Half Yearly Compliance Report
2022
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 lndia Limited (SAIL) located at Bhilai, District Durg, Chhattisgarh- Amendment in Environment Clearance - regarding.
Name of Entity / Corporate Office	Ms.Uma Katoch
Village(s)	N/A
District	DURG

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

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

Compliance Reporting Details

Reporting Year	2022
Remarks (if any)	April 2022 to September 2022
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	Corporate Environmental Responsibility	All CER activities as committed in the reply to the ADS letter dared 02.01.2019 shall be completed in the financial year 2019-20.
PPs Submission: Complied BSP has initiated action for completion of all identified CER activities/projects committed in the reply to the ADS letter dated 02.01.2019. Due to the prevalence of COVID pandemic (Ist wave from March to November-2020 and 2nd wave from March to June-2021) there has been delay in completion of the projects. However, presently the CER projects are progressing well and likely to be completed by December-2021. A detailed status report on CER activities enclosed at Flag-C		Date: 06/05/2025
2	WASTE MANAGEMENT	l00 % SMS -Slag utilization shall be ensured after conditioning /steam curing.
PPs Submission: Complied About 55 percent the BOF slag is presently being recycled back in to steel making process and also utilized in Road Making and filling of the low lying areas. BSP has also started selling BOF slag to the interested buyers (Cement Plants other Construction industries) since April-2021. A pilot scale study on Development of process for steam maturing of BOF slag at BSL was taken up by SAIL. The matured BOF slag can be utilised as an aggregate in cement concrete, as rail track ballast and for road making etc. SAIL came out with the final report, wherein optimum process parameters have been frozen. The proposition for steam maturing facility on commercial scale is under consideration. Number of other R and D efforts are being taken-up by SAIL in association with other agencies, which are still in nascent stage. After the completion of these studies, exploring the options for commercial scale/bulk utilization of BOF slag will be taken-up. BSP has given an assignment to NIT-Raipur for Assessing the suitability of Twin Hearth Furnace(THF) or Steel Slag as pavement material and feasibility of THF or Steel slag in construction of the rural roads. NIT Raipur has submitted the final report in June-2021.The report was submitted to CECB and 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: 06/05/2025
3	GREENBELT	Scheme for decommissioning of SMS-1 and its utilities along with green belt development in that area shall be submitted within six months to the Ministry and Regional Oflice of the MoEF&CC.
PPs Submission: Complied SMS-1 phased-out in March-2021 Decommissioning plan along with greenbelt development will be submitted to MoEFCC.		Date: 06/05/2025
4	GREENBELT	Scheme for green belt development in the remaining area for covering 33% of total project area shall be submitted to the Regional office of the MoEF&CC.
PPs Submission: Complied BSP has planted 4412482 nos of trees in an area covering about 1840 hectares till March-2021. In the year 2021-22 April-March, BSP has planted 7080 trees within the plant premises and township covering an area of about 15-20 hectares. In the year 2021-22 BSP has been planted 67080 Trees. 60,000 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. Till Sep.-2022 about 13000 trees have been planted. Further Green belt required to be developed to meet the 33percent criteria is about 280 Hectares . However by excluding the two reservoirs/cooling ponds area of 1100 hectares from the total area of the project, BSPs green belt coverage comes to 35.48 percent.		Date: 06/05/2025
5	AIR QUALITY MONITORING AND PRESERVATION	Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party,

PPs Submission: Complied Standard Operating Procedures (SOPs) are developed for performance monitoring of pollution control devices and performance monitoring every year internally Performance monitoring of pollution control devices at every three year through an accredited third party will also be conducted.		Date: 06/05/2025
6	MISCELLANEOUS	In the Environmental Policy the hierarchy of reporting environmental non-compliances and emergencies should be clearly mentioned and submitted to the Regional Office of the MoEF&CC.
PPs Submission: Complied The policy followed at SAIL for reporting environmental non-compliances and emergencies has already been submitted to MoEF and CC-New Delhi.		Date: 06/05/2025
7	WASTE MANAGEMENT	Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 shall be complied.
PPs Submission: Complied Solid waste management as committed in the reply to the ADS letter dated 02.01.2019 will be complied.		Date: 06/05/2025

General Conditions

Sr.No.	Condition Type	Condition Details
1	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: 06/05/2025
2	Statutory compliance	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, l98l and the Water (prevention & Control of Pollution) Act 1974 from the concerned State pollution control Board/ Committee.
PPs Submission: Complied Online application for Consent to Establish has been submitted to Chhattisgarh Environment Conservation Board (CECB) on 22/07/2019 The Consent to Establish was granted by CECB Ref.no. 8779/TS/CECB/2021,dated 08/01/2021 for Five Years.		Date: 06/05/2025
3	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: 06/05/2025
4	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules t986 vide G.S.R 277 {E) dated 3lst March 20l2(Integrated iron & Steel} G.S.R 414 (E) dated 30th May 2008 (Sponge lron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal

		power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
PPs Submission: Complied 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: 06/05/2025
5	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
PPs Submission: Complied Fugitive emissions are being monitored every quarter and report submitted to regulatory agencies		Date: 06/05/2025
6	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/ criterion parameters relevant to the main pollutants released (e.g- PM10 and PM2.5 in reference to PM emission, and SOx and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 12O0 each), covering upwind and downwind directions
PPs Submission: Complied 4 nos of Continuous Ambient Air Quality monitoring stations have been installed within and outside the plant area covering upwind and downwind directions Twelve air pollutants, as per the National Ambient Air quality standards-2009, namely, PM10, PM2.5, Carbon Monoxide (CO), Sulphur Dioxide (SO2), Nitrogen Dioxide (NO2), Ammonia (NH3), ground level Ozone (O3), Lead, Arsenic, Nickel, Benzene and Benzo (a) Pyrene are being measured (Note : Benzene and Benzo (a) Pyrene is measured offline)		Date: 06/05/2025
7	AIR QUALITY MONITORING AND PRESERVATION	The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.
PPs Submission: Complied Cameras have been installed at Coke ovens for recording of battery emissions		Date: 06/05/2025
8	AIR QUALITY MONITORING AND PRESERVATION	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions
PPs Submission: Complied Sampling facilities at process stacks and at quenching towers have been provided as per CPCB guidelines for manual monitoring of emissions		Date: 06/05/2025
9	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report,

