

Half Yearly Compliance Report**2024****01 Dec(01 Apr - 30 Sep)****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	2024
Remarks (if any)	April 2024 to September 2024
Reporting Period	01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office	Ms.Uma Katoch	
	Project Area as per EC Granted	Actual Project Area in Possession
Private	3284.75	6286.75
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	3284.75	6286.75

Production Capacity

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

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	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: 06/01/2025
2	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 4540942 nos of trees in an area covering about 1885 hectares till September 2023. In the year 2023-24 BSP has been planted 25942 Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2022-23 (April-March), BSP has planted 21210 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 BSPs green belt coverage comes to 36.34 percentage.		Date: 06/01/2025
3	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: 06/01/2025
4	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: 06/01/2025
5	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: 06/01/2025
6	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 the completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. Due to the prevalence of the COVID pandemic (1st wave from March to November 2020 and 2nd wave from March to June-2021) there has been delay in the completion of the projects. However, presently the CER projects are progressing well and likely to be completed by March 2022. A detailed status report on CER activities is enclosed at Flag C		Date: 06/01/2025

7	WASTE MANAGEMENT	100 % SMS -Slag utilization shall be ensured after conditioning /steam curing.
PPs Submission: Complied About 80 percentage BOF slag is presently (April to September 2024) 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 utilised as an aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report, wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. Number of other R and D efforts are being taken-up by SAIL in association with other agencies, which are still in nascent stage. After the completion of these studies, exploring the options for commercial scale/bulk utilization of BOF slag will be taken-up. BSP has given an assignment to NIT-Raipur for Assessing the suitability of Twin Hearth Furnace(THF)/Steel Slag as pavement material and feasibility of THF/Steel slag in construction of the rural roads. NIT Raipur has submitted the final report in June-2021.The report was submitted to CECB and will be shared with all agencies involved in road making to promote the use of steel slag in Road making and other infrastructure projects.		Date: 06/01/2025
General Conditions		
Sr.No.	Condition Type	Condition Details
1	WATER QUALITY MONITORING AND PRESERVATION	Tyre washing facilities shall be provided at the entrance of the plant gates
PPs Submission: Complied Complied.		Date: 06/01/2025
2	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: 06/01/2025
3	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: 06/01/2025
4	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		Date: 06/01/2025

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.		
5	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: 06/01/2025
6	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: 06/01/2025
7	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: 06/01/2025
8	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: 06/01/2025
9	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,		Date: 06/01/2025

Arsenic, Nickel, Benzene and Benzo (a) Pyrene are being measured (Note : Benzene and Benzo (a) Pyrene is measured offline)			
10	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: 06/01/2025
11	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: 06/01/2025
12	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 Agreed			Date: 06/01/2025
13	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: 06/01/2025
14	MISCELLANEOUS	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to the Regional Office of MoEF and 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 behavioural safety is being organized regularly (Report enclosed at Flag B)			Date: 06/01/2025
15	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: 06/01/2025
16	Corporate Environmental	The project proponent shall comply with the provisions contained	

	Responsibility	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: 06/01/2025
17	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: 06/01/2025
18	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: 06/01/2025
19	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: 06/01/2025
20	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		Date:

Complied		06/01/2025
21	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: 06/01/2025
22	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: 06/01/2025
23	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: 06/01/2025
24	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 Companys main gate and in a public place/market area located in Township through large electronic Display Boards. The monitored data is also placed in Companys web portal		Date: 06/01/2025
25	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: 06/01/2025
26	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		Date:

Complied		06/01/2025
27	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: 06/01/2025
28	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: 06/01/2025
29	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: 06/01/2025
30	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: 06/01/2025
31	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: 06/01/2025
32	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: 06/01/2025
33	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: 06/01/2025
34	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: 06/01/2025
35	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: 06/01/2025
36	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: 06/01/2025
37	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: 06/01/2025
38	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: 06/01/2025
39	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: 06/01/2025
40	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: 06/01/2025
41	AIR QUALITY MONITORING AND PRESERVATION	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
PPs Submission: Complied The Pollution control system as per the guidelines of CREP have been provided BOD plant for the treatment of effluents of COCCD Secondary emission control system has been provided for SMS-3 Converters Cast house Defuming systems have been provided for BF-8 and BF-7		Date: 06/01/2025
42	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: 06/01/2025
43	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: 06/01/2025
44	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 Percent of the raw materials like coal and Iron ore. For internal transportation of raw materials leak proof trucks/dumpers are being used after proper covering.		Date: 06/01/2025
45	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: 06/01/2025
46	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: 06/01/2025
47	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: 06/01/2025
48	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: 06/01/2025
49	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 to 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: 06/01/2025
50	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: 06/01/2025
51	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: 06/01/2025
52	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: 06/01/2025
53	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: 06/01/2025
54	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: 06/01/2025

55	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 31st 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: 06/01/2025
56	WATER QUALITY MONITORING AND PRESERVATION	The project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer /sampling wells in the plant and adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories.
PPs Submission: Complied Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas through labs recognised under Environment (protection) act 1986 and NABL accredited laboratories is being carried-out		Date: 06/01/2025
57	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: 06/01/2025
58	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: 06/01/2025
59	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: 06/01/2025
60	WATER QUALITY MONITORING AND	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

	PRESERVATION	
PPs Submission: Complied A 30 MLD sewage recycling plant has been installed for treatment of recycling of domestic sewage generated in the Township.		Date: 06/01/2025
61	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: 06/01/2025
62	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: 06/01/2025
63	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: 06/01/2025
64	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: 06/01/2025
65	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: 06/01/2025
66	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		Date: 06/01/2025

being recycled back to cooling pond after treatment for re-use as industrial water.		
67	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: 06/01/2025
68	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: 06/01/2025
69	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: 06/01/2025
70	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: 06/01/2025
71	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: 06/01/2025
72	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: 06/01/2025
73	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: 06/01/2025
74	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: 06/01/2025

75	ENERGY PRESERVATION MEASURES	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300oC
PPs Submission: Complied Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants		Date: 06/01/2025
76	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: 06/01/2025
77	ENERGY PRESERVATION MEASURES	Restrict Gas flaring to < 1%
PPs Submission: Complied Complied/Noted.,		Date: 06/01/2025
78	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: 06/01/2025
79	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: 06/01/2025
80	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: 06/01/2025
81	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: 06/01/2025
82	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: 06/01/2025

83	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: 06/01/2025
84	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: 06/01/2025
85	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: 06/01/2025
86	WASTE MANAGEMENT	Used refractories shall be recycled as far as possible
PPs Submission: Complied Being done.		Date: 06/01/2025
87	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 Laning Project of NH-32at WB Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development and Research of National Council for Cement and Building Materials (NCCBM), under the administrative control of Ministry of Commerce and Industry, Government of India, Study on use of BOF slag as soil ameliorating agent in agriculture through Indian Agricultural Research Institute (IARI), New Delhi. Use of steel slag in Open Graded Asphalt Friction Courses (OGAFC) through Department of Civil Engineering, IIT Guwahati.		Date: 06/01/2025
88	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: 06/01/2025
89	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: 06/01/2025
90	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: 06/01/2025
91	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: 06/01/2025
92	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 4540942 nos of trees in an area covering about 1885 hectares till Sep.-2023. In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. In the year 2022-23(April-March), BSP has planted 21210 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, BSPs green belt coverage comes to 36.34 percentage.		Date: 06/01/2025
93	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: 06/01/2025
Visit Remarks		
Last Site Visit Report Date:		N/A
Additional Remarks:		

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

Half Yearly Compliance Report**2023****01 Dec(01 Apr - 30 Sep)****Acknowledgment**

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	NA
MoEF File No.	F. No. IA-J-1101112812007-IA 11 (I)	Entity name as per PAN	NA

Compliance Reporting Details

Reporting Year 2023
Remarks (if any)
Reporting Period 01 Dec(01 Apr - 30 Sep)

Details of Production and Project Area

Name of Entity / Corporate Office Ms.Uma Katoch

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

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 'behavioural safety' is being organized regularly (Report enclosed at Flag-B)		Date: 03/01/2024
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 the completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. • Due to the prevalence of the COVID pandemic (1st wave from March to November 2020 and 2nd wave from March to June-2021) there has been delay in the completion of the projects. • However, presently the CER projects are progressing well & likely to be completed by March 2022. • A detailed status report on CER activities is enclosed at Flag-C		Date: 03/01/2024
3	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: 03/01/2024
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: 03/01/2024
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 4540942 nos of trees in an area covering about 1885 hectares till Sep.-2023. • In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. • In the year 2022-23(April-March), BSP has planted 21210 trees within the plant premises & township covering an area of about 20-25 hectares. • Further Green belt required to be developed to meet the 33% 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 %.		Date: 03/01/2024
6	MISCELLANEOUS	In the Environmental Policy the hierarchy of reporting environmental non-compliances and emergencies should be clearly mentioned and submitted to the Regional Office of the MoEF&CC.

PPs Submission: Complied The policy followed at SAIL for reporting environmental non-compliances and emergencies has already been submitted to MoEF&CC-New Delhi.		Date: 03/01/2024
7	WASTE MANAGEMENT	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.
PPs Submission: Complied Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 will be complied.		Date: 03/01/2024
8	WASTE MANAGEMENT	100 % SMS -Slag utilization shall be ensured after conditioning /steam curing.
PPs Submission: Complied • About 55% the BOF slag is presently being recycled back in to steel making process and also utilized in Road Making & filling of the low lying areas. • BSP has also started selling BOF slag to the interested buyers (Cement Plants other Construction industries) since April-2021. • A pilot scale study on “Development of process for steam maturing of BOF slag” at BSL was taken up by SAIL. The matured BOF slag can be utilised as an aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report, wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. • Number of other R&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: 03/01/2024
General Conditions		
Sr.No.	Condition Type	Condition Details
1	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: 04/01/2024
2	WASTE MANAGEMENT	Used refractories shall be recycled as far as possible
PPs Submission: Complied Being done.		Date: 04/01/2024
3	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: 04/01/2024
4	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: 03/01/2024
5	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: 03/01/2024
6	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: 03/01/2024
7	WATER QUALITY MONITORING AND PRESERVATION	Adhere to 'Zero Liquid Discharge'
PPs Submission: Complied BSP has three outlets carrying plant effluent (Outlet-A , B &C). Effluent from outlet-A (About 5000 m3/Hr) is already being recycled and the recycling schemes for Outlet-B (450 m3/hr) & Outlet-C (2500 m3/hr) are in advanced stage of completion.		Date: 03/01/2024
8	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: 04/01/2024
9	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: 04/01/2024
10	MISCELLANEOUS	Any appeal against this EC shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Sction16 of the National Green Tribunal Act,2010
PPs Submission: Complied Agreed		Date: 04/01/2024
11	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 % of the raw materials like coal & Iron ore. For internal transportation of raw materials leak proof trucks/dumpers are being used after proper covering.		Date: 03/01/2024
12	ENERGY PRESERVATION	Waste heat recovery systems shall be provided in all units where

	MEASURES	the flue gas or process gas exceeds 300oC
PPs Submission: Complied Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants		Date: 04/01/2024
13	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: 04/01/2024
14	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: 03/01/2024
15	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: 03/01/2024
16	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: 03/01/2024
17	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: 03/01/2024
PPs Submission: Complied Copies of monthly summary report of continuous stack emission and air quality monitoring and		Date:

results of manual stack monitoring and manual monitoring of air quality /fugitive emissions (October-2021 to March-2022) is enclosed at Flag-E		03/01/2024
18	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: 03/01/2024
19	AIR QUALITY MONITORING AND PRESERVATION	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
PPs Submission: Complied The Pollution control system as per the guidelines of CREP have been provided BOD plant for the treatment of effluents of COCCD Secondary emission control system has been provided for SMS-3 Converters Cast house Defuming systems have been provided for BF-8 & BF-7		Date: 03/01/2024
20	AIR QUALITY MONITORING AND PRESERVATION	Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens
PPs Submission: Complied The installation of the system shall be explored in future based on feasibility		Date: 03/01/2024
21	AIR QUALITY MONITORING AND PRESERVATION	In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided to meet the prescribed standards
PPs Submission: Complied Regular monitoring of coke oven stack emissions is being done & The Gaseous emissions from Coke ovens are meeting the standards.		Date: 03/01/2024
22	AIR QUALITY MONITORING AND PRESERVATION	The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.
PPs Submission: Complied At BSP the imported coal has sulphur content less than 1%.		Date: 03/01/2024
23	AIR QUALITY MONITORING AND PRESERVATION	Wind shelter piles. fence and chemical spraying shall be provided on the raw material stock piles
PPs Submission: Complied Water sprinklers are installed for control of dust at raw material stock piles		Date: 03/01/2024
24	AIR QUALITY MONITORING AND PRESERVATION	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars
PPs Submission: Complied Ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars are installed.		Date: 03/01/2024

25	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: 03/01/2024
26	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: 03/01/2024
27	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: 03/01/2024
28	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 & report submitted to regulatory agencies.		Date: 03/01/2024
29	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 & fugitive emissions monitored are meeting the standards..		Date: 03/01/2024
30	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 & are replaced whenever there are leakages.		Date: 03/01/2024
31	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: 03/01/2024

32	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: 03/01/2024
33	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: 03/01/2024
34	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 BF's & SMS convertors as the Dry Gas Cleaning Plant are not feasible.		Date: 03/01/2024
35	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: 03/01/2024
36	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: 03/01/2024
37	Noise Monitoring & Prevention	Noise monitoring and prevention
PPs Submission: Complied • Regular noise monitoring is done at all the potential high noise generating areas like BF's, 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: 03/01/2024
38	WATER QUALITY	The project proponent shall make efforts to minimise water

