



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

CGM(EnMD)/B-8/2024/183

Date: 28/06/2024

To,

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

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

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

Respected Sir,

Six monthly compliance report (October 2023 to March -2024) 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,


05/07/2024
(Dibyendu Lal Moitra)
CGM (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

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हर किसी की जिंदगी से जुड़ा हुआ है सेल

There's little bit of SAIL in everybody's life

Half Yearly Compliance Report**2023****01 Jun(01 Oct - 31 Mar)****Acknowledgement**

Proposal Name	Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by Mis Steel Authority of India Limited (SAIL) located at Bhilai, District Durg, Chhattisgarh- Amendment in Environment Clearance - regarding.		
Name of Entity / Corporate Office	Ms.Uma Katoch		
Village(s)	N/A		
District	DURG		
Proposal No.	IA/CG/IND/260774/2022 dtd 11/03/2022.	Category	Industrial Projects - 1
Plot / Survey / Khasra No.	N/A	Sub-District	N/A
State	CHHATTISGARH	Entity's PAN	*****7062F
MoEF File No.	F. No. IA-J-1101112812007-IA 11 (I)	Entity name as per PAN	STEEL AUTHORITY OF INDIA LTD

Compliance Reporting Details

Reporting Year 2023
Remarks (if any)
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
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Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	MISCELLANEOUS	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to the Regional Office of MoEF&CC. 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 behavioral safety is being organized regularly (Report enclosed at Flag-B)		Date: 03/07/2024
2	Corporate Environmental Responsibility	All CER activities as committed in the reply to the ADS letter dated 02.01.2019 shall be completed in the financial year 2019-20.
PPs Submission: Complied BSP has initiated action for completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. Due to the prevalence of COVID pandemic (1st wave from March to November-2020 and 2nd wave from March to June-2021) there has been delay in completion of the projects. However, presently the CER projects are progressing well and likely to be completed by March-2024. A detailed status report on CER activities enclosed at Flag-C		Date: 09/07/2024
3	WASTE MANAGEMENT	100 % SMS -Slag utilization shall be ensured after conditioning /steam curing.
PPs Submission: Complied About 55 Percentage the BOF slag is presently being recycled back in to steel making process and also utilized in Road Making and filling of the low lying areas. BSP has also started selling BOF slag to the interested buyers (Cement Plants 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 utilized as an aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report, wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. Number of other R and D efforts are being taken-up by SAIL in association with other agencies, which are still in nascent stage. After the completion of these studies, exploring the options for commercial scale/bulk utilization of BOF slag will be taken-up. BSP has given an assignment to NIT-Raipur for Assessing the suitability of Twin Hearth Furnace(THF)/Steel Slag as pavement material and feasibility of THF/Steel slag in construction of the rural roads. NIT Raipur has submitted the final report in June-2021.The report was submitted to CECB and will be shared with all agencies involved in road making to promote the use of steel slag in Road making and other infrastructure projects.		Date: 03/07/2024
4	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 Office of the MoEF&CC.
PPs Submission: Complied SMS-1 phased-out in March-2021 Decommissioning plan along with greenbelt development will be submitted to MoEF&CC.		Date: 03/07/2024
5	GREENBELT	Scheme for green belt development in the remaining area for covering 33% of total project area shall be submitted to the Regional office of the MoEF&CC.
PPs Submission: Complied BSP has planted 4555680 Nos of trees in an area covering about 1892 hectares till March-2024. In the year 2023-24 BSP has been planted 40680 Trees. 40215 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2023-24(April-		Date: 03/07/2024

March), BSP has planted 40680 trees within the plant premises and township covering an area of about 20-25 hectares. Further Green belt required to be developed to meet the Percentage criteria is about 280 Hectares . However by excluding the two reservoirs/cooling ponds area of 1100 hectares from the total area of the project, BSP s green belt coverage comes to 36.34 Percentage.		
6	AIR QUALITY MONITORING AND PRESERVATION	Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party,
PPs Submission: Complied Standard Operating Procedures (SOPs) are developed for performance monitoring of pollution control devices and performance monitoring every year internally Performance monitoring of pollution control devices at every three year through an accredited third party will also be conducted.		Date: 03/07/2024
7	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.		Date: 03/07/2024
8	WASTE MANAGEMENT	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.
PPs Submission: Complied Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 will be complied.		Date: 03/07/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	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 The installation of the system shall be explored in future based on feasibility .		Date: 03/07/2024
2	AIR QUALITY MONITORING AND PRESERVATION	Secondary emission control system shall be provided at SMS Converters.
PPs Submission: Complied Secondary emission control system has been provided for SMS-3 Converters.		Date: 03/07/2024
3	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 August-2020.		Date: 04/07/2024
4	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 Complied		Date: 04/07/2024
5	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. Environmental clearance granted to BSP has been placed in the web portal of SAIL.		Date: 04/07/2024
6	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: 04/07/2024
7	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: 04/07/2024
8	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 Complied. The monitoring data is being displayed at the Company's main gate and in a public place/market area located in Township through large electronic Display Boards. The monitored data is also placed in Company's web portal		Date: 04/07/2024
9	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: 04/07/2024
10	MISCELLANEOUS	The project proponent shall submit the environmental statement for each financial year in Form-Y to 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: 04/07/2024
11	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: 04/07/2024
12	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: 04/07/2024
13	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: 04/07/2024
14	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 Will be Complied/agreed.		Date: 04/07/2024
15	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 Agreed.		Date: 04/07/2024
16	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: 04/07/2024
17	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: 04/07/2024
18	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: 04/07/2024
19	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 Courts and any other Court of Law relating to the subject matter
PPs Submission: Complied Agreed.		Date: 04/07/2024
20	MISCELLANEOUS	Any appeal against this EC shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010
PPs Submission: Complied Agreed.		Date: 04/07/2024
21	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 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: 04/07/2024
22	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.		Date: 03/07/2024
23	Statutory compliance	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (prevention & Control of Pollution) Act 1974 from the concerned State pollution control Board/ Committee.
PPs Submission: Complied Online application for Consent to Establish has been submitted to Chhattisgarh Environment Conservation Board (CECB) on 22/07/2019 The Consent to Establish was granted by CECB Ref.no. 8779/TS/CECB/2021,dated 08/01/2021 for Five Years.		Date: 03/07/2024
24	Statutory compliance	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water

		/ from the competent authority concerned in case of drawl of surface water required for the project.
PPs Submission: Complied No ground water will be used for the project.		Date: 03/07/2024
25	Statutory compliance	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules,2016 as amended from time to time.
PPs Submission: Complied BSP has obtained the Authorization for the handling of the Hazardous Waste Generated in the Plant from Chhattisgarh Environment Conservation Board which is valid up to 16/04/2024. Copy of the authorization is enclosed at Flag-D		Date: 03/07/2024
26	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 {E} dated 31st March 2012(Integrated iron & Steel} G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
PPs Submission: Complied 31 Nos of CEMs have been installed covering all the process stacks and connected to SPCB and 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: 03/07/2024
27	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: 03/07/2024
28	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 120° 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 and Benzo (a) Pyrene are being measured (Note : Benzene and Benzo (a) Pyrene is measured offline)		Date: 03/07/2024
29	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: 03/07/2024
30	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: 03/07/2024
31	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 /fugitive emissions (October-2021 to March-2022) is enclosed at Flag-E		Date: 03/07/2024
32	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: 03/07/2024
33	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: 03/07/2024
34	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 appropriate treatment. A briquetting/ agglomeration plant on BOO basis will be installed in next 3 years for increasing the utilization of process sludges/dusts.		Date: 03/07/2024
35	AIR QUALITY MONITORING AND PRESERVATION	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
PPs Submission: Complied At BSP railway wagons are being used for transportation of 95 Percentage of the raw materials like		Date: 03/07/2024

		coal and Iron ore. For internal transportation of raw materials leak proof trucks/dumpers are being used after proper covering.	
36	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: 03/07/2024
37	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: 03/07/2024
38	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, and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber are being measured.			Date: 03/07/2024
39	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 Plan.			Date: 04/07/2024
40	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 in new units under Modernization In future more such units will be installed based on feasibility.			Date: 04/07/2024
41	ENERGY PRESERVATION MEASURES	Restrict Gas flaring to < 1%	
PPs Submission: Complied Complied/Noted.			Date: 04/07/2024
42	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.			Date: 04/07/2024
43	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: 04/07/2024
44	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: 04/07/2024
45	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: 04/07/2024
46	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: 04/07/2024
47	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/regeneration. The skimmed oil is being sold to authorized recyclers		Date: 04/07/2024
48	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 Presently BSP is in the process of setting-up a sludge briquetting plant where all the sludges generated from the processes will be used. However BSP will also explore the process of recovery of elemental carbon from GCP sludges in future.		Date: 04/07/2024
49	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: 04/07/2024
50	WASTE MANAGEMENT	Used refractories shall be recycled as far as possible
PPs Submission: Complied Being done.		Date: 04/07/2024
51	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 100% reuse of rejects from Waste Recycling Plant
	PPs Submission: Complied At BSP SMS/BOF slag is being processed into different size fractions and recycled back to Sinter and BF as replacement of flux. BSP is also exploring methodologies for use of BOF slag for road making, railway ballast and other applications. We are seeking the services of Centre for Construction Development and Research National Council for Cement and Building Materials for exploring alternative applications for BOF slag. BSP has given an assignment to NIT-Raipur for assessing the suitability of steel slag as pavement material and feasibility of Steel slag in construction of the rural roads. The final report submitted in June-2021 is being shared with all govt and pvt agencies involved in Construction/road making activities to promote its use as construction/pavement material. Other Central R and D initiatives in SAIL for BOF slag and BF Slag utilization: Pilot scale project on steam maturing of BOF Slag at BSL, Bokaro Field trial on assessing suitability of weathered BOF slag as rail track ballasts at BSL, Bokaro Supply of Air Cooled BF slag for construction of road under Four Lining Project of NH-32at WB Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development and Research of National Council for Cement and Building Materials (NCCBM), under the administrative control of Ministry of Commerce and Industry, Government of India, Study on use of BOF slag as soil ameliorating agent in agriculture through Indian Agricultural Research Institute (IARI), New Delhi. Use of steel slag in Open Graded Asphalt Friction Courses (OGAFC) through Department of Civil Engineering, IIT Guwahati.	Date: 04/07/2024
52	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 Percentage 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: 04/07/2024
53	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: 04/07/2024
54	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 acid sludge and other hazardous wastes are disposed of as per the Hazardous and Other waste (Management and Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter is being recycled to coke ovens or sold to authorized recyclers.	Date: 04/07/2024
55	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.	Date: 04/07/2024
56	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 BSP has planted 4555680 nos of trees in an area covering about 1892 hectares till March-2024. In the year 2023-24 BSP has been planted 40680 Trees. 40215 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2023-24 (April-March), BSP has planted 40680 trees within the plant premises and township covering an area of about 20-25 hectares. Further Green belt required to be developed to meet the 33 Percentage criteria is about 280 Hectares . However by excluding the two reservoirs/cooling ponds area of 1100 hectares from the total area of the project, BSP s green belt coverage comes to 36.34 Percentage.		Date: 04/07/2024
57	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: 04/07/2024
58	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/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: 04/07/2024
59	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: 04/07/2024
60	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 major expansion job has already been completed)		Date: 04/07/2024
61	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: 04/07/2024
62	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 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 there has been delay in completion of the projects. However, presently the CER projects are progressing well and likely to be completed by March-2024. A detailed status report on CER activities enclosed at Flag-C			Date: 04/07/2024
63	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 / 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: 04/07/2024
64	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 General Manger who reports to Executive Director (works). At corporate level a separate environment management Division has been set-up . At corporate level the division is headed by Executive Director who reports to Director (technical)			Date: 04/07/2024
65	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 Defaming systems have been provided for BF-8 and BF-7.			Date: 03/07/2024
66	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 Regular monitoring of coke oven stack emissions is being done and The Gaseous emissions from Coke ovens are meeting the standards.		Date: 03/07/2024
67	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 the imported coal has Sulphur content less than 1 Percentage.		Date: 03/07/2024
68	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: 03/07/2024
69	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: 03/07/2024
70	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 has recommended wet gas cleaning systems for BFs and SMS convertors as the Dry Gas Cleaning Plant are not feasible.		Date: 03/07/2024
71	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: 03/07/2024
72	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 2012 {Integrated iron & Steel}); G.S.R 414(E) dated 30 May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs 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: 03/07/2024