PPs Submission: Complied Copies of monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions (April-2022 to Sep-2022) is enclosed at Flag-E		Date: 06/05/2025
10	AIR QUALITY MONITORING AND PRESERVATION	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
PPs Submission: Complied Air Pollution Control (APC) systems have been provided for all the dust generating points including fugitive dust from all vulnerable sources. The stack and fugitive emissions monitored are meeting the standards..		Date: 06/05/2025
11	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
PPs Submission: Complied Diligent maintenance of Bags is being done and are replaced whenever there are leakages.		Date: 06/05/2025
12	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: 06/05/2025
13	AIR QUALITY MONITORING AND PRESERVATION	Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
PPs Submission: Complied The Pollution control system as per the guidelines of CREP have been provided BOD plant for the treatment of effluents of COCCD Secondary emission control system has been provided for SMS-3 Converters Cast house Defuming systems have been provided for BF-8 and BF-7		Date: 06/05/2025
14	AIR QUALITY MONITORING AND PRESERVATION	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads. shop floors, roofs, regularly.
PPs Submission: Complied Vacuum cleaners are being used to clean plant roads. Shop floor etc, regularly.		Date: 06/05/2025
15	AIR QUALITY MONITORING AND PRESERVATION	Recycle and reuse Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
PPs Submission: Complied Iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices are being recycled back to the process after 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: 06/05/2025
16	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: 06/05/2025
17	AIR QUALITY MONITORING AND PRESERVATION	Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility)
	PPs Submission: Complied Facilities for spillage collection are provided for coal and coke on wharf of coke oven batteries	Date: 06/05/2025
18	AIR QUALITY MONITORING AND PRESERVATION	Land-based APC system shall be installed to control coke pushing emissions
	PPs Submission: Complied Land-based APC system has been installed to control coke pushing emissions in Coke oven Battery-11.	Date: 06/05/2025
19	AIR QUALITY MONITORING AND PRESERVATION	Monitor CO, HC and Oz in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber
	PPs Submission: Complied Monitor CO, 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: 06/05/2025
20	AIR QUALITY MONITORING AND PRESERVATION	Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens
	PPs Submission: Complied The installation of the system shall be explored in future based on feasibility	Date: 06/05/2025
21	AIR QUALITY MONITORING AND PRESERVATION	In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided 10 meet the prescribed standards
	PPs Submission: Complied Regular monitoring of coke oven stack emissions is being done and The Gaseous emissions from Coke ovens are meeting the standards.	Date: 06/05/2025
22	AIR QUALITY MONITORING AND PRESERVATION	The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.
	PPs Submission: Complied At BSP the imported coal has sulphur content less than 1percent.	Date: 06/05/2025
23	AIR QUALITY MONITORING AND PRESERVATION	Wind shelter piles. fence and chemical spraying shall be provided on the raw material stock piles
	PPs Submission: Complied Water sprinklers are installed for control of dust at raw material stock piles	Date:

			06/05/2025
24	AIR QUALITY MONITORING AND PRESERVATION	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars	
PPs Submission: Complied Ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars are installed.			Date: 06/05/2025
25	AIR QUALITY MONITORING AND PRESERVATION	The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and-SMS convertor- (to be decided on case to case basis depending on type and size of plant)	
PPs Submission: Complied At BSP consultant MECON has recommended wet gas cleaning systems for BFs and SMS convertors as the Dry Gas Cleaning Plant are not feasible.			Date: 06/05/2025
26	AIR QUALITY MONITORING AND PRESERVATION	Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke	
PPs Submission: Complied Dry quenching (CDQ) system along with power generation facility for waste heat recovery from hot coke has been installed for Coke Oven Battery-11.			Date: 06/05/2025
27	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 3ts(March 20I2 {Integrated iron & Steel); G.S.R 414(E) dated 30 May 2008 (Sponge lron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act 1986 or NABL accredited laboratories	
PPs Submission: Complied Continuous effluent monitoring systems have been installed for all three plant outlets VIz Outlet-A, B and C and are connected to SPCB and CPCB online servers Calibration of the systems is being carried-out regularly.			Date: 06/05/2025
28	WATER QUALITY MONITORING AND PRESERVATION	The project Proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer /sampling wells in the plant and adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories.	
PPs Submission: Complied Ground water quality monitoring at least twice a year (pre and post monsoon) in the adjacent areas through labs recognised under Environment (protection) act, 1986 and NABL accredited laboratories is being carried-out			Date: 06/05/2025
29	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	

