PM) (Norm:50mg/Nm3**)**	**SO_2** (Norm:600 mg/Nm3)	**NO_x** (Norm: 600mg/Nm 3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	19 Dec, 10:50-11:30 (40 Minute)	2323	254512	48.47	44.54	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	19 Dec, 11:40-12:15 (35 Minute)	2323	257930	41.59	49.78	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	30 Dec, 10:20-11:00 (40 Minute)	2008	268719	44.99	33.50	-	-

BHILAI STEEL PLANT

Oct. 2024 to March 2025

SP-2 (M/c-4)	Sintering Machine	100	6	ESP	20 Dec, 11:15-11:50 (35 Minute)	2214	273104	46.19	47.16	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	04 Dec, 10:30-11:10 (40 Minute)	8337	500117	45.47	41.92	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	05 Dec, 10:40-11:25 (45 Minute)	9404	506730	47.31	47.16	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine	-	-	-	26 Dec, 12:30-01:15 (45 Minute)	-	-	48.23	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	24 Dec, 11:45-12:30 (45 Minute)	315	59087	32.05	-	-	-
RMP-3											
VK-3	Vertical Kiln	80	1.4		31 Dec,11:50-12:35(45 Minute)	421	68027	33.63	-	-	-
VK-5	Vertical Kiln	80	1.4		31 Dec,10:55-11:40(45 Minute)	394	69376	36.60			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	10 Dec, 12:00-12:45 (45 Minute)	2290	120196	37.25	15.72	96.25	-
Boiler 2	Boiler	80	4.3	ESP	10 Dec, 11:05-11:50 (45 Minute)	2177	123126	36.11	23.58	58.28	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	27 Dec, 11:45-12:30 (45 Minute)	2445	86961	35.39	55.02	52.64	-
Boiler 6	Boiler	80	4.3	ESP	03 Dec, 10:40-11:30 (50 Minute)	1605	325659	47.02	36.68	50.76	-
Boiler 7	Boiler	80	4.3	ESP	14 Dec, 04:30-05:15 (45 Minute)	3128	156825	26.51	34.06	73.32	-
Boiler 8	Boiler	80	4.3	ESP	16 Dec, 11:45-12:45 (45 Minute)	2814	189328	26.88	10.50	51.30	-
Boiler 9	Boiler	80	4.3	ESP	14 Dec, 05:15-05:55 (40 Minute)	3124	169672	22.22	31.44	72.19	
Mills											
Wire Rod Mill	RHF	-	-	-	28 Dec, 11:15-12:15 (60 Minute)	-	-	15.64	-	-	-
Merchant mill	RHF	-	-	-	11 Dec, 01:00-02:00 (60 Minute)	-	-	14.76	-	-	-
Rail Mill	RHF	-	-	-	23 Dec, 11:30-12:30 (60 Minute)	-	-	17.92	-	-	-
Plate Mill	RHF-J1	-	-	-	27 Dec, 12:50-01:50 (60 Minute)	-	-	15.48	-	-	-
Plate Mill	RHF-J2	-	-	-	09 Dec, 11:05-12:05 (60 Minute)	-	-	14.86	-	-	-
BRM	RHF	-	-	-	18 Dec, 11:05-12:05 (60 Minute)	-	-	15.71	-	-	-
URM	RHF	-	-	-	23 Dec, 10:05-11:05 (60 Minute)	-	-	22.89	-	-	-

BHILAI STEEL PLANT

Oct. 2024 to March 2025

Month- January 2025

A.	Stack emission										
Name of the Plant (1)	Stack connected to (Name of the unit) (2)	Height of the stack (m) (3)	Diameter of the stack (m) (4)	Pollution Control unit provided (Name) (5)	Date & Time of the monitoring (duration) (6)	Production fig. of the unit, during the period of monitoring (7)	Flow rate of the flue gas (8)	Parameters (whichever are applicable) (9)			
								Particulate matter(PM) (Norm:50mg/ Nm3)	SO_2 (250mg/Nm3)	NO_x (150mg/Nm3)	CO (Norm: 1%)
Blast Furnace											
BF-4 (Process)	Stoves	60	2.5	--do--	21Jan 10:45-11:45 (60 Minute)	2603	136592	18.43	70.74	52.64	0.52% V/V
BF-6 (Process)	Stoves	60	3.5	--do--	25Jan 11:45-12:45 (60 Minute)	3020	134105	21.21	69.56	75.98	0.57% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	08Jan 11:00-12:00 (60 Minute)	3763	132094	19.43	20.96	19.36	0.44% V/V
BF-8 (Process)	Stoves	70	3.5	--do--	04Jan 11:50-12:50 (60 Minute)	8332	175539	23.38	110.20	138.35	0.46% V/V
BF-5 (Space dedusting)				Bag filter	31Dec. 11:30:12:30 (60 minute)	-	-	47.99	-	-	
BF-6 (Space dedusting)				Bag filter	31Dec. 02:30:03:30 (60 minute)	-	-	46.19	-	-	
BF-7 (Space dedusting)				GCP (Scrubber)	23Dec. 11:00:12:00 (60 minute)	-	-	46.47	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	20 Jan, 10:50-11:30 (40Minute)	1800	119021	48.61	36.52	54.00	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	20 Jan, 11:50-12:30 (40Minute)	840	116845	32.16	41.90	43.35	-
SMS-3											
SMS – 3 (DDSY) (Secondary)	Liquid Steel	-	-	-	29 Jan, 11:30-12:05 (35Minute)	-	-	41.16		-	-

BHILAI STEEL PLANT

Oct. 2024 to March 2025

A.	**Stack emission**											
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**				
								Particulate matter(PM) (Norm:50mg /Nm3**)**	**SO_2** (Norm: 800mg/ Nm3)	**NO_x** (Norm: 500mg/ Nm3)	**CO** (Norm: 3 kg/T of Coke	PM for quenching g/ TCP
Coke Oven												
Battery No. 1	Battery	100	3.5	Nil	13 Jan, 11:00-12:00 (60 Minute)	782	131248	48.97	380	194	2.42Kg/T coke	18
Battery No. 2	Battery	100	3.5	Nil	13 Jan, 12:10-01:10 (60 Minute)	804	137469	46.14	487.30	329.00	2.34Kg/T coke	16
Battery No. 3	Battery	100	3.5	Nil	18 Jan, 10:50-11:50 (60 Minute)	804	123147	40.67	230.60	208.70	2.47Kg/T coke	23
Battery No. 5	Battery	100	3.5	Nil	10 Jan, 12:05-01:05 (60 Minute)	626	135052	39.82	79.60	304.60	2.44Kg/T coke	21
Battery No. 6	Battery	100	3.5	Nil	10 Jan, 10:45-11:45 (60 Minute)	626	130159	42.28	91.70	167.70	2.51Kg/T coke	20
Battery No. 9	Battery	100	3.5	Nil	27 Jan, 11:15-12:15 (60 Minute)	1427	252222	46.88	91.70	167.70	2.36Kg/T coke	18
Battery No. 10	Battery	120	4.2	Nil	27 Jan, 12:25-01:25 (60 Minute)	1427	245238	45.92	125.80	300.80	2.48Kg/T coke	24
Battery No. 11	Battery	120	4.2	Nil	01 Jan, 11:00-12:00 (60 Minute)	1789	194543	47.20	102.18	138.53	2.55Kg/T coke	NA

A.	**Stack emission**										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring(duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters(whichever are applicable)(9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm:600 mg/Nm3)	**NO_x** (Norm: 600mg/Nm 3)	**CO**

BHILAI STEEL PLANT

Oct. 2024 to March 2025

SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	22 Jan, 10:40-11:20 (40 Minute)	3249	279781	33.80	68.12	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	22 Jan, 11:25-12:00 (35 Minute)	3249	277451	35.88	73.36	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	15 Jan, 12:15-12:55 (40 Minute)	1874	268758	44.21	28.25	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	15 Jan, 11:25-12:05 (40 Minute)	1874	271095	47.44	96.94	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	07 Jan, 11:50-12:35 (45 Minute)	9256	499476	47.31	44.54	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	17 Jan, 11:30-12:15 (45 Minute)	9330	510400	48.07	91.70	-	-
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				06 Jan, 12:10-12:55 (45 Minute)	-	-	48.60	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	09 Jan, 11:15-12:00 (45 Minute)	320	59239	34.71	-	-	-
RMP-3											
VK-1	Vertical Kiln	80	1.4		31 Jan, 11:40-12:25 (45 Minute)	260	65803	35.04	-	-	-
VK-3	Vertical Kiln	80	1.4		31 Jan, 10:30-11:15 (45 Minute)	358	67887	36.58			
VK-4	Vertical Kiln	80	1.4		16 Jan, 11:45-12:30 (45 Minute)	401	70276	31.46			
VK-5	Vertical Kiln	80	1.4		16 Jan, 12:40-01:25 (45 Minute)	401	68157	29.55			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	02 Jan, 11:00-11:45 (45 Minute)	2340	121215	33.49	34.06	77.64	-
Boiler 2	Boiler	80	4.3	ESP	02 Jan, 11:50-12:35 (45 Minute)	2545	125955	36.06	44.54	73.32	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	11 Jan, 11:40-12:25 (45 Minute)	2180	86382	33.80	48.20	56.10	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	11 Jan, 12:40-01:25 (45 Minute)	2330	85332	36.32	48.50	52.85	-
Boiler 5	Boiler	80	4.3	ESP	23 Jan, 12:00-12:40 (40 Minute)	2210	121366	38.7	39.30	33.84	-
Boiler 7	Boiler	80	4.3	ESP	24 Jan, 09:30-10:15 (45 Minute)	2213	154694	18.08	9.58	11.28	-
Boiler 8	Boiler	80	4.3	ESP	31 Jan, 12:15-01:00 (45 Minute)	3293	190253	26.65	11.80	52.60	

BHILAI STEEL PLANT

Oct. 2024 to March 2025

Boiler 9	Boiler	80	4.3	ESP	24 Jan, 10:30-11:15 (45 Minute)	2894	184562	26.29	23.60	62.40	
Mills											
Wire Rod Mill	RHF	-	-	-	28 Jan, 12:40-01:40 (60 Minute)	-	-	18.68	-	-	-
Merchant mill	RHF	-	-	-	30 Jan, 12:10-01:10 (60 Minute)	-	-	16.93	-	-	-
Rail Mill	RHF	-	-	-	14 Jan, 11:55-12:55 (60 Minute)	-	-	16.73	-	-	-
Plate Mill	RHF-J1	-	-	-	03 Jan, 02:35-03:35 (60 Minute)	-	-	19.04	-	-	-
Plate Mill	RHF-J2	-	-	-	03 Jan, 03:45-04:45 (60 Minute)	-	-	17.40	-	-	-
BRM	RHF	-	-	-	30 Jan, 10:45-11:45 (60 Minute)	-	-	18.96	-	-	-
URM	RHF	-	-	-	14 Jan, 10:45-11:45 (60 Minute)	-	-	19.94	-	-	-

Month- February 2025

A.	**Stack emission**										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/N m3)**	**NO_x (150mg/N m3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-4 (Process)	Stoves	60	2.5	--do--	22 Feb 10:35-11:35 (60 Minute)	2595	135422	19.26	75.98	58.28	0.49% V/V
BF-6 (Process)	Stoves	60	3.5	--do--	22 Feb 11:45-12:45 (60 Minute)	2710	131992	20.66	110.04	78.96	0.53% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	06 Feb 10:40-11:40 (60 Minute)	4328	113802	21.03	24.25	15.04	0.41% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	06 Feb 12:00-01:00 (60 Minute)	8080	174525	22.44	78.60	142.88	0.43% V/V
BF-6 (Space dedusting)				Bag filter	25 Feb 12:40-01:20 (40 Minute)	-	-	48.67	-	-	
BF-7 (Space				GCP (Scrubber)	25 Feb 10:30-11:05	-	-	45.80	-	-	