	MONITORING AND PRESERVATION	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 & BF-8). • The effluents from older units are being recycled back to cooling pond after treatment for re-use as industrial water.		Date: 03/01/2024
39	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: 04/01/2024
40	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 Vlz Outlet-A, B & C and are connected to SPCB and CPCB online servers Calibration of the systems is being carried-out regularly.		Date: 03/01/2024
41	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: 03/01/2024
42	WATER QUALITY MONITORING AND PRESERVATION	The project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer /sampling wells in the plant and adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories.
PPs Submission: Complied Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out		Date: 03/01/2024
43	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: 03/01/2024
44	WATER QUALITY MONITORING AND	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing

	PRESERVATION	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: 03/01/2024
45	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 & Steel);		Date: 03/01/2024
46	WATER QUALITY MONITORING AND PRESERVATION	Tyre washing facilities shall be provided at the entrance of the plant gates
PPs Submission: Complied Complied.		Date: 03/01/2024
47	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: 03/01/2024
48	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 & Machine Shop-II area. Approx. 71500 m3 rain water is channelized to Maroda-I reservoir through storm water drains. • Recharge pits were constructed near 73 existing borewell to arrest the over flow /excess water. • Rain Water Harvesting structure were installed at T A Building, Bhilai Niwas, Bhilai Technical Institute, S.S School Sector-VII & G.S.S School-V. • 5 Recharge ponds were dug in Bhilai Township (Sector-3 near FSNL, Sector-3 near BTI Hostel, Sector-5 behind Andhra Bhawan, Hospital Sector near D-23, Jayanti Stadium) with recharge bore well at middle bottom of pond at two locations. • 1 big recharge pond of about 1 lac m3 capacity was made Behind Bhilai Institute of Technology (BIT) near Bhilai House with bore well at Centre.		Date: 03/01/2024
49	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: 03/01/2024
50	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: 03/01/2024
51	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: 03/01/2024
52	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: 04/01/2024
53	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 & 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: 04/01/2024
54	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: 04/01/2024
55	ENERGY PRESERVATION MEASURES	Restrict Gas flaring to < 1%
PPs Submission: Complied Complied/Noted.,		Date: 04/01/2024
56	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 & provision for online monitoring & recording of the power generation has also been developed.		Date: 04/01/2024
57	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 & other hazardous wastes are disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter is being recycled to coke ovens or sold to authorized recyclers.		Date: 04/01/2024
58	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: 04/01/2024
59	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 & Sinter plants.		Date: 04/01/2024
60	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: 04/01/2024
61	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 & when there is shortage of demand from Cement Industry BSP will offer the slag to construction industry through a viable mechanism.		Date: 04/01/2024
62	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: 04/01/2024
63	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 & BF as replacement of flux. BSP is also exploring methodologies for use of BOF slag for road making, railway ballast & other applications. We are seeking the services of Centre for Construction Development & Research National Council for Cement and Building Materials for exploring alternative applications for BOF slag. 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 & pvt agencies involved in Construction/road making activities to promote its use as construction/pavement material. Other		Date: 04/01/2024

Central R&D initiatives in SAIL for BOF slag& BF Slag utilization: • Pilot scale project on steam maturing of BOF Slag at BSL, Bokaro • Field trial on assessing suitability of weathered BOF slag as rail track ballasts at BSL,Bokaro • Supply of Air Cooled BF slag for construction of road under Four Laning Project of NH-32at WB • Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development & Research of National Council for Cement and Building Materials (NCCBM), under the administrative control of Ministry of Commerce and Industry, Government of India, • Study on use of BOF slag as soil ameliorating agent in agriculture through Indian Agricultural Research Institute (IARI), New Delhi. • Use of steel slag in Open Graded Asphalt Friction Courses (OGAFC) through Department of Civil Engineering, IIT Guwahati.		
64	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 & also the emission data is submitted to world steel association(WSA) every year under its commitment as member under Climate Action		Date: 04/01/2024
65	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% 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: 04/01/2024
66	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: 04/01/2024
67	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: 04/01/2024
68	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: 04/01/2024
69	Corporate Environmental	The project proponent shall comply with the provisions contained

	Responsibility	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 & likely to be completed by March-2024. A detailed status report on CER activities enclosed at Flag-C		Date: 04/01/2024
70	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: 04/01/2024
71	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: 04/01/2024
72	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: 04/01/2024
73	Corporate Environmental Responsibility	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization
PPs Submission: Complied • BSP has a separate Environmental Department with well-equipped laboratory. • Adequate Qualified executive & non-executive personnel have been posted to the department & 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: 04/01/2024
74	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 & in case of non-compliance received by statutory authorities it		Date: 04/01/2024

is reported to Board along with action plan in the next board meeting. • The Board Meetings are held once every month. • All the Environment & related Clearances & status of compliances are shown on company's website. Other information: • As per the Annexure-IV of the Department of Public Enterprises (DPE) Guidelines on Corporate Governance and Part-A of the Schedule-II of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, detailed information in respect of fatal or serious accidents, dangerous occurrences, any material effluent or pollution problems, is placed before the Board of Directors of SAIL. • As per the Part-A of Schedule-III of Securities Exchange Board of India (SEBI)'s (Listing Obligations and Disclosure Requirements) Regulations, 2015, occurrence of emergency, accidents, etc., if material in nature, is disclosed to the Stock Exchanges through Board of Directors within 24 hours.			
75	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 4540942 nos of trees in an area covering about 1885 hectares till Sep.-2023. • In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. • In the year 2022-23(April-March), BSP has planted 21210 trees within the plant premises & township covering an area of about 20-25 hectares. • Further Green belt required to be developed to meet the 33% 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 %.			Date: 04/01/2024
76	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: 04/01/2024
77	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 & 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: 04/01/2024
78	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: 04/01/2024
79	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: 04/01/2024
80	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: 04/01/2024
81	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: 04/01/2024
82	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: 04/01/2024
83	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: 04/01/2024
84	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: 04/01/2024
85	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: 04/01/2024
86	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: 04/01/2024
87	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: 04/01/2024
88	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: 04/01/2024
89	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: 04/01/2024
90	MISCELLANEOUS	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter
PPs Submission: Complied Agreed		Date: 04/01/2024
91	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 progress is being monitored on regular basis. Copy of the progress of implementation of action plan is enclosed Flag-H		Date: 03/07/2024
92	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: 04/01/2024

Visit Remarks

Last Site Visit Report Date:

N/A

Additional Remarks:

भिलाई इस्पात संयंत्र BHILAI STEEL PLANT	BHILAI STEEL PLANT			 सेल SAIL
	STEEL AUTHORITY OF INDIA LIMITED			
	MOCK DRILL REPORT			
FOR OFFICE USE ONLY				
REPORT NO. :	REVISION NO. :		REVISION DT. :	
ZONE : BSP/SERVICES	DEPTT. :EMD	LOCATION :LD GAS HOLDER (SMS-2)	SECTION :4 MT OPERATION	
DOC. NO. : IMS/BSP/EMD/2024/320		DATE & TIME : 14.06.2024 at 18.55 hrs.		

Description of the Scenario:

1.0 Background:

Mock Drill was planned on 14.06.2024 for emergency management of gas leakage at LD Gas Holder (SMS-2), EMD of BSP. Pre-mock drill meeting was held with all stakeholders on 12.06.2024 at 4:00 PM in CGM(EMD) office under the chairmanship of CGM(EMD).

2.0 Brief about the Incident and Mitigation:

A wet type LD Gas Holder with working capacity of 40,000 Nm³ operating at a pressure of 180-390 mm WC is provided for recovery and storage of L.D. gas, of C.V. 1700 Kcal/M³, which is produced during steel making in Converter shop of SMS-2. The gas is cooled, cleaned in GCPs of SMS-2 and then collected in the Gas Holder. Five export boosters are provided to draw the gas from gas holder and inject the gas to main CO gas & BF Gas network.

On 14.06.2024 at around 18.55 hrs, mechanical group was engaged in valve revision job of Converter Booster No.2(CB-2). Three persons of mechanical group were working near CB-2 and one supervisor was monitoring the job. The CO concentration in CO monitor was normal before start of the work. Due to sudden breakage of water seal of condensate water drain pit, LD gas starts leaking and two persons working got exposed to gas and they came out of machine hall and fainted in front of control room. The CO monitor reading was 1900 ppm. Mechanical Supervisor Mr. Purushottam Rathore, (Supervisor, Mech) immediately informed the operators in Control Room. Mr Kamlesh (Senior operator) informed Emergency Control Centre(Energy Centre) and Ravi Soni (AGM & Incident Controller, EMD). Another operator in Control Room raised the emergency siren indicating emergency. All the persons evacuated the site and Control Room and gathered at Assembly point.

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

situation, finally the Siren sound was blown to declare normalcy at 19.25 hrs. Meanwhile, Environment Management Department representative assessed the situation for impact on environment. The affected persons Anit Mahanand and Shailendra Prasad, both Contractual workers were given treatment at MMP and discharged.

DSO and SED representative were the Observers of the Mock Drill.

3.0 Post Mock Drill Review Meeting:

Post Mock drill review meeting was held at Office of GM(operation) immediately after the mock drill to discuss about the drill carried out. Mock Drill review meeting was chaired by Shri Rakesh Joshi, CGM(EMD).

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.
3. The location board, Assembly Point, route signage, Siren, Wind Socks, Emergency control phone numbers, fixed and portable CO monitors, first aid kit and breathing apparatus, Barricading tools etc.. exist at the site.
4. Impact on Environment due to gas leak was avoided by timely arresting the gas leakage.
5. Operators are found well trained to use breathing apparatus and have proficiency to handle emergency and mitigation.
7. Sufficient lighting and florescent jacket was available as mock drill was conducted in dark hours.
6. Overall the Mock drill was conducted satisfactorily.

1.	Name of Key Persons involved in Mock Drill:(S/Shree)	
	Chief Incident Controller at Site	Rakesh Joshi(CGM-EMD)
	Main Medical Post-1	Shubhshree Prashant(Consultant)
	Safety Engineering Department	Suraj Verma(AM)
	Fire Brigade	VPS Dhama(DCFO),S B Tiwar(AFSO-Fire Brigade)
	Personnel Department	-
	CISF	Uday Vir Singh(Inspector)
	Civil Defense Organization	Mukul Saharia(DGM), Mayank Kumar Karmahe(JO)
	Gas Safety	S. Ramani(GM), Rishab Yaduraj(AGM)
	EnMD	B.Anuradha(AGM), Angad Shrivastav(MOCT)
	Operation Incharge	S K Dashore(GM I/C-EMD)

	Work Incident Controller	U V Subhadra(GM-EMD)
	Incident Controller	Ravi Soni(AGM-EMD)
	DSO	Y Y Konnur(GM-EMD)
	Mech Incharge	Kamal(GM-EMD)
	Energy Centre Incharge	Bonya Mukherjee(GM-EMD), Ashok Thakur(DM-EMD)

2. Type of Emergency: (As defined in EPP if applicable)	Gas Leakage
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3.	Description	Standard Duration	Start Time	End Time	Actual Duration
	Emergency Siren	15 sec - on 5 sec - off 5 times.	18.56.00 hrs	18.57.35	1 minute 35 seconds
	Evacuation	-	19.01 hrs	19.06 hrs	5 min
	Fire mitigation (In case of fire)(Not Applicable in this case))	-	-	-	-
	Gas Leakage Arrest (In case of Gas leakage)	-	19.07 hrs	19.20 hrs	13 min
	All Clear Siren	2 minutes	19 25.00 hrs	19.27.00 hrs	2 minutes

4.	Emergency Preparedness Responses:					
	Agencies	Standard Response Time	Time of intimation	Time of arrival	Actual Response Time	Action taken by Agency
	MMP-1	5-15 min	18.56	19.06	10 min	Provide Ambulance equipped with First Aid, shifting and transportation of 2 injured persons to MMP.
	SED	5-15 min	18.58 hrs	19.05 hrs	7 min	Assess severity, Give guidance, Keep record, Collect evidence.
	Fire Brigade	5-15 min	18.56 hrs	19.01 hrs	5 min	Rescue of 2 injured persons from site.
	Personnel Department	5-15 min	-	-	-	-
	CISF	5-15 min	18.57 hrs	19.05 hrs	8 min	Cordon off and restrict unauthorized persons, maintain law and order, help in rescue and evacuation as per requirement.