73	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 recognized under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out.		Date: 03/07/2024
74	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-2021 to March-2022) are enclosed (Flag-F)		Date: 03/07/2024
75	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 31st March 2012 (integrated iron & Steel); G-S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time 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 31st March 2012 (integrated iron and Steel)		Date: 03/07/2024
76	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). Effluent from outlet-A (About 5000 m3/Hr) is already being recycled and the recycling schemes for Outlet-B (450 m3/hr) and Outlet-C (2500 m3/hr) are in advanced stage of completion.		Date: 03/07/2024
77	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: 03/07/2024
78	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: 03/07/2024
79	WATER QUALITY MONITORING AND	Tyre washing facilities shall be provided at the entrance of the plant gates

	PRESERVATION	
PPs Submission: Complied Complied.		Date: 03/07/2024
80	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 Use of Dispersant Surfactant. The option of CO2 injection is also being explored.		Date: 03/07/2024
81	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall practice rainwater harvesting to maximum possible extent
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 /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.		Date: 03/07/2024
82	WATER QUALITY MONITORING AND PRESERVATION	Treated water from ETP of CCIBP shall not be used for coke quenching
PPs Submission: Complied At COB-11 dry quenching system has been installed.		Date: 03/07/2024
83	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: 03/07/2024
84	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: 03/07/2024
85	Noise Monitoring & Prevention	Noise monitoring and prevention
PPs Submission: Complied 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: 03/07/2024

86	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)		Date: 03/07/2024
87	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: 03/07/2024
88	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: 04/07/2024
89	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: 04/07/2024
90	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: 04/07/2024
91	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: 04/07/2024
92	ENERGY PRESERVATION MEASURES	Use hot charging of slabs and billets/blooms as far as possible
PPs Submission: Complied Hot charging of slabs and billets/blooms is being done at Rolling mills.		Date: 04/07/2024
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.		

FLAG-A

**Safety Mock
Drill**

ENERGY MANAGEMENT DEPARTMENT
BHILAI STEEL PLANT

SUB: MOCK DRILL CONDUCTED AT ROLLING MILLS GAS BOOSTER STATION, EMD. Dated:30/11/2023

Incident in Brief:

On 30/11/2023 morning at 10.55 AM, EMD Mech. group was engaged in fabrication work job near R-6 out let U seal of Rolling Mill gas Booster station. CO concentration of the site before start of the job was monitored by portable CO monitor and was nil. At 11.00 AM, group noticed the portable CO monitor started showing concentration above 1900 ppm. Mr. Rishi Kumar, supervisor who was monitoring fabrication job stopped the work and asked his group to immediately evacuate. Suddenly fire observed in the U seal drain valve flange near R-6 U seal. Rishi Kumar rushed to control room and informed Aswani Patil, operator and Mr Das, AGM. Meanwhile mech group immediately moved away from the leakage site and assembled at Assembly Point. Operators immediately informed the incident to Energy Centre and Mr. Ajay Gajghate (GM & Section i/c). The Siren was blown at 11.02 AM by the operator to alert the persons about the emergency. Immediately, all the persons working in Rolling Mill gas Booster station complex reported at Assembly Point. Meanwhile, Energy Centre shift i/c informed about the emergency to various agencies/persons (annexture-1 attached). Mr. Das, AGM took the charge of Incident Controller of the site, barricaded the gas affected area and managed the situation till Mr. Rakesh Joshi, Chief Incident Controller arrived at the site. All the agencies/persons immediately reached at site. Fire brigade doused the fire. No persons got affected. Head counting was done at Assembly point and found normal. Meanwhile, CISF had cordoned off the road. Later on, Gas Safety team identified gas leakage from flange of packing of R6 U seal drainer bottom valve and arrested the gas leakage by tightening the bolts. After confirming CO concentration nil in the area, they gave clearance to Mr. Rakesh Joshi (CGM & Chief Incident Controller) EMD. Finally, the Siren sound was blown to declare normalcy at 11.20 AM.

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 incident and the drill carried out.

Observations:

1. All the persons and agencies reached the site with required preparedness in time.
2. The communication system, rescue & evacuation, cordon off, risk mitigation and medical service found satisfactory. Energy Centre advised to inform the Plant Control after normalcy of incident.
3. The location board, Assembly Point, route signage, Siren, Wind Socks, Emergency control phone numbers, fixed and portable CO monitors, first aid kit and breathing apparatus, exist at the site.
4. Operators are found well trained to use breathing apparatus and have proficiency to handle fire and mitigation of hazard.
5. Overall the Mock drill was conducted satisfactorily.

Members Present at Post Mock Drill Review meeting:

1. Rakesh Joshi, (CGM)EMD
2. S. K. Dashore, GM(EMD)
3. Bonya Mukherjee, GM, Energy centre(EMD)
4. Ajay Gajghate, GM, (GCP and 2.5 MT, EMD)
4. S. Ramani, GM, Gas safety(EMD)
5. Y. Y. Konnur, GM & DSO(EMD)
6. Amit Khatre, DY CFO(FIRE BRIGADE)
7. Indrajit Das AGM, 2.5 MT(EMD)
8. S R Dhruw, Sr Mgr, GS(EMD)
9. T. Bharadwaj, JO, Energy Centre AM(EMD)
10. Ajay Gone, AGM(SED)
11. Swatantra Kumar, Master Instructor(Civil Defence)
11. K R Sahu Ey. Operator(SED)

Annexure-1

S.NO	AGENCY/PERSON	INFORMED TIME	ARRIVAL TIME
1	Information to Energy centre and Section I/C by Booster operator.	11.02 AM	
	Information by Energy Centre to following agencies/persons.		
2	Fire brigade	11.03 AM	11.06 AM
3	MMP	11.03 AM	11.07 AM
4	Gas Safety	11.04 AM	11.10 AM
5	CISF	11.04 AM	11.08 AM
6	HOD	11.05 AM	11.09 AM
7	DSO	11.05 AM	11.09 AM
8	SED	11.06 AM	11.15 AM
9	Plant control	11.06 AM	-
10	Civil Defence	11.07 AM	11.10
11	Energy centr I/C	11.07 AM	-

Y. Y. Konnur
Y Y KONNUR 6/12/23
GM & DSO(EMD)

वा.वा.य.कोन्नुर/Y.Y.KONNUR
विभागीय सुरक्षा अधिकारी/महापंचक/DSO/GM
ऊ.प्र.वि./E.M.D.
सि.नं. 1/2.S.P

REPORT OF SAFETY TRAINING AND WORK SHOP			Oct-23 to Mar-24	
SUMMERY REPORT			Year-2023-24	
			Progs.	Participants
EXECUTIVES			89	972
NON EXECUTIVES			273	3992
REGULAR EMPLOYEES			362	4964
CONTRACTUAL WORKERS			14	334
CONTR. WORKERS REFRESHER TRAINING (AT WORK AREA)			275	5264
HEIGHT PASS (WORKS AREA)				3756
HEIGHT PASS (PROJECTS AREA)				128
TOTAL HEIGHT PASS ISSUED				3884
Sl.	Name of the Programme	Dura tion	Yearly Cumulative	
		(Days)	Progs.	Participants
EXECUTIVES				
1	Audit training		0	0
2	Bow Tie Analysis		0	0
3	Chemical Safety		0	0
4	Consequence Analysis		0	0
5	Contractor Labour Safety in Steel Industries		0	0
6	Contractor safety Management system		5	99
7	Defence Driving (Four Wheeler)		6	61
8	Defensive driving		0	0
9	DSOs – Role & Responsibility		0	0
10	Electrical safety training by SIEMENS		0	0
11	Emergency Preparedness plan		0	0
12	General Safety Awareness (LGI)		2	83
13	HAZOP Training (By NSC)		0	0
14	High hazard Process Safety information and Hazard mapping		1	3
15	Human Factors		6	52
16	Incident Investigation		0	0
17	Intensify safety training		1	17
18	Interaction for Safety Encouragement & Engagement (i-SEE)		8	107
19	Leadership		0	0
20	Operating Authority - Role & Responsibility for Safety of Contractor Workers		0	0
21	Road vehicle operation		1	3
22	Safety in Liquid Metal Handling		0	0
23	Safety in Maintaining Physical work environment		0	0
24	Safety in Material Handling		1	1
25	Safety in Operation of Conveyor Belts		0	0
26	Safety Training for HODs & Factory Managers		0	0
27	standard awareness on storage,handling &use of gas cylinder		1	18