		PPs Submission: Complied Monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality reports (April-2022 to March-2022) are enclosed (Flag-F) Date: 06/05/2025
30	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 3lst March 2012 (integrated iron & Steel); G-S.R 414 (E)dated 30s May 2008 (Sponge lron) as amended from time to time; S.O. 3305 (E) dated 7e December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time.
		PPs Submission: Complied At BSP ETP for coke oven and by-product plant has been installed and is working effectively and meeting the standards prescribed in G.S.R 277 (E) dated 3lst March 2012 (integrated iron and Steel); Date: 06/05/2025
31	WATER QUALITY MONITORING AND PRESERVATION	Adhere to 'Zero Liquid Discharge’
		PPs Submission: Complied BSP has three outlets carrying plant effluent (Outlet-A , B and C). 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: 06/05/2025
32	WATER QUALITY MONITORING AND PRESERVATION	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
		PPs Submission: Complied A 30 MLD sewage recycling plant has been installed for treatment of recycling of domestic sewage generated in the Township. Date: 06/05/2025
33	WATER QUALITY MONITORING AND PRESERVATION	Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off
		PPs Submission: Complied Garland drains and collection pits have been provided at the Raw Material handling area to check the water pollution due to surface run off. Date: 06/05/2025
34	WATER QUALITY MONITORING AND PRESERVATION	Tyre washing facilities shall be provided at the entrance of the plant gates
		PPs Submission: Complied Complied. Date: 06/05/2025
35	WATER QUALITY MONITORING AND PRESERVATION	CO2 injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning
		PPs Submission: Complied At SMS, pH in circulating water of GCPs is being maintained through addition of Use of Dispersant Surfactant. The option of CO2 injection is also being explored. Date: 06/05/2025
36	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: 06/05/2025
37	WATER QUALITY MONITORING AND PRESERVATION	Treated water from ETP of CCIBP shall not be used for coke quenching	
		PPs Submission: Complied At COB11 dry quenching system has been installed.	Date: 06/05/2025
38	WATER QUALITY MONITORING AND PRESERVATION	Water meters shall be provided at the inlet to all unit processes in the steel plants	
		PPs Submission: Complied Water meters are installed at strategic locations to measure water flow to the process plants.	Date: 06/05/2025
39	WATER QUALITY MONITORING AND PRESERVATION	The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water	
		PPs Submission: Complied Water consumption in the steel plant is being reduced through adoption of local recycling systems for all the Modernization units (URM,BRM, SMS-3 and BF-8). The effluents from older units are being recycled back to cooling pond after treatment for re-use as industrial water.	Date: 06/05/2025
40	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: 06/05/2025
41	Noise Monitoring & Prevention	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report	
		PPs Submission: Complied Noise level survey is being carried as per the prescribed guidelines and report in this regard is enclosed (Flag-G)	Date: 06/05/2025
42	Noise Monitoring & Prevention	The ambient noise levels should conform to the standards prescribed under E(P)A Rules. 1986 viz.75 dB(A) during day time and 70 dB(A) during night time	
		PPs Submission: Complied Regular Noise monitoring is being done at different locations of township (Market area, schools, hospitals, residential area) and ambient noise levels are meeting the standards (Flag-G)	Date: 06/05/2025
43	ENERGY PRESERVATION	The project proponent shall provide TRTs to recover energy from	

	MEASURES	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: 06/05/2025
44	ENERGY PRESERVATION MEASURES	Coke Dry Quenching (CDQ shall be provided for coke quenching for both recovery and non-recovery type coke ovens
PPs Submission: Complied At new Coke oven Battaery-11, Coke Dry Quenching (CDQ) has been installed		Date: 06/05/2025
45	ENERGY PRESERVATION MEASURES	Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines
PPs Submission: Complied Waste heat recovery systems have been installed for Sinter Plants coolers and Sinter Machines of SP-3.		Date: 06/05/2025
46	ENERGY PRESERVATION MEASURES	Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles
PPs Submission: Complied At new BF-8, torpedo ladle is being used for hot metal transfer		Date: 06/05/2025
47	ENERGY PRESERVATION MEASURES	Use hot charging of slabs and billets/blooms as far as possible
PPs Submission: Complied Hot charging of slabs and billets/blooms is being done at Rolling mills.		Date: 06/05/2025
48	ENERGY PRESERVATION MEASURES	Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300oC
PPs Submission: Complied Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants		Date: 06/05/2025
49	ENERGY PRESERVATION MEASURES	Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating firm aces and if feasible shall be installed
PPs Submission: Complied Waste heat recovery systems have been installed at Sinter Plants, Coke ovens, Blast Furnaces, Power Plants. WHRS systems have also been installed in new units under Modernization In future more such units will be installed based on feasibility.		Date: 06/05/2025
50	ENERGY PRESERVATION MEASURES	Restrict Gas flaring to < l%
PPs Submission: Complied Complied/Noted.,		Date: 06/05/2025
51	ENERGY PRESERVATION MEASURES	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly

PPs Submission: Complied 2x100 Kw solar power generation on roof tops of Bhilai Niwas has been installed and provision for online monitoring and recording of the power generation has also been developed.		Date: 06/05/2025
52	ENERGY PRESERVATION MEASURES	Provide LED lights in their offices and residential areas
PPs Submission: Complied Extensive use of LED lights in their offices and residential areas is being practiced.		Date: 06/05/2025
53	ENERGY PRESERVATION MEASURES	Ensure installation of regenerative type burners on all reheating furnaces
PPs Submission: Complied regenerative type burners are being used for all reheating furnaces		Date: 06/05/2025
54	WASTE MANAGEMENT	An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/ I shall be installed to use slag as river sand in construction industry
PPs Submission: Complied All the BF-Granulated slag generated in BSP is being supplied to Cement Industry. In future if and when there is shortage of demand from Cement Industry BSP will offer the slag to construction industry through a viable mechanism.		Date: 06/05/2025
55	WASTE MANAGEMENT	In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery
PPs Submission: Complied NA, At BSP the coke ovens are of recovery type.		Date: 06/05/2025
56	WASTE MANAGEMENT	Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens)
PPs Submission: Complied At BSP Tar Sludge is being blended with coal charged in coke ovens and waste lubrication oil is being treated in a separate oil reclamation unit and recycled back after recovery/regeneration. The skimmed oil is being sold to authorized recyclers		Date: 06/05/2025
57	WASTE MANAGEMENT	Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed
PPs Submission: Complied 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: 06/05/2025
58	WASTE MANAGEMENT	Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS
PPs Submission: Complied At BSP recovery of scrap, metallic and flux is being done. The recovered scrap , iron fines, Lime fines, Mill scales is being recycled to BF and Sinter plants.		Date: 06/05/2025
59	WASTE MANAGEMENT	Used refractories shall be recycled as far as possible

PPs Submission: Complied Being done.		Date: 06/05/2025
60	WASTE MANAGEMENT	SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway hack ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for I00% reuse of rejects from Waste Recycling Plant
PPs Submission: Complied At BSP SMS/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: 06/05/2025
61	WASTE MANAGEMENT	100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office
PPs Submission: Complied 100 percent utilization of fly ash as per Fly-ash rules is being followed at BSP. At BSP fly ash generation is very less as the boilers are run mostly on By-product gases generated from steel plant operations. The limited quantity of ash generated is being used for reclamation of low lying areas within the plant premises as per the fly-ash rules.		Date: 06/05/2025
62	WASTE MANAGEMENT	Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area
PPs Submission: Complied Being Complied.		Date: 06/05/2025
63	WASTE MANAGEMENT	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens
PPs Submission: Complied The 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: 06/05/2025

64	WASTE MANAGEMENT	Kitchen waste shall be composted or converted to biogas for further use
PPs Submission: Complied Kitchen waste is composted and used for Horticulture as manure.		Date: 06/05/2025
65	GREENBELT	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
PPs Submission: Complied BSP has planted 4412482 nos of trees in an area covering about 1840 hectares till March-2021. In the year 2021-22(April-March), BSP has planted 7080 trees within the plant premises and township covering an area of about 15-20 hectares. In the year 2021-22 BSP has been planted 67080 Trees. 60,000 saplings planted at Township and its surrounding area of Bhilai. Work awarded to C.G. Van Vikas Nigam. Till Sep.-2022 about 13000 trees have been planted. Further Green belt required to be developed to meet the 33 percent criteria is about 280 Hectares . However by excluding the two reservoirs/cooling ponds area of 1100 hectares from the total area of the project, BSPs green belt coverage comes to 35.48 perecent.		Date: 06/05/2025
66	GREENBELT	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
PPs Submission: Complied BSP maintains its GHG emissions inventory and also the emission data is submitted to world steel association(WSA) every year under its commitment as member under Climate Action		Date: 06/05/2025
67	PUBLIC HEARING	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented
PPs Submission: Complied At BSP all departments have prepared their own Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan. The documents are approved by Factory Inspector. Regular mock-drills are organized to check the effectiveness of the EPP/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: 06/05/2025
68	PUBLIC HEARING	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment(PPE) as per the norms of Factory Act
PPs Submission: Complied National occupation Health Centre (NOHC) set-up at BSP regularly carry out heat stress analysis for the workmen who work in high temperature work zone . All the workmen are mandatorily provided with Personal Protection Equipment(PPE) as per the norms of Factory Act		Date: 06/05/2025
69	PUBLIC HEARING	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project
PPs Submission: Complied Complied (At BSP major expansion job has already been completed)		Date: 06/05/2025
70	PUBLIC HEARING	Occupational health surveillance of the workers shall be done on a

		regular basis and records maintained as per the Factories Act
PPs Submission: Complied Being Complied. Occupational health surveillance of the workers is being done regularly.		Date: 06/05/2025
71	Corporate Environmental Responsibility	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility
PPs Submission: Complied 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 almost CER projects are completed. A detailed status report on CER activities enclosed at Flag-C		Date: 06/05/2025
72	Corporate Environmental Responsibility	The Company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/ violation of the environmental / forest/ wildlife norms/ conditions. The company shall have defined system of reporting infringements/ deviation/ violation of the environmental / forest/ wildlife norms/ conditions and / or shareholders /stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six –monthly report
PPs Submission: Complied BSP has well laid down environmental policy duly approve by the Board of Directors. An SOP for reporting of the non-compliance / 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: 06/05/2025
73	Corporate Environmental Responsibility	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization
PPs Submission: Complied BSP has a separate Environmental Department with well-equipped laboratory. Adequate Qualified executive and non-executive personnel have been posted to the department and Lab The department is headed by a senior officer of the rank of 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: 06/05/2025
74	Corporate Environmental Responsibility	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
PPs Submission: Complied Environmental Audits under EMS:ISO:14001 are being carried-out every year through external agencies. The Last Audi was carried-out by M/s.TUV-Nord in August-2020.		Date: 06/05/2025

75	Corporate Environmental Responsibility	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented
PPs Submission: Complied Complied		Date: 06/05/2025
76	MISCELLANEOUS	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently
PPs Submission: Complied Complied. Environmental clearance granted to BSP has been placed in the web portal of SAIL.		Date: 06/05/2025
77	MISCELLANEOUS	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt
PPs Submission: Complied Complied		Date: 06/05/2025
78	MISCELLANEOUS	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half yearly basis
PPs Submission: Complied Complied		Date: 06/05/2025
79	MISCELLANEOUS	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company
PPs Submission: Complied Complied. The monitoring data is being displayed at the Companys main gate and in a public place/market area located in Township thorugh large electronic Display Boards. The monitored data is also placed in Companys web portal		Date: 06/05/2025
80	MISCELLANEOUS	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal
PPs Submission: Complied Complied		Date: 06/05/2025
81	MISCELLANEOUS	The project proponent shall submit the environmental statement for each financial year in Form-Y lo the concerned State Pollution Control Board as prescribed under the Environment (Protection)

		Rules, 1986, as amended subsequently and put on the website of the company
PPs Submission: Complied Complied		Date: 06/05/2025
82	MISCELLANEOUS	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project
PPs Submission: Complied Complied		Date: 06/05/2025
83	MISCELLANEOUS	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government
PPs Submission: Complied Complied		Date: 06/05/2025
84	MISCELLANEOUS	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee
PPs Submission: Complied Complied		Date: 06/05/2025
85	MISCELLANEOUS	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and climate Change (MoEF&CC)
PPs Submission: Complied Will be Complied/agreed		Date: 06/05/2025
86	MISCELLANEOUS	Concealing factual data or submission of false /fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment(Protection) Act, 1986
PPs Submission: Complied Agreed		Date: 06/05/2025
87	MISCELLANEOUS	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory
PPs Submission: Complied Agreed		Date: 06/05/2025
88	MISCELLANEOUS	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions
PPs Submission: Complied Agreed		Date: 06/05/2025

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

PPs Submission: Complied Agreed	Date: 06/05/2025

90	MISCELLANEOUS	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Counts and any other Court of Law relating to the subject matter

PPs Submission: Complied Agreed	Date: 06/05/2025

91	MISCELLANEOUS	Any appeal against this EC shall lie with the National Green Tribunal, if preferred within a period of 30 days as prescribed under Sction16 of the National Green Tribunal Act,2010

PPs Submission: Complied Agreed.	Date: 06/05/2025

92	Corporate Environmental Responsibility	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of, action plan shall be reported to the Ministry/ Regional Office along with the Six Monthly Compliance Report.

PPs Submission: Complied Complied. A detailed action plan for implementation of EMPs along allocation of funds has been prepared and progress is being monitored on regular basis. Copy of the progress of implementation of action plan is enclosed (Flag-H)	Date: 06/05/2025

93	MISCELLANEOUS	Safety mock drill for gas pipeline maintenance shall be conducted every six months and reported to the Regional Office of MoEFandCC. The project proponent shall arrange to provide training to employees on 'behavioral safety'.

PPs Submission: Complied Safety mock drill for gas pipeline maintenance are being conducted every six months (Report enclosed at Flag-A) Training to employees on 'behavioural safety is being organized regularly (Report enclosed at Flag-B)	Date: 06/05/2025

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.

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

GM I/c(EnMD)/B-8/2022/105 Date: 25/05/2022

To,

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

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

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

Respected Sir,

Six monthly compliance report (October'2021 to March-2022) for the BSP's 7.0 MT Expansion / Modernization project vide letter under reference is enclosed.

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

Thanking you,

(**Dibyendu Lal Moitra**)
CGM (Env.MD)

Copy to:

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

MONITORING REPORT DATA SHEET

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

	Agricultural land only, both dwelling units & agricultural land & landless labourers/ Artisans	
	a) SC, ST/Adivasi	NA
	b) Others (Please indicate whether these figures are based on any specific and systematic survey carried out or only rovisional figures, if a survey is carried out give details & year of survey)	NA
9	**Financial details**	
	a) Project cost as originally planned and subsequent revised estimates and the year of price reference	Rs. 273 Crores
	b) Allocation mode for environmental management plans with item wise and year wise break-up	Proposed environment management programs under modernization / expansion of Already completed against the earlier EC granted to BSP vide EC no. F No. J-11011/28/2007-IAII(I) Dtd 31.03.2018 However, further actions for environment Management are provided in the attached compliance report against the conditions of EC
	c) Benefit cost ratio/Internal rate of Return and the year of assessment	NA Note: The Modernization /expansion of the plant already completed
	d) Whether(c) includes the cost of Environment Management as shown in the above.	NA Note: The Modernization /expansion of the plant already completed
	e) Actual expenditure incurred on the project so far	11 Crores
	f) Actual expenditure incurred on the Environment Management	NA Note: The proposed environment management programs under Modernization /expansion of the plant already completed against the earlier EC granted to BSP vide EC no. F No. J-11011/28/2007-IAII(I) Dtd 31.03.2018 However, further actions for environment Management are provided in the attached compliance report against the conditions of EC
10	**Forest land requirement**	
	a) The status of approval for diversion of forest land for non-forestry use	The expansion project is taking place within the existing project area. No additional land is acquired.
	b) The status of clearing felling	NA

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

Annexure-1

Revised Configuration of BSP's 7.0 MT MODEX.

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

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

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

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

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

b) **Operation of BF-1** for three more years is permitted till sequential capital repairs of BF-4,5,6 i.e up to 24/05/2025 vide amendment issued by MoEFCC dtd 28/04/2022

c) **Operation of RMP-1** for three more years is permitted i.e up to 24/05/2025 vide amendment issued by MoEFCC dtd 28/04/2022

Note: BF-1 &2, SMS-1, & BBM have been phased-out as per the EC granted in May-2019

d) **Sinter complex :** Production capacity – 9.772 MTPA - Earlier it was 9.235 MTPA

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

S.no	**Proposed Change in the existing units**	**Status**
1	**SMS-3 :**Modification of 1x3 strand Beam Blank Caster into 1x3 strand Bloom-cum-Beam blank Caster of same capacity	Work awarded on 23/07/2021 . Likely completion by 22/07/2023.
2	SMS-3: Installation of 3x160t Argon Rinsing Unit (ARU)	Completed
3	**Plate Mill:** New Quenching & Tampering facility in Plate Mill.	Work to commence

Environment Management Department

Corporate Environment Responsibility

Status As On Sep. 2022

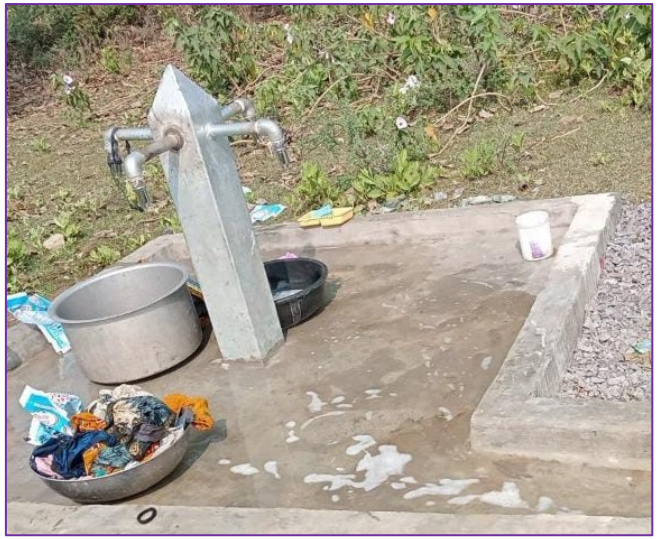
Activity / Projects being carried out through Budget for ESC (Enterprise Social Commitment)/CER (Corporate Environment Responsibility)

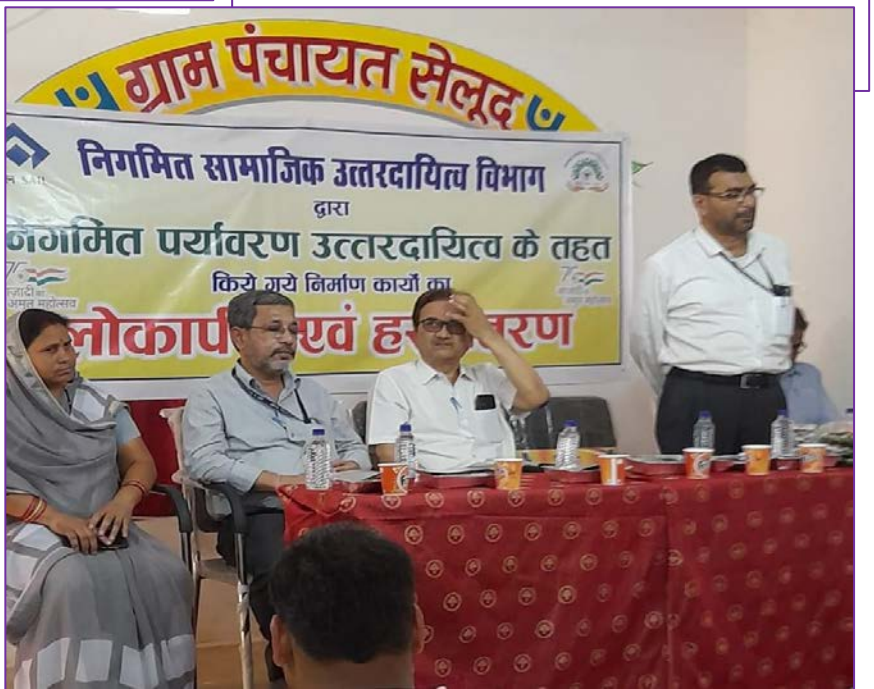
(Status as on Sep. 2022)

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. 2022)
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 and Handed over to Sarpanch.
			II. Four Seater Sulabh Shauchalya at Bazar Chowk to be constructed.	**6.00**	Completed and Handed over to Sarpanch
			III. Sports equipments for boys and girls to be provided.	**0.50**	Completed. Handed over to School.

CORPORATE ENVIRONMENTAL RESPONSIBILITY





Inauguration and Hand Over of New Bore well fitted with Solar operated pump with storage tank at three places at Selud Village.

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. 2022)
2.	BSP	Khapri (Kutela bhata), Durg	I. Construction of Boundary wall of Panchayat Bhawan along with tree plantation all around the periphery .	**10.00**	Completed. Handed over to Sarpanch.
			II. New Bore wells at 2 locations fitted with Solar operated Pumps to be provided.	**10.00**	Completed. Handed over to Sarpanch.
			III. Two extra rooms in Govt. Primary School to be constructed.	**10.00**	Completed. Handed over to Sarpanch.
			IV. Dustbin for 10 villages to be provided	**0.50**	Completed. Handed over to Sarpanch.
			V. Beautification and tree plantation around Shitala Talab to be provided.	**2.00**	Completed. Handed over to Sarpanch.

CORPORATE ENVIRONMENTAL RESPONSIBILITY

परिधीय ग्रामों में निर्माण कार्यों का लोकार्पण एवं हस्तांतरण

भिलाईनगर। भिलाई इस्पात संयंत्र के निगमित पर्यावरण उत्तरदायित्व योजना के तहत एवं सामाजिक उत्तरदायित्व विभाग द्वारा 4 सोलर वाटर डूएल पम्प ग्राम खपरी (कुटेलाभाटा), ग्राम पहन्डोर एवं ग्राम महकाकला की शाला में बालक व बालिका शौचालय का हस्तांतरण एवं लोकार्पण किया गया।

इस कार्यक्रम में मुख्य अतिथि के रूप में भिलाई इस्पात संयंत्र के मुख्य महाप्रबंधक प्रभारी सविर्सेज पी के सरकार तथा विशिष्ट अतिथि के रूप में मुख्य महाप्रबंधक नगर सेवाएं एवं सीएसआर एस वी नंदनवार, मुख्य महाप्रबंधक (पर्यावरण प्रबंधन विभाग डी एल मोइत्रा, महाप्रबंधक सीएसआर विभाग) शिवराजन एवं ग्राम सरपंच, हिरामन बंजारे उपस्थित थे।

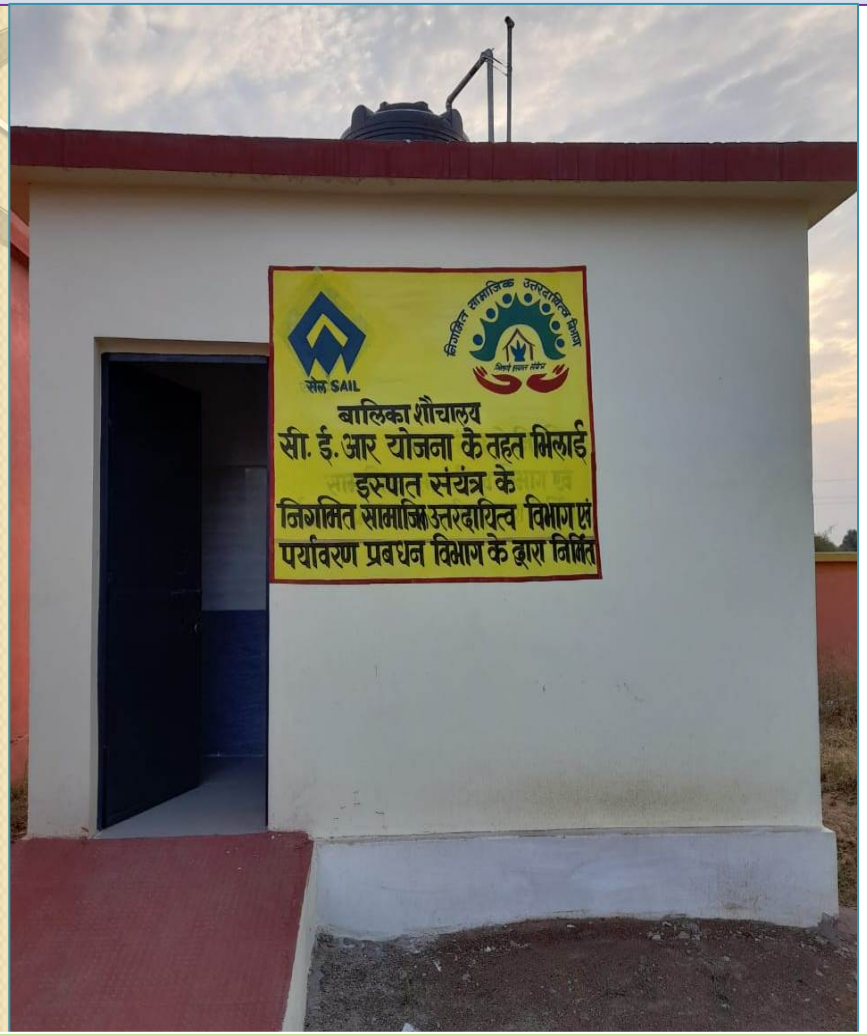
Inauguration and Hand Over of Shauchalaya for boys and girls at MahkaKala Village.

Boundary wall of School Village - Khapri

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. 2022)
3.	BSP	Dumardih ,Durg	I. Service road from main road cremation ground approx..700 meters to be cemented	**10.00**	Construction of concrete road to cremation ground At village Dumardih 50% of road work completed. Extension of time ugranted to complete the work.(Image attached)
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	**7.00**	Providing and fixing GI pipe line for drinking water not started.
4.	BSP	Pauwara,Durg	I. Sanitary Pad Machine women group to be provided	**3.00**	Tendering process for the same in progress. Delay due to COVID and lockdown.
			II. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	**7.00**	Work not started Extension of time is granted to complete the work.
			III. Tree plantation at new talab to be provided	**1.00**	Completed. Handed over to Sarpanch.
			IV. Funds to be provided Sarpanch for cleaning of Wells with supervision / monitoring by BSP.	**1.00**	Completed. Handed over to Sarpanch.
			V. Syntax tank with pump to		Completed. Handed over to

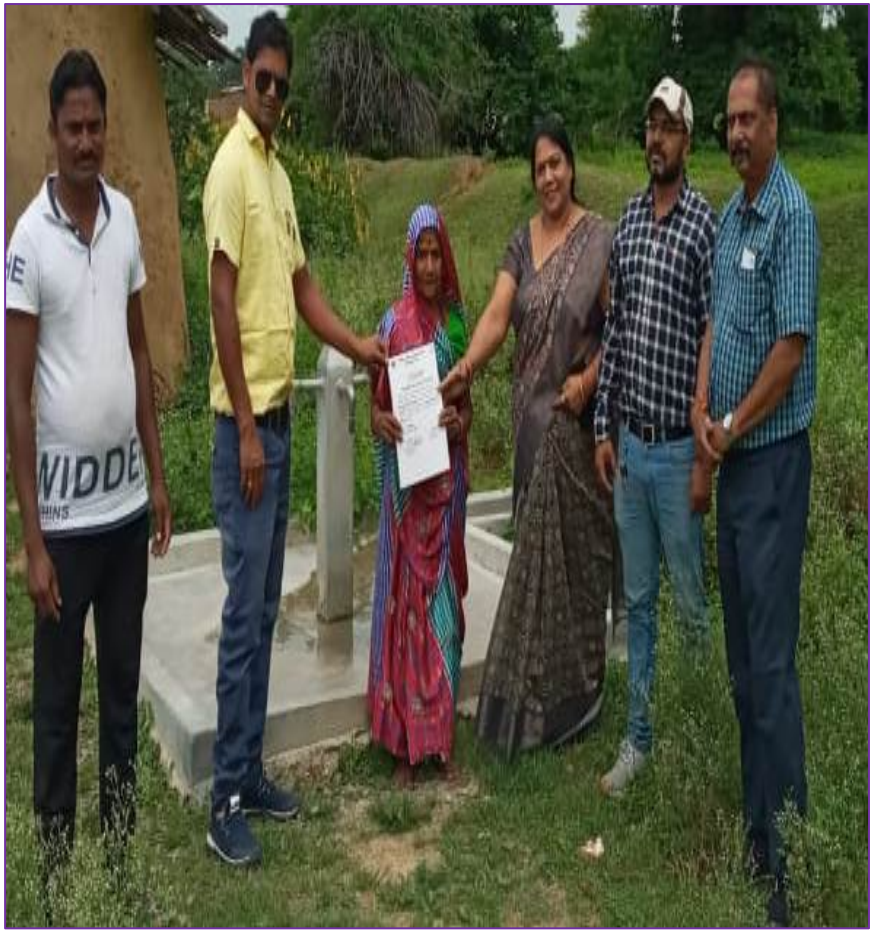
S.No.	SAIL Plant/ Unit	Location	Name of Project/Activity (Brief detail of the project, duration)	Approx.Amount earmarked for the project	Status (as on Sep.2022)
5.	BSP	**Muskan ,Durg**	I. Garage for School Bus at Muskan School to be constructed.	**1.00**	Completed. To be handed over to School.
6.	BSP	**Patora, Durg**	I. Four Seater Sulabh Shauchalya at Govt. Middle school for boys to be constructed.	**3.00**	Completed.To be handed over to Sarpanch.
			II. Boundary wall at high school of length 165 meter(Cancelled) CC road to be constructed.	**15.00**	CC road Work not started Extension of time up to 13.11.2021 is granted to complete the work. Extra extension of time granted with penalty.
7.	BSP	**Dhuarabhatta, Durg**	I. Four seater Sulabh Shauchalya at Khadan Talab for both men and women to be constructed.	**12.00**	Completed.To be handed over to Sarpanch.
			II. Additional 2 class rooms at High school premise to be constructed.	**10.00**	Completed. To be handed over to School
			III. Boundary wall of approx. - 380 meters to be constructed at high school	**20.00**	Completed. To be handed over to School

CORPORATE ENVIRONMENTAL RESPONSIBILITY



Inauguration and Hand Over of Shauchalya for boys and girls at Dhaurabhata Village.

CORPORATE ENVIRONMENTAL RESPONSIBILITY



Inauguration and Hand Over of Boys Toilet at Patora Village, Bore well with Solar Pumps at MahkaKhurd Village.

CORPORATE ENVIRONMENTAL RESPONSIBILITY

Welfare works for Selud and Dhorabhata handed over by BSP

Central Chronicle News

Bhilai, May 11: Welfare works for Selud and Dhorabhata were dedicated by SAIL-Bhilai Steel Plant and handed over to them on May 11, 2022. This work has been done by BSP's Corporate Social Responsibility(CSR) department and Environment department.

CSR department has setup 3 Solar water dual pumps in Selud village for ensuring water supply. Also, a male and female toilet has been setup under the Swacch bharat abhiyaan near Panchayat bhavan for the benefit of shoppers, school students and villagers.

A Public toilet for residents of Dhorabhata and toilet for Govt. higher secondary school for girls and boys was handed over to the Sarpanch of Selud and Dhorabhata village. SN Abidi, CGM I/c (Services), T Dastidar, CGM (T & D), DL Moitra, CGM (Envt Mgmt) were present on the occasion.

BSP's Corporate Social Responsibility(CSR) department and Environment department have been assisted by Chhattisgarh State's Akshay Energy development agency and Sulab International in carrying out these development works.

Sarpanch of Selud and Dhorabhata village, members of Panchayat, Principals of schools, teachers, public representatives from nearby villages and villagers were present on the occasion.

The programme was carried out under the guidance of Shivrajan, GM (CSR), Uma Katoch, GM (CSR) with the support of Sushil Kamde, AM (CSR), Vivek Mishra, and the entire team of CSR and Envt Management department. The programme was compered by Rajni Rajak from CSR department.

Welfare works at Dhorabhata handed over by BSP

■ Staff Reporter

BHILAI, May 11

WELFARE works for Selud and Dhorabhata were dedicated by SAIL-BSP and handed over to them on Wednesday. This has been done by BSP's CSR department and Environment department. The CSR Department has setup 3 Solar water dual pumps in Selud village for ensuring water supply. Also, a male and female toilet has been setup under the Swacch bharat abhiyaan near Panchayat bhavan for the benefit of shoppers, school students and villagers.

A Public toilet for residents of Dhorabhata and toilet for Govt. higher secondary school for girls and boys was handed over to Sarpanch. S N Abidi, CGM I/c (Services), T Dastidar, CGM (T and D), DL Moitra, CGM (Envt. Mgmt.) were present on the occasion. BSP's CSR department and Environment department have been assisted by Chhattisgarh State's Akshay Energy development agency and Sulab International in carrying out these development works. Sarpanch of Selud and Dhorabhata village, members of Panchayat, Principals of schools, teachers, public representatives from nearby villages and villagers were present. The programme was carried out under the guidance of Shivrajan, GM (CSR), Uma Katoch, GM (CSR) with the support of Sushil Kamde, AM (CSR), Vivek Mishra, and the entire team of CSR and Environment Management Department. Proceeding of the programme was conducted by Rajni Rajak from CSR Department.

Press release of Inauguration and Hand Over programme organized at Dhaurabhata and Selud Village.

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.2022)
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 and handed over