	Civil Defence	5-15 min	18.59 hrs	19.13 hrs	14 min	Assisting rescue operation.
	Gas Safety	5-15 min	18.57 hrs	19.07 hrs	10 min	Gas leakage arrest

5.	Assembly Point No: AP/EMD/GH-SMS-2/1
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6.	Total Head Count:			
	As per Attendance Record	At Assembly point	Short fall	Remarks
	6	6	nil	-

7.	Corrective & Preventive Actions:			
S.No.	Observation	Corrective / Preventive Actions	Responsibility	Target Date
1	The fire brigade vehicle parked its vehicle on the emergency pathway due to which the Ambulance movement got restricted.	The area in charge should guide the vehicles in such cases	U V Subhadra(GM-EMD)	25-6-2024

Name & Designation:	Name & Designation:
Sign. & Date (Incident Controller)	Sign. & Date (Head of the Department)

Copy To:

CGM Safety & Fire Services – Hard Copy

All members present – Scanned Copy via E-mail

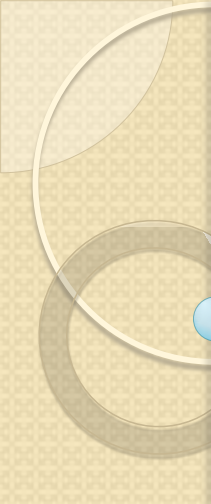
REPORT OF SAFETY TRAINING AND WORK SHOP		Year-2024-25 (April to September	
SUMMERY REPORT		Progs.	Participants
EXECUTIVES		213	1770
NON EXECUTIVES		621	6584
REGULAR EMPLOYEES		834	8354
CONTRACTUAL WORKERS		43	636
CONTR. WORKERS REFRESHER TRAINING (AT WORK AREA)		581	7374
HEIGHT PASS (WORKS AREA)			3291
HEIGHT PASS (PROJECTS AREA)			218
TOTAL HEIGHT PASS ISSUED			3509
Sl.	Name of the Programme	Yearly Cumulative	
		Progs.	Participants
EXECUTIVES			
1	Contractor Safety Management	8	144
2	Defensive Driving For 2 Wheeler	21	80
3	Defensive Driving For 4 Wheeler	7	82
4	Electrical Safety Training	2	4
5	General Safety Awareness	8	505
6	Human Factor Training	19	78
7	Incident Investigation Training	10	66
8	Interaction For Safety Encouragement And Engagement(ISEE)	6	25
9	On site Emergency Preparedness Plan	1	1
10	Near Miss Training	2	13
11	Safety Training For Shunting Staff	2	5
12	Safety in Traffic Operation	1	7
13	Safety Training Phase - II2	1	1
14	Standard Awareness On Competence Mgmt. Process	1	12
15	Standard Awareness On Barricading And Safety Signage	15	61
16	Standard Awareness On Confined Space	10	80
17	Standard Awareness On Electrical Safety	5	38
18	Standard Awareness On Energy Isolation	11	79
19	Standard Awareness On High Hazard Process	4	9

Sl.	Name of the Programme	Yearly Cumulative	
		Progs.	Participants
20	Standard Awareness On HIRA and JSA	12	73
21	Standard Awareness On Illumination At Work Place	3	14
22	Standard Awareness On Permit To Work	21	165
23	Standard Awareness On PPE Management	12	68
24	Standard Awareness On Rail & Road Safety	2	45
25	Standard Awareness On Storage , Handling And Use Of Gas Cylinders	7	32
26	Standard Awareness On Working At Height	13	80
27	Standard Awareness Operation And Maintenance Of Conveyor Belts	1	2
28	TTT on Working at Height	1	1
		206	1770
NON-EXECUTIVES			
1	Achieving Awareness In Occupational Health And First Aid	5	109
2	Awareness In Chemical Hazards And Prevention	6	94
3	Contractor Safety Management	1	2
4	Defensive Driving For 2 Wheeler	126	1474
5	Defensive Driving For 4 Wheeler	4	11
6	Electrical Safety Training	15	140
7	Gas Safety And Emergency Preparedness Plan	6	58
8	General Safety Awareness	2	5
9	Human Factor Training	102	1046
10	Incident Investigation Training	14	89
11	Interaction For Safety Encouragement And Engagement(ISEE)	20	191
12	Near Miss Training	5	44
13	On-site Emergency Preparedness Plan	1	7
14	Safety During Hot Metal Handling	1	2
15	Safety In Hydraulic And Pneumatics	2	25
16	Safety In Material Handling	9	108
17	Safety In Traffic Operation	7	107
18	Safety Training For Fork-Lift Truck Operators	7	18
19	Safety Training For Shunting Staff	2	43
20	Standard Awareness On Barricading And Safety Signage	33	448

Sl.	Name of the Programme	Yearly Cumulative	
		Progs.	Participants
21	Standard Awareness On Confined Space	28	207
22	Standard Awareness On Electrical Safety	15	129
23	Standard Awareness On Energy Isolation	20	209
24	Standard Awareness On High Hazard Process	12	112
25	Standard Awareness On HIRA and JSA	27	322
26	Standard Awareness On Illumination At Work Place	10	104
27	Standard Awareness On Permit To Work	38	449
28	Standard Awareness On PPE Management	31	367
29	Standard Awareness On Storage , Handling And Use Of Gas Cylinders	10	73
30	Standard Awareness On Working At Height	28	268
31	Standard Awareness Operation And Maintenance Of Conveyor Belts	11	116
32	TTT on Working at Height	8	76
		606	6453

CONTRATUAL WORKERS AT HRDD

1	Achieving Awareness In Occupational Health And First Aid	2	8
2	Awareness In Chemical Hazards And Prevention	4	42
3	Human Factor Training	14	241
4	Safety Proficiency For Crane Operators	1	16
5	Safety Training For Fork-Lift Truck Operators	7	41
6	Safety In Material Handling	1	3
7	Gas Safety And Emergency Preparedness Plan	1	3
8	Safety Training For Shunting Staff	6	107
9	Safety Training For Welder & Gas Cutter	1	18
10	Specialised Safety Training On Fatality And Risk Control	6	157
		43	636



FLAG-C

Corporate Environment Responsibility

Status As On September 2024



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

(Status as on September 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 Sep. 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 Sep. 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 Sep. 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 Sep. 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 Sep. 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 Sep. 2024)
11.	BSP	Bhilai, Durg	I. One E-rickshaw to be provided facilitate the plantation activities	3.00	Completed.
			II. One Power driven portable drilling machine facilitate the plantation activities	1.00	Completed.
12.	BSP	Mahakakhurd, Durg	I. New Bore well fitted with Solar operated pump with storage tank at one place to be provided	5.00	Completed.
			II. Four seater Sulabh Shauchalya for men and women to be constructed	12.00	Completed.
			Total	232.25	

Note :

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

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

FLAG-D

Hazardous Wastes Authorization

Details

April'24 to Sep'24

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
April 2024 to September 2024

FLAG E

E-1

Stack emission

April'24 to Sep'24

BHILAI STEEL PLANT
April 2024 to September 2024

Month- April 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)	03 Apr 12:30-01:30 (60 Minute)	1665	71775	17.30	90.25	58.79	0.65% V/V
BF-4 (Process)	Stoves	60	2.5	--do--	25 Apr 11:40-12:40 (60 Minute)	3000	134607	19.50	104.80	60.35	0.44% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	30 Apr 02:30-03:30 (60 Minute)	2429	133597	17.15	102.00	52.64	0.68% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	30 Apr 03:50-04:50 (60 Minute)	3701	116856	17.84	72.23	40.65	0.53% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	06 Apr 11:15-12:15 (60 Minute)	8551	202750	19.17	145.50	69.25	0.50% V/V
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	13 Apr, 11:00-11:40 (40 Minute)	2160	115439	47.73	75.00	69.00	
LF-2	Ladle Furnace	50	1.5	Bag Filter	13 Apr, 12:00-12:40 (40 Minute)	2640	113003	38.85	47.00	56.00	
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	23 Apr, 11:10-11:45 (35 Minute)	-	-	34.59	-	-	-
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)	SO ₂ (Norm:	NO _x (Norm:	CO (Norm:

BHILAI STEEL PLANT
April 2024 to September 2024

		(3)						(Norm:50mg /Nm3)	800mg/ Nm3)	500mg/ Nm3)	3 kg/T of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	01 Apr, 10:30-11:30 (60 Minute)	838	134101	44.05	586.80	159.80	2.63Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	01 Apr, 11:40-12:40 (60 Minute)	894	128244	46.33	335.30	182.30	2.38Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	11 Apr, 11:35-12:40 (65 Minute)	938	116908	45.02	458.50	188.00	2.65Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	09 Apr, 11:05-12:05 (60 Minute)	827	122298	38.96	390.30	340.50	2.54Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	09 Apr, 12:15-01:15 (60 Minute)	827	122859	44.42	403.40	223.70	2.61Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	16 Apr, 12:15-01:15 (60 Minute)	1488	244377	45.94	615.00	120.00	2.70Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	16 Apr, 11:00-12:00 (60 Minute)	1608	245693	43.63	620.00	275.00	2.42Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	03 Apr, 11:15-12:15 (60 Minute)	1809	173177	43.22	293.44	133.48	2.56Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	11 Apr, 10:20-11:20 (60 Minute)	86	1.96 kg/T Sulphuric Acid	Acid mist-57.73	-	-	
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	20 Apr, 12:00-12:40 (40 Minute)	1304	263199	45.65	48.10	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	20 Apr, 11:10-11:50 (40 Minute)	1304	265011	47.87	45.36	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	22 Apr, 11:00-11:40 (40 Minute)	2013	255983	47.84	41.92	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	22 Apr, 11:50-12:30 (40 Minute)	2013	260758	46.88	78.60	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	02 Apr, 10:15-11:00 (45 Minute)	9774	455801	45.84	142.00	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	08 Apr, 11:00-11:45 (45 Minute)	8915	479368	48.10	65.50	-	-
RMP-2											
LK-1	Vertical Kiln	53.2	1.2	Wet Scrubber	04 Apr, 12:10-12:50 (40 Minute)	146	49373	45.96	-	-	-
RK	Rotary Kiln	60	2	Wet Scrubber	04 Apr, 11:20-12:00 (40 Minute)	126	60136	39.23	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	05 Apr, 10:45-11:30 (45 Minute)	2483	116739	40.10	64.18	84.06	-
Boiler 2	Boiler	80	4.3	ESP	05 Apr, 11:40-12:25 (45 Minute)	2544	115267	43.36	46.30	94.00	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	29 Apr, 01:00-01:45 (45 Minute)	1901	80837	34.52	86.23	79.25	-
Boiler 5	Boiler	80	4.3	ESP	12 Apr, 11:00-11:40 (40 Minute)	2201	117592	38.27	56.17	15.00	
Mills											
Wire Rod Mill	RHF	-	-	-	26 Apr, 12:00-01:00 (60 Minute)	-	-	19.84	-	-	-
Merchant mill	RHF	-	-	-	26 Apr, 10:40-11:40 (60 Minute)	-	-	17.21	-	-	-
Rail Mill	RHF	-	-	-	10 Apr, 11:00-12:00 (60 Minute)	-	-	19.58	-	-	-
Plate Mill	RHF-J1	-	-	-	27 Apr, 11:00-12:00 (60 Minute)	-	-	18.72	-	-	-
Plate Mill	RHF-J2	-	-	-	27 Apr, 12:10-01:10 (60 Minute)	-	-	16.90	-	-	-
BRM	RHF	-	-	-	19 Apr, 11:30-12:35 (65 Minute)	-	-	17.60	-		
URM	RHF	-	-	-	10 Apr, 12:15-01:15 (60 Minute)	-	-	17.17	-		

BHILAI STEEL PLANT
April 2024 to September 2024

May 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-4 (Process)	Stoves	60	2.5	--do--	11 May 10:50-11:50 (60 Minute)	2563	133000	21.85	102.30	62.56	0.61% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	11 May 12:10-01:10 (60 Minute)	2213	132849	19.88	99.23	45.36	0.48% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	27 May 10:00-11:00 (60 Minute)	2902	116690	17.36	71.25	45.30	0.66% V/V
BF-8 (Process)	Stoves	70	3.5	--do--	04 May 11:20-12:10 (50 Minute)	8152	193234	17.48	149.20	71.44	0.58% V/V
BF-7 (Space dedusting)	-	-	-	GCP (Scrubber)	27 May, 11:55-12:35 (40 Minute)	-	-	47.74	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	20 May, 10:30-11:10 (40 Minute)	1200	121397	47.72	74.00	67.0	
LF-2	Ladle Furnace	50	1.5	Bag Filter	20 May, 11:40-12:20 (40 Minute)	1200	116447	39.14	48.23	57.6	
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	25 May, 11:00-11:35 (35 Minute)	-	-	32.29	-	-	-
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)	SO ₂ (Norm:	NO _x (Norm:	CO (Norm:

BHILAI STEEL PLANT
April 2024 to September 2024

		(3)						(Norm:50mg /Nm3)	800mg/ Nm3)	500mg/ Nm3)	3 kg/T of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	06 May, 10:40-11:35 (55 Minute)	815	129411	47.27	565.92	157.92	2.58Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	06 May, 11:50-12:50 (60 Minute)	882	129538	48.40	354.84	178.60	2.41Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	29 May, 11:00-12:00 (60 Minute)	938	133268	39.28	452.25	192.45	2.67Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	14 May, 10:50-11:50 (60 Minute)	838	125333	37.04	392.30	345.00	2.60Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	14 May, 12:00-01:00 (60 Minute)	838	123817	42.86	402.60	220.60	2.69Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	21 May, 10:30-11:30 (60 Minute)	1448	250755	47.48	516.45	218.00	2.72Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	21 May, 11:50-12:50 (60 Minute)	1448	248005	42.85	598.25	368.85	2.44Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	10 May, 11:00-12:00 (60 Minute)	1769	186969	44.88	356.32	210.56	2.63Kg/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 May, 11:00-11:40 (40 Minute)	2069	262911	45.71	49.23	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	03 May, 11:55-12:35 (40 Minute)	2069	268407	47.08	46.36	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	13 May, 11:30-12:10 (40 Minute)	2431	256980	43.07	48.39	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	13 May, 10:30-11:10 (40 Minute)	2431	259864	43.25	79.52	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	08 May, 10:15-11:00 (45 Minute)	8057	467044	45.54	151.96	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