Sl.	Name of the Programme	Dura tion	Yearly Cumulative	
		(Days)	Progs.	Participants
28	standard awareness in operation & maintenance of conveyor belt.		1	4
29	Standard Awareness on Electrical Safety		1	8
30	Standard awareness on Energy isolation		2	11
31	standard awareness on illumination at work place		4	50
33	Standard awareness programme on Confined Space		3	30
34	Standard awareness programme on High Hazard Process		2	20
35	Standard awareness programme on HIRA/JSA		12	139
36	Standard awareness programme on Permit to Work		12	141
37	Standard awareness programme on working at height		4	28
38	Standard awareness on barricating & signage		1	5
39	Training on near miss		0	0
40	Train the Trainer on Behavioral intervention		0	0
41	Train the Trainer on Confined Space		0	0
42	Train the Trainer on Defensive Driving		0	0
43	Train the trainer on Electrical Safety		1	11
44	Train the trainer on Energy isolation		0	0
45	Train the Trainer on High Hazard Process		0	0
46	Train The Trainer On Human Factor		0	0
47	Train the Trainer on Incident Investigation		0	0
48	Train the trainer on PPEs		0	0
49	Train the trainer on Working At Height		0	0
50	Electrical safety		5	17
51	TTT contract management system		6	50
52	Recuse training		3	14
		Total	89	972
NON-EXECUTIVES				
1	Achieving awareness in Occupational, Health & First Aid		3	56
2	Behavior Based Safety		1	6
3	Chemical Safety		1	19
4	Defensive driving programme		74	1145
5	Electrical Safety training		10	81
6	Gas Safety in Steel Industry		6	66
8	General Safety Awareness (LGI)		2	46
9	Incident investigation training		2	2
10	Standard awareness on operation & maintenance of conveyor belt		1	6
11	Intensify Safety Training		3	29
12	Interaction for Safety Encouragement & Engagement (i-SEE)		14	155
13	Material Handling and Rigging practices		5	86

Sl.	Name of the Programme	Dura tion	Yearly Cumulative	
		(Days)	Progs.	Participants
14	Refresher training safe operating practices of Hydromoc crane/hydra/fowler		0	0
15	Rescue training		3	29
16	job specific training		1	17
17	Safety Circle Training		0	0
18	Safety in crane operation & maintenance		0	0
19	Safety in Traffic Operation (for T&D)		6	99
20	Defensive driving for four wheeler		1	6
21	Safety Proficiency for Elect.Maint.& Operation		0	0
22	Safety Proficiency for Mech.Maint.&Mtrl. Handling		0	0
23	Standard awareness on illumination at work place.		2	51
24	train the trainer (Defensive driving)		0	0
25	Safety training for Gas cutter & welders		1	18
26	Safety training on road vehicle operation		1	16
27	Safety Training on Human Factors		72	1235
28	Safety Training on Near-Miss Cases		0	0
29	Standard awareness on barricading & signage		3	35
30	standard awareness on confined space		6	56
31	standard awareness on electrical safety		5	74
32	standard awareness on engery isolation		3	77
33	Standard awareness on HHP		4	31
34	Standard Awareness on HIRA/JSA		11	130
35	Standard awareness on Permit to work		15	234
36	Standard Awareness on PPE		3	26
37	standard awareness on storage & handing of gas cylinder		3	27
38	Standard Awareness on WORKING AT HEIGHT		9	106
39	Trian the Trainer on ISEE		0	0
40	Standard awareness on illumination at work place.		2	28
		Total	273	3992
CONTRATUAL WORKERS				
1	'JAGRITI'-Awareness Prog (Cont. Workers)		0	0
2	Specialized Safety Training Programme on "Fatality Risk Control"		0	0
3	Safety Training for Shunting Staff of T&D		7	142
4	Safety Training on Human Factors		1	24
5	Safety Training for Crane operators (Cont.Workers)		0	0
6	Awareness programme on health & safety		0	0
7	Safety Refresher Training For Contractor Workers		3	86
8	safety Training for Co contractor workers		3	82
		Total	14	334



FLAG-C

Corporate Environment Responsibility

Status As On March 2024



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

(Status as on March 2024)

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 March 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. N o.	SAIL Plant /Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on March 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 March 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 March 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.	15.00	Completed.
			CC road to be constructed.		
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 March 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 March 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

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
October 2023 to March 2024

FLAG E

E-1

Stack emission

BHILAI STEEL PLANT
October 2023 to March 2024

Month- October 2023

A. Stack emission											
Name of the Plant (1)	Stack connecte d 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-1 (Process)	Stoves	60	2.5	GCP (Scrubber)	25 Oct,11:00-12:05 (65 Minute)	1104	59144	24.35	136.24	43.24	0.48% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	26 Oct,11:00-12:00 (60 Minute)	2221	123154	18.91	136.24	146.23	0.42% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	25 Oct,02:15-03:15 (60 Minute)	2497	121184	23.86	107.42	135.71	0.49% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	19 Oct, 11:50-12:50 (60 Minute)	3367	107516	19.38	68.12	39.48	0.50% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	21 Oct, 11:20-12:20 (60 Minute)	7222	168253	21.35	166.00	60.16	0.52% V/V
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	12 Oct , 10:00-10:40 (40 Minute)	1800	116421	49.17	74.50	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	12 Oct , 11:00-11:40 (40 Minute)	2880	113273	42.51	61.80	-	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	17 Oct, 11:30-12:05 (35 Minute)	-	-	39.34	-	-	-
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
October 2023 to March 2024

(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
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	09 Oct, 10:25-11:25 (60 Minute)	815	122912	46.58	228.56	96.20	2.38Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	09 Oct, 11:40-12:40 (60 Minute)	849	112556	45.91	211.00	86.56	2.43Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	10 Oct, 10:00-11:00 (60 Minute)	815	120977	43.00	186.00	231.50	2.42Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	11 Oct, 10:15-11:15 (60 Minute)	815	117286	41.68	197.40	217.60	2.41Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	11 Oct, 11:30-12:30 (60 Minute)	815	114428	42.09	187.30	212.40	2.53Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	16 Oct, 10:30-11:40 (70 Minute)	1448	184439	45.18	442.70	114.60	2.54Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	16 Oct, 11:55-12:55 (60 Minute)	1448	225748	48.93	337.90	182.30	2.44Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	10 Oct, 11:20-12:20 (60 Minute)	1729	183302	38.58	262.50	168.30	2.47Kg/T coke
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 Oct, 10:40-11:20 (40 Minute)	2080	222883	43.53	93.50	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	03 Oct, 11:30-12:05 (35 Minute)	2080	239651	44.70	69.50	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	02 Oct, 11:25-12:00 (35 Minute)	2086	230303	45.44	71.00	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

SP-2 (M/c-4)	Sintering Machine	100	6	ESP	02 Oct, 10:30-11:10 (40 Minute)	2086	235944	42.44	82.50	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	04 Oct, 12:20-01:05 (45 Minute)	7810	449454	45.83	181.64	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	05 Oct, 11:30-12:10 (40 Minute)	2250	481207	46.98	66.52	-	-
SP-3, M/c-1(Space dedusting)	Sintering Machine				30 Oct, 12:00-12:40 (40 Minute)	-	-	48.6	-		
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				30 Oct, 11:00-11:40 (40 Minute)	-	-	48.34	-		
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	18 Oct, 10:30-11:15 (45 Minute)	144	60085	34.79	46.00		
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	13 Oct, 10:30-11:15 (45 Minute)	2406	112688	45.69	65.00	99.50	-
Boiler 2	Boiler	80	4.3	ESP	13 Oct, 11:30-12:15 (40 Minute)	2531	115376.3	41.46	90.4	122.4	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	07 Oct, 11:40-12:20 (40 Minute)	1976	82895	38.50	81.70	98.40	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	07 Oct, 11:45-12:30 (45 Minute)	2055	82629	36.86	91.60	103.70	-
Boiler 5	Boiler	80	4.3	ESP	06 Oct, 12:30-01:15 (45 Minute)	2285	119230	37.04	74.00	138.00	
Boiler 6	Boiler	80	4.3	ESP	06 Oct, 11:30-12:15 (45 Minute)	1789	313351	35.13	83.90	142.60	
Mills											
Wire Rod Mill	RHF	70	4.2	-	17 Oct, 12:30-01:30 (60 Minute)	-	-	24.28	-	-	-
Merchant mill	RHF	100	4.2	-	18 Oct, 12:00-01:00 (60 Minute)	-	-	18.16	-	-	-
Rail Mill	RHF	100	4.2	-	23 Oct, 11:45-12:50 (65 Minute)	-	-	22.32	-	-	-
Plate Mill	RHF-J1	100	5.0	-	24 Oct, 11:20-12:20 (60 Minute)	-	-	22.80	-	-	-
Plate Mill	RHF-J2	100	5.0	-	24 Oct, 10:05-11:05 (60 Minute)	-	-	21.97	-	-	-
BRM	RHF	70	5.3	-	20 Oct, 11:40-12:40 (60 Minute)	-	-	21.33	-	-	-
URM	RHF	-	-	-	20 Oct, 10:20-11:20 (60 Minute)	-	-	20.59			