BHILAI STEEL PLANT

Oct. 2024 to March 2025

dedusting)					(35 Minute)						
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	21 Feb 10:30-11:10 (40 Minute)	2160	115950	49.05	41.92	63.92	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	21 Feb 03:30-04:10 (40 Minute)	1440	118932	33.72	39.30	45.12	-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	18 Feb 10:50-11:25 (35 Minute)	-	-	46.64		-	-

A.	**Stack emission**											
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**				
								Particulate matter(PM) (Norm:50mg /Nm3**)**	**SO_2** (Norm: 800mg/ Nm3)	**NO_x** (Norm: 500mg/ Nm3)	**CO** (Norm : 3 kg/T of Coke	PM for quenching g/ TCP
Coke Oven												
Battery No. 1	Battery	100	3.5	Nil	05 Feb, 10:45-11:45 (60 Minute)	827	131544	36.63	170.30	289.50	2.38 Kg/T coke	16
Battery No. 2	Battery	100	3.5	Nil	05 Feb, 12:00-01:00 (60 Minute)	871	135805	42.98	186.00	195.50	2.49 Kg/T coke	20
Battery No. 3	Battery	100	3.5	Nil	12 Feb, 10:40-11:40 (60 Minute)	815	123749	42.08	230.60	208.70	2.52 Kg/T coke	27
Battery No. 6	Battery	100	3.5	Nil	13 Feb, 10:30-11:30 (60 Minute)	827	130390	44.22	57.60	204.90	2.39K g/T coke	21
Battery No. 9	Battery	100	3.5	Nil	11 Feb, 10:15-11:15 (60 Minute)	1488	248374	48.19	170.30	227.50	2.50K g/T coke	25
Battery No. 10	Battery	120	4.2	Nil	11 Feb, 11:30-12:30 (60	1548	245485	47.53	159.80	240.60	2.38K	22

BHILAI STEEL PLANT

Oct. 2024 to March 2025

					Minute)						g/T coke	
Battery No. 11	Battery	120	4.2	Nil	12 Feb, 12:00-01:00 (60 Minute)	1628	193609	47.02	204.36	150.40	2.44K g/T coke	NA

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring(duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters(whichever are applicable)(9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm:600 mg/Nm3)	**NO_x** (Norm: 600mg/Nm 3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	03 Feb, 11:00-11:45 (45 Minute)	4448	281632	39.98	62.50	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	03 Feb, 11:55-12:30 (35 Minute)	4448	279933	36.18	68.50	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	07 Feb, 11:10-11:50 (40 Minute)	2050	267208	48.92	26.20	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	07 Feb, 12:00-12:40 (40 Minute)	2050	275749	40.55	99.56	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	04 Feb, 11:00-12:45 (45 Minute)	9008	492937	46.97	22.69	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	06 Feb, 11:10-11:55 (45 Minute)	9422	495113	47.71	96.94	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				28 Feb, 12:30-01:15 (45 Minute)	-	-	47.65	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	20 Feb, 02:00-02:45 (45 Minute)	342	58834	45.56	-	-	-
RMP-3											
VK-1	Vertical Kiln	80	1.4		24 Feb, 02:30-03:15 (45 Minute)	356	68025	34.38	-	-	-
VK-3	Vertical Kiln	80	1.4		20 Feb, 10:35-11:20 (45 Minute)	362	67215	33.75			

BHILAI STEEL PLANT

Oct. 2024 to March 2025

VK-4	Vertical Kiln	80	1.4		24 Feb, 11:10-11:55 (45 Minute)	290	68889	29.34			
VK-5	Vertical Kiln	80	1.4		20 Feb, 11:50-12:35 (45 Minute)	330	70558	36.65			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	26 Feb, 09:25-10:10 (45 Minute)	2060	118188	34.50	28.82	39.48	-
Boiler 2	Boiler	80	4.3	ESP	26 Feb, 10:30-11:15 (45 Minute)	2061	124718	35.63	34.06	45.12	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	17 Feb, 11:00-11:45 (45 Minute)	1885	85132	35.14	57.64	60.16	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	17 Feb, 12:00-12:45 (45 Minute)	2460	86545	36.68	52.40	62.04	-
Boiler 5	Boiler	80	4.3	ESP	01 Feb, 12:00-12:45 (45 Minute)	2170	121907	32.96	42.21	33.68	-
Boiler 7	Boiler	80	4.3	ESP	27 Feb, 11:00-11:50 (50 Minute)	2950	114429	20.24	20.96	48.60	-
Boiler 8	Boiler	80	4.3	ESP	15 Feb, 12:00-12:45 (45 Minute)	3062	183516	26.10	35.37	52.64	
Boiler 9	Boiler	80	4.3	ESP	15 Feb, 01:00-01:45 (45 Minute)	3033	178708	24.02	26.02	68.05	
Mills											
Wire Rod Mill	RHF	-	-	-	10 Feb, 11:30-12:30 (60 Minute)	-	-	18.26	-	-	-
Rail Mill	RHF	-	-	-	10 Feb, 10:00-11:00 (60 Minute)	-	-	21.85	-	-	-
Plate Mill	RHF-J1	-	-	-	14 Feb, 10:30-11:30 (60 Minute)	-	-	19.86	-	-	-
Plate Mill	RHF-J2	-	-	-	14 Feb, 11:45-12:45 (60 Minute)	-	-	17.12	-	-	-
BRM	RHF	-	-	-	19 Feb, 10:25-11:25 (60 Minute)	-	-	20.35	-	-	-
URM	RHF	-	-	-	19 Feb, 11:50-12:50 (60 Minute)	-	-	21.96	-	-	-

Month- March 2025

A.	**Stack emission**										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/Nm3)**	**NO_x (150mg/Nm3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-6 (Process)	Stoves	60	3.5	--do--	26 Mar 10:00-11:00 (60 Minute)	3047	121807	19.69	57.64	29.50	0.49% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	26 Mar 11:30-12:35	3812	104792	17.78	52.40	28.02	0.48%

BHILAI STEEL PLANT

Oct. 2024 to March 2025

					(65 Minute)						V/V
BF-8) (Process)	Stoves	70	3.5	--do--	08 Mar 11:00-12:00 (60 Minute)	8513	170135	21.71	75.23	135.47	0.45% V/V
BF-6 (Space dedusting)				Bag filter	31 Mar 12:00-12:40 (40 Minute)	-	-	47.98	-	-	
BF-7 (Space dedusting)				GCP (Scrubber)	17 Mar 11:55-12:55 (60 Minute)	-	-	48.26	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	19 Mar 11:30-12:10 (40 Minute)	2040	112618	48.73	23.58	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	19 Mar 12:30-01:10 (40 Minute)	3000	114748	35.47	70.74	-	-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	17 Mar 11:00-11:35 (35 Minute)	-	-	47.80		-	-

A.	**Stack emission**											
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**				
								Particulate matter(PM) (Norm:50mg /Nm3**)**	**SO_2** (Norm: 800mg/ Nm3)	**NO_x** (Norm: 500mg/ Nm3)	**CO** (Norm: 3 kg/T of Coke	PM for quenching g/ TCP
Coke Oven												
Battery No. 1	Battery	100	3.5	Nil	11 Mar 10:50-11:50 (60 Minute)	860	134671	39.11	52.40	146.60	2.35Kg/T coke	30
Battery No. 2	Battery	100	3.5	Nil	11 Mar 12:00-01:00 (60 Minute)	905	132252	41.45	52.90	193.60	2.51Kg/T coke	24
Battery No. 3	Battery	100	3.5	Nil	01 Mar 11:00-12:00 (60 Minute)	857	127775	42.84	196.50	204.92	2.48Kg/T coke	27
Battery No. 6	Battery	100	3.5	Nil	13 Mar 09:20-10:20 (60	916	133144	44.13	353.70	283.90		20

BHILAI STEEL PLANT

Oct. 2024 to March 2025

					Minute)						2.47Kg /T coke	
Battery No. 9	Battery	100	3.5	Nil	21 Mar 10:15-11:15 (60 Minute)	1568	224955	46.79	55.02	154.16	2.54Kg /T coke	26
Battery No. 10	Battery	120	4.2	Nil	21 Mar 11:30-12:30 (60 Minute)	1628	227516	44.66	413.96	251.92	2.40Kg /T coke	19
Battery No. 11	Battery	120	4.2	Nil	13 Mar 10:40-11:40 (60 Minute)	1729	198323	44.93	288.20	146.64	2.56Kg /T coke	NA
A.	**Stack emission**											

Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring(duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters(whichever are applicable)(9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm:600 mg/Nm3)	**NO_x** (Norm: 600mg/Nm 3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	04 Mar 10:30-11:10 (40 Minute)	1958	281316	47.58	68.12	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	04 Mar 11:30-12:10 (40 Minute)	1958	277158	44.98	73.36	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	10 Mar 11:00-11:40 (40 Minute)	2126	264310	49.05	28.82	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	10 Mar 11:55-12:35 (40 Minute)	2126	269604	45.55	47.16	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	03 Mar 10:30-11:15 (45 Minute)	4636	483886	44.69	39.30	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	05 Mar 10:30-11:15 (45 Minute)	4454	488460	46.24	89.08	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				22 Mar, 11:35-12:10 (35 Minute)	-	-	45.54	-	-	-
SP-3, M/c-2	Sintering				18 Mar, 01:45-02:10 (25 Minute)	-	-	45.88			

BHILAI STEEL PLANT

Oct. 2024 to March 2025

(Space de-dusting)	Machine										
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	31 Mar 03:00-03:45 (45 Minute)	230	59601	45.97	-	-	-
RMP-3											
VK-1	Vertical Kiln	80	1.4		22 Mar 10:35-11:10 (35 Minute)	305	68183	32.68	-	-	-
VK-3	Vertical Kiln	80	1.4		06 Mar 10:35-11:20 (45 Minute)	407	66015	35.43			
VK-4	Vertical Kiln	80	1.4		06 Mar 11:40-12:25 (45 Minute)	240	65683	33.59			
VK-5	Vertical Kiln	80	1.4		06 Mar 02:35-03:20 (45 Minute)	298	71754	36.77			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	07 Mar 10:40-11:25 (45 Minute)	1825	118908	39.74	15.72	30.08	-
Boiler 2	Boiler	80	4.3	ESP	07 Mar 02:35-03:20 (45 Minute)	1880	124562	38.24	28.82	39.48	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	12 Mar 10:55-11:40 (45 Minute)	1925	85216	33.24	36.68	48.88	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	12 Mar 11:55-12:40 (45 Minute)	2465	86062	35.86	44.54	54.52	-
Boiler 5	Boiler	80	4.3	ESP	27 Mar 10:35-11:20 (45 Minute)	1965	131677	31.21	25.24	71.44	-
Boiler 6	Boiler	80	4.3	ESP	31 Mar 10:35-11:20 (45 Minute)	1640	331903	38.68	27.86	77.08	-
Boiler 7	Boiler	80	4.3	ESP	20 Mar 11:00-11:45 (45 Minute)	3276	134329	20.81	26.02	71.44	
Boiler 8	Boiler	80	4.3	ESP	15 Mar 10:35-11:10 (35 Minute)	3102	181391	27.70	36.70	58.30	
Boiler 9	Boiler	80	4.3	ESP	15 Mar 11:25-12:10 (35 Minute)	3172	179750	28.76	28.80	47.00	
Mills											
Wire Rod Mill	RHF	-	-	-	25 Mar, 11:00-12:00 (60 Minute)	-	-	19.32	-	-	-
Merchant mill	RHF	-	-	-	28 Mar, 09:50-10:50 (60 Minute)	-	-	17.90	-	-	-
Rail Mill	RHF	-	-	-	25 Mar, 12:20-01:20 (60 Minute)	-	-	20.06	-	-	-
Plate Mill	RHF-J1	-	-	-	14 Mar, 07:20-08:20 (60 Minute)	-	-	18.25	-	-	-
Plate Mill	RHF-J2	-	-	-	14 Mar, 08:30-09:30 (60 Minute)	-	-	19.22	-	-	-
BRM	RHF	-	-	-	24 Mar, 12:00-01:00 (60 Minute)	-	-	22.26			
URM	RHF	-	-	-	24 Mar, 10:40-11:40 (60 Minute)	-	-	21.90	-	-	-

FLAG E

E-2

Fugitive Emission

Oct.'24 to March'25

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS Oct. 2024 to March 2025

Fugitive Emissions Status Month- Oct. 2024

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) (3000 for BF-8)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150) (120 for BF-8)	Pb* µg/m^3 (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-5		01 Oct- 10:00	1300	-	-	-	-	*1267* (Batt.1)*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		02 Oct - 10:35	1320	-	-	-	-		
3	Steel Melting Shop-2	Near Ladle Furnace-1 Chimney		15 Oct- 10:40-03:00	812	60.35	71.58	0.014*	981	*162**	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Stock House ground level		30 Oct 10:30-03:00	1714	65.33	55.47	-	1078		
5	URM	Near Bloom Descaling-1 Stand		21 Oct- 11:00-04:00	809	45.58	58.98	-	-	-	
6	Steel Melting Shop-3	SMS # 3, Laddle Furnace-1 Back side		24 Oct- 11:00-04:00	685	72.98	75.68	-	1127	-	-
7	RMP-3	RMP # 3, Near Canteen		25 Oct- 10:00-02:00	1069	55.33	61.85	-	-	-	-
8	Thermal Power Plant-1	Near Boiler- 1&2		05 Oct- 11:00	1330	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		25 Oct - 11:00	1110	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		25 Oct - 10:40	1350	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS Oct. 2024 to March 2025

Fugitive Emissions Status Month-Nov. 2024

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) (3000 for BF-8)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150) (120 for BF-8)	Pb* µg/m^3 (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-5		02 Nov- 10:10	1280	-	-	-	-	*1267* (Batt.1)*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		11 Nov- 11:00	1340	-	-	-	-		
3	Steel Melting Shop-2	Near Ladle Furnace-1 Chimney		07 Nov- 11:00-03:00	961	58.25	68.39	0.014*	925	*162**	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House in front of Tap hole No.-2)		21 Nov-10:30-03:45	740	62.20	53.68	-	1252		
5	URM	Near Bloom Descaling-1 Stand		13 Nov- 11:00-03:30	1253	44.80	52.65	-	-	-	
6	Steel Melting Shop-3	SMS # 3, Beside Converter-1		15 Nov- 11:00-03:05	2110	71.45	76.30	-	1406	-	-
7	RMP-3	RMP # 3, Near Pump House		25 Nov- 10:45-03:45	797	53.60	64.78	-	-	-	-
8	Thermal Power Plant-1	Near Boiler- 5&6		01 Nov- 10:30	1300	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		22 Nov - 10:40	1300	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		22 Nov - 10:55	1340	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS Oct. 2024 to March 2025

Fugitive Emissions Status Month-Dec. 2024

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} $\mu g/m^3$ (4000) (3000 for BF-8)	SO_2 $\mu g/m^3$ (200)	NOx $\mu g/m^3$ (150) (120 for BF-8)	Pb* $\mu g/m^3$ (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-3		02 Dec- 10:30	1270	-	-	-	-	*1267* (Batt.1)*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		19 Dec- 10:50	1360	-	-	-	-		
3	Steel Melting Shop-2	CCS-Near Slab Caster-6		27 Dec-- 10:30-03:30	565	52.69	69.25	0.014*	823	*162**	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House)		24 Dec-- 11:00-04:00	1521	63.29	58.37	-	1147		
5	URM	Near Bloom Descaling-1 Stand		23 Dec-- 11:00-04:00	552	42.57	53.97	-	-	-	
6	Steel Melting Shop-3	SMS # 3, in front of Converter-3		25 Dec-- 11:00-03:45	1047	70.24	79.58	-	1252	-	-
7	RMP-3	RMP # 3, Near Canteen		05 Dec-- 10:40-03:40	867	52.87	67.59	-	-	-	-
8	Thermal Power Plant-1	Near Boiler- 6		03 Dec- 10:35	1320	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		24 Dec- 10:50	1200	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		24 Dec- 10:20	1380	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS Oct. 2024 to March 2025

Fugitive Emissions Status Month-Jan. 2025

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) (3000 for BF-8)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150) (120 for BF-8)	Pb* µg/m^3 (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-5		10 Jan- 10:35	1360	-	-	-	-	*1267* (Batt.1)*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		22 Jan- 10:40	1410	-	-	-	914	-	
3	Steel Melting Shop-2	Convertor shop Near Instrumentation Rest Room		20 Jan- 11:30-04:30	1901	55.8	73.5	0.014*	1018	-	Norms as per GSR 277 (E) dtd 30/03/2012 * Near Ladle prrperation Bay SMS-2
4	Blast Furnace 8	BFs-8 (Cast House)		29 Jan- 11:00-03:30	1079	57.10	61.40	0.062*	1236	-	*BF-6 Cast House
5	BRM	Near Electrical Workshop		30 Jan- 11:00-03:30	704	41.35	50.40	-	-	-	
6	Steel Melting Shop-3	SMS # 3,Near ESP-C		29 Jan- 11:00-03:40	474	66.10	70.50	-	1470	-	-
7	RMP-3	RMP # 3, Near Canteen		07 Jan- 11:10-04:10	622	53.60	64.70	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-1&2		02 Jan- 10:45	1350	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		09 Jan- 11:00	1200	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		09 Jan- 10:30	1400	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS Oct. 2024 to March 2025

Fugitive Emissions Status Month-Feb. 2025

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) (3000 for BF-8)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150) (120 for BF-8)	Pb* µg/m^3 (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-1&2		05 Feb- 10:20	1330	-	-	-	-	*1267* (Batt.1)*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		03 Feb- 10:00	1430	-	-	-	-	-	
3	Steel Melting Shop-2	Convertor shop Near LF Chimney		21 Feb- 10:30-02:30	1050	57.61	71.58	0.014*	1026	271*	Norms as per GSR 277 (E) dtd 30/03/2012 * Near Ladle prrperation Bay SMS-2
4	Blast Furnace 8	BFs-8 (Cast House)		25 Feb- 10:50-03:00	1178	66.37	74.98	0.062*	-	-	*BF-6 Cast House
5	Blast Furnace 6	Near Weigh Bridge		25 Feb- 10:00-02:00	1841	75.26	79.20	0.014*	1194	162*	
6	Steel Melting Shop-3	in front of Chimney		18 Feb- 10:30-02:30	1586	62.85	68.95	-	-	-	-
7	RMP-3	RMP # 3, Near Canteen		06 Feb- 11:20-04:20	646	52.80	62.78	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-5		01 Feb- 10:35	1350	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		20 Feb- 10:40	1180	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		20 Feb- 11:30	1490	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS Oct. 2024 to March 2025

Fugitive Emissions Status Month-March 2025

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} $\mu g/m^3$ (4000) (3000 for BF-8)	SO_2 $\mu g/m^3$ (200)	NOx $\mu g/m^3$ (150) (120 for BF-8)	Pb* $\mu g/m^3$ (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-3		01 Mar- 10:25	1380	-	-	-	-	*1267* (Batt.1)*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		04 Mar- 10:40	1390	-	-	-	-	-	
3	Steel Melting Shop-2	Near LF-2 Chimney Ground Level		19 Mar- 10:30-02:30	1127	41.30	46.80	0.014*	1260	162*	Norms as per GSR 277 (E) dtd 30/03/2012 * Near Ladle prrperation Bay SMS-2
4	Blast Furnace 4	BFs-4 (In front of furnace)		31 Mar- 10:30-02:30	2003	56.10	67.40	-	1170	-	
5	Blast Furnace 6	Near Weigh Bridge		25 Mar- 10:30-02:30	1125	58.70	66.30	0.062*	1086	271*	*BF-6 Cast House
6	Blast Furnace 7	Near Chimney		26 Mar- 10:00-02:00	2139	57.30	62.90	-	934	-	-
7	Blast Furnace 8	BFs-8 (Stock House Ground Floor)		15 Mar- 10:00-02:00	2269	54.50	65.30	-	-	-	-
8	Steel Melting Shop-3	In front of Hot metal De-Sulfurization Unit Control Room		17 Mar- 10:00-02:10	2025	50.10	62.70	-	-	-	-
9	RMP-3	RMP # 3, Near Pump House		06 Mar- 10:30-02:30	1123	51.20	73.40	-	-	-	-
10	Thermal Power Plant-1	(Near Boiler-1 & 2)		07 Mar- 10:45	1350	-	-	-	-	-	-
11	Lime dolomite plant- 1	RMP-1 (Entrance)		31 Mar- 11:15	1100	-	-	-	-	-	-
12	Lime dolomite plant-2	RMP-2 (Near welfare building)		31 Mar- 10:50	1470	-	-	-	-	-	-

FLAG E

E-3

AMBIENT AIR QUALITY

Oct.'24 to March'25

Month-Oct. 2024														
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION														
a. Ambient Air quality														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m^3***											***ng/m^3***		
1	Civic Centre			15.32	40.60	12.20	13.77	2.38	233	NT	25.42	0.031	NT	3.000	1.25
2	OP-2			24.91	45.68	13.05	11.56	2.45	241	NT	22.74	0.029	NT	4.000	1.19
3	Rail Mill			21.33	42.27	15.43	16.74	2.32	249	NT	28.04	0.043	NT	6.000	1.16
4	Ispat Bhavan			26.48	37.50	18.57	19.36	2.29	238	NT	31.45	0.058	NT	2.000	1.22

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000$\mu g/m^3$. Otherwise, norm is 4000$\mu g/m^3$, when monitoring of CO is done for 1 hr.

* NT- not Traceable

** In Ispat Bhavan manual monitoring done for Ozone & Benzene,as no analyzers are installed for there parameters.

Month-Nov. 2024														
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION														
a. Ambient Air quality														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m^3***											***ng/m^3***		
1	Civic Centre			20.55	43.56	14.81	16.91	2.34	229	NT	28.11	0.031	NT	3.000	1.17
2	OP-2			29.46	48.70	16.52	14.33	2.41	230	NT	26.60	0.029	NT	4.000	1.12
3	Rail Mill			26.92	46.13	19.47	20.58	2.18	243	NT	31.26	0.043	NT	6.000	1.14
4	Ispat Bhavan			31.82	40.06	22.30	23.91	2.20	221	NT	32.44	0.058	NT	2.000	1.20

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000$\mu g/m^3$. Otherwise, norm is 4000$\mu g/m^3$, when monitoring of CO is done for 1 hr.

* NT- not Traceable

** In Ispat Bhavan manual monitoring done for Ozone & Benzene,as no analyzers are installed for there parameters.

Month-Dec. 2024														
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION														
a. Ambient Air quality														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m^3***											***ng/m^3***		
1	Civic Centre			20.82	43.76	14.00	17.11	2.31	234	NT	27.53	0.031	NT	3.000	1.16
2	OP-2			28.63	47.11	15.74	16.40	2.40	238	NT	22.82	0.029	NT	4.000	1.14
3	Rail Mill			25.18	46.93	18.01	21.79	2.15	245	NT	30.75	0.043	NT	6.000	1.20
4	Ispat Bhavan			31.20	41.59	22.18	23.14	2.18	223	NT	28.96	0.058	NT	2.000	1.25

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000$\mu g/m^3$. Otherwise, norm is 4000$\mu g/m^3$, when monitoring of CO is done for 1 hr.

* NT- not Traceable

** In Ispat Bhavan manual monitoring done for Ozone & Benzene,as no analyzers are installed for there parameters.

Month-January 2025														
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION														
a. Ambient Air quality														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m^3***											***ng/m^3***		
1	Civic Centre			21.79	45.34	14.93	17.81	2.42	220	NT	24.95	0.031	NT	3.000	1.14
2	OP-2			26.20	49.05	18.54	19.46	2.50	231	NT	23.16	0.029	NT	4.000	1.18
3	Rail Mill			23.47	47.66	20.21	24.76	2.36	254	NT	32.35	0.043	NT	6.000	1.21
4	Ispat Bhavan			32.86	43.73	25.88	26.11	2.31	240	NT	33.45	0.058	NT	2.000	1.27

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000$\mu g/m^3$. Otherwise, norm is 4000$\mu g/m^3$, when monitoring of CO is done for 1 hr.

* NT- not Traceable

** In Ispat Bhavan manual monitoring done for Ozone & Benzene,as no analyzers are installed for there parameters.

Month-February 2025														
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION														
a. Ambient Air quality														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m^3***											***ng/m^3***		
1	Civic Centre			21.41	44.66	14.32	15.93	2.37	229	NT	25.32	0.031	NT	3.000	1.17
2	OP-2			24.54	47.27	17.11	18.08	2.53	246	NT	27.05	0.029	NT	4.000	1.20
3	Rail Mill			21.45	45.91	17.66	22.35	2.41	248	NT	36.22	0.043	NT	6.000	1.26
4	Ispat Bhavan			31.54	44.09	22.52	24.77	2.34	235	NT	30.48	0.058	NT	2.000	1.29

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000$\mu g/m^3$. Otherwise, norm is 4000$\mu g/m^3$, when monitoring of CO is done for 1 hr.

* NT- not Traceable

** In Ispat Bhavan manual monitoring done for Ozone & Benzene,as no analyzers are installed for there parameters.

Month-March 2025														
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION														
a. Ambient Air quality														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m^3***											***ng/m^3***		
1	Civic Centre			23.10	45.79	14.59	16.21	2.31	218	NT	22.18	0.031	NT	3.000	1.20
2	OP-2			27.33	48.94	18.71	20.05	2.49	241	NT	25.38	0.029	NT	4.000	1.23
3	Rail Mill			23.82	47.67	19.59	22.68	2.36	250	NT	32.26	0.043	NT	6.000	1.24
4	Ispat Bhavan			32.50	46.11	23.36	26.23	2.29	224	NT	28.74	0.058	NT	2.000	1.30

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000$\mu g/m^3$. Otherwise, norm is 4000$\mu g/m^3$, when monitoring of CO is done for 1 hr.

* NT- not Traceable

** In Ispat Bhavan manual monitoring done for Ozone & Benzene,as no analyzers are installed for there parameters.

FLAG - F

Water Pollution Status

October'24 to March'25

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

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

Month- Oct 2024

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.5-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
02 Oct, 12:30:00 PM	Inlet to BOD plant	Physiochemical & Biological	148	9.83	-	149	11.30	-	3540	668.0	10.29	Treated water used for quenching
02 Oct, 12:38:00 PM	Outlet to BOD plant	Physiochemical & Biological	-	6.36	71	0.295	0.19	18	231	37.43	3.10	Treated water used for quenching
01 Oct, 12:40:00 PM	Sinter Plant-2	Settling Tank	1400	7.81	56	-	-	-	-	-	1.40	Recycled back
01 Oct, 12:50:00 PM	Steel Melting Shop-2	Settling Tank	1650	8.39	94	-	-	-	-	-	1.48	Recycled
08 Oct, 11:00:00 PM	Blast Furnace-RST	Settling Tank /Cooling Pond	12500	6.89	48	BDL	0.08	-	-	29.65	1.86	Recycled Back
21 Oct, 11:30:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	6.75	32	-	-	-	-	-	2.14	Recycled Back
15 Oct, 10:20:00 PM	Plate Mill	Settling Tank with oil separators	16000	7.30	53	-	-	-	-	-	2.60	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

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.)									Remarks
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**	
01, 06, 16, 22, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	31.53	6.76	43	BDL	BDL	16	47	3.79	1.30	
01, 06, 16, 22, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	30.05	6.77	46	BDL	BDL	22	54	25.93	3.27	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	30.38	7.14	39	0.09	0.05	16	42	8.00	1.10	

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.)					Remarks
			Temp.	pH				Temp.
	Norms			6.5 -8.5	100	30		Norms
14 Oct, 12:46 PM	30 MLD	1150	31	6.63	37	9	25	27
1 Oct , 04:30 PM	Bhilai House (Oxi. Pond)	475	28	7.51	47	25	72	30
14 Oct , 12:26 PM	Risali (Oxi. Pond)	700	31	7.28	55	25	70	33
14 Oct , 10:40 AM	Works area	390	31	6.80	72	24	66	26

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

Month- November 2024

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.5-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
06 Nov, 10:40:00 AM	Inlet to BOD plant	Physiochemical & Biological	140	9.78	-	149	18.50	-	3812	671.3	11.50	Treated water used for quenching
06 Nov, 11:00:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	6.83	54	0.268	0.18	-	236	17.36	3.56	Treated water used for quenching
12 Nov, 10:05:00 AM	Sinter Plant-2	Settling Tank	1400	8.27	94	-	-	-	-	-	3.20	Recycled back
12 Nov, 10:05:00 AM	Steel Melting Shop-2	Settling Tank	1650	8.34	91	-	-	-	-	-	1.40	Recycled
12 Nov, 10:05:00 AM	Blast Furnace-RST	Settling Tank /Cooling Pond	12500	6.23	45	BDL	0.12	-	-	13.40	1.64	Recycled Back
11 Nov, 01:15:00 PM	Mills (Rail Mill)	Settling Tank with oil separators	-	6.86	28	-	-	-	-	-	1.98	Recycled Back
19 Nov, 10:45:00 AM	Plate Mill	Settling Tank with oil separators	16000	7.18	61	-	-	-	-	-	2.80	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

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.)									Remarks
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
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	29.35	6.77	49	***BDL***	***BDL***	16	44	2.67	1.27	
04, 11, 18, 25, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	28.03	6.58	51	***BDL***	***BDL***	20	51	32.78	2.70	
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	26.85	7.54	47	0.07	0.05	16	43	13.94	1.29	

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.)					Remarks
			Temp.	pH	SS	BOD	COD	
	Norms			**6.5 -8.5**	**100**	**30**	**250**	
04 Nov, 11:24 AM	30 MLD	1150	29	6.32	40	11	30	
19 Nov, 12:40 PM	Bhilai House (Oxi. Pond)	475	27	6.39	52	24	69	
11 Nov, 11:50 AM	Risali (Oxi. Pond)	700	29	7.93	63	*26*	64	
04 Nov, 11:48 AM	Works area	390	30	6.64	58	23	59	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

Month- December 2024

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.5-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
04 Dec, 09:50:00 AM	Inlet to BOD plant	Physiochemical & Biological	140	9.77	-	159	14.60	-	3814	638.5	12.40	Treated water used for quenching
04 Dec, 09:55:00 AM	Outlet to BOD plant	Physiochemical & Biological	-	6.72	58	0.290	0.19	16	220	23.25	4.12	Treated water used for quenching
17 Dec, 11:24:00 AM	Sinter Plant-2	Settling Tank	1400	7.78	92	-	-	-	-	-	4.36	Recycled back
17 Dec, 11:30:00 AM	Steel Melting Shop-2	Settling Tank	1650	7.65	81	-	-	-	-	-	4.40	Recycled
03 Dec, 10:34:00 AM	Blast Furnace-RST	Settling Tank /Cooling Pond	12500	7.40	48	BDL	0.14	-	-	43.40	1.60	Recycled Back
03 Dec, 11:02:00 AM	Mills (Rail Mill)	Settling Tank with oil separators	-	7.03	36	-	-	-	-	-	2.80	Recycled Back
18 Dec, 10:05:00 AM	Plate Mill	Settling Tank with oil separators	16000	7.43	28	-	-	-	-	-	4.28	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

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.)									Remarks
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**	
02, 10, 16, 23, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	27.08	6.83	62	***BDL***	***BDL***	13	35	4.99	3.26	
02, 10, 16, 23, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	25.88	6.89	43	***BDL***	***BDL***	16	42	19.23	4.19	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	26.10	7.55	42	0.08	0.07	16	42	12.61	2.18	

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.)					Remarks
			Temp.	pH	SS	BOD	COD	
	Norms			**6.5 -8.5**	**100**	**30**	**250**	
10 Dec, 11:20 AM	30 MLD	1150	25	6.54	32	10	28	
16 Dec, 01:20 PM	Bhilai House (Oxi. Pond)	475	25	7.66	45	22	65	
16 Dec, 01:00 PM	Risali (Oxi. Pond)	700	24	7.48	49	21	59	
02 Dec, 01:15 PM	Works area	390	26	6.82	55	21	52	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

Month- January 2025

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.5-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
01 Jan, 11:15:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	140	9.66	-	196	14.80	-	3210	826.4	10.90	Treated water used for quenching
01 Jan, 11:17:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	6.61	76	0.350	0.19	15	241	36.24	3.44	Treated water used for quenching
07 Jan, 10:00:00 AM	**Sinter Plant-2**	Settling Tank	1400	6.50	18	-	-	-	-	-	1.92	Recycled back
07 Jan, 10:37:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	8.10	48	-	-	-	-	-	3.16	Recycled
21 Jan, 09:31:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.13	45	BDL	0.12	-	-	48.30	6.58	Recycled Back
14 Jan, 10:21:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	7.27	28	-	-	-	-	-	2.08	Recycled Back
21 Jan, 09:40:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	6.57	52	-	-	-	-	-	6.45	Recycled Back

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

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.)									Remarks
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**	
06, 13, 20, 28, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	26.70	6.78	51	BDL	BDL	16	45	5.82	4.59	
06, 13, 20, 28, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	26.68	6.63	28	BDL	BDL	18	55	27.98	6.42	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	25.13	6.67	34	0.11	0.08	18	42	10.40	3.95	

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.)					Remarks
			Temp.	pH	SS	BOD	COD	
	Norms			**6.5 -8.5**	**100**	**30**	**250**	
28 Jan, 5:20 PM	30 MLD	1150	27	7.6	45	3	32	
25 Jan, 3:30 PM	Bhilai House (Oxi. Pond)	475	26	7.13	35	23	59	
13 Jan, 12:45 PM	Risali (Oxi. Pond)	700	26	8.36	64	22	77	
13 Jan, 01:32 PM	Works area	390	25	6.75	55	20	67	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

Month- February 2025

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.5-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
05 Feb, 12:00:00 PM	**Inlet to BOD plant**	Physiochemical & Biological	140	9.50	-	192	13.90	-	3419	794.8	11.24	Treated water used for quenching
05 Feb, 12:15:00 PM	**Outlet to BOD plant**	Physiochemical & Biological	-	6.77	83	0.323	0.19	14	244	42.08	4.10	Treated water used for quenching
04 Feb, 03:05:00 PM	**Sinter Plant-2**	Settling Tank	1400	6.59	84	-	-	-	-	-	1.82	Recycled back
04 Feb, 03:15:00 PM	**Steel Melting Shop-2**	Settling Tank	1650	7.73	75	-	-	-	-	-	3.28	Recycled
10 Feb, 09:40:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	6.61	43	BDL	0.15	-	-	11.50	5.23	Recycled Back
10 Feb, 10:25:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	6.82	35	-	-	-	-	-	2.24	Recycled Back
11 Feb, 10:25:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	6.91	68	-	-	-	-	-	4.40	Recycled Back

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

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.)									Remarks
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**	
03, 14, 21, 25, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	28.28	6.59	41	BDL	BDL	14	41	5.75	2.20	
03, 14, 21, 25, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	28.10	7.23	64	BDL	BDL	18	54	22.85	4.14	
07, 14, 21, 28, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	27.18	7.51	30	0.18	0.08	16	46	8.20	3.80	

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.)					Remarks
			Temp.	pH	SS	BOD	COD	
	Norms			**6.5 -8.5**	**100**	**30**	**250**	
21 Feb, 1:15 PM	30 MLD	1150	28	6.57	35	10	32	
21 Feb, 1:45 PM	Bhilai House (Oxi. Pond)	475	28	6.78	52	18	55	
03 Feb, 12:08 PM	Risali (Oxi. Pond)	700	29	8.36	57	23	69	
18 Feb, 10:40 PM	Works area	390	28	6.89	47	18	61	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

Month- March 2025

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.5-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
05 Mar, 11:30:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	160	9.73	-	200	14.10	-	3944	869.7	13.90	Treated water used for quenching
05 Mar, 11:35:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	6.57	60	0.333	0.18	12	208	39.25	3.56	Treated water used for quenching
11 Mar, 10:05:00 AM	**Sinter Plant-2**	Settling Tank	1400	6.68	78	-	-	-	-	-	2.81	Recycled back
11 Mar, 10:15:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	7.10	87	-	-	-	-	-	2.95	Recycled
18 Mar, 10:05:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.22	48	BDL	0.16	-	-	42.00	6.14	Recycled Back
08 Mar, 09:20:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	6.97	38	-	-	-	-	-	2.97	Recycled Back
19 Mar, 11:29:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	6.59	46	-	-	-	-	-	3.98	Recycled Back

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2024 to Mar. 2025

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.)									Remarks
			Temp.	pH	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	29.40	6.65	39	***BDL***	***BDL***	14	38	6.29	1.95	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.30	6.81	49	***BDL***	***BDL***	18	53	31.33	3.99	
07, 13, 21, 27, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	27.70	6.57	29	0.07	0.10	15	45	8.87	4.83	

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.)					Remarks
			Temp.	pH	SS	BOD	COD	
	Norms			**6.5 -8.5**	**100**	**30**	**250**	
03 Mar, 12:28 PM	30 MLD	1150	29	6.57	30	11	30	
03 Mar, 01:11 PM	Bhilai House (Oxi. Pond)	475	29	6.51	48	22	66	
05 Mar, 12:30 PM	Risali (Oxi. Pond)	700	30	8.41	63	25	69	
10 Mar, 12:52 PM	Works area	390	29	6.76	49	18	60	

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Noise Pollution Control Status

Oct'24 to Mar'25

Noise Pollution Control Status

Month-October 2024

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)	30-Oct	5 m	Air tight control Room	69.3	2 Minute	
Blast Furnace- 7(Control Room)	08-Oct	5 m	Acoustic Room	67.9	2 Minute	
Mills (Rolling / forgoing) Rail Mill	30-Oct	5 m	Acoustic pulpit	88.5	2 Minute	
TPP/CPP (Turbines-1&2) (Control Room)	05-Oct	5 m	Acoustic cabins	64.9	2 Minute	
SP-2, (M/c-1&2) Operator's room	02-Oct	5 m	Acoustic Room	64.9	2 Minute	
Coke-oven area (Batt.-5&6) (Control Room)	01-Oct	5 m	Air Tight control Room	68.6	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2024 to March 2025

2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)	
	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	54.5	51.9
Near Joratarai Gate	75	58.8	54.8
Near Main Gate	75	62.0	52.8
Near Khursipar Gate	75	64.2	54.9
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	55.9	51.3
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.8	54.4
Sector-09 (Goal Market)	65 Day & 55 Night	62.9	54.6
Maroda Sector (BSP Market)	65 Day & 55 Night	56.4	53.9
Risali Sector (BSP Market)	65 Day & 55 Night	59.8	52.4
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	41.2	40.2
Sector-05 (Street No. - 32)	55 Day & 45 Night	50.8	41.0
Sector-07 (Street No. - 17)	55 Day & 45 Night	52.0	40.9
Sector-08 (Street No. - 05)	55 Day & 45 Night	48.5	42.5
Sector-10 (Street No. - 25)	55 Day & 45 Night	53.7	44.3
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	43.3	39.5
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	46.9	39.8
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.3	38.6
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	49.2	39.2
Maroda Sector (Estate Court)	50 Day & 40 Night	47.9	39.5

Noise Monitoring in township area done (Quarterly) in the month of Sep.-24

Month- November 2024

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)	26-Nov	5 m	Air tight control Room	66.9	2 Minute	
Blast Furnace- 4&5 (Control Room)	12-Nov	5 m	Acoustic Room	69.8	2 Minute	
Mills (Rolling / forgoing) Rail Mill	26-Nov	5 m	Acoustic pulpit	89.7	2 Minute	
TPP/CPP (Turbines-5&6) (Control Room)	01-Nov	5 m	Acoustic cabins	67.3	2 Minute	
SP-2, (M/c-1&2) Operator's room	11-Nov	5 m	Acoustic Room	68.7	2 Minute	
Coke-oven area (Batt.-5&6) (Control Room)	02-Nov	5 m	Air Tight control Room	68.4	2 Minute	
Others						

Bhilai Steel Plant Noise Pollution Status October 2024 to March 2025

2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)	
	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	55.8	52.3
Near Joratarai Gate	75	59.3	57.4
Near Main Gate	75	60.3	56.9
Near Khursipar Gate	75	69.6	67.3
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	55.9	51.3
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.8	54.4
Sector-09 (Goal Market)	65 Day & 55 Night	62.9	54.6
Maroda Sector (BSP Market)	65 Day & 55 Night	56.4	53.9
Risali Sector (BSP Market)	65 Day & 55 Night	59.8	52.4
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	41.2	40.2
Sector-05 (Street No. - 32)	55 Day & 45 Night	50.8	41.0
Sector-07 (Street No. - 17)	55 Day & 45 Night	52.0	40.9
Sector-08 (Street No. - 05)	55 Day & 45 Night	48.5	42.5
Sector-10 (Street No. - 25)	55 Day & 45 Night	53.7	44.3
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	43.3	39.5
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	46.9	39.8
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.3	38.6
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	49.2	39.2
Maroda Sector (Estate Court)	50 Day & 40 Night	47.9	39.5

Noise Monitoring in township area done (Quarterly) in the month of Sep.-24

Month- December 2024

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)	28-Dec	5 m	Air tight control Room	66.9	2 Minute	
Blast Furnace- 4(Control Room)	07-Dec	5 m	Acoustic Room	66.9	2 Minute	
Mills (Rolling / forgoing) Rail Mill	23-Dec	5 m	Acoustic pulpit	89.4	2 Minute	
TPP/CPP (Turbines-6) (Control Room)	03-Dec	5 m	Acoustic cabins	68.6	2 Minute	
SP-2, (M/c-1&2) Operator's room	19-Dec	5 m	Acoustic Room	65.9	2 Minute	
Coke-oven area (Batt.-9&10) (Control Room)	06-Dec	5 m	Air Tight control Room	65.4	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2024 to March 2025

2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)	
	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	56.8	53.7
Near Joratarai Gate	75	58.7	54.9
Near Main Gate	75	59.4	54.8
Near Khursipar Gate	75	67.9	64.3
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	59.8	52.9
Sector-06 (Near 'B' Market)	65 Day & 55 Night	60.9	54.1
Sector-09 (Goal Market)	65 Day & 55 Night	62.5	50.8
Maroda Sector (BSP Market)	65 Day & 55 Night	53.5	50.2
Risali Sector (BSP Market)	65 Day & 55 Night	63.5	53.7
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	52.6	43.7
Sector-05 (Street No. - 32)	55 Day & 45 Night	49.8	42.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	47.9	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	41.3	43.5
Sector-10 (Street No. - 25)	55 Day & 45 Night	52.7	41.0
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.5	37.6
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	44.2	39.5
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	38.7
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	48.6	38.5
Maroda Sector (Estate Court)	50 Day & 40 Night	46.9	36.9

Noise Monitoring in township area done (Quarterly) in the month of Dec.-24

Month - January 2025

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)	30-Jan	5 m	Air tight control Room	67.5	2 Minute	
Blast Furnace- 7(Control Room)	08-Jan	5 m	Acoustic Room	65.1	2 Minute	
Mills (Rolling / forgoing) Rail Mill	14-Jan	5 m	Acoustic pulpit	87.6	2 Minute	
TPP/CPP (Turbines-1&2) (Control Room)	02-Jan	5 m	Acoustic cabins	68.3	2 Minute	
SP-2, (M/c-3&4) Operator's room	15-Jan	5 m	Acoustic Room	66.8	2 Minute	
Coke-oven area (Batt.-5&6) (Control Room)	10-Jan	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 2024 to March 2025

2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)	
	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	54.9	51.6
Near Joratarai Gate	75	55.3	53.2
Near Main Gate	75	55.9	53.8
Near Khursipar Gate	75	68.7	65.8
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	59.8	52.9
Sector-06 (Near 'B' Market)	65 Day & 55 Night	60.9	54.1
Sector-09 (Goal Market)	65 Day & 55 Night	62.5	50.8
Maroda Sector (BSP Market)	65 Day & 55 Night	53.5	50.2
Risali Sector (BSP Market)	65 Day & 55 Night	63.5	53.7
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	52.6	43.7
Sector-05 (Street No. - 32)	55 Day & 45 Night	49.8	42.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	47.9	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	41.3	43.5
Sector-10 (Street No. - 25)	55 Day & 45 Night	52.7	41.0
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.5	37.6
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	44.2	39.5
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	38.7
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	48.6	38.5
Maroda Sector (Estate Court)	50 Day & 40 Night	46.9	36.9

Noise Monitoring in township area done (Quarterly) in the month of Dec.-24

Month - February 2025

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)	10-Feb	5 m	Air tight control Room	69.5	2 Minute	
Blast Furnace- 7(Control Room)	08-Feb	5 m	Acoustic Room	66.5	2 Minute	
Mills (Rolling / forgoing) Rail Mill	10-Feb	5 m	Acoustic pulpit	89.6	2 Minute	
TPP/CPP (Turbines-5) (Control Room)	01-Feb	5 m	Acoustic cabins	66.9	2 Minute	
SP-2, (M/c-1&2) Operator's room	03-Feb	5 m	Acoustic Room	65.3	2 Minute	
Coke-oven area (Batt.-1&2) (Control Room)	05-Feb	5 m	Air Tight control Room	69.3	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2024 to March 2025

2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)	
	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	53.5	51.0
Near Joratarai Gate	75	52.9	50.5
Near Main Gate	75	54.3	51.8
Near Khursipar Gate	75	66.9	63.0
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	59.8	52.9
Sector-06 (Near 'B' Market)	65 Day & 55 Night	60.9	54.1
Sector-09 (Goal Market)	65 Day & 55 Night	62.5	50.8
Maroda Sector (BSP Market)	65 Day & 55 Night	53.5	50.2
Risali Sector (BSP Market)	65 Day & 55 Night	63.5	53.7
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	52.6	43.7
Sector-05 (Street No. - 32)	55 Day & 45 Night	49.8	42.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	47.9	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	41.3	43.5
Sector-10 (Street No. - 25)	55 Day & 45 Night	52.7	41.0
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.5	37.6
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	44.2	39.5
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	38.7
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	48.6	38.5
Maroda Sector (Estate Court)	50 Day & 40 Night	46.9	36.9

Bhilai Steel Plant Noise Pollution Status October 2024 to March 2025

Noise Monitoring in township area done (Quarterly) in the month of Feb.-25

Month - March 2025

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)	25-Mar	5 m	Air tight control Room	66.0	2 Minute	
Blast Furnace- 7(Control Room)	17-Mar	5 m	Acoustic Room	68.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	25-Mar	5 m	Acoustic pulpit	79.8	2 Minute	
TPP/CPP (Turbines-1&2) (Control Room)	07-Mar	5 m	Acoustic cabins	65.9	2 Minute	
SP-2, (M/c-1&2) Operator's room	04-Mar	5 m	Acoustic Room	66.9	2 Minute	
Coke-oven area (Batt.-3) (Control Room)	01-Mar	5 m	Air Tight control Room	71.0	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2024 to March 2025

2. Ambient Noise Monitoring

Noise Zone	Noise Level	Unit: dB (A)	
	Standard	Day Time	Night time
Industrial Area (at boundary of plant)			
Near OP-2	75	53.6	51.8
Near Joratarai Gate	75	55.9	53.7
Near Main Gate	75	52.8	50.6
Near Khursipar Gate	75	67.9	65.8
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	59.8	53.9
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.5	51.6
Sector-09 (Goal Market)	65 Day & 55 Night	54.6	52.6
Maroda Sector (BSP Market)	65 Day & 55 Night	55.9	54.8
Risali Sector (BSP Market)	65 Day & 55 Night	60.0	54.3
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	50.3	41.3
Sector-05 (Street No. - 32)	55 Day & 45 Night	51.0	40.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	49.8	42.4
Sector-08 (Street No. - 05)	55 Day & 45 Night	47.8	41.0
Sector-10 (Street No. - 25)	55 Day & 45 Night	52.0	41.7
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	44.3	38.4
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	49.3	37.8
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.6	39.1
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	46.5	39.2
Maroda Sector (Estate Court)	50 Day & 40 Night	47.0	36.9

Noise Monitoring in township area done (Quarterly) in the month of Feb.-25

Flag-H

Environmental Projects Implemented at BSP

Let's commit to Clean & Green Bhilai

S.No.	Projects	Status (As on 31th Mar. 2025)
1.	Water recycling schemes for Plant Outlet-B Cost : 3.91 Crs	Completed.
2.	Water recycling schemes for Plant outlet-C Cost : 44.8 Crs	Completed
3.	To de-link the HUDCO sewerage line from sewerage net-work of Bhilai Township & divert house & laying of 2.5 KM sewer line.	• BSP requested CECB to delist this project from the list of BG project earlier submitted by BSP.
4.	Construction of Secured Land Fill for disposal of hazardous waste. Cost : 12.4 Crs	Completed.
5.	Replacement of Multi-cyclones (wet scrubbers) by ESPs at Sinter Plant-II for control of Stack emission. Cost : 43.91 Crs	Completed.
6.	ESP based de-dusting system at SP-II for work-zone/fugitive emission control. Cost : 2.987Crs	Completed.
7.	Up-gradation of waste gas ESP of SP-III for control of Stack emission. Cost : 6.24 Crs	Completed.
8.	Cast house De-fuming system in Blast Furnace-7 for control of work-zone emissions in cast house. Cost : 12.67 Crs	

9.	Replacement of wet scrubbers with Bag-filters at RMP-II for control of Stack emissions. Cost : 3.95 Crs	• Work completed on 12/08/2024.
10.	Installation of secondary Emission control system/Dog-House for three Convertors at Steel melting Shop-II . Cost : 411.89 Crs	• Decremental price bid open on 01/06/2023. • L1 party is M/s Mecon Consortium. • Project in progress.

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

GM I/c(EnMD)/B-8/2025/182 Date: 23/06/2025

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 (Oct.-2024 to Mar.-2025) 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

Annexure-II

Sub: Revised Configuration of Modernization & Expansion of 7 MTPA Bhilai Steel Plant, SAIL---- Six Monthly Compliance Report.

	A. Specific conditions:	
i.	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to Regional Office of MoEF&CC. Project proponent shall arrange to provide training to employees on 'behavioural safety'.	• Safety mock drill for gas pipeline maintenance are being conducted every six months **(**Report enclosed at **Flag-A)** • Training to employees on 'behavioural safety" is being organized regularly **(**Report enclosed at **Flag-B**)
ii.	All CER activities as committed in the reply to the ADS letter dated 02.01.2019 shall be completed in financial year 2019-20.	• 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. • All the CER projects have been completed. • A detailed status report on CER activities enclosed at **Flag-C**
iii.	l00 % SMS -Slag utilisation shall be ensured after conditioning /steam curing. 	• About 89% the BOF slag is utilised by recycled back in to steel making process and also utilized in Road Making, filling of the low lying areas and also sold to outside agencies 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. • Numbers of other R&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 shared with all agencies involved in road making to promote the use of steel slag in Road making and other infrastructure projects. • BSP has started making paver blocks in-house using BOF slag. A study is also being studied to increase the use of BOF slag percentage in the raw material mix.
iv.	Scheme for decommissioning of SMS-1 and its utilities along with green belt development in that area shatl be submitted within six months to the Ministry and Regional Oflice of the MoEF&CC.	• Proposal for de-commissioning of Steel Melting Shop-1 was initiated on 05/10/2020. • Application for de-registration of SMS-1 was submitted to the Inspector of Factories on 31/10/2020. Management approval for permanent closure of SMS-1 was granted on 07/11/2020. Generation of Survey Control: 19/12/2021 • Issue of NIT: 16/03/2023 • Issue of Sale Order: 15/04/2023, to M/s Shakambhari Ispat & Power Limited, valid up to 16/03/2025. The party was also granted an extension of 90 days. • Completion of dismantling and disposal of SMS-1: 14/06/2025

  		
Completion of dismantling and disposal of SMS-1: 14/06/2025		
v.	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.	• **Since 2019, BSP has done the plantation in additional areas to achieve the covering an area of 33% of the total project area.** • **BSP's green belt coverage comes to 36.34 %.** • In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. • In the year 2024-25(April-March), BSP has planted 8237 trees within the plant premises & township. • BSP has planted 4563917 nos of trees covering an area of 1826 Hectares till Mar.-2025

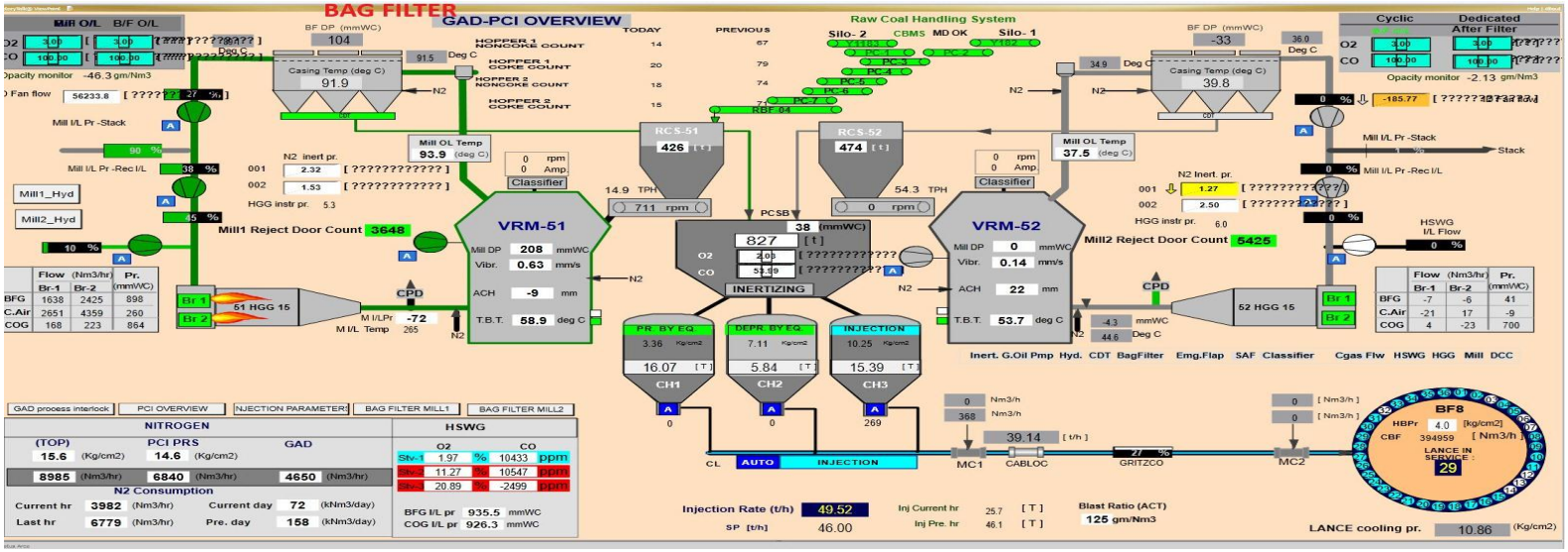
	 	
vi.	Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party,	➢ Standard Operating Procedures (SOPs) are developed for performance 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 conducted.
vii.	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.	➢ The policy followed at SAIL for reporting environmental non-compliances and emergencies has already been submitted to MoEF and CC-New Delhi. The details are given below.
Bhilai Steel Plant has well laid-out procedure for reporting of non-compliance / infringements with respect to environment management to the Board of Directors at periodical interval inter alia including in case of occurrence of emergency / accident.		

	➢ The safety related issues are addressed by Safety Engineering Department. The Standard Operating Procedures (SOP) for reporting non-compliance / infringements to the Board of Directors at periodical interval inter alia including in case of occurrence of emergency / accident is given below. ➢ Environmental non-compliances are reported to EMD Kolkata on quarterly basis. ➢ Occurrence of emergency / accident – safety department sends First Priority Flash Report to – ➢ Chief Inspector of Factories cum Labour Commissioner, Naya Raipur, ➢ Secretary, Ministry of Steel, New Delhi, ➢ Chairman SAIL, New Delhi, ➢ Director SAIL (Technical), New Delhi ➢ Director SAIL (Personnel), New Delhi, ➢ Executive Director (Safety), SSO Ranchi ➢ Dy. Director, Industrial Health and Safety, CG Govt. ➢ Collector , Durg ➢ Superintendent of Police , Durg	
viii.	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 is being complied.
B.	**General conditions**	
I.	Statutory compliance:	
i.	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, l98l and the Water (prevention & Control of Pollution) Act 1974 from the concerned State pollution control Board/ Committee.	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. The latest Consent to operate issued by CECB in July-2024 is valid up to 31/07/2025. Fresh application for CTO for the year 25-26 has been submitted in Feb-2025 itself.
ii.	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.	No ground water is being used for the project.

iii.	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules,2016 as amended from time to time.	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 16/04/2029. Copy of the authorization is enclosed at **Flag-D**
II.	**Air quality monitoring and preservation**	
i.	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 lron) 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.	CEMs have been installed covering all the process stacks and connected to SPCB and CPCB online servers and calibration of this system is being carried-out from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.	Fugitive emissions are being monitored every quarter & report submitted to regulatory agencies.
iii.	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 reference to PM emission, and SOx and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of $12O^0$ each), covering upwind and downwind directions	4 nos of Continuous Ambient Air Quality monitoring stations have been installed within and outside the plant area covering upwind and downwind directions Twelve air pollutants, as per the National 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. Benzo (a) Pyrene are being measured offline.
iv.	The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.	Cameras have been installed at Coke ovens for recording of battery emissions
v.	Sampling facility at process stacks and at quenching towers shall be	Sampling facilities at process stacks and at quenching

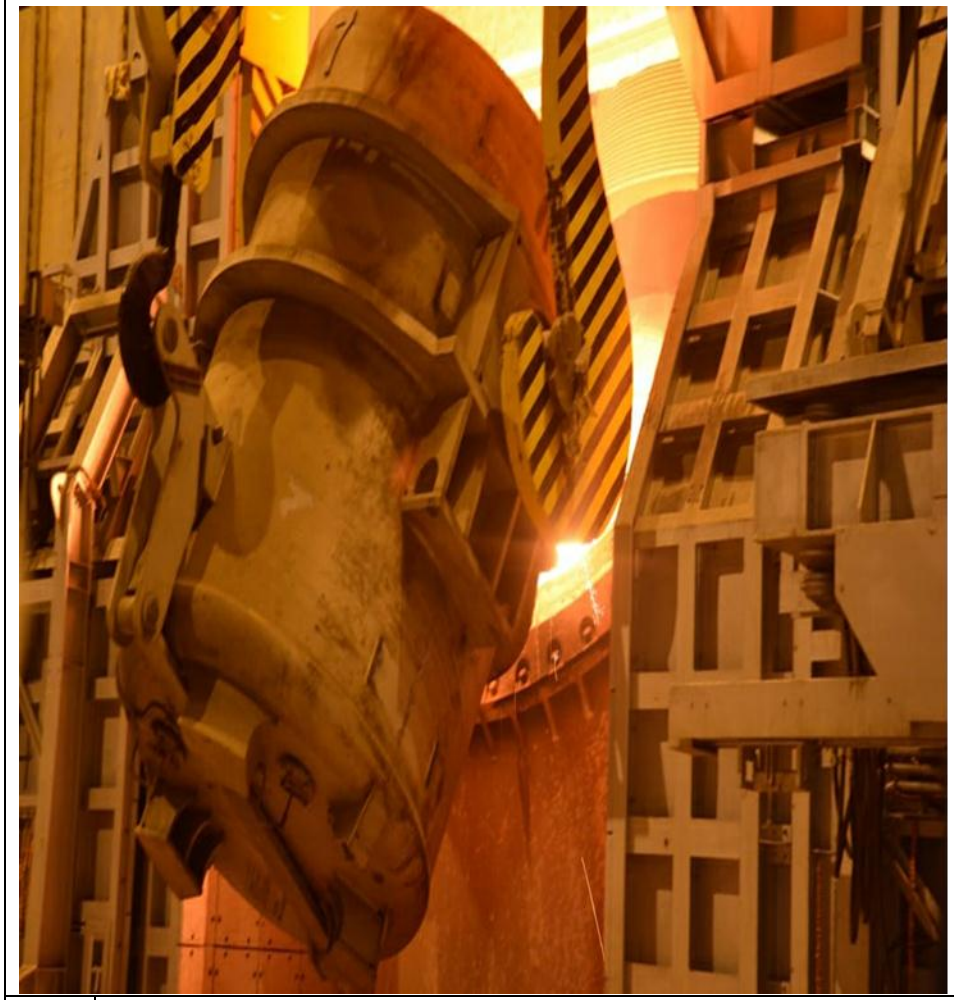
	provided as per CPCB guidelines for manual monitoring of emissions	towers have been provided as per CPCB guidelines for manual monitoring of emissions
vi.	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report,	Copies of monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions (October-2024 to March-2025) is enclosed at **Flag-E**
vii.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	➢ Air Pollution Control (APC) systems have been provided for all the dust generating points including fugitive dust from all vulnerable sources. ➢ The stack & fugitive emissions monitored are meeting the standards..
viii.	The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.	Diligent maintenance of Bags is being done & are replaced whenever there are leakages. The leakages if any are detected from the control room itself and immediate measures are taken to arrest the leakages and also take suitable corrective action

Leak detection systems at CDI of Blast Furnace



ix.	Secondary emission control system shall be provided at SMS Converters.	Secondary emission control system/dog house connected to ESP has been provided for SMS-3 Converters.

Secondary emission control system/Dog House at SMs-III,. The system is connected to ESP



x.	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.	The Pollution control system as per the guidelines of CREP have been provided

		➢ BOD plant for the treatment of effluents of COCCD ➢ Secondary emission control system has been provided for SMS-3 Converters ➢ Cast house Defuming systems have been provided for BF-8 & BF-7
xi.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads. shop floors, roofs, regularly.	Vacuum cleaners are being used to clean plant roads. Shop floor etc, regularly**.**
		
	Vacuum cleaners are being used to clean plant roads. Shop floor etc, regularly.	
xii.	Recycle and reuse Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.	➢ Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices are being recycled back to the process after nodulising at sintering plants.
xiii.	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.	➢ At BSP railway wagons are being used for transportation of 95 % of the raw materials like coal & Iron ore. ➢ For internal transportation of raw materials leak proof trucks/dumpers are being used after proper covering.

xiv.	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility)	➢ Facilities for spillage collection are provided for coal and coke on wharf of coke oven batteries
		
	Facilities for spillage collection are provided for coal and coke on wharf of coke oven batteries	
xv.	Land-based APC system shall be installed to control coke pushing emissions	Land-based APC system has been installed to control coke pushing emissions in Coke oven Battery-11.
xvi.	Monitor CO, HC and Oz in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber	Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber are being measured using gas analysers.
xvii.	Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens	Vapour absorption system has be provided for Batt-11 coke oven gas cooling.
xviii.	In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided 10 meet the prescribed standards	Ammonia liquor is not incinerated. However, Regular monitoring of coke oven stack emissions is being done & The Gaseous emissions from Coke ovens are meeting the standards.
xix.	The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.	At BSP imported coal has sulphur content less than 1%.
xx.	Wind shelter piles. fence and chemical spraying shall be provided on the raw material stock piles	➢ Water sprinklers are installed for control of dust at raw material stock piles
xxi.	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars	Ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars are

		installed.
		
	CABLE GALLERY VENTILATION-1	**CABLE GALLERY VENTILATION-2**
		
	CK1 DISCHARGE-VENTILATION	**CK1 MAIN-VENTILATION**

		
	CK2-MAIN-VENTILATION	**CK2 DISCHARGE-VENTILATION**
xxii.	The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and-SMS convertor- (to be decided on case to case basis depending on type and size of plant)	➢ At BSP consultant MECON had recommended wet gas cleaning systems for BFs & SMS convertors as the Dry Gas Cleaning Plant was not feasible with the present plant gas network and gas volume generated.
xxiii.	Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke	➢ Dry quenching (CDQ) system along with power generation facility for waste heat recovery from hot coke has been installed for Coke Oven Battery-11.
	Water quality monitoring and preservation	
i.	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 20I2 {Integrated iron & Steel); G.S.R 414(E) dated 30 May 2008 (Sponge lron) 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 recognised under Environment (Protection) Act 1986 or NABL accredited laboratories	➢ continuous effluent monitoring systems have been installed for all three plant outlets VIz Outlet-A, B & C and are connected to SPCB and CPCB online servers ➢ Calibration of the systems is being carried-out regularly.

ii.	The project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer /sampling wells in the plant and adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories.	➢ Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out.
iii.	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	Monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality reports (October-2024 to March-2025) are enclosed (**Flag-F**)
iv.	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 3lst March 2012 (integrated iron & Steel); G-S.R 414 (E)dated 30s May 2008 (Sponge lron) as amended from time to time; S.O. 3305 (E) dated 7e December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time.	At BSP ETP for coke oven and by-product plant has been installed and is working effectively and meeting the standards prescribed in G.S.R 277 (E) dated 3lst March 2012 (integrated iron & Steel);
v.	Adhere to 'Zero Liquid Discharge’	BSP has three outlets carrying plant effluent (Outlet-A , B &C). Wastewater Treatment and recycling plants have been installed at all three outlets

Waste water recycling plant at Outlet-B and Outlet-C

vi.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	A 30 MLD sewage recycling plant has been installed for treatment of recycling of domestic sewage generated in the Township
vii.	Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off	. Garland drains and collection pits have been provided at the Raw Material handling area to check the water pollution due to surface run off.
viii.	Tyre washing facilities shall be provided at the entrance of the plant gates	Being considered for installation. Budgetary Offers being taken.
ix.	CO_2 injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning	At SMS, pH in circulating water of GCPs is being maintained through addition of Dispersant Surfactant. The option of CO2 injection is also not presently required.
x.	The project proponent shall practice rainwater harvesting to maximum possible extent	
		• At present rain water harvesting is being done from the rooftops of Plate Mill & Machine Shop-II area. Approx. 71500 m3 rain water is channelized to Maroda-I reservoir through storm water drains. • Recharge pits were constructed near 73 existing borewell to arrest the over flow /excess water. • Rain Water Harvesting structure were installed at T A Building, Bhilai Niwas, Bhilai Technical Institute, S.S School Sector-VII & G.S.S School-V. • 5 Recharge ponds were dug in Bhilai Township (Sector-3 near FSNL, Sector-3 near BTI Hostel, Sector-5 behind Andhra Bhawan, Hospital Sector near D-23, Jayanti Stadium) with recharge bore well at middle bottom of pond at two locations. • 1 big recharge pond of about 1 lac m3 capacity was made Behind Bhilai Institute of Technology (BIT) near Bhilai House with bore well at Centre.

		
		
	Rain water schemes implemented in 24-25:: In the year 2024-25 following additional schemes have been implanted: Maintenance Office Sector 2, Zone 1 Office Building Sector 4.Bokaro Hostel, Athletics Academy Sector 4,EMMS School Sector 6, Zone-II office Building, Maroda Sector,Tennis Court Indira Place,Zone 4 Office Building Sector 8,Sr Sec School Sector 10 Approximate Catchment Area Covered: Over 10,000 sq.m& Estimated Recharge Potential: Approx. 5.2 crore litres annually.	

xi.	Treated water from ETP of CCIBP shall not be used for coke quenching	• Complied. At COB#11 dry quenching system has been installed.
xii.	Water meters shall be provided at the inlet to all unit processes in the steel plants	• Water meters are installed at strategic locations to measure water flow to the process plants.
	 	• 
	Water meters are installed at strategic locations to measure water flow to the process plants.	
xiii.	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water	• Water consumption in the steel plant is being reduced through adoption of local recycling systems for all the Modernization units (URM, BRM, SMS-3 & BF-8). • The effluents from older units are being recycled back to cooling pond after treatment for re-use as industrial water

Local Recycling System at URM

	Noise monitoring and prevention	
i.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report  **Acoustic enclosures of power plant**	• Noise level survey is being carried as per the prescribed guidelines and report in this regard is enclosed (Flag-G) • Regular noise monitoring is done at all the potential high noise generating areas like BFs, Power plants, Rolling Mills etc . • Acoustic enclosures, silencers etc have been provided at all the high noise zones to prevent workmen to the high noise exposure.

ii.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules. 1986 viz.75 dB(A) during day time and 70 dB(A) during night time	Regular Noise monitoring is being done at different locations of township (Market area, schools, hospitals, residential area) and ambient noise levels are meeting the standards (Flag-G)
	Energy Conservation measures	
i	The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces	At new BF-8, TRTs to recover energy from top gases of Blast Furnace has been installed.
i.		
	TRTs installede at BF-8 to recover energy from top gases of Blast Furnace	
ii.	Coke Dry Quenching (CDQ shall be provided for coke quenching for both recovery and non-recovery type coke ovens	At new Coke oven Battaery-11, Coke Dry Quenching (CDQ) has been installed.
iii.	Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines	Waste heat recovery systems have been installed for Sinter Plants coolers and Sinter Machines of SP-3.
iv.	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles	At new BF-8, torpedo ladle is being used for hot metal transfer.
v.	Use hot charging of slabs and billets/blooms as far as possible	Hot charging of slabs and billets/blooms is being done at Rolling mills.

vi.	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300^{o}C	Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants
vii.	Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating firm aces and if feasible shall be installed	Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants. WHRS systems have also been installed .
viii.	Restrict Gas flaring to < l%	Complied/Noted.

CO gas generation data

	CO Gas Make (Total in ThM3)	Gas Flared
Apr'24	129580.8	Nil
May'24	132952.7	Nil
June'24	115432.3	Nil
July'24	115311.3	Nil
Aug'24	121799.7	Nil
Sept'24	113981.7	Nil
Oct'24	116884.9	Nil
Nov'24	118785.7	Nil
Dec'24	133025.0	Nil
Jan'25	122023.6	Nil
Feb'25	106047.0	Nil
Mar'25	123107.7	Nil
24-25	1448932.5	Nil

	SMS-2 (Total in ThM3)	SMS-3 (Total in ThM3)
Apr'24	9308	20712
May'24	9908	30485
June'24	11287	25109
July'24	11709	27515
Aug'24	9946	28304
Sept'24	8417	30027
Oct'24	11947	28583
Nov'24	11322	26368
Dec'24	12201	28121
Jan'25	11288	28146
Feb'25	12336	26145
Mar'25	12882	30638
24-25	132551	330153.0

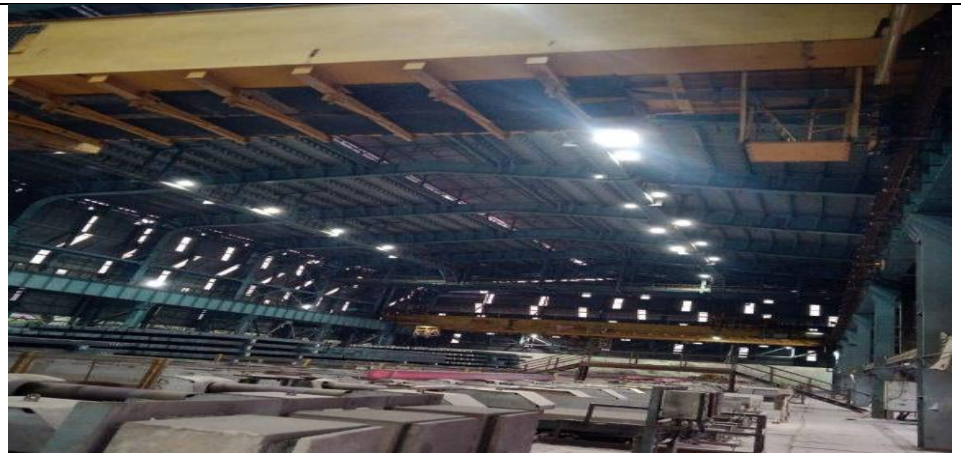
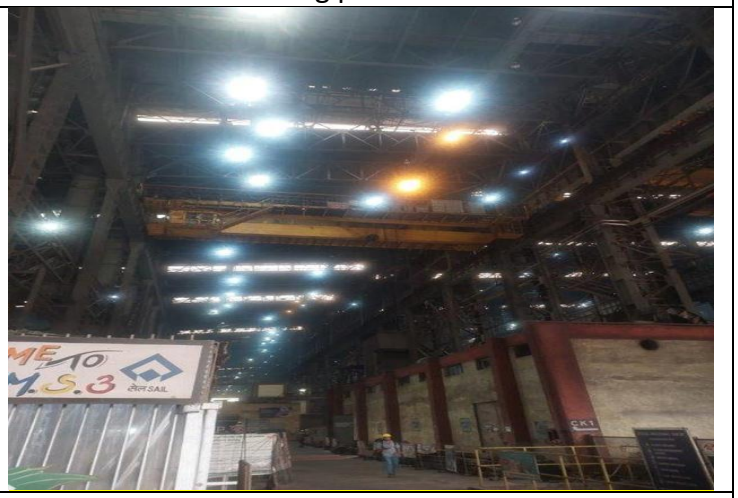
LD Gas Recovery Data

Monthwise data for BF gas generation/flaring is as under

	BF Gas Make (Total in ThM3)	BF Gas flared (Total in ThM3)	percentage of gas flared
Apr'24	758173.2	910.1	0.12
May'24	816028.6	564.4	0.07
June'24	812089.0	319.3	0.04
July'24	808937.5	242.7	0.03
Aug'24	804092.8	241.2	0.03

Sept'24	735740.2	144.0	0.02
Oct'24	833524.6	74.4	0.01
Nov'24	805926.6	72.0	0.01
Dec'24	871732.2	1046.0	0.12
Jan'25	796088.3	954.0	0.12
Feb'25	757797.0	833.5	0.11
Mar'25	839790.8	923.7	0.11
24-25	9639921.0	6325.5	0.07

Note: - Entire LD gas recovered is injected into CO/BF gas pipeline as per need for maintaining optimum network pressure

ix.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly	2x100 Kw solar power generation on roof tops of Bhilai Niwas has been installed & provision for online monitoring & recording of the power generation has also been developed. 15MW floating solar unit installation in progress and likely commissioning in August'25
x.	Provide LED lights in their offices and residential areas	. Extensive use of LED lights in their offices and residential areas is being practiced.
xi.		

Extensive use of LED lighting inside the plant

	Ensure installation of regenerative type burners on all reheating furnaces	Regenerative type burners are being used for all reheating furnaces.
VI	**Waste management**	
i	An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/ I shall be installed to use slag as river sand in construction industry	All the BF-Granulated slag generated in BSP is being supplied to Cement Industry. In future if & when there is shortage of demand from Cement Industry BSP will offer the slag to construction industry through a viable mechanism.
•	In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery	NA, At BSP the coke ovens are of recovery type.
ii.	Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens)	At BSP Tar Sludge is being blended with coal charged in coke ovens & waste lubrication oil is being treated in a separate oil reclamation unit and recycled back after recovery/regeneration. The skimmed oil is being sold to authorized recyclers.
		
iii.	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed	Carbon recovery is being done through sludge filtration units. Sludge filtration units have been installed at SMS-3 and BF-8, the filtered sludge is being sold

		
iv.	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS	At BSP recovery of scrap, metallic and flux is being done. The recovered scrap, iron fines, Lime fines, Mill scales is being recycled to BF & Sinter plants.
v.	Used refractories shall be recycled as far as possible	Being done
		

Refractories are being collected for recycling purpose		
vi.	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 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	At BSP SMS/BOF slag is being processed into different size fractions and recycled back to Sinter & BF as replacement of flux. BSP is also exploring methodologies for use of BOF slag for road making, railway ballast & other applications. We are seeking the services of Centre for Construction Development & Research National Council for Cement and Building Materials for exploring alternative applications for BOF slag. Other Central R&D initiatives in SAIL for BOF slag& 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-32 at WB • Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development & 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.
vii.	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and	100% utilization of fly ash as per Fly-ash rules is being followed at BSP. At BSP fly ash generation is very less as the

	Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office	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.
viii.	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area	Being Complied.
ix.		
	OIL TRAY installed at SMS 3- CK-1	**OIL TRAY installed at SMS 3- CK-2**
x.	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens	The sludge & other hazardous wastes are disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter is being recycled to coke ovens or sold to authorized recyclers.
xi.	Kitchen waste shall be composted or converted to biogas for further use	Kitchen waste is composted and used for Horticulture as manure. (photo-SLRM) All wet waste & kitchen waste from

		plant canteens and households is composted at SLRM centre
Compost pits at SLRM centre. 		
	Green Belt	
i.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant	• **Since 2019, BSP has done the plantation in additional areas to achieve the covering an area of 33% of the total project area.** • **BSP's green belt coverage comes to 36.34 %.** • In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. • In the year 2024-25(April-March), BSP has planted 8237 trees within the plant premises & township. BSP has planted 4563917 nos of trees covering an area of 1826 Hectares till Mar.-2025
i.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	BSP maintains its GHG emissions inventory & also the emission data is submitted to world steel association(WSA) every year under its commitment as member under Climate Action
ii.	Public hearing and Human health issues	
VII	Emergency preparedness plan based on the Hazard identification and	At BSP all departments have prepared their own Emergency

I.	Risk Assessment (HIRA) and Disaster Management Plan shall be implemented	preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan. The documents are approved by Factory Inspector. Regular mock-drills are organized to check the effectiveness of the EPP/DMPs and are updated based on the mock drill review and also based on recommendations from expert agencies engaged to review the safety management of BSP .
i.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment(PPE) as per the norms of Factory Act	National occupation Health Centre (NOHC) set-up at BSP regularly carry out heat stress analysis for the workmen who work in high temperature work zone . All the workmen are mandatorily provided with Personal Protection Equipment(PPE) as per the norms of Factory Act
ii.		
	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Complied (At BSP expansion job has already been completed)
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	Being Complied. Occupational health surveillance of the workers is being done regularly
iv.	Corporate Environment Responsibility	
IX.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility	A detailed status report on CER activities enclosed at **Flag-C**
i.	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 / deviation/ violation of the environmental / forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental / forest/ wildlife norms/ conditions and /	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 & in case of non-compliance received

	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-	by statutory authorities it is reported to Board along with action plan in the next board meeting. • The Board Meetings are held once every month. • All the Environment & related Clearances & status of compliances are shown on company's 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.
ii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization	• BSP has a separate Environmental Department with well-equipped laboratory. • Adequate Qualified executive & non-executive personnel have been posted to the department & Lab • The department is headed by a senior officer of the rank of Chief General Manager 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)
iii.	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked	• A Detailed action plan for implementation of EMPs along allocation of funds has been prepared & progress is being monitored on regular basis.

	for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of, action plan shall be reported to the Ministry/ Regional Office along with the Six Monthly Compliance Report.	• Copy of the progress of implementation of action plan is enclosed **(Flag-H)**
iv.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	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 June-2024.
v.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants have been complied.
vi.	Miscellaneous	
X.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently	Complied. Advertisements given in English & local news papers on 08/06/2029 Environmental clearance granted to BSP has been placed in the web portal of SAIL.
i.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt	Complied
ii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half yearly basis	Complied.
iii.	The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company	The monitoring data is being displayed at the Company's main gate & in a public place/market area located in Township thorugh large electronic Display Boards. The monitored data is also placed in Company's web portal
iv.	The project proponent shall submit six-monthly reports on the status of	Complied

	the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal	
v.	The project proponent shall submit the environmental statement for each financial year in Form-Y lo the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company	Complied
vi.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project	Complied
vii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government	Complied.
viii.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee	Complied
ix.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and climate Change (MoEF&CC)	Complied
x.	Concealing factual data or submission of false /fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment(Protection) Act, 1986	Complied
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Agreed
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions	Agreed
xiii.	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	Agreed

xiv.	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Counts and any other Court of Law relating to the subject matter	Agreed
xv.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Sction16 of the National Green Tribunal Act,2010	Agreed

This issues with the approval of the Competent Authority.