SP-3 (M/c-2)	Sintering Machine	120	7	ESP	16 May, 10:40-11:25 (45 Minute)	3982	510637	48.36	75.39	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				31 May, 11:00-11:40 (40 Minute)	-	-	48.12	-		
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	28 May, 10:00-10:45 (45 Minute)	149	60360	47.69	-	-	-
RMP-3											
VK-3	Vertical Kiln	80	1.4		24 May, 10:30-11:20(50 Minute)	280	53604	36.30			
VK-4	Vertical Kiln	80	1.4		24 May, 11:30-12:15(45 Minute)	317	62954	40.47			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	09 May, 12:00-12:45 (45 Minute)	2095	121630	41.67	48.95	85.23	-
Boiler 2	Boiler	80	4.3	ESP	09 May, 11:00-11:45 (45 Minute)	2142	126284	38.22	59.23	76.9	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	17 May, 11:00-11:45 (45 Minute)	1805	81851	34.61	57.2	72.5	-
Boiler 5	Boiler	80	4.3	ESP	17 May, 12:00-12:45 (45 Minute)	2203	117237	38.24	56.00	37.60	
Mills											
Wire Rod Mill	RHF	-	-	-	22 May, 10:25-11:25 (60 Minute)	-	-	18.29	-	-	-
Merchant mill	RHF	-	-	-	07 May, 09:00-10:00 (60 Minute)	-	-	18.06	-	-	-
Rail Mill	RHF	-	-	-	07 May, 10:25-11:25 (60 Minute)	-	-	18.11	-	-	-
Plate Mill	RHF-J1	-	-	-	31 May, 12:00-01:00 (60 Minute)	-	-	17.44	-	-	-
Plate Mill	RHF-J2	-	-	-	31 May, 01:20-02:20 (60 Minute)	-	-	17.46	-	-	-
BRM	RHF	-	-	-	23 May, 10:00-11:00 (60 Minute)	-	-	18.12	-		
URM	RHF	-	-	-	22 May, 11:30-12:30 (60 Minute)	-	-	18.05	-		

BHILAI STEEL PLANT
April 2024 to September 2024

Month- June 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-4 (Process)	Stoves	60	2.5	--do--	13 Jun 10:30-11:30 (60 Minute)	1432	128128	18.00	60.26	52.64	0.56% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	13 Jun12:00-01:00 (60 Minute)	2662	125154	17.79	96.94	67.68	0.44% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	29 Jun12:00-01:00 (60 Minute)	3597	111361	18.15	122.66	78.96	0.60% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	08 Jun 11:00-12:00 (60 Minute)	7811	168045	18.44	141.04	90.24	0.52% V/V
BF-5 (Space dedusting)				Bag filter	21 Jun 11:00-11:40 (40 Minute)	-	-	48.21	-	-	
BF-7 (Space dedusting)				GCP (Scrubber)	26 Jun 11:45-12:30 (45 Minute)	-	-	44.34	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	14 Jun, 10:30-11:10 (40 Minute)	1800	119686	48.66	47.16	139.1	
LF-2	Ladle Furnace	50	1.5	Bag Filter	14 Jun, 11:40-12:20 (40 Minute)	1560	116266	41.21	41.92	90.24	
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	25 Jun, 11:00-11:35 (35 Minute)	-	-	39.98	-	-	-
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)			

April 2024 to September 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	10 Jun, 10:30-11:30 (60 Minute)	804	121439	43.33	434.90	116.70	2.34Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	10 Jun, 11:50-12:50 (60 Minute)	827	120054	47.12	366.80	150.40	2.42Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	05 Jun, 09:00-10:00 (60 Minute)	894	123534	38.92	537.10	185.81	2.54Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	24 Jun, 11:50-12:50 (60 Minute)	692	117367	40.08	267.24	105.28	2.48Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	24 Jun, 10:40-11:40 (60 Minute)	659	117438	45.15	256.76	125.96	2.57Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	28 Jun, 10:10-11:10 (60 Minute)	1226	236633	46.12	107.42	165.44	2.66Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	28 Jun, 12:30-01:30 (60 Minute)	1226	237976	46.86	96.94	225.60	2.40Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	19 Jun, 11:00-12:00 (60 Minute)	1528	188400	41.21	110.04	139.12	2.59Kg/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	18 Jun, 11:00-11:35 (35 Minute)	2008	243587	41.77	34.06	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	18 Jun, 11:50-12:25 (35 Minute)	2008	263413	41.42	39.30	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	17 Jun, 12:00-12:35 (35 Minute)	2014	251978	46.84	31.44	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	17 Jun, 11:00-11:35 (35 Minute)	2014	249724	40.48	41.92	-	-
SP-3											

BHILAI STEEL PLANT
April 2024 to September 2024

SP-3 (M/c-2)	Sintering Machine	120	7	ESP	06 Jun, 01:05-01:50 (45 Minute)	8217	481383	47.18	99.56	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				20 Jun, 03:05-03:50 (45 Minute)	-	-	47.20	-	-	-
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				28 Jun, 11:35-12:20 (45 Minute)	-	-	48.40	-		
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	12 Jun, 10:30-11:15 (45 Minute)	144	58076	47.67	-	-	-
RMP-3											
VK-3	Vertical Kiln	80	1.4		27 Jun, 11:30-12:15(45 Minute)	240	58894	34.58			
VK-5	Vertical Kiln	80	1.4		27 Jun, 12:30-01:15(45 Minute)	405	64797	31.07			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	11 Jun, 10:00-10:45 (45 Minute)	2150	115746	35.66	23.58	60.16	-
Boiler 2	Boiler	80	4.3	ESP	11 Jun, 11:00-11:45 (45 Minute)	2372	119181	36.60	0.00	84.60	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	20 Jun, 10:30-11:10 (40 Minute)	1820	84126	39.83	76.50	82.90	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	20 Jun, 11:20-12:00 (40 Minute)	2540	83059	38.55	92.00	103.70	-
Boiler 5	Boiler	80	4.3	ESP	01 Jun, 10:00-10:45 (45 Minute)	2017	116157	36.33	15.72	52.82	-
Boiler 6	Boiler	80	4.3	ESP	29 Jun, 09:20-10:05 (45 Minute)	1576	318589	35.52	110.00	96.50	-
Mills											
Wire Rod Mill	RHF	-	-	-	26 Jun, 10:15-11:15 (60 Minute)	-	-	19.51	-	-	-
Merchant mill	RHF	-	-	-	26 Jun, 02:35-03:35 (60 Minute)	-	-	19.68	-	-	-
Rail Mill	RHF	-	-	-	05 Jun, 11:00-12:00 (60 Minute)	-	-	17.08	-	-	-
Plate Mill	RHF-J1	-	-	-	07 Jun, 10:45-11:45 (60 Minute)	-	-	18.05	-	-	-
Plate Mill	RHF-J2	-	-	-	07 Jun, 12:00-01:00 (60 Minute)	-	-	17.81	-	-	-
BRM	RHF	-	-	-	29 Jun, 10:30-11:30 (60 Minute)	-	-	17.28	-		
URM	RHF	-	-	-	25 Jun, 12:00-01:00 (60 Minute)	-	-	17.43	-		

BHILAI STEEL PLANT
April 2024 to September 2024

Month- July 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-4 (Process)	Stoves	60	2.5	--do--	13 Jul 10:00-11:00 (60 Minute)	2365	129595	17.02	110.04	67.68	0.49% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	20 Jul 12:15-01:15 (60 Minute)	2613	124386	19.23	83.84	69.23	0.42% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	09 Jul 11:00-12:00 (60 Minute)	3346	114043	19.20	94.32	62.04	0.54% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	06 Jul 10:45-11:45 (60 Minute)	8057	174227	19.67	91.70	75.30	0.50% V/V
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	27 Jul, 10:15-10:55 (40 Minute)	1560	122710	48.28	39.30	84.6	
LF-2	Ladle Furnace	50	1.5	Bag Filter	27 Jul, 11:15-11:55 (40 Minute)	960	119635	27.19	36.50	80.64	
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	25 Jul, 11:00-11:40 (40 Minute)	-	-	39.85	-	-	-
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/ Nm ₃)	CO (Norm: 3 kg/T of Coke

BHILAI STEEL PLANT
April 2024 to September 2024

Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	01 Jul, 11:50-12:50 (60 Minute)	804	127794	46.05	151.01	122.20	2.37Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	01 Jul, 10:40-11:40 (60 Minute)	804	120921	47.76	102.27	174.84	2.43Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	05 Jul, 10:15-11:15 (60 Minute)	659	125033	43.85	104.80	163.50	2.68Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	08 Jul, 10:30-11:30 (60 Minute)	659	117332	43.70	241.04	127.80	2.39Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	08 Jul, 11:50-12:50 (60 Minute)	659	124839	44.58	256.76	118.44	2.51Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	22 Jul, 02:20-03:20 (60 Minute)	1226	229820	45.37	178.20	157.90	2.60Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	22 Jul, 03:30-04:30 (60 Minute)	1226	237958	46.49	204.40	233.10	2.38Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	05 Jul, 11:30-12:30 (60 Minute)	1769	186920	43.25	246.30	141.00	2.45Kg/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 Jul, 10:45-11:30 (45 Minute)	2307	253208	36.13	47.16	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	03 Jul, 11:40-12:20 (40 Minute)	2307	249761	41.50	57.64	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	24 Jul, 10:00-10:40 (40 Minute)	1763	251414	46.82	40.23	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	24 Jul, 11:00-11:35 (35 Minute)	1763	246449	48.51	47.16	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	29 Jul, 10:15-11:00 (45 Minute)	8332	489622	47.82	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	15 Jul, 10:45-11:30 (45 Minute)	8745	478868	47.76	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	10 Jul, 11:45-12:30 (45 Minute)	154	59293	40.49	-	-	-
RMP-3											
VK-4	Vertical Kiln	80	1.4		30 Jul, 11:15-12:00(45 Minute)	292	61665	31.65			
VK-5	Vertical Kiln	80	1.4		30 Jul, 12:15-01:00(45 Minute)	313	66717	28.26			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	02 Jul, 11:10-11:55 (45 Minute)	2095	115177	36.80	2.33	50.76	-
Boiler 2	Boiler	80	4.3	ESP	02 Jul, 10:15-11:00 (45 Minute)	2110	119029	35.83	3.19	63.82	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	11 Jul, 11:30-12:15 (45 Minute)	2415	81656	37.17	73.36	90.24	-
Boiler 5	Boiler	80	4.3	ESP	18 Jul, 12:00-12:45 (45 Minute)	2049	112555	38.22	41.92	78.96	-
Boiler 6	Boiler	80	4.3	ESP	18 Jul, 10:55-11:40 (45 Minute)	1650	329527	35.17	39.30	73.32	-
Mills											
Wire Rod Mill	RHF	-	-	-	17 Jul, 11:50-12:50 (60 Minute)	-	-	17.70	-	-	-
Merchant mill	RHF	-	-	-	23 Jul, 09:40-10:40 (60 Minute)	-	-	18.44	-	-	-
Rail Mill	RHF	-	-	-	16 Jul, 11:45-12:45 (60 Minute)	-	-	17.47	-	-	-
Plate Mill	RHF-J1	-	-	-	12 Jul, 11:10-12:10 (60 Minute)	-	-	17.44	-	-	-
Plate Mill	RHF-J2	-	-	-	12 Jul, 12:15-01:15 (60 Minute)	-	-	18.54	-	-	-
BRM	RHF	-	-	-	17 Jul, 10:30-11:30 (60 Minute)	-	-	16.20	-		
URM	RHF	-	-	-	16 Jul, 10:30-11:30 (60 Minute)	-	-	17.85	-		

BHILAI STEEL PLANT
April 2024 to September 2024

Month- August 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-4 (Process)	Stoves	60	2.5	--do--	03 Aug 10:40-11:40 (60 Minute)	3972	125589	19.23	120.52	101.52	0.55% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	03 Aug 11:45-12:45 (60 Minute)	2301	125599	17.87	102.18	114.68	0.69% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	06 Aug 10:45-11:45 (60 Minute)	3365	109237	19.54	141.54	110.23	0.52% V/V
BF-8 (Process)	Stoves	70	3.5	--do--	10 Aug 10:50-11:50 (60 Minute)	7460	181106	18.57	70.14	92.12	0.46% V/V
BF-7 (Space dedusting)				GCP (Scrubber)	28 Aug 10:45-11:30 (45Minute)	-	-	47.92	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	23 Aug, 11:15-11:50 (35Minute)	1560	115779	48.25	31.44	110.0	
LF-2	Ladle Furnace	50	1.5	Bag Filter	23 Aug, 10:20-11:00 (40Minute)	480	119194	30.44	41.92	71.44	
SMS-3											
SMS – 3 (DDSY Secondary)	Liquid Steel	-	-	-	08 Aug, 11:10-11:50 (40Minute)	-	-	36.42	-	-	-
A.	Stack emission										
Name of the Plant (1)	Stack connected to (Name of the unit)	Height of the stack (m) (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	Flow rate of the flue gas	Parameters (whichever are applicable) (9)			
								Particulate matter(PM)	SO ₂ (Norm:	NO _x (Norm:	CO (Norm:

BHILAI STEEL PLANT
April 2024 to September 2024

	(2)	(3)				(7)	(8)	(Norm:50mg /Nm3)	800mg/ Nm3)	500mg/ Nm3)	3 kg/T of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	05 Aug, 10:50-11:50 (60 Minute)	659	122495	43.30	89.10	144.80	2.41Kg/T coke
Battery No. 2	Battery	100	3.5	Nil	05 Aug, 12:05-01:05 (60 Minute)	871	123986	46.16	68.10	174.84	2.33Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	15 Aug, 08:45-09:45 (60 Minute)	871	124718	45.04	155.00	178.60	2.50Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	02 Aug, 10:15-11:15 (60 Minute)	804	117683	41.62	178.20	191.80	2.45Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	02 Aug, 11:30-12:30 (60 Minute)	648	114992	38.88	222.70	197.40	2.59Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	20 Aug, 10:00-11:10 (70 Minute)	1488	234377	44.35	170.20	148.50	2.68Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	20 Aug, 11:25-12:25 (60 Minute)	1508	242398	44.21	204.40	233.10	2.47Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	07 Aug, 11:30-12:30 (60 Minute)	1769	186192	44.88	432.30	146.64	2.53Kg/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	21 Aug, 10:30-11:10 (40 Minute)	2041	240426	46.15	57.64	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	21 Aug, 11:30-12:10 (40 Minute)	2041	257727	47.65	49.78	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	26 Aug, 10:40-11:20 (40 Minute)	1980	247599	48.18	46.92	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	26 Aug, 11:30-12:00 (30 Minute)	1980	253004	44.37	49.23	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	13 Aug, 03:05-03:50 (45 Minute)	8723	298138	42.27	-	-	-

BHILAI STEEL PLANT
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SP-3 (M/c-2)	Sintering Machine	120	7	ESP	16 Aug, 10:15-11:00 (45 Minute)	8193	509305	47.63	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	07 Aug, 10:30-11:30 (60 Minute)	500	59474	36.97	-	-	-
RMP-3											
VK-4	Vertical Kiln	80	1.4		29 Aug, 10:15-11:00(45 Minute)	83	63650	25.57			
VK-5	Vertical Kiln	80	1.4		29 Aug, 11:10-11:55(45 Minute)	353	65940	29.17			
TPP/CPP											
Boiler 2	Boiler	80	4.3	ESP	22 Aug, 10:30-11:15 (45 Minute)	2205	122412	36.84	12.54	65.80	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	22 Aug, 11:25-12:10 (45 Minute)	2147	82502	37.42	92.00	103.00	-
Boiler 5	Boiler	80	4.3	ESP	01 Aug, 10:05-10:55 (50 Minute)	1998	119553	36.22	15.72	62.04	-
Boiler 6	Boiler	80	4.3	ESP	01 Aug, 11:00-11:45 (45 Minute)	1660	321287	35.56	18.34	41.44	-
Boiler 8	Boiler	80	4.3	ESP	17 Aug, 11:30-12:20 (50 Minute)	3074	167952	27.18	48.36	50.26	
Boiler 9	Boiler	80	4.3	ESP	01 Aug, 12:25-01:05 (40 Minute)	3101	166471	24.69	42.58	52.47	
Mills											
Wire Rod Mill	RHF	-	-	-	30 Aug, 11:05-12:05 (60 Minute)	-	-	19.26	-	-	-
Merchant mill	RHF	-	-	-	30 Aug, 09:40-10:40 (60 Minute)	-	-	17.09	-	-	-
Rail Mill	RHF	-	-	-	27 Aug, 10:40-11:40 (60 Minute)	-	-	17.85	-	-	-
Plate Mill	RHF-J1	-	-	-	12 Aug, 11:00-12:00 (60 Minute)	-	-	18.32	-	-	-
Plate Mill	RHF-J2	-	-	-	12 Aug, 12:15-01:15 (60 Minute)	-	-	17.90	-	-	-
URM	RHF	-	-	-	27 Aug, 11:55-12:55 (60 Minute)	-	-	18.53	-		

BHILAI STEEL PLANT
April 2024 to September 2024

Month- September 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-4 (Process)	Stoves	60	2.5	--do--	23 Sep 11:40-12:40 (60 Minute)	2507	116663	17.78	83.84	110.92	0.61% V/V
BF-5 (Process)	Stoves	60	3.5	--do--	23 Sep 03:00-04:00 (60 Minute)	2180	125419	19.31	92.65	103.56	0.64% V/V
BF-7 (Process)	Stoves	70	3.5	--do--	25 Sep 04:00-05:00 (60 Minute)	3807	119701	17.70	144.10	147.83	0.57% V/V
BF-8) (Process)	Stoves	70	3.5	--do--	14 Sep 11:20-12:20 (60 Minute)	8310	181019	16.66	60.24	87.50	0.49% V/V
BF-5 (Space dedusting)				Bag filter	27 Sep 12:00-12:40 (40 Minute)	-	-	48.23	-	-	
BF-7 (Space dedusting)				GCP (Scrubber)	27 Sep 01:00-01:40 (40 Minute)	-	-	48.21	-	-	
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	20 Sep, 10:25-11:05 (40Minute)	1440	124666	48.34	54.98	120.0	
LF-2	Ladle Furnace	50	1.5	Bag Filter	20 Sep, 11:25-12:05 (40Minute)	1080	119838	33.64	41.92	71.44	
SMS-3											
SMS – 3 (DDSY Secondary)	Liquid Steel	-	-	-	21 Sep, 12:20-01:00 (40Minute)	-	-	33.74	-	-	-
A.	Stack emission										
Name of the Plant	Stack connected	Height of the	Diameter of the stack	Pollution Control unit	Date & Time of the monitoring	Production fig. of the	Flow rate of the flue	Parameters (whichever are applicable)			

April 2024 to September 2024

(1)	to (Name of the unit) (2)	stack (m) (3)	(m) (4)	provided (Name) (5)	(duration) (6)	unit, during the period of monitoring (7)	gas (8)	(9)			
								Particulate matter(PM) (Norm:50mg /Nm3)	SO ₂ (Norm: 800mg/ Nm ₃)	NO _x (Norm: 500mg/ Nm ₃)	CO (Norm: 3 kg/T of Coke)
Coke Oven											
Battery No. 2	Battery	100	3.5	Nil	04 Sep, 10:30-11:30 (60 Minute)	894	127183	45.54	65.50	180.48	2.39Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	04 Sep, 11:40-12:40 (60 Minute)	905	125309	44.62	275.10	172.96	2.54Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	16 Sep, 10:15-11:15 (60 Minute)	759	116671	43.42	424.44	283.88	2.48Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	16 Sep, 11:30-12:30 (60 Minute)	782	120079	41.10	96.10	383.14	2.42Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	18 Sep, 10:00-11:00 (60 Minute)	1347	235124	43.33	368.11	279.18	2.53Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	18 Sep, 11:20-12:20 (60 Minute)	1387	240930	44.57	204.40	233.10	2.44Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	19 Sep, 11:25-12:25 (60 Minute)	1689	187468	45.11	422.00	141.20	2.56Kg/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 Sep, 10:50-11:30 (40 Minute)	1586	240720	44.75	56.23	-	-
SP-2 (M/c-2)	Sintering Machine	100	6	ESP	03 Sep, 11:45-12:25 (40 Minute)	1586	258517	46.11	44.65	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	ESP	05 Sep, 10:30-11:10 (40 Minute)	2038	251873	45.42	29.40	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	ESP	05 Sep, 11:20-12:00 (40 Minute)	2038	248126	46.09	51.20	-	-
SP-3											

BHILAI STEEL PLANT
April 2024 to September 2024

SP-3 (M/c-1)	Sintering Machine	120	7	ESP	02 Sep, 10:35-11:10 (35 Minute)	8380	540804	46.90	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	12 Sep, 10:25-11:10 (45 Minute)	8230	486591	46.28	-	-	-
SP-3, M/c-1 (Space dedusting)	Sintering Machine				20 Sep, 03:25-04:10 (45 Minute)	-	-	44.25	-	-	-
SP-3, M/c-2 (Space de-dusting)	Sintering Machine				20 Sep, 02:30-03:15 (45 Minute)	-	-	46.98	-	-	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	23 Sep, 10:30-11:15 (45 Minute)	201	57896	38.05	-	-	-
RMP-3											
VK-3	Vertical Kiln	80	1.4		28 Sep, 10:30-11:15 (45 Minute)	300	67141	24.33			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	26 Sep, 10:25-11:20 (55 Minute)	1544	115896	37.1	14.55	41.36	-
Boiler 2	Boiler	80	4.3	ESP	26 Sep, 11:35-12:30 (55 Minute)	1799	120774	38.27	21.82	56.40	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	30 Sep, 02:40-03:25 (45 Minute)	2432	80581	35.89	73.36	90.24	-
Boiler 5	Boiler	80	4.3	ESP	13 Sep, 10:25-11:15 (50 Minute)	2208	121187	37.06	52.40	56.40	-
Boiler 6	Boiler	80	4.3	ESP	13 Sep, 11:25-12:15 (50 Minute)	1325	318732	35.70	20.21	68.20	-
Boiler 8	Boiler	80	4.3	ESP	26 Sep, 02:30-03:15 (45 Minute)	3255	169236	26.97	34.06	90.24	-
Boiler 9	Boiler	80	4.3	ESP	26 Sep, 03:30-04:15 (45 Minute)	3329	171020	23.66	28.82	86.48	-
Mills											
Wire Rod Mill	RHF	-	-	-	21 Sep, 11:15-12:15 (60 Minute)	-	-	20.57	-	-	-
Merchant mill	RHF	-	-	-	25 Sep, 02:45-03:45 (60 Minute)	-	-	20.38	-	-	-
Rail Mill	RHF	-	-	-	21 Sep, 10:00-11:00 (60 Minute)	-	-	18.59	-	-	-
Plate Mill	RHF-J1	-	-	-	10 Sep, 02:20-03:20 (60 Minute)	-	-	16.35	-	-	-
Plate Mill	RHF-J2	-	-	-	10 Sep, 03:35-04:35 (60 Minute)	-	-	17.19	-	-	-
BRM	RHF	-	-	-	25 Sep, 11:40-12:40 (60 Minute)	-	-	19.67	-	-	-
URM	RHF	-	-	-	25 Sep, 10:20-11:20 (60 Minute)	-	-	17.08	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

FLAG E

E-2

Fugitive Emission

April'24 to Sep'24

BHILAI STEEL PLANT
April 2024 to September 2024

Fugitive Emissions Status Month- April 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)						Remarks
					PM ₁₀ µg/m ³ (4000) (3000 for BF-8)	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	
1	Coke Oven area	In front of Batt.-2		01 Apr - 10:45	1380	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		20 Apr - 10:40	1400	-	-	-	-		
3	Steel Melting Shop-2	Near LF-2 chimney		30 Apr - 11:30-03:30	861.19	72.10	61.3	0.014*	1216	162*	
4	Blast Furnace 8	BFs-8 (Stock House Entry)		24 Apr - 11:20-03:20	1910.37	68.35	59.20	-	1153		
5	Blast Furnace 6	Near Weighing bridge		25 Apr - 12:00-04:00	816.66	62.59	55.46	0.062*	894	271*	Norms as per GSR 277 (E) dtd 30/03/2012
6	Steel Melting Shop-3	SMS # 3,in front of HMDP control room		23 Apr - 11:00-03:00	1525.36	-	-	-	1081	-	-
7	RMP-3	RMP # 3,Dumper loading Area near lift		22 Apr - 10:30-04:10	2164.71	62.30	58.60	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-1 & 2		05 Apr - 10:30	1380	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		04 Apr - 11:40	1200	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		04 Apr - 11:00	1600	-	-	-	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

Fugitive Emissions Status Month-May 2024

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM ₁₀ µg/m ³ (4000) (3000 for BF-8)	SO ₂ µg/m ³ (200)	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		06 May - 10:45	1360	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		03 May - 10:15	1420	-	-	-	-		
3	Steel Melting Shop-2	Beside LF-2 chimney		21 May - 11:00-03:00	973.48	75.2	63.59	0.014*	1090	162*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Cast House Near Tap hole)		11 May- 10:30-01:30	1154.5	69.25	60.13	-	1272		
5	URM	Near Bloom Descaling-1 Stand		23 May - 10:30-04:30	1038.32	-	-	-	-	-	
6	Steel Melting Shop-3	SMS # 3, Near convertor 1		25 May- 10:30-02:30	1530.79	85.20	71.36	-	1218	-	-
7	RMP-3	RMP # 3,Near LDDDB Building		08 May - 11:00-03:00	1289.28	66.40	57.30	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-1 & 2		09 May- 11:00	1400	-	-	-	-	-	-
9	Lime dolomite	RMP-1 (Entrance)		28 May- 11:45	1010	-	-	-	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

	plant- 1										
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		28 May- 11:15	1390	-	-	-	-	-	-

Fugitive Emissions Status Month-June 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)						Remarks
					PM ₁₀ µg/m ³ (4000) (3000 for BF-8)	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	
1	Coke Oven area	In front of Batt.-2		10 Jun - 11:45	1390	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		18 Jun - 10:50	1450	-	-	-	-		
3	Steel Melting Shop-2	Vaccume ARC Degassing unit		14 Jun - 11:00-03:00	1549	72.39	68.96	0.014*	990	162*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Stock House Near feeder First Floor)		28 Jun- 11:00-03:00	1817	75.00	63.90	-	1151		
5	URM	Near Bloom Descaling-1 Stand		25 Jun - 12:00-02:45	1254	51.90	62.35	-	-	-	
6	Steel Melting Shop-3	SMS # 3, M-N-storage BAY(Billet Yard)		25 Jun - 10:50-02:30	985	86.23	70.14	-	1049	-	-
7	RMP-3	RMP # 3, Near Dumper Loading		27 Jun - 10:40-02:30	1607	65.22	59.28	-	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

		Area									
8	Thermal Power Plant-1	Near Boiler-1 & 2		11 Jun - 11:00	1380	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		12 Jun - 11:30	1200	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		12 Jun - 10:50	1390	-	-	-	-	-	-

Fugitive Emissions Status Month-July 2024

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM ₁₀ µg/m ³ (4000) (3000 for BF-8)	SO ₂ µg/m ³ (200)	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.-3		05 Jul - 10:40	1300	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		03 Jul - 10:00	1430	-	-	-	-		
3	Steel Melting Shop-2	Converter shop 38 meter level up		08 Jul- 12:30-04:00	1747	68.14	72.9	0.014*	965	162*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Stock House - 3 meter first floor		23 Jul- 10:20-03:30	2088	70.00	61.82	-	1093		
5	URM	Near Bloom Descaling-1 Stand		16 Jul - 10:15-04:30	567	52.30	63.25	-	-	-	
6	Steel Melting Shop-3	SMS # 3, Intrance of Ladle Furnace		31 Jul - 11:30-04:00	826	81.50	73.40	-	981	-	-
7	RMP-3	RMP # 3, Near Pum House		30 Jul - 11:00-04:00	1235	58.60	60.80	-	-	-	-
8	Thermal Power	Near Boiler-1		02 Jul - 10:50	1300	-	-	-	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

	Plant-1										
9	Lime dolomite plant- 1	RMP-1 (Entrance)		10 Jul - 12:45	1220	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		10 Jul - 12:00	1370	-	-	-	-	-	-

Fugitive Emissions Status Month-August 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)						Remarks
					PM ₁₀ µg/m ³ (4000) (3000 for BF-8)	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	
1	Coke Oven area	In front of Batt.-5		02 Aug - 11:05	1320	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		21 Aug - 10:10	1330	-	-	-	-		
3	Steel Melting Shop-2	CCS Near Slab Caster-6		16 Aug- 09:30-04:00	283	65.4	71.32	0.014*	1007	162*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Stock House ground level)		23 Aug- 10:15-05:00	1285	72.00	63.58	-	1125		
5	URM	Near Bloom Descaling-1 Stand		06 Aug- 10:30-03:30	384	53.20	61.20	-	-	-	
6	Steel Melting Shop-3	SMS # 3, In front of hot metal		08 Aug- 11:00-03:00	553	80.20	71.23	-	1182	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

		desulphurization unit control									
7	RMP-3	RMP # 3, Near Control Room		29 Aug- 10:45-12:45	937	55.32	61.58	-	-	-	-
8	Thermal Power Plant-1	Near Boiler-5		01 Aug - 10:15	1280	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		14 Aug - 10:30	1400	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		14 Aug - 11:10	1290	-	-	-	-	-	-

Fugitive Emissions Status Month-September 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)						Remarks
					PM ₁₀ µg/m ³ (4000) (3000 for BF-8)	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	
1	Coke Oven area	In front of Batt.-2		04 Sep- 10:30	1250	-	-	-	-	1267* (Batt.1)	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1&2)		03 Sep - 10:00	1290	-	-	-	-		
3	Steel Melting Shop-2	Near Ladle Furnace-1 Chimney		20 Sep- 10:00-02:00	365	62.6	70.3	0.014*	835	162*	Norms as per GSR 277 (E) dtd 30/03/2012
4	Blast Furnace 8	BFs-8 (Stock House ground level)		30 Sep- 11:00-03:00	1522	68.20	58.60	-	924		
5	URM	Near Bloom Descaling-1 Stand		25 Sep- 11:00-03:00	485	49.80	57.70	-	-	-	

April 2024 to September 2024

6	Steel Melting Shop-3	SMS # 3, In front of hot metal desulphurization unit control		21 Sep- 10:30-02:30	583	77.00	72.60	-	1030	-	-
7	RMP-3	RMP # 3, Near Chiller Room		28 Sep- 10:00-02:00	1259	54.70	62.90	-	-	-	-
8	Thermal Power Plant-1	Near Boiler- 5&6		13 Sep - 10:40	1280	-	-	-	-	-	-
9	Lime dolomite plant- 1	RMP-1 (Entrance)		23 Sep - 11:00	1030	-	-	-	-	-	-
10	Lime dolomite plant-2	RMP-2 (Near welfare building)		23 Sep - 10:55	1300	-	-	-	-	-	-

BHILAI STEEL PLANT
April 2024 to September 2024

FLAG E

E-3

AMBIENT AIR QUALITY

April'24 to Sep'24

BHILAI STEEL PLANT
April 2024 to September 2024

Month-April 2024															
B. AMBIENT AIR QUALITY AND FUGITIVE EMISSION															
a. Ambient Air quality															
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)											
1	2	3	4	5											
				PM _{2.5}	PM ₁₀	SO ₂	NO ₂	NH ₃	CO	BaP*	O ₃	Pb*	As*	Ni*	C 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			25.16	48.18	14.65	17.22	2.49	218	NT*	24.11	0.031	NT	3.000	1.28
2	OP-2			24.10	37.96	13.20	10.87	2.65	270	NT*	24.87	0.029	NT	4.000	1.16
3	Rail Mill			29.32	36.41	14.69	18.16	2.41	246	NT*	31.58	0.043	NT	6.000	1.14
4	Ispat Bhavan			31.28	34.98	16.65	19.13	2.38	221	NT*	28.32	0.058	NT	2.000	1.20

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.

* NT- not Traceable

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

BHILAI STEEL PLANT
April 2024 to September 2024

Month-May 2024

B. AMBIENT AIR QUALITY AND FUGITIVE EMISSION

a. Ambient Air quality

S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)											
1	2	3	4	5											
				PM _{2.5}	PM ₁₀	SO ₂	NO ₂	NH ₃	CO	BaP*	O ₃	Pb*	As*	Ni*	C 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			26.54	50.39	16.56	18.42	2.38	245	NT*	28.20	0.031	NT	3.000	1.27
2	OP-2			28.47	41.62	14.88	13.60	2.44	266	NT*	25.84	0.029	NT	4.000	1.18
3	Rail Mill			30.43	38.10	16.31	20.23	2.27	250	NT*	32.72	0.043	NT	6.000	1.13
4	Ispat Bhavan			33.75	36.24	19.59	22.80	2.35	238	NT*	30.86	0.058	NT	2.000	1.22

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.

* NT- not Traceable

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

BHILAI STEEL PLANT
April 2024 to September 2024

Month-June 2024															
B. AMBIENT AIR QUALITY AND FUGITIVE EMISSION															
a. Ambient Air quality															
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)											
1	2	3	4	5											
				PM _{2.5}	PM ₁₀	SO ₂	NO ₂	NH ₃	CO	BaP*	O ₃	Pb*	As*	Ni*	C 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			29.58	53.99	19.36	20.24	2.46	234	NT*	26.39	0.031	NT	3.000	1.21
2	OP-2			32.11	44.16	15.74	16.31	2.51	262	NT*	22.18	0.029	NT	4.000	1.14
3	Rail Mill			35.67	39.83	17.95	25.67	2.30	248	NT*	30.96	0.043	NT	6.000	1.19
4	Ispat Bhavan			38.82	41.74	20.60	26.45	2.34	243	NT*	31.22	0.058	NT	2.000	1.24

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.

* NT- not Traceable

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

BHILAI STEEL PLANT
April 2024 to September 2024

Month-July 2024															
B. AMBIENT AIR QUALITY AND FUGITIVE EMISSION															
a. Ambient Air quality															
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)											
1	2	3	4	5											
				PM _{2.5}	PM ₁₀	SO ₂	NO ₂	NH ₃	CO	BaP*	O ₃	Pb*	As*	Ni*	C 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			24.77	50.90	15.22	16.19	2.40	228	NT	27.84	0.031	NT	3.000	1.23
2	OP-2			29.68	48.82	11.95	10.12	2.53	260	NT	23.26	0.029	NT	4.000	1.20
3	Rail Mill			23.54	46.74	12.08	15.30	2.34	235	NT	29.43	0.043	NT	6.000	1.13
4	Ispat Bhavan			27.22	38.30	16.44	18.08	2.32	230	NT	30.60	0.058	NT	2.000	1.18

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.

* NT- not Traceable

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

BHILAI STEEL PLANT
April 2024 to September 2024

Month-August 2024															
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION															
a. Ambient Air quality															
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)											
1	2	3	4	5											
				PM _{2.5}	PM ₁₀	SO ₂	NO ₂	NH ₃	CO	BaP*	O ₃	Pb*	As*	Ni*	C 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			20.37	48.92	13.02	13.91	2.38	215	NT	26.09	0.031	NT	3.000	1.27
2	OP-2			22.06	44.25	10.86	10.34	2.42	254	NT	21.50	0.029	NT	4.000	1.18
3	Rail Mill			19.38	41.34	11.09	14.66	2.30	233	NT	24.61	0.043	NT	6.000	1.13
4	Ispat Bhavan			24.91	33.10	14.18	17.84	2.29	218	NT	27.36	0.058	NT	2.000	1.22

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.

* NT- not Traceable

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

BHILAI STEEL PLANT
April 2024 to September 2024

Month-September 2024															
B. AMBIENT AIR QUALITY AND FUGUTIVE EMISSION															
a. Ambient Air quality															
S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)											
1	2	3	4	5											
				PM _{2.5}	PM ₁₀	SO ₂	NO ₂	NH ₃	CO	BaP*	O ₃	Pb*	As*	Ni*	C 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			18.52	46.84	11.82	13.24	2.41	236	NT	23.11	0.031	NT	3.000	1.26
2	OP-2			20.94	41.06	10.53	10.08	2.50	258	NT	21.58	0.029	NT	4.000	1.22
3	Rail Mill			16.39	38.42	10.64	12.27	2.26	231	NT	28.70	0.043	NT	6.000	1.14
4	Ispat Bhavan			21.88	30.09	12.68	15.70	2.34	227	NT	27.93	0.058	NT	2.000	1.20

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.

* NT- not Traceable

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

FLAG - F

Water Pollution Status

April'24 to Sep'24

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 April 2024 to September 2024

Month- April 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS April 2024 to September 2024

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	Pheno l	Cyan ide	BOD	COD	Amm. Nitrogen	O&G	
			-	6.5-8.5	100	1	0.2	30	250	50	10	
01, 06, 16, 22, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	31.63	6.66	65	BDL	BDL	18	48	6.24	2.63	
01, 06, 16, 22, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	31.33	7.02	54	BDL	BDL	21	55	22.35	4.39	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	30.43	7.87	32	0.10	0.10	25	59	6.47	2.34	

Status of Sewage Treatment Plant (STP)

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)					Remarks
			Temp.	pH				Temp.
			Norms		6.5 -8.5	100	30	Norms
08 Apr, 12:10 PM	30 MLD	1150	27	8.06	08 Apr, 12:10 PM	30 MLD	1150	27
30 Apr, 04:00 PM	Bhilai House (Oxi. Pond)	475	30	8.42	30 Apr, 04:00 PM	Bhilai House (Oxi. Pond)	475	30
01 Apr, 03:07 PM	Risali (Oxi. Pond)	700	33	6.64	01 Apr, 03:07 PM	Risali (Oxi. Pond)	700	33
11 Apr, 10:15 AM	Works area	390	26	7.56	11 Apr, 10:15 AM	Works area	390	26

FUGITIVE EMISSION STATUS April 2024 to September 2024

Month- May 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS April 2024 to September 2024

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)									Remarks
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
Norms			-	6.5-8.5	100	1	0.2	30	250	50	10	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	32.55	7.57	52	BDL	BDL	15	48	3.70	2.66	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	31.83	7.50	41	BDL	BDL	22	60	11.47	3.65	
03, 10, 17, 22, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	31.03	8.45	41	0.12	0.08	23	48	11.41	2.46	

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	
06 May, 12:40 PM	30 MLD	1150	33	8.00	80	20	80	
17 May, 07:45 AM	Bhilai House (Oxi. Pond)	475	33	8.15	58	25	60	
20 May, 08:00 AM	Risali (Oxi. Pond)	700	31	7.34	74	23	59	
09 May, 07:55 AM	Works area	390	29	7.64	33	14	58	

FUGITIVE EMISSION STATUS April 2024 to September 2024

Month- June 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS April 2024 to September 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, 17, 24, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	33.25	7.35	57	BDL	BDL	20	47	2.46	2.10	
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	32.28	7.18	51	BDL	BDL	25	55	19.23	3.24	
07, 14, 21, 28, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	31.80	7.94	38	0.11	0.06	20	43	12.25	1.64	

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	
12 Jun , 11:50 AM	30 MLD	1150	34	7.35	61	25	73	
03 Jun, 07:45 AM	Bhilai House (Oxi. Pond)	370	32	8.11	54	26	59	
03 Jun, 11:05 AM	Risali (Oxi. Pond)	700	33	6.87	69	28	61	
12 Jun, 12:10 PM	Works area	390	34	6.73	36	19	55	

Month- July 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS April 2024 to September 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	
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	30.50	7.16	55	<i>BDL</i>	<i>BDL</i>	15	42	1.94	2.32	
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.80	6.89	47	<i>BDL</i>	<i>BDL</i>	18	54	22.39	2.77	
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke and Ovens and Mills	29.18	7.44	39	0.04	0.05	16	42	8.19	1.38	

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	
09 Jul , 04:13 PM	30 MLD	1150	31	7.23	65	26	74	
23 Jul, 08:10 AM	Bhilai House (Oxi. Pond)	370	32	8.11	54	22	59	
09 Jul , 03:55 PM	Risali (Oxi. Pond)	700	30	8.31	69	28	65	
16 Jul, 12:20 PM	Works area	390	30	6.84	45	24	58	

Month- August 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS April 2024 to September 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	
05, 12, 20, 26, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	29.85	7.03	36	BDL	BDL	17	45	3.95	1.48	
05, 12, 20, 26, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.45	7.07	43	BDL	BDL	25	57	13.39	1.64	
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	27.75	7.54	29	0.19	0.06	20	45	13.88	1.52	

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	
05 Aug , 02:30 PM	30 MLD	1150	30	7.14	72	28	82	
26 Aug , 01:01 PM	Bhilai House (Oxi. Pond)	470	29	6.98	23	25	62	
26 Aug , 03:27 PM	Risali (Oxi. Pond)	700	28	7.39	54	28	74	
20 Aug , 10:40 AM	Works area	390	29	6.64	56	28	61	

Month- September 2024

[illegible]

BHILAI STEEL PLANT

FUGITIVE EMISSION STATUS April 2024 to September 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	
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	30.53	6.91	39	BDL	BDL	17	45	2.17	1.44	
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	29.28	7.00	51	BDL	BDL	21	54	19.68	2.05	
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	29.03	7.47	32	0.10	0.06	21	41	8.46	1.08	

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	
09 Sep , 03:08 PM	30 MLD	1150	30	7.30	39	7	20	
11 Sep , 11:57 PM	Bhilai House (Oxi. Pond)	475	28	6.29	54	26	67	
09 Sep , 02:57 PM	Risali (Oxi. Pond)	700	29	7.44	60	23	69	
10 Sep , 02:35 AM	Works area	390	29	6.71	61	24	64	

FLAG G

Noise Pollution Control Status

April'24 to Sep'24

Noise Pollution Control Status

Month-April 2024

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	29-Apr	5 m	Air tight control Room	65.0	2 Minute	
Blast Furnace- 1(Control Room)	03-Apr	5 m	Acoustic Room	68.8	2 Minute	
Mills (Rolling / forgoing) Rail Mill	10-Apr	5 m	Acoustic pulpit	89.5	2 Minute	
TPP/CPP (Turbines-6) (Control Room)	05-Apr	5 m	Acoustic cabins	69.3	2 Minute	
SP-2, (M/c-1&2) Operator's room	20-Apr	5 m	Acoustic Room	64.8	2 Minute	
Coke-oven area (Batt.-1&2) (Control Room)	01-Apr	5 m	Air Tight control Room	67.4	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 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 Secondary 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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 2024

Month- May 2024

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	31-May	5 m	Air tight control Room	66.5	2 Minute	
Blast Furnace- 4(Control Room)	11-May	5 m	Air tight control Room	67.5	2 Minute	
Mills (Rolling / forgoing) Rail Mill	07-May	5 m	Air tight control Room	86.9	2 Minute	
TPP/CPP (Turbines-1) (Control Room)	09-May	5 m	Air tight control Room	68.7	2 Minute	
SP-2, (M/c-1&2) Operator's room	03-May	5 m	Air tight control Room	66.3	2 Minute	
Coke-oven area (Batt.-1&2) (Control Room)	04-May	5 m	Air Tight control Room	69.3	2 Minute	
Others						

Bhilai Steel Plant Noise Pollution Status April 2024 to September 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 Secndry 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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 2024

Month- June 2024

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A)	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	15-Jun	5 m	Air tight control Room	59.0	2 Minute	
Blast Furnace- 5(Control Room)	08-Jun	5 m	Air Tight control Room	67.0	2 Minute	
Mills (Rolling / forgoing) Rail Mill	05-Jun	5 m	Air Tight control Room	89.8	2 Minute	
TPP/CPP (Turbines-5) (Control Room)	01-Jun	5 m	Air Tight control Room	65.8	2 Minute	
SP-2, (M/c-3&4) Operator's room	17-Jun	5 m	Air Tight control Room	68.4	2 Minute	
Coke-oven area (Batt.-3) (Control Room)	05-Jun	5 m	Air Tight control Room	64.3	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 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	59.5	55.0
Near Joratarai Gate	75	60.4	54.2
Near Main Gate	75	58.3	53.9
Near Khursipar Gate	75	61.4	54.1
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	62.9	51.6
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.3	54.6
Sector-09 (Goal Market)	65 Day & 55 Night	63.6	50.6
Maroda Sector (BSP Market)	65 Day & 55 Night	63.9	53.6
Risali Sector (BSP Market)	65 Day & 55 Night	61.5	52.6
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	52.9	43.2
Sector-05 (Street No. - 32)	55 Day & 45 Night	54.3	40.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	53.9	41.8
Sector-08 (Street No. - 05)	55 Day & 45 Night	49.8	43.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	53.9	40.9
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	47.9	38.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	47.8	37.9
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.6	38.4
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	46.5	38.9
Maroda Sector (Estate Court)	50 Day & 40 Night	46.9	39.0

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 2024

Month - July 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)	31-Jul	5 m	Air tight control Room	64.8	2 Minute	
Blast Furnace- 7(Control Room)	09-Jul	5 m	Air tight control Room	67.8	2 Minute	
Mills (Rolling / forgoing) Rail Mill	16-Jul	5 m	Air tight control Room	86.8	2 Minute	
TPP/CPP (Turbines-1) (Control Room)	02-Jul	5 m	Air tight control Room	66.8	2 Minute	
SP-2, (M/c-1&2) Operator's room	03-Jul	5 m	Air tight control Room	67.9	2 Minute	
Coke-oven area (Batt.-3) (Control Room)	05-Jul	5 m	Air tight control Room	68.3	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 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	56.3	53.7
Near Joratarai Gate	75	55.7	53.9
Near Main Gate	75	58.3	54.8
Near Khursipar Gate	75	59.7	53.3
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	62.9	51.6
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.3	54.6
Sector-09 (Goal Market)	65 Day & 55 Night	63.6	50.6
Maroda Sector (BSP Market)	65 Day & 55 Night	63.9	53.6
Risali Sector (BSP Market)	65 Day & 55 Night	61.5	52.6
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	52.9	43.2
Sector-05 (Street No. - 32)	55 Day & 45 Night	54.3	40.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	53.9	41.8
Sector-08 (Street No. - 05)	55 Day & 45 Night	49.8	43.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	53.9	40.9
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	47.9	38.1
Sector-05 (Girls Higher Secondary School)	50 Day & 40 Night	47.8	37.9
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.6	38.4
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	46.5	38.9
Maroda Sector (Estate Court)	50 Day & 40 Night	46.9	39.0

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 2024

Month - August 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-Aug	5 m	Air tight control Room	63.5	2 Minute	
Blast Furnace- 5(Control Room)	03-Aug	5 m	Air tight control Room	67.8	2 Minute	
Mills (Rolling / forgoing) Rail Mill	27-Aug	5 m	Air tight control Room	89.7	2 Minute	
TPP/CPP (Turbines-5) (Control Room)	01-Aug	5 m	Air tight control Room	68.2	2 Minute	
SP-2, (M/c-1&2) Operator's room	21-Aug	5 m	Air tight control Room	69.5	2 Minute	
Coke-oven area (Batt.-2) (Control Room)	02-Aug	5 m	Air Tight control Room	69.8	2 Minute	
Others						

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 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	55.8	52.3
Near Joratarai Gate	75	58.2	54.1
Near Main Gate	75	62.0	54.4
Near Khursipar Gate	75	59.2	52.9
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	62.9	51.6
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.3	54.6
Sector-09 (Goal Market)	65 Day & 55 Night	63.6	50.6
Maroda Sector (BSP Market)	65 Day & 55 Night	63.9	53.6
Risali Sector (BSP Market)	65 Day & 55 Night	61.5	52.6
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	52.9	43.2
Sector-05 (Street No. - 32)	55 Day & 45 Night	54.3	40.8
Sector-07 (Street No. - 17)	55 Day & 45 Night	53.9	41.8
Sector-08 (Street No. - 05)	55 Day & 45 Night	49.8	43.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	53.9	40.9
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	47.9	38.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	47.8	37.9
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.6	38.4
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	46.5	38.9
Maroda Sector (Estate Court)	50 Day & 40 Night	46.9	39.0

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

Bhilai Steel Plant Noise Pollution Status April 2024 to September 2024

Month - September 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-Sep	5 m	Air tight control Room	66.8	2 Minute	
Blast Furnace- 7(Control Room)	14-Sep	5 m	Acoustic Room	69.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	21-Sep	5 m	Acoustic pulpit	89.9	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	30-Sep	5 m	Acoustic cabins	67.9	2 Minute	
SP-2, (M/c-1&2) Operator's room	03-Sep	5 m	Acoustic Room	68.3	2 Minute	
Coke-oven area (Batt.-2) (Control Room)	04-Sep	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 April 2024 to September 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	54.9	52.5
Near Joratarai Gate	75	52.6	51.4
Near Main Gate	75	61.2	59.3
Near Khursipar Gate	75	67.4	65.9
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	55.9	51.3
Sector-06 (Near 'B' Market)	65 Day & 55 Night	64.8	54.4
Sector-09 (Goal Market)	65 Day & 55 Night	62.9	54.6
Maroda Sector (BSP Market)	65 Day & 55 Night	56.4	53.9
Risali Sector (BSP Market)	65 Day & 55 Night	59.8	52.4
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	41.2	40.2
Sector-05 (Street No. - 32)	55 Day & 45 Night	50.8	41.0
Sector-07 (Street No. - 17)	55 Day & 45 Night	52.0	40.9
Sector-08 (Street No. - 05)	55 Day & 45 Night	48.5	42.5
Sector-10 (Street No. - 25)	55 Day & 45 Night	53.7	44.3
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	43.3	39.5
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	46.9	39.8
Sector-07 (English Medium Middle School)	50 Day & 40 Night	48.3	38.6
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	49.2	39.2
Maroda Sector (Estate Court)	50 Day & 40 Night	47.9	39.5

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

Flag-H

Environmental Projects Implemented at BSP

Let's commit to Clean & Green Bhilai

S.No.	Projects	Status (As on 30 th Sep. 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 network of Bhilai Township & divert house & laying of 2.5 KM sewer line.	BSP requested CECB to delist this project from the list of BG project earlier submitted by BSP.
4.	Construction of Secured Land Fill for disposal of hazardous waste. Cost : 12.4 Crs	Completed.
5.	Replacement of Multi-cyclones (wet scrubbers) by ESPs at Sinter Plant-II for control of Stack emission. Cost : 43.91 Crs	Completed.
6.	ESP based de-dusting system at SP-II for work-zone/fugitive emission control. Cost : 2.987Crs	Completed.
7.	Up-gradation of waste gas ESP of SP-III for control of Stack emission. Cost : 6.24 Crs	
8.	Cast house De-fuming system in Blast Furnace-7 for control of work-zone emissions in cast house. Cost : 12.67 Crs	Completed.

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

Annexure-II

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

	A. Specific conditions:	
i.	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to Regional Office of MoEF&CC. Project proponent shall arrange to provide training to employees on 'behavioural safety'.	• Safety mock drill for gas pipeline maintenance are being conducted every six months (Report enclosed at Flag-A) • Training to employees on 'behavioural safety' is being organized regularly (Report enclosed at Flag-B)
ii.	All CER activities as committed in the reply to the ADS letter dated 02.01.2019 shall be completed in financial year 2019-20.	• BSP has initiated action for completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. • Due to the prevalence of COVID pandemic (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 & likely to be completed by March-2024. • A detailed status report on CER activities enclosed at Flag-C
iii.	100 % SMS -Slag utilisation shall be ensured after conditioning /steam curing.	• About 55% the BOF slag is presently being recycled back in to steel making process and also utilized in Road Making & filling of the low lying areas. • BSP has also started selling BOF slag to the interested buyers (Cement Plants & other Construction industries) since April-2021. • A pilot scale study on "Development of process for steam maturing of BOF slag" at BSL was taken up by SAIL. The matured BOF slag can be utilised as an

		aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report, wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. • Number of other R&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.
iv.	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.	• SMS-1 phased-out in March-2021 Decommissioning plan along with greenbelt development will be submitted to MoEF&CC.
v.	Scheme for green belt development in the remaining area for covering 33% of total project area shall be submitted to the Regional office of the MoEF&CC.	• BSP has planted 4540942 nos of trees in an area covering about 1885 hectares till Sep.-2023. • In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. • In the year 2022-23(April-March), BSP has planted 21210 trees within the plant premises & township covering an area of about 20-25 hectares.

		• Further Green belt required to be developed to meet the 33% criteria is about <u>280 Hectares</u> . • 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 %.
vi.	Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party,	➤ Standard Operating Procedures (SOPs) are developed for performance monitoring of pollution control devices and performance monitoring every year internally ➤ Performance monitoring of pollution control devices at every three year through an accredited third party will also be conducted.
vii.	In the Environmental Policy the hierarchy of reporting environmental non-compliances and emergencies should be clearly mentioned and submitted to the Regional Office of the MoEF&CC.	➤ The policy followed at SAIL for reporting environmental non-compliances and emergencies has already been submitted to MoEF&CC-New Delhi.
viii.	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 will be complied.
B.	General conditions	
I.	Statutory compliance:	
i.	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (prevention & Control of Pollution) Act 1974 from the concerned State pollution control Board/ Committee.	Online application for Consent to Establish has been submitted to Chhattisgarh Environment Conservation Board (CECB) on 22/07/2019 The Consent to Establish was granted by CECB Ref.no. 8779/TS/CECB/2021,dated 08/01/2021 for Five Years.
ii.	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	No ground water will be used for the project.
iii.	The project proponent shall obtain authorization under the Hazardous	BSP has obtained the Authorization for the handling of the

	and other Waste Management Rules,2016 as amended from time to time.	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
II.	Air quality monitoring and preservation	
i.	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 {E} dated 31st March 2012(Integrated iron & Steel} G.S.R 414 (E) dated 30 th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7 th 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.	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.
ii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.	Fugitive emissions are being monitored every quarter & report submitted to regulatory agencies.
iii.	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/ criterion parameters relevant to the main pollutants released (e.g- PM10 and PM2.5 in reference to PM emission, and SOx and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions	4 nos of Continuous Ambient Air Quality monitoring stations have been installed within and outside the plant area covering upwind and downwind directions Twelve air pollutants, as per the National Ambient Air quality standards-2009, namely, PM10, PM2.5, Carbon Monoxide (CO), Sulphur Dioxide (SO2), Nitrogen Dioxide (NO2), Ammonia (NH3), ground level Ozone (O3), Lead, Arsenic, Nickel, Benzene and Benzo (a) Pyrene are being measured (Note : Benzene and Benzo (a) Pyrene is measured offline)
iv.	The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.	Cameras have been installed at Coke ovens for recording of battery emissions
v.	Sampling facility at process stacks and at quenching towers shall be	Sampling facilities at process stacks and at quenching towers

	provided as per CPCB guidelines for manual monitoring of emissions	have been provided as per CPCB guidelines for manual monitoring of emissions
vi.	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report,	Copies of monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions (October-2021 to March-2022) is enclosed at Flag-E
vii.	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	➤ Air Pollution Control (APC) systems have been provided for all the dust generating points including fugitive dust from all vulnerable sources. ➤ The stack & fugitive emissions monitored are meeting the standards..
viii.	The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.	Diligent maintenance of Bags is being done & are replaced whenever there are leakages.
ix.	Secondary emission control system shall be provided at SMS Converters.	Secondary emission control system has been provided for SMS-3 Converters.
x.	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.	The Pollution control system as per the guidelines of CREP have been provided ➤ BOD plant for the treatment of effluents of COCCD ➤ Secondary emission control system has been provided for SMS-3 Converters ➤ Cast house Defuming systems have been provided for BF-8 & BF-7
xi.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads. shop floors, roofs, regularly.	Vacuum cleaners are being used to clean plant roads. Shop floor etc, regularly.
xii.	Recycle and reuse Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.	➤ Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices are being recycled back to the process after appropriate treatment. ➤ A briquetting/ agglomeration plant on BOO basis will be installed in next 3 years for increasing the utilization of process sludges/dusts

xiii.	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.	➤ At BSP railway wagons are being used for transportation of 95 % of the raw materials like coal & Iron ore. ➤ For internal transportation of raw materials leak proof trucks/dumpers are being used after proper covering.
xiv.	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility)	➤ Facilities for spillage collection are provided for coal and coke on wharf of coke oven batteries
xv.	Land-based APC system shall be installed to control coke pushing emissions	Land-based APC system has been installed to control coke pushing emissions in Coke oven Battery-11.
xvi.	Monitor CO, HC and Oz in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber	Monitor CO, and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber are being measured.
xvii.	Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens	The installation of the system shall be explored in future based on feasibility
xviii.	In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided to meet the prescribed standards	Regular monitoring of coke oven stack emissions is being done & The Gaseous emissions from Coke ovens are meeting the standards.
xix.	The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.	At BSP the imported coal has sulphur content less than 1%.
xx.	Wind shelter piles. fence and chemical spraying shall be provided on the raw material stock piles	➤ Water sprinklers are installed for control of dust at raw material stock piles
xxi.	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars	Ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars are installed.
xxii.	The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and-SMS convertor- (to be decided on case to case basis depending on type and size of plant)	➤ At BSP consultant MECO has recommended wet gas cleaning systems for BFs & SMS convertors as the Dry Gas Cleaning Plant are not feasible.
xxiii.	Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke	Dry quenching (CDQ) system along with power generation facility for waste heat recovery from hot coke has been

		installed for Coke Oven Battery-11.
III.	Water quality monitoring and preservation	
i.	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 3ts(March 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 7 th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act 1986 or NABL accredited laboratories	➤ continuous effluent monitoring systems have been installed for all three plant outlets Viz Outlet-A, B & C and are connected to SPCB and CPCB online servers ➤ Calibration of the systems is being carried-out regularly.
ii.	The project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer /sampling wells in the plant and adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories.	➤ Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out
iii.	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	Monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality reports (October-2021 to March-2022) are enclosed (Flag-F)
iv.	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (integrated iron & Steel); G-S.R 414 (E)dated 30s May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7e December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time.	At BSP ETP for coke oven and by-product plant has been installed and is working effectively and meeting the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (integrated iron & Steel);
v.	Adhere to 'Zero Liquid Discharge'	BSP has three outlets carrying plant effluent (Outlet-A , B &C). Effluent from outlet-A (About 5000 m3/Hr) is already being recycled and the recycling schemes for Outlet-B (450 m3/hr) & Outlet-C (2500 m3/hr) are in advanced stage of

		completion.
vi.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	A 30 MLD sewage recycling plant has been installed for treatment of recycling of domestic sewage generated in the Township.
vii.	Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off	Garland drains and collection pits have been provided at the Raw Material handling area to check the water pollution due to surface run off
viii.	Tyre washing facilities shall be provided at the entrance of the plant gates	Complied.
ix.	CO ₂ injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning	At SMS, pH in circulating water of GCPs is being maintained through addition of Use of Dispersant Surfactant. The option of CO ₂ injection is also being explored.
x.	The project proponent shall practice rainwater harvesting to maximum possible extent	• At present rain water harvesting is being done from the rooftops of Plate Mill & Machine Shop-II area. Approx. 71500 m³ rain water is channelized to Maroda-I reservoir through storm water drains. • Recharge pits were constructed near 73 existing borewell to arrest the over flow /excess water. • Rain Water Harvesting structure were installed at T A Building, Bhilai Niwas, Bhilai Technical Institute, S.S School Sector-VII & G.S.S School-V. • 5 Recharge ponds were dug in Bhilai Township (Sector-3 near FSNL, Sector-3 near BTI Hostel, Sector-5 behind Andhra Bhawan, Hospital Sector near D-23, Jayanti Stadium) with recharge bore well at middle bottom of pond at two locations. • 1 big recharge pond of about 1 lac m³ capacity was made Behind Bhilai Institute of Technology (BIT) near Bhilai House with bore well at Centre.

xi.	Treated water from ETP of CCIBP shall not be used for coke quenching	At COB#11 dry quenching system has been installed.
xii.	Water meters shall be provided at the inlet to all unit processes in the steel plants	Water meters are installed at strategic locations to measure water flow to the process plants.
xiii.	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water	- Water consumption in the steel plant is being reduced through adoption of local recycling systems for all the Modernization units (URM,BRM, SMS-3 & BF-8). - The effluents from older units are being recycled back to cooling pond after treatment for re-use as industrial water.
IV.	Noise monitoring and prevention	- 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.
i.	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report	Noise level survey is being carried as per the prescribed guidelines and report in this regard is enclosed (Flag-G)
ii.	The ambient noise levels should conform to the standards prescribed under E(P)A Rules. 1986 viz.75 dB(A) during day time and 70 dB(A) during night time	Regular Noise monitoring is being done at different locations of township (Market area, schools, hospitals, residential area) and ambient noise levels are meeting the standards (Flag-G)
V	Energy Conservation measures	
i.	The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces	At new BF-8, TRTs to recover energy from top gases of Blast Furnace has been installed.
ii.	Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens	At new Coke oven Battaery-11, Coke Dry Quenching (CDQ) has been installed

iii.	Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines	Waste heat recovery systems have been installed for Sinter Plants coolers and Sinter Machines of SP-3.
iv.	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles	At new BF-8, torpedo ladle is being used for hot metal transfer
v.	Use hot charging of slabs and billets/blooms as far as possible	Hot charging of slabs and billets/blooms is being done at Rolling mills.
vi.	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300°C	Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants
vii.	Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating firm aces and if feasible shall be installed	Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants. WHRs systems have also been installed in new units under Modernization In future more such units will be installed based on feasibility.
viii.	Restrict Gas flaring to < 1%	Complied/Noted.,
ix.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly	2x100 Kw solar power generation on roof tops of Bhilai Niwas has been installed & provision for online monitoring & recording of the power generation has also been developed.
x.	Provide LED lights in their offices and residential areas	Extensive use of LED lights in their offices and residential areas is being practiced.
xi.	Ensure installation of regenerative type burners on all reheating furnaces	regenerative type burners are being used for all reheating furnaces.
VI.	Waste management	
i.	An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/ l shall be installed to use slag as river sand in construction industry	All the BF-Granulated slag generated in BSP is being supplied to Cement Industry. In future if & when there is shortage of demand from Cement Industry BSP will offer the slag to construction industry through a viable mechanism.
ii.	In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery	NA, At BSP the coke ovens are of recovery type.
iii.	Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens)	At BSP Tar Sludge is being blended with coal charged in coke ovens & waste lubrication oil is being treated in a separate oil

		reclamation unit and recycled back after recovery/regeneration. The skimmed oil is being sold to authorized recyclers
iv.	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed	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.
v.	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS	At BSP recovery of scrap, metallic and flux is being done. The recovered scrap , iron fines, Lime fines, Mill scales is being recycled to BF & Sinter plants.
vi.	Used refractories shall be recycled as far as possible	Being done.
vii.	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	At BSP SMS/BOF slag is being processed into different size fractions and recycled back to Sinter & BF as replacement of flux. BSP is also exploring methodologies for use of BOF slag for road making, railway ballast & other applications. We are seeking the services of Centre for Construction Development & Research National Council for Cement and Building Materials for exploring alternative applications for BOF slag. 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 & pvt agencies involved in Construction/road making activities to promote its use as construction/pavement material. Other Central R&D initiatives in SAIL for BOF slag& BF Slag utilization: • Pilot scale project on steam maturing of BOF Slag at

		BSL, Bokaro • Field trial on assessing suitability of weathered BOF slag as rail track ballasts at BSL,Bokaro • Supply of Air Cooled BF slag for construction of road under Four Laning Project of NH-32at WB • Feasibility study on suitability of BOF Slag for use in cement industry through The Centre for Construction Development & Research of National Council for Cement and Building Materials (NCCBM), under the administrative control of Ministry of Commerce and Industry, Government of India, • Study on use of BOF slag as soil ameliorating agent in agriculture through Indian Agricultural Research Institute (IARI), New Delhi. • Use of steel slag in Open Graded Asphalt Friction Courses (OGAFC) through Department of Civil Engineering, IIT Guwahati.
viii.	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	100% utilization of fly ash as per Fly-ash rules is being followed at BSP. At BSP fly ash generation is very less as the 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.
ix.	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area	Being Complied.
x.	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Trans boundary	The acid sludge & other hazardous wastes are disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016.

	Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens	Coal tar sludge / decanter is being recycled to coke ovens or sold to authorized recyclers.
xi.	Kitchen waste shall be composted or converted to biogas for further use	Kitchen waste is composted and used for Horticulture as manure.
VII.	Green Belt	
i.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant	- BSP has planted 4540942 nos of trees in an area covering about 1885 hectares till Sep.-2023. - In the year 2023-24 BSP has been planted 25942Trees. 25650 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. - In the year 2022-23(April-March), BSP has planted 21210 trees within the plant premises & township covering an area of about 20-25 hectares. - Further Green belt required to be developed to meet the 33% criteria is about <u>280 Hectares</u> . 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 %.
ii.	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.	BSP maintains its GHG emissions inventory & also the emission data is submitted to world steel association(WSA) every year under its commitment as member under Climate Action
VII I.	Public hearing and Human health issues	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented	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
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment(PPE) as per the norms of Factory Act	National occupation Health Centre (NOHC) set-up at BSP regularly carry out heat stress analysis for the workmen who work in high temperature work zone . All the workmen are mandatorily provided with Personal Protection Equipment(PPE) as per the norms of Factory Act
iii.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project	Complied (At BSP major expansion job has already been completed)
iv.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	Being Complied. Occupational health surveillance of the workers is being done regularly.
IX.	Corporate Environment Responsibility	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1 st May 2018, as applicable, regarding Corporate Environment Responsibility	- 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 & likely to be completed by March-2024. A detailed status report on CER activities enclosed at Flag-C
ii.	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/	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

	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	quarterly basis & 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 & related Clearances & status of compliances are shown on company's website. Other information: • As per the Annexure-IV of the Department of Public Enterprises (DPE) Guidelines on Corporate Governance and Part-A of the Schedule-II of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, detailed information in respect of fatal or serious accidents, dangerous occurrences, any material effluent or pollution problems, is placed before the Board of Directors of SAIL. • As per the Part-A of Schedule-III of Securities Exchange Board of India (SEBI)'s (Listing Obligations and Disclosure Requirements) Regulations, 2015, occurrence of emergency, accidents, etc., if material in nature, is disclosed to the Stock Exchanges through Board of Directors within 24 hours.
iii.	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization	• BSP has a separate Environmental Department with well-equipped laboratory. • Adequate Qualified executive & non-executive personnel have been posted to the department & Lab • The department is headed by a senior officer of the rank of General Manager who reports to Executive Director (works). • At corporate level a separate environment management Division has been set-up . • At corporate level the division is headed by Executive Director who reports to Director (technical)

iv.	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.	Complied. A detailed action plan for implementation of EMPs along allocation of funds has been prepared & progress is being monitored on regular basis. Copy of the progress of implementation of action plan is enclosed (Flag-H)
v.	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Environmental Audits under EMS:ISO:14001 are being carried-out every year through external agencies. The Last Audi was carried-out by M/s.TUV-Nord in August-2020.
vi.	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented	Complied
X.	Miscellaneous	
i.	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently	Complied. Environmental clearance granted to BSP has been placed in the web portal of SAIL.
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt	Complied
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half yearly basis	Complied
iv.	The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a	Complied. The monitoring data is being displayed at the Company's main gate & in a public place/market area located in

	convenient location for disclosure to the public and put on the website of the company	Township through large electronic Display Boards. The monitored data is also placed in Company's web portal
v.	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	Complied
vi.	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	Complied
vii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project	Complied
viii.	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government	Complied
ix.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee	Complied
x.	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)	Will be Complied/agreed
xi.	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	Agreed
xii.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Agreed
xiii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions	Agreed

xiv.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data/ information/ monitoring reports	Agreed
xv.	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	Agreed
xvi.	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	Agreed.

This issues with the approval of the Competent Authority.