BHILAI STEEL PLANT
October 2023 to March 2024

Month-November 2023

A.	Stack emission										
Name of the Plant (1)	Stack connecte d 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-1 (Process)	Stoves	60	2.5	GCP (Scrubber)	06 Nov,10:30-11:30 (60 Minute)	1275	61771	24.89	219.34	84.30	0.51% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	06 Nov,11:35-12:40 (65 Minute)	1907	120232	19.30	146.72	98.23	0.44% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	22 Nov,12:15-01:15 (60 Minute)	1958	128424	21.80	242.86	35.72	0.46% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	10 Nov, 12:10-01:15 (65 Minute)	3424	101777	22.10	79.32	53.18	0.54% V/V
BF-8 (Process)	Stoves	70	3.5	--do--	18 Nov, 12:00-01:00 (60 Minute)	7210	165918	22.13	180.00	86.48	0.50% V/V
BF-5 (Space dedusting)				Bag filter	22 Nov, 11:10-11:55 (60 Minute)	-	-	48.26			
BF-8 (Space dedusting)				ESP	10 Nov, 10:10-11:15 (65 Minute)	-	-	43.08			
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	04 Nov , 11:40-12:20 (40 Minute)	2880	112188	48.93	56.20	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	04 Nov , 10:30-11:15 (45 Minute)	1800	113133	32.37	62.80	-	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	27 Nov, 11:00-11:35 (35 Minute)	-	-	36.15	-	-	-

BHILAI STEEL PLANT
October 2023 to March 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 (Norm: 800mg/ Nm ₃)	NO _x (Norm: 500mg/ Nm3)	CO (Norm: 3 kg/T of Coke)
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	20 Nov, 11:15-12:15 (60 Minute)	592	116006	33.18	479.40	139.10	2.29Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	20 Nov, 12:25-01:35 (70 Minute)	592	112617	35.07	102.18	124.08	2.31Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	07 Nov, 10:50-11:55 (65 Minute)	905	114030	43.39	615.70	242.52	2.38Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	13 Nov, 12:00-01:00 (60 Minute)	581	117598	43.27	309.10	129.70	2.43Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	13 Nov, 10:45-11:45 (60 Minute)	581	114359	42.95	235.80	135.30	2.48Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	15 Nov, 10:35-11:35 (60 Minute)	844	224361	44.26	416.50	121.20	2.52Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	15 Nov, 11:45-12:45 (60 Minute)	844	240048	46.00	326.10	178.60	2.46Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	07 Nov, 12:10-01:10 (60 Minute)	1809	177916	42.58	337.93	251.92	2.41Kg/T coke
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	100	6	ESP	11 Nov, 11:00-11:40 (40 Minute)	1910	210511	44.75	64.40	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

	Machine										
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	11 Nov, 11:50-12:25 (35 Minute)	1910	251239	47.44	94.30	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	16 Nov, 11:20-11:55 (35 Minute)	1534	243194	44.00	88.25	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	16 Nov, 10:30-11:10 (40 Minute)	1534	224289	44.17	90.40	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	08 Nov, 10:30-11:15 (45 Minute)	8510	454107	45.56	170.50	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	09 Nov, 12:15-12:55 (40 Minute)	6855	486270	45.28	64.80	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				27 Nov, 01:15-02:00 (45 Minute)	-	-	49.10	-		
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				29 Nov, 01:35-02:15 (40 Minute)	-	-	46.86	-		
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	22 Nov, 09:15-10:00 (45 Minute)	157	62514	43.27	69.11		
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	01 Nov, 10:30-11:15 (45 Minute)	2110	111546	42.65	61.50	89.85	-
Boiler 2	Boiler	80	4.3	ESP	01 Nov, 11:25-12:05 (40 Minute)	2384	115657	45.41	84.2	121	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	02 Nov, 10:40-11:25 (45 Minute)	1865	82611	43.34	86.50	94.25	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	02 Nov, 10:35-12:25 (50 Minute)	2250	78292	38.99	64.50	85.20	-
Boiler 5	Boiler	80	4.3	ESP	21 Nov, 11:30-12:10 (40 Minute)	2431	119586	34.85	70.20	140.00	
Mills											
Wire Rod Mill	RHF	-	-	-	24 Nov, 12:00-01:00 (60 Minute)	-	-	20.64	-	-	-
Merchant mill	RHF	-	-	-	29 Nov, 11:15-12:15 (60 Minute)	-	-	19.46	-	-	-
Rail Mill	RHF	-	-	-	23 Nov, 12:00-01:00 (60 Minute)	-	-	20.15	-	-	-
Plate Mill	RHF-J1	-	-	-	30 Nov, 11:00-12:00 (60 Minute)	-	-	19.65	-	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

Plate Mill	RHF-J2	-	-	-	10 Nov, 10:30-11:40 (70 Minute)	-	-	18.99	-	-	-
BRM	RHF	-	-	-	17 Nov, 11:50-12:50 (60 Minute)	-	-	19.25	-	-	-
URM	RHF	-	-	-	17 Nov, 10:30-11:40 (70 Minute)	-	-	19.97			

BHILAI STEEL PLANT
October 2023 to March 2024

Month - December 2023

A.											
Name of the Plant (1)	Stack connecte d 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-1 (Process)	Stoves	60	2.5	GCP (Scrubber)	20 Dec,12:30-01:30 (60 Minute)	1717	63482	20.42	149.58	106.30	0.49% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	13 Dec,12:15-01:15 (60 Minute)	2416	119735	20.37	99.56	102.36	0.46% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	13 Dec,01:30-02:30 (60 Minute)	2185	121720	21.50	120.52	121.45	0.51% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	10 Nov, 12:10-01:15 (65 Minute)	3534	105561	20.36	82.32	55.19	0.50% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	18 Nov, 12:00-01:00 (60 Minute)	6509	175829	19.23	131.44	88.36	0.53% V/V
BF-7 (Space dedusting)				GCP (Scrubber)	16 Dec, 11:00-11:40 (40 Minute)	-	-	49.23			
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	06 Dec , 11:45-12:25 (40 Minute)	720	113548	49.39	38.90	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	06 Dec , 10:50-11:30 (40 Minute)	720	114425	38.60	56.20	-	-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	28 Dec, 11:00-11:35 (35 Minute)	-	-	33.98	-	-	-
A.											
Stack emission											

BHILAI STEEL PLANT
October 2023 to March 2024

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
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	11 Dec, 10:20-11:20 (60 Minute)	759	121227	38.67	521.40	101.52	2.34Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	11 Dec, 11:30-12:35 (65 Minute)	759	118176	42.88	110.04	167.20	2.30Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	16 Dec, 12:00-01:10 (70 Minute)	882	110852	45.89	580.00	230.00	2.35Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	25 Dec, 11:00-12:00 (60 Minute)	815	119093	45.00	298.68	127.84	2.41Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	25 Dec, 12:10-01:15 (65 Minute)	730	118299	43.95	209.60	127.84	2.44Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	04 Dec, 10:30-11:35 (65 Minute)	1106	222066	44.37	227.94	133.84	2.49Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	04 Dec, 11:45-12:50 (60 Minute)	1106	225835	48.11	448.11	144.76	2.50Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	02 Dec, 10:30-11:30 (60 Minute)	1689	175899	41.48	320.05	224.50	2.39Kg/T coke
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, 10:40-11:15 (35 Minute)	1736	255643	44.96	63.80	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

SP-2 (M/c-2)	Sintering Machine	100	6	ESP	19 Dec, 11:30-12:05 (35 Minute)	1736	250100	41.48	72.50	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	18 Dec, 11:00-11:40 (40 Minute)	1695	225536	46.53	55.00	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	18 Dec, 12:00-12:40 (40 Minute)	1695	234732	47.44	48.90	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	09 Dec, 10:45-11:30 (45 Minute)	6468	538768	46.21	126.10	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	08 Dec, 10:30-11:15 (45 Minute)	8009	494327	49.25	61.82	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	13 Dec, 11:20-12:00 (40 Minute)	144	65517	41.75	48.3		
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	12 Dec, 10:30-11:15 (45 Minute)	2090	120852	41.76	17.86	69.56	-
Boiler 2	Boiler	80	4.3	ESP	12 Dec, 11:30-12:15 (45 Minute)	2575	115701	48.24	26.23	65.44	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	15 Dec, 10:00-10:45 (45 Minute)	1752	85097	38.09	39.10	68.15	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	05 Dec, 11:35-12:20 (45 Minute)	425	87005	47.67	60.82	78.25	-
Boiler 5	Boiler	80	4.3	ESP	15 Dec, 12:50-01:35 (45 Minute)	2422	118263	48.36	45.40	86.40	
Boiler 6	Boiler	80	4.3	ESP	15 Dec, 11:55-12:40 (45 Minute)	1631	315372	43.46	47.11	75.20	
Mills											
Wire Rod Mill	RHF	-	-	-	27 Dec, 10:00-11:00 (60 Minute)	-	-	20.08	-	-	-
Merchant mill	RHF	-	-	-	22 Dec, 12:00-01:05 (65 Minute)	-	-	20.48	-	-	-
Rail Mill	RHF	-	-	-	27 Dec, 11:30-12:30 (60 Minute)	-	-	20.34	-	-	-
Plate Mill	RHF-J1	-	-	-	07 Dec, 10:40-11:40 (60 Minute)	-	-	17.91	-	-	-
Plate Mill	RHF-J2	-	-	-	07 Dec, 12:00-01:05 (65 Minute)	-	-	15.07	-	-	-
BRM	RHF	-	-	-	22 Dec, 10:30-11:30 (60 Minute)	-	-	19.06	-	-	-
URM	RHF	-	-	-	20 Dec, 10:40-11:50 (70 Minute)	-	-	17.80			

BHILAI STEEL PLANT
October 2023 to March 2024

Month- January 2024

A.		Stack emission									
Name of the Plant (1)	Stack connecte d 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-1 (Process)	Stoves	60	2.5	GCP (Scrubber)	08 Jan,10:30-11:30 (60 Minute)	1600	63616	21.80	136.54	103.62	0.53% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	12 Jan, 11:50-12:50 (60 Minute)	2298	125625	21.04	93.56	97.78	0.47% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	12 Jan, 10:30-11:30 (60 Minute)	2360	132828	19.95	110.23	120.51	0.50% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	23 Jan, 10:20-11:20 (65 Minute)	3809	116809	20.10	76.36	48.88	0.55% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	13 Jan, 12:15-01:15 (60 Minute)	7317	186673	20.34	121.14	92.12	0.57% V/V
BF-7 (Space dedusting)				GCP (Scrubber)	24 Jan, 10:55-11:35 (40 Minute)	-	-	49.10			
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	06 Jan, 11:20-12:00 (40 Minute)	1920	115185	48.26	94.32	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	06 Jan, 10:15-10:55 (40 Minute)	3420	80847	32.98	47.16	-	-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	16 Jan, 11:00-11:35 (35 Minute)	-	-	41.25	-	-	-
A.	Stack emission										

BHILAI STEEL PLANT
October 2023 to March 2024

SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	ESP	04 Jan, 10:40-11:15 (35 Minute)	2535	248726	44.40	69.50	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	04 Jan, 11:30-12:05 (35 Minute)	2535	252986	45.68	68.60	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	09 Jan, 10:45-11:25 (40 Minute)	2221	228004	41.86	64.50	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	09 Jan, 11:40-12:20 (40 Minute)	2221	210825	46.57	58.90	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	03 Jan, 11:30-12:15 (45 Minute)	8863	444124	46.51	262.00	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	02 Jan, 12:00-12:45 (45 Minute)	9230	442780	47.76	99.76	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				18 Jan, 12:00-12:40 (40 Minute)	-	-	48.23	-		
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				18 Jan, 11:00-11:40 (40 Minute)	-	-	48.59	-		
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	10 Jan, 12:00-12:40 (40 Minute)	146	64522	43.49	13.1		
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	19 Jan, 10:30-11:15 (45 Minute)	2356	121180	37.74	20.96	75.20	-
Boiler 2	Boiler	80	4.3	ESP	15 Jan, 11:05-11:50 (45 Minute)	2579	117094	45.11	20.96	144.76	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	11 Jan, 10:10-10:50 (40 Minute)	1933	84494	44.45	64.58	74.82	-
Boiler 5	Boiler	80	4.3	ESP	11 Jan, 11:00-11:45 (45 Minute)	2290	120652	47.71	52.60	68.30	
Boiler 6	Boiler	80	4.3	ESP	15 Jan, 12:00-12:45 (45 Minute)	1694	319478	44.07	40.00	72.00	
Mills											
Wire Rod Mill	RHF	-	-	-	26 Jan, 10:30-11:40 (70 Minute)	-	-	21.28	-	-	-
Merchant mill	RHF	-	-	-	22 Jan, 11:00-12:05 (65 Minute)	-	-	23.10	-	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

Rail Mill	RHF	-	-	-	25 Jan, 11:05-12:05 (60 Minute)	-	-	20.94	-	-	-
Plate Mill	RHF-J2	-	-	-	08 Jan, 11:50-12:55 (65 Minute)	-	-	17.60	-	-	-
BRM	RHF	-	-	-	22 Jan, 12:25-01:25 (60 Minute)	-	-	20.46	-	-	-
URM	RHF	-	-	-	19 Jan, 11:35-12:40 (65 Minute)	-	-	19.45			

BHILAI STEEL PLANT
October 2023 to March 2024

Month-February'24

Stack emission											
Name of the Plant (1)	Stack connecte d 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-1 (Process)	Stoves	60	2.5	GCP (Scrubber)	06 Feb 11:00-12:00 (60 Minute)	1676	64503	18.39	73.36	58.25	0.58% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	06 Feb 12:30-01:30 (60 Minute)	2430	138121	20.17	94.32	56.32	0.49% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	13 Feb 12:30-01:30 (60 Minute)	2704	136849	22.06	99.80	60.12	0.54% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	14 Feb 10:50-11:50 (60 Minute)	3260	114892	21.79	89.08	54.52	0.61% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	16 Feb 10:20-11:15 (55 Minute)	8328	186691	19.68	86.30	72.65	0.64% V/V
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	08 Feb, 11:30-12:15 (45 Minute)	2160	116886	48.23	73.00	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	08 Feb, 12:00-12:40 (40 Minute)	2040	112634	40.02	46.70	-	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	13 Feb, 11:30-12:10 (40 Minute)	-	-	32.79	-	-	-
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
October 2023 to March 2024

(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/Nm ₃)	NO _x (Norm: 500mg/Nm ₃)	CO (Norm: 3 kg/T of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	09 Feb, 11:30-12:30 (60 Minute)	804	140462	40.84	489.94	167.32	2.42Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	09 Feb, 10:15-11:20 (65 Minute)	871	117224	42.60	568.50	212.44	2.38Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	09 Feb, 12:50-01:50 (60 Minute)	938	122191	43.79	647.14	210.56	2.49Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	15 Feb, 10:30-11:30 (60 Minute)	793	123688	40.69	193.40	127.84	2.51Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	15 Feb, 11:45-12:45 (60 Minute)	793	122321	43.24	277.72	127.84	2.44Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	21 Feb, 10:40-11:40 (60 Minute)	1548	232267	43.36	280.00	133.84	2.65Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	21 Feb, 11:55-12:55 (60 Minute)	1608	241070	44.75	631.42	144.76	2.40Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	05 Feb, 10:55-12:00 (65 Minute)	1769	174948	44.02	141.48	224.50	2.52Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	02 Feb, 10:15-11:15 (60 Minute)	80	9315	-	1.820 Kg/T H2SO4	-	
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	01 Feb, 11:20-11:55 (35 Minute)	2562	248036	48.82	66.90	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

SP-2 (M/c-2)	Sintering Machine	100	6	ESP	01 Feb, 12:10-12:45 (35 Minute)	2562	262364	47.64	59.90	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	19 Feb, 10:40-11:15 (35 Minute)	2157	248501	43.37	66.35	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	19 Feb, 11:30-12:10 (35 Minute)	2157	256837	44.22	60.25	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	12 Feb, 11:10-11:55 (45 Minute)	9039	452197	47.63	94.32	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	20 Feb, 10:30-11:15 (45 Minute)	10470	483673	47.19	84.32	-	-
RMP-2											
LK-1	Vertical Kiln	53.2	1.2	Wet Scrubber	02 Feb, 11:30-12:10 (40 Minute)	90	49132	41.68	62.50		
RK	Rotary Kiln	60	2	Wet Scrubber	05 Feb, 12:15-01:00 (40 Minute)	144	60677	39.76	15.72		
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	22 Feb, 10:20-11:05 (45 Minute)	1965	114839	40.90	39.24	90.24	-
Boiler 2	Boiler	80	4.3	ESP	22 Feb, 12:30-01:15 (45 Minute)	2196	116304	41.32	31.44	141	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	10 Feb, 11:00-11:40 (40 Minute)	1815	84654	47.32	77.82	86.3	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	22 Feb, 11:30-12:15 (45 Minute)	1799	83273	43.50	67.20	58.92	
Boiler 5	Boiler	80	4.3	ESP	17 Feb, 10:30-11:10 (40 Minute)	2102	119329	47.66	56.94	68.84	
Boiler 6	Boiler	80	4.3	ESP	17 Feb, 11:30-12:15 (40 Minute)	1778	320532	49.04	52.60	78.96	
Mills											
Wire Rod Mill	RHF	-	-	-	16 Feb, 12:45-01:45 (60 Minute)	-	-	20.02	-	-	-
Merchant mill	RHF	-	-	-	14 Feb, 12:15-01:20 (65 Minute)	-	-	20.40	-	-	-
Rail Mill	RHF	-	-	-	23 Feb, 11:30-12:40 (65 Minute)	-	-	21.40	-	-	-
Plate Mill	RHF-J1	-	-	-	29 Feb, 11:00-12:10 (70 Minute)	-	-	18.75	-	-	-
Plate Mill	RHF-J2	-	-	-	24 Feb, 10:50-12:00 (70 Minute)	-	-	19.72	-	-	-
BRM	RHF	-	-	-	16 Feb, 11:30-12:30 (60 Minute)	-	-	21.47			
URM	RHF	-	-	-	28 Feb, 11:00-12:05 (65 Minute)	-	-	21.39			

BHILAI STEEL PLANT
October 2023 to March 2024

Month-March'24

A.	Stack emission										
Name of the Plant (1)	Stack connecte d 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-1 (Process)	Stoves	60	2.5	GCP (Scrubber)	22 Mar 10:10-11:10 (60 Minute)	1647	64484	18.72	75.23	50.76	0.52% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	05 Mar 10:30-11:30 (60 Minute)	2795	125465	18.99	110.04	58.56	0.46% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	05 Mar 11:50-12:50 (60 Minute)	2691	129332	18.71	99.56	62.85	0.60% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	21 Mar 09:55-11:00 (65 Minute)	1541	115707	18.46	73.36	41.36	0.48% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	16 Mar 11:20-12:10 (50 Minute)	8232	195989	17.02	150.06	65.80	0.57% V/V
BF-5 (Space dedusting)				Bag filter	21 Mar 11:15-12:00 (45 Minute)	-	-	44.91	-	-	
BF-7 (Space dedusting)				GCP (Scrubber)	22 Mar 11:30-12:15 (45 Minute)	-	-	46.15	-	-	
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	20 Mar, 11:00-11:35 (35 Minute)	-	-	41.63	-	-	-
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
October 2023 to March 2024

(1)	of the unit) (2)	(m) (3)	(4)	(Name) (5)	(6)	the period of monitoring (7)	(8)	Particulate matter(PM) (Norm:50 mg/Nm3)	SO ₂ (Norm: 800mg/ Nm3)	NO _x (Norm: 500mg/ Nm3)	CO (Norm: 3 kg/T of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	01 Mar, 10:40-11:40 (60 Minute)	838	129534	42.20	615.70	184.61	2.49Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	01 Mar, 11:50-12:50 (60 Minute)	894	124445	45.11	256.76	216.76	2.36Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	13 Mar, 12:30-01:30 (60 Minute)	938	120141	46.31	610.46	162.62	2.45Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	14 Mar, 11:05-12:05 (60 Minute)	815	121671	39.89	374.66	284.25	2.58Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	14 Mar, 12:15-01:15 (60 Minute)	815	125409	44.17	296.06	369.13	2.52Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	25 Mar, 08:10-09:10 (60 Minute)	1487	243658	44.22	582.23	101.52	2.63Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	25 Mar, 09:20-10:20 (60 Minute)	1487	241129	43.90	626.18	272.60	2.48Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	06 Mar, 11:30-12:35 (60 Minute)	1809	169216	41.60	215.68	131.60	2.54Kg/T coke
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	12 Mar, 11:50-12:25 (35 Minute)	2006	253037	46.21	49.78	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	12 Mar, 12:35-01:15 (40 Minute)	2006	248085	48.39	47.16	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	04 Mar, 12:05-12:45 (40 Minute)	2084	218954	47.29	47.16	-	-

BHILAI STEEL PLANT
October 2023 to March 2024

SP-2 (M/c-4)	Sintering Machine	100	6	ESP	04 Mar, 11:15-11:55 (40 Minute)	2084	229929	44.81	83.84	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	08 Mar, 10:45-11:30 (45 Minute)	9741	454579	44.29	96.32	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	15 Mar, 11:25-12:10 (45 Minute)	2661	481367	47.90	82.56	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				15 Mar, 10:30-11:15 (45 Minute)	-	-	48.23			
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				13 Mar, 11:30-12:15 (45 Minute)	-	-	49.12			
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	23 Mar, 10:30-11:15 (45 Minute)	138	62152	38.76	18.54		
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	19 Mar, 10:30-11:15 (45 Minute)	2100	114396	34.48	62.88	68.25	-
Boiler 2	Boiler	80	4.3	ESP	09 Mar, 10:30-11:15 (45 Minute)	2305	121317	38.66	44.54	78.96	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	19 Mar, 11:30-12:15 (45 Minute)	1795	82200	43.44	83.84	78.96	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	09 Mar, 11:30-12:20 (50 Minute)	2010	83020	47.21	58.50	61.35	
Boiler 5	Boiler	80	4.3	ESP	07 Mar, 11:45-12:30 (45 Minute)	2099	118342	37.64	55.12	24.44	
Boiler 6	Boiler	80	4.3	ESP	07 Mar, 10:20-11:05 (45 Minute)	1763	316856	34.55	49.43	26.32	
Mills											
Wire Rod Mill	RHF	-	-	-	30 Mar, 10:45-11:55 (60 Minute)	-	-	18.46	-	-	-
Merchant mill	RHF	-	-	-	29 Mar, 11:05-12:05 (60 Minute)	-	-	17.52	-	-	-
Rail Mill	RHF	-	-	-	26 Mar, 11:15-12:15 (60 Minute)	-	-	18.34	-	-	-
Plate Mill	RHF-J1	-	-	-	11 Mar, 10:35-11:40 (60 Minute)	-	-	20.30	-	-	-
Plate Mill	RHF-J2	-	-	-	11 Mar, 11:55-01:00 (65 Minute)	-	-	17.98	-	-	-
BRM	RHF	-	-	-	18 Mar, 11:50-12:50 (60 Minute)	-	-	16.81			
URM	RHF	-	-	-	18 Mar, 10:35-11:35 (60 Minute)	-	-	18.88			

BHILAI STEEL PLANT
October 2023 to March 2024

BHILAI STEEL PLANT
FUGITIVE EMISSION STATUS October 2023 to March 2024

FLAG E

E-2

Fugitive Emission

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Fugitive Emissions Status Month- October 2023

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM ₁₀ µg/m ³ (4000)	SO ₂ µg/m ³ (200)	NO _x 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.-2		09 Oct - 11:15	1300	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-3 & 4)		02 Oct -10:00	1400	-	-	-	-		-
3	Blast Furnace	BFs-6 (Near Weigh Bridge)		30 Oct - 11:00-03:00	360.6	46.23	51.30	0.06 2*	872	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House)		21 Oct - 11:00-03:00	960.5	86.20	120.20	-	1029		Norms as per GSR 277 (E) dtd 30/03/2012
5	Steel Melting Shop-2	SMS # 2, Converter Shop Back side 38 Meter		05 Oct - 11:05-03:05	935.1 0	51.90	54.00	0.01 4*	938	162*	
6	Steel Melting Shop-3	SMS # 3, In front of converter 2 & 3		17 Oct - 11:00-03:00	327.8 9	69.80	81.30	-	1194	-	-
7	RMP-3	RMP # 3, Infront of LDDDB Building		06 Oct - 10:30-02:30	1896. 73	-	-	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-5 & 6		06 Oct -10:35	1240	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		18 Oct -11:00	1140	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		18 Oct -10:40	1390	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Fugitive Emissions Status Month-November 2023

S. No (1)	Name of the Unit (2)	Location of the Station(distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM ₁₀ µg/m ³ (4000)	SO ₂ µg/m ³ (200)	NO _x µg/m ³ (150)	Pb* µg/m ³ (2)	CO (5000)	BaP** 2000ng /m ³	Remarks*
1	Coke Oven area	In front of Batt.-2		07 Nov - 11:00	1330	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-3 & 4)		11 Nov - 10:45	1480	-	-	-	-		-
3	Blast Furnace	BFs-6 (Near Weigh Bridge)		18 Nov - 10:00- 02:20	1535.74	48.65	52.71	0.062*	913	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House)		18 Nov - 11:00- 03:35	785.19	74.15	86.40	-	1237		Norms as per GSR 277 (E) dtd 30/03/2012
5	Steel Melting Shop-2	SMS # 2, Converter Shop Back side 38 Meter		04 Nov - 10:00- 02:05	1409.78	54.90	52.98	0.014*	1068	162*	
6	Steel Melting Shop-3	SMS # 3, In front of converter 2 & 3		27 Nov - 12:00- 03:35	2388.55	69.80	77.60	-	1152	-	-
7	RMP-3	RMP # 3, Infront of LDDDB Building		25 Nov - 12:00- 03:30	2448.94	-	-	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-5 & 6		01 Nov - 10:00	1290	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		15 Nov - 11:35	1190	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		15 Nov - 10:40	1340	-	-	-	-	-	-

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Fugitive Emissions Status Month-December 2023

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM ₁₀ µg/m ³ (4000)	SO ₂ µg/m ³ (200)	NO _x µg/m ³ (150)	Pb* µg/m ³ (2)	CO (5000)	BaP** 2000ng/m ³	Remarks*
1	Coke Oven area	In front of Batt.-10		04 Dec - 10:25	1290	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-3 & 4)		18 Dec - 11:15	1380	-	-	-	-		-
3	Blast Furnace	BFs-7, Stock House (Left ground level)		01 Dec - 11:35-01:35	1150.90	42.50	58.90	0.062*	862	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House) Near HYD.valve Stand 2,3		14 Dec - 11:00-03:30	1944.48	76.40	88.54	-	1298		Norms as per GSR 277 (E) dtd 30/03/2012
5	Steel Melting Shop-2	SMS # 2, Near LF-2 Chimney (O.H.S.)Centre		18 Dec - 10:45-03:15	973.50	59.60	54.00	0.014*	996	162*	
6	Steel Melting Shop-3	SMS # 3, (DDSY) Near Convertor-2		28 Dec - 11:00-03:00	390.53	63.10	74.92	-	1101	-	-
7	RMP-3	RMP # 3, Near Shiv Mandir ground level		21 Dec - 11:55-03:20	511.78	-	-	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-3 & 4		05 Dec - 11:00	1290	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		13 Dec - 11:00	1190	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		13 Dec - 10:40	1400	-	-	-	-	-	-

FUGITIVE EMISSION STATUS October 2023 to March 2024

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BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Fugitive Emissions Status Month-February'24

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM ₁₀ µg/m ³ (4000)	SO ₂ µg/m ³ (200)	NO _x µg/m ³ (150)	Pb* µg/m ³ (2)	CO (5000)	BaP** 2000ng/m ³	Remarks*
1	Coke Oven area	In front of Batt.-2		09 Feb - 10:55	1280	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1 & 2)		01 Feb - 10:50	1380	-	-	-	-		-
3	Sinter Plant	SP-II (Near Pump House-1		01 Feb - 11:15-03:45	1714.7 8	48.40	59.60	0.062*	1053	271*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House) Near Taphole-4		29 Feb - 10:45-02:45	1417.0 3	60.25	55.24	-	1290		Norms as per GSR 277 (E) dtd 30/03/2012
5	Steel Melting Shop-2	SMS # 2, Ladle Repair Bay		08 Feb - 11:00-03:00	1586.8 6	59.30	55.40	0.014*	1344	162*	
6	Steel Melting Shop-3	SMS # 3, Near Ladle Furnace		13 Feb - 12:00-02:00	2970.9 7	56.28	74.10	-	1167	-	-
7	RMP-3	RMP # 3,Dumper Loading Area Near Lift		27 Feb - 11:15-03:30	2197.4 5	69.00	58.30	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-3 & 4		10 Feb - 11:00	1290	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		02 Feb - 11:40	1070	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		02 Feb - 11:00	1480	-	-	-	-	-	-

FUGITIVE EMISSION STATUS October 2023 to March 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)	SO ₂ µg/m ³ (200)	NO _x µg/m ³ (150)	Pb* µg/m ³ (2)	CO (5000)	BaP** 2000 ng/m ³	Remarks*
1	Coke Oven area	In front of Batt.-2		01 Mar - 10:50	1360	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-3)		04 Mar - 10:50	1380	-	-	-	-		
3	URM	Near BD-1 Stand		18 Mar - 11:15-04:00	740.80						
4	Blast Furnace 8	BFs-8 (Stock House Entry)		19 Mar - 11:00-02:30	3800	60.25	55.24	-	1016		Norms as per GSR 277 (E) dtd 30/03/2012
5	BRM	BRM Near Electrical Workshop		26 Mar- 11:00-03:00	321.82						
6	Steel Melting Shop-3	SMS # 3, M-N Storage Bay		20 Mar- 10:50-02:50	632.54	56.28	74.10	-	1262	-	-
7	RMP-3	RMP # 3,LDDDB Building		08 Mar - 11:15-02:15	2426.08	69.00	58.30	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-5 & 6		07 Mar - 10:30	1320	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		23 Mar - 11:45	1220	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		23 Mar - 10:50	1500	-	-	-	-	-	-

FLAG E

E-3

AMBIENT AIR QUALITY

AMBIENT AIR QUALITY**Month-October'23**

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 ₆ H ₆ **
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5
	Unit	$\mu\text{g}/\text{m}^3$											ng/m^3		
1	Civic Centre			16.03	40.31	14.73	14.97	2.96	213	NT*	26.70	0.025	NT	2.000	1.44
2	OP-2			16.85	25.98	13.35	11.67	3.04	228	NT*	30.84	0.034	NT	2.000	1.29
3	Rail Mill			19.30	28.05	14.68	15.98	2.79	273	NT*	33.20	0.040	NT	4.000	1.11
4	Ispat Bhavan			20.18	26.17	17.43	16.31	2.34	209	NT*	NA**	0.056	NT	3.000	NA**

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

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

AMBIENT AIR QUALITY**Month-November'23**

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 ₆ H ₆ **
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5
	Unit	$\mu\text{g}/\text{m}^3$											ng/m^3		
1	Civic Centre			20.67	42.66	17.72	18.01	2.82	235	NT*	24.50	0.031	NT	3.000	1.56
2	OP-2			18.92	29.44	14.11	11.49	3.04	247	NT*	28.62	0.029	NT	4.000	1.31
3	Rail Mill			20.25	27.96	16.93	15.24	2.79	282	NT*	30.08	0.043	NT	6.000	1.18
4	Ispat Bhavan			23.44	25.87	19.50	16.26	2.34	211	NT*	31.11**	0.058	NT	2.000	1.21**

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

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

AMBIENT AIR QUALITY**Month-December'23**

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 ₆ H ₆ **
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5
	Unit	$\mu\text{g}/\text{m}^3$											ng/m^3		
1	Civic Centre			21.89	42.79	18.28	18.23	2.79	240	NT*	22.84	0.031	NT	3.000	1.52
2	OP-2			20.14	31.07	17.20	11.78	2.86	263	NT*	26.33	0.029	NT	4.000	1.26
3	Rail Mill			21.36	30.63	18.41	18.11	2.62	286	NT*	31.29	0.043	NT	6.000	1.16
4	Ispat Bhavan			23.18	28.94	18.77	17.90	2.27	223	NT*	32.18	0.058	NT	2.000	1.28**

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

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

AMBIENT AIR QUALITY**Month- January'24**

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 ₆ H ₆ **
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5
	Unit	$\mu\text{g}/\text{m}^3$											ng/m^3		
1	Civic Centre			23.05	44.32	18.59	19.43	2.53	238	NT*	23.80	0.031	NT	3.000	1.49
2	OP-2			21.82	34.22	16.97	13.22	2.69	261	NT*	25.95	0.029	NT	4.000	1.21
3	Rail Mill			24.08	31.20	17.64	19.78	2.44	279	NT*	33.24	0.043	NT	6.000	1.17
4	Ispat Bhavan			26.93	29.10	19.72	20.18	2.21	234	NT*	29.86	0.058	NT	2.000	1.23**

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

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

AMBIENT AIR QUALITY**Month- February'24**

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 ₆ H ₆ *
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5
	Unit	$\mu\text{g}/\text{m}^3$											ng/m^3		
1	Civic Centre			24.16	45.47	16.94	18.34	2.52	232	NT*	25.63	0.031	NT*	3.000	1.36
2	OP-2			22.90	36.14	14.27	12.89	2.65	254	NT*	30.16	0.029	NT*	4.000	1.27
3	Rail Mill			26.53	33.86	16.71	18.83	2.39	274	NT*	37.82	0.043	NT*	6.000	1.20
4	Ispat Bhavan			28.44	32.93	17.75	20.39	2.19	228	NT*	31.03	0.058	NT*	2.000	1.25

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

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

B. AMBIENT AIR QUALITY AND FUGITIVE EMISSION															
Month- March'24															
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 ₆ H ₆ *
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5
	Unit	$\mu\text{g}/\text{m}^3$											ng/m^3		
1	Civic Centre			24.34	46.55	15.54	17.51	2.55	210	NT*	24.11	0.031	NT	3.000	1.32
2	OP-2			23.48	36.89	13.75	11.94	2.72	268	NT*	27.30	0.029	NT	4.000	1.24
3	Rail Mill			28.60	34.97	15.46	18.22	2.37	257	NT*	32.98	0.043	NT	6.000	1.19
4	Ispat Bhavan			30.13	34.52	17.10	19.41	2.32	219	NT*	30.54	0.058	NT	2.000	1.21

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

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

FLAG - F

Water Pollution Status

Water consumption / tonne of Steel produced:

**Name of the outlets and quantity discharged:Effluent discharged to: (Name of the river / drain
/ land etc.)**

Quantity of the treatment effluent reused / recirculate and for what purpose

FUGITIVE EMISSION STATUS October 2023 to March 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

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, 18, 24, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	30.60	7.74	29	<i>BDL</i>	<i>BDL</i>	12	45	5.28	2.01	
03, 10, 18, 24, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.00	7.79	39	<i>BDL</i>	<i>BDL</i>	17	58	21.13	3.08	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	29.08	7.85	34	0.05	0.02	15	50	3.09	1.78	

Status of Sewage Treatment Plant (STP)

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp.	pH	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
30 Oct, 10:40 AM	30 MLD	1150	28	7.55	52	24	80	
26 Oct, 10:38 AM	Bhilai House (Oxi. Pond)	475	28	8.41	64	18	64	
09 Oct, 10:00 AM	Risali (Oxi. Pond)	700	24	7.28	61	17	54	
02 Oct, 10:30 AM	Works area	390	26	7.80	41	14	40	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Month- November 2023

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)									
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
07, 14, 21, 28, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	26.95	7.78	36	<i>BDL</i>	<i>BDL</i>	14	46	2.68	1.61	
07, 14, 21, 28, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.13	7.80	56	<i>BDL</i>	<i>BDL</i>	17	54	19.05	2.56	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	28.08	8.13	33	0.07	0.05	19	53	4.20	1.45	

Status of Sewage Treatment Plant (STP)

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp.	pH	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
13 Nov, 01:10 PM	30 MLD	1150	29	7.92	70	24	82	
24 Nov, 10:15 AM	Bhilai House (Oxi. Pond)	475	27	8.39	60	23	57	
14 Nov, 12:40 PM	Risali (Oxi. Pond)	700	29	8.20	77	23	69	
06 Nov, 09:40 AM	Works area	390	30	7.80	35	15	44	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Month- December 2023

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)									
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	25.75	7.77	40	<i>BDL</i>	<i>BDL</i>	14	50	3.13	1.46	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	26.35	8.10	69	<i>BDL</i>	<i>BDL</i>	17	57	22.84	2.51	
07, 15, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	24.45	8.06	30	0.07	0.08	18	53	4.71	1.41	

Status of Sewage Treatment Plant (STP)

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp.	pH	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
12 Dec, 03:30 PM	30 MLD	1150	27	7.90	66	24	80	
28 Dec, 10:30 AM	Bhilai House (Oxi. Pond)	475	24	8.40	54	21	61	
29 Dec, 01:10 PM	Risali (Oxi. Pond)	700	25	8.29	64	23	67	
09 Dec, 10:05 AM	Works area	390	25	7.68	35	13	46	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Month- January 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)									
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
02, 08, 15, 22, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	27.05	7.85	40	<i>BDL</i>	<i>BDL</i>	16	49	5.15	1.40	
02, 08, 15, 22, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	26.40	8.38	61	<i>BDL</i>	<i>BDL</i>	19	57	11.40	2.57	
05, 15, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	24.90	8.33	32	0.09	0.09	21	62	8.60	1.98	

Status of Sewage Treatment Plant (STP)

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp.	pH	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
08 Jan, 03:20 PM	30 MLD	1150	26	7.82	61	26	72	
16 Jan, 09:00 AM	Bhilai House (Oxi. Pond)	475	27	8.37	59	16	65	
22 Jan, 12:45 PM	Risali (Oxi. Pond)	700	25	8.27	57	17	59	
09 Jan, 11:45 AM	Works area	390	25	7.39	32	12	40	

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

Month- February 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)									
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
05, 12, 19, 26, 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	7.48	32	<i>BDL</i>	<i>BDL</i>	18	45	4.92	2.68	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	28.40	7.55	40	<i>BDL</i>	<i>BDL</i>	20	49	16.65	3.64	
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	27.15	8.27	34	0.12	0.09	23	56	6.99	1.42	

Status of Sewage Treatment Plant (STP)

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					
			Temp.	pH	SS	BOD	COD	
	Norms			6.5 -8.5	100	30	250	
05 Feb, 10:20 AM	30 MLD	1150	28	8.37	60	27	67	
16 Feb, 08:10 AM	Bhilai House (Oxi. Pond)	475	17	7.52	57	15	72	
05 Feb, 10:05 AM	Risali (Oxi. Pond)	700	27	8.29	60	16	57	
08 Feb, 09:30 AM	Works area	390	25	7.30	44	12	38	

FUGITIVE EMISSION STATUS October 2023 to March 2024

Month- March 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS October 2023 to March 2024

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	
04, 11, 18, 26, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	30.03	6.63	70	<i>BDL</i>	<i>BDL</i>	17	53	4.66	2.77	
04, 11, 18, 26, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.73	7.12	47	<i>BDL</i>	<i>BDL</i>	20	63	15.11	3.53	
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Ovens and Mills	29.25	7.81	33	0.09	0.08	24	48	5.72	1.65	

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 Mar, 03:29 PM	30 MLD	1150	31	7.93	64	24	69	
15 Mar, 03:10 PM	Bhilai House (Oxi. Pond)	475	32	7.78	80	21	73	
04 Mar, 02:52 PM	Risali (Oxi. Pond)	700	31	7.06	52	16	57	
12 Mar, 09:45 AM	Works area	390	29	7.10	41	14	48	

FLAG G

Noise Pollution Control Status

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

Month-October 2023

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	27-Oct	5 m	Air tight control Room	67.0	2 Minute	
Blast Furnace- 7(Control Room)	19-Oct	5 m	Acoustic Room	67.5	2 Minute	
Mills (Rolling / forgoing) Rail Mill	23-Oct	5 m	Acoustic pulpit	85.3	2 Minute	
TPP/CPP (Turbines-5) (Control Room)	06-Oct	5 m	Acoustic cabins	69.7	2 Minute	
SP-2, (M/c-3 & 4) Operator's room	02-Oct	5 m	Acoustic Room	67.2	2 Minute	
Coke-oven area (Batt.-1 & 2) (Control Room)	09-Oct	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 2023 to March 2024

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	53.8	52.7
Near Joratarai Gate	75	54.6	51.9
Near Main Gate	75	53.4	51.3
Near Khursipar Gate	75	67.3	65.8
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	62.8	51.3
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.0	52.0
Sector-09 (Goal Market)	65 Day & 55 Night	53.4	53.0
Maroda Sector (BSP Market)	65 Day & 55 Night	50.8	50.2
Risali Sector (BSP Market)	65 Day & 55 Night	55.7	54.5
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	48.8	42.0
Sector-05 (Street No. - 32)	55 Day & 45 Night	52.0	39.2
Sector-07 (Street No. - 17)	55 Day & 45 Night	47.3	41.4
Sector-08 (Street No. - 05)	55 Day & 45 Night	51.2	43.0
Sector-10 (Street No. - 25)	55 Day & 45 Night	47.9	40.5
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.2	38.0
Sector-05 (Girls Higher Secondary School)	50 Day & 40 Night	46.4	38.7
Sector-07 (English Medium Middle School)	50 Day & 40 Night	46.3	38.2
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	48.1	36.0

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

Month- November 2023

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	23-Nov	5 m	Air tight control Room	66.5	2 Minute	
Blast Furnace- 5(Control Room)	22-Nov	5 m	Acoustic Room	67.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	23-Nov	5 m	Acoustic pulpit	84.7	2 Minute	
TPP/CPP (Turbines-5) (Control Room)	13-Nov	5 m	Acoustic cabins	68.3	2 Minute	
SP-2, (M/c-1 & 2) Operator's room	11-Nov	5 m	Acoustic Room	66.1	2 Minute	
Coke-oven area (Batt.-9 & 10) (Control Room)	15-Nov	5 m	Air Tight control Room	69.1	2 Minute	
Others						

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

2. Ambient Noise Monitoring

Noise Zone	Noise Level			Unit: dB (A)	
	Standard	Day Time	Night time		
Industrial Area (at boundary of plant)					
Industrial Area (at boundary of plant)					
Near OP-2	75	56.3	51.4		
Near OP-2	75	53.8	52.7		
Near Joratarai Gate	75	54.6	51.9		
Near Main Gate	75	53.4	51.3		
Near Khursipar Gate	75	67.3	65.8		
Commercial Area					
Sector-05 (Market area)	65 Day & 55 Night	62.8	51.3		
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.0	52.0		
Sector-09 (Goal Market)	65 Day & 55 Night	53.4	53.0		
Maroda Sector (BSP Market)	65 Day & 55 Night	50.8	50.2		
Risali Sector (BSP Market)	65 Day & 55 Night	55.7	54.5		
Residential Area					
Sector-01 (Street No. - 23)	55 Day & 45 Night	48.8	42.0		
Sector-05 (Street No. - 32)	55 Day & 45 Night	52.0	39.2		
Sector-07 (Street No. - 17)	55 Day & 45 Night	47.3	41.4		
Sector-08 (Street No. - 05)	55 Day & 45 Night	51.2	43.0		
Sector-10 (Street No. - 25)	55 Day & 45 Night	47.9	40.5		
Silence Area					
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.2	38.0		
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	46.4	38.7		
Sector-07 (English Medium Middle School)	50 Day & 40 Night	46.3	38.2		
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.0	39.0		

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

Month- December 2023

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	27-Dec	5 m	Air tight control Room	61.0	2 Minute	
Blast Furnace- 7(Control Room)	01-Dec	5 m	Acoustic Room	68.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	27-Dec	5 m	Acoustic pulpit	89.3	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	05-Dec	5 m	Acoustic cabins	68.9	2 Minute	
SP-2, (M/c-3 & 4) Operator's room	18-Dec	5 m	Acoustic Room	67.3	2 Minute	
Coke-oven area (Batt.-9 & 10) (Control Room)	04-Dec	5 m	Air Tight control Room	67.3	2 Minute	
Oxygen plant-2 (Control Room)	27-Dec	5 m	Air tight control Room	61.0	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

2. Ambient Noise Monitoring

Noise Zone	Noise Level		
	Standard	Day Time	Night time
Unit: dB (A)			
Industrial Area (at boundary of plant)			
Near OP-2	75	54.3	51.9
Near Joratarai Gate	75	53.9	50.6
Near Main Gate	75	58.0	53.8
Near Khursipar Gate	75	67.4	64.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	54.3	51.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	56.4	52.5
Sector-09 (Goal Market)	65 Day & 55 Night	53.8	44.5
Maroda Sector (BSP Market)	65 Day & 55 Night	53.8	53.2
Risali Sector (BSP Market)	65 Day & 55 Night	62.4	52.5
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	47.7	43.0
Sector-05 (Street No. - 32)	55 Day & 45 Night	53.0	41.7
Sector-07 (Street No. - 17)	55 Day & 45 Night	45.4	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	48.6	43.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	49.3	44.7
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.9	39.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.6	38.4
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.8	39.0
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	47.9	38.7

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

Month - January 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) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	26-Jan	5 m	Air tight control Room	63.0	2 Minute	
Blast Furnace- 1(Control Room)	08-Jan	5 m	Acoustic Room	67.9	2 Minute	
Mills (Rolling / forgoing) Rail Mill	25-Jan	5 m	Acoustic pulpit	88.7	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	11-Jan	5 m	Acoustic cabins	66.9	2 Minute	
SP-2, (M/c-1 & 2) Operator's room	04-Jan	5 m	Acoustic Room	67.0	2 Minute	
Coke-oven area (Batt.-1 & 2) (Control Room)	05-Jan	5 m	Air Tight control Room	67.3	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

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	54.3	51.9
Near Joratarai Gate	75	53.9	50.6
Near Main Gate	75	58.0	53.8
Near Khursipar Gate	75	67.4	64.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	54.3	51.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	56.4	52.5
Sector-09 (Goal Market)	65 Day & 55 Night	53.8	44.5
Maroda Sector (BSP Market)	65 Day & 55 Night	53.8	53.2
Risali Sector (BSP Market)	65 Day & 55 Night	62.4	52.5
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	47.7	43.0
Sector-05 (Street No. - 32)	55 Day & 45 Night	53.0	41.7
Sector-07 (Street No. - 17)	55 Day & 45 Night	45.4	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	48.6	43.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	49.3	44.7
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.9	39.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.6	38.4
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.8	39.0
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	47.9	38.7

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

Month - February 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) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	23-Feb	5 m	Air tight control Room	64.2	2 Minute	
Blast Furnace- 1(Control Room)	06-Feb	5 m	Acoustic Room	70.0	2 Minute	
Mills (Rolling / forgoing) Rail Mill	23-Feb	5 m	Acoustic pulpit	89.3	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	10-Feb	5 m	Acoustic cabins	68.3	2 Minute	
SP-2, (M/c-1 & 2) Operator's room	01-Feb	5 m	Acoustic Room	68.3	2 Minute	
Coke-oven area (Batt.-1 & 2) (Control Room)	05-Feb	5 m	Air Tight control Room	69.5	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

2. Ambient Noise Monitoring

Noise Zone	Noise Level		
	Standard	Day Time	Night time
Near OP-2	75	54.3	51.9
Near Joratarai Gate	75	53.9	50.6
Near Main Gate	75	58.0	53.8
Near Khursipar Gate	75	67.4	64.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	54.3	51.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	56.4	52.5
Sector-09 (Goal Market)	65 Day & 55 Night	53.8	44.5
Maroda Sector (BSP Market)	65 Day & 55 Night	53.8	53.2
Risali Sector (BSP Market)	65 Day & 55 Night	62.4	52.5
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	47.7	43.0
Sector-05 (Street No. - 32)	55 Day & 45 Night	53.0	41.7
Sector-07 (Street No. - 17)	55 Day & 45 Night	45.4	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	48.6	43.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	49.3	44.7
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.9	39.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.6	38.4
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.8	39.0
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	47.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	47.9	38.7

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

Bhilai Steel Plant Noise Pollution Status October 2023 to March 2024

Month - March 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) 90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	30-Mar	5 m	Air tight control Room	65.3	2 Minute	
Blast Furnace- 4(Control Room)	05-Mar	5 m	Acoustic Room	69.5	2 Minute	
Mills (Rolling / forgoing) Rail Mill	30-Mar	5 m	Acoustic pulpit	84.3	2 Minute	
TPP/CPP (Turbines-6) (Control Room)	07-Mar	5 m	Acoustic cabins	67.8	2 Minute	
SP-2, (M/c-4) Operator's room	04-Mar	5 m	Acoustic Room	65.8	2 Minute	
Coke-oven area (Batt.-2) (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 2023 to March 2024

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	55.3	51.8
Near Joratarai Gate	75	53.5	50.3
Near Main Gate	75	52.5	48.9
Near Khursipar Gate	75	69.0	65.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	63.9	50.6
Sector-06 (Near 'B' Market)	65 Day & 55 Night	63.8	52.8
Sector-09 (Goal Market)	65 Day & 55 Night	64.3	51.6
Maroda Sector (BSP Market)	65 Day & 55 Night	60.5	50.8
Risali Sector (BSP Market)	65 Day & 55 Night	63.1	53.9
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	51.8	43.3
Sector-05 (Street No. - 32)	55 Day & 45 Night	53.7	41.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	51.4	43.6
Sector-08 (Street No. - 05)	55 Day & 45 Night	49.0	42.0
Sector-10 (Street No. - 25)	55 Day & 45 Night	52.8	40.7
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	46.7	38.3
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	46.9	38.7
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.6	39.2
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	46.3	37.5
Maroda Sector (Estate Court)	50 Day & 40 Night	48.7	37.9

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

Flag-H

Environmental Projects Implemented at BSP

Let's commit to Clean & Green Bhilai

S.No.	Projects	Status (As on 31 st March 2024)
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. - In principle Consent has been issued by CECB with additional conditions dated 03/10/2022.
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	
8.	Cast house De-fuming system in Blast Furnace-7 for control of work-zone emissions in cast house.	Completed.

	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 in Progress.
10.	Installation of secondary Emission control system/Dog-House for three Convertors at Steel melting Shop-II . Cost : 411.89 Crs	Contract signed on 15/12/2023.Contract duration 30 months.(14th June 2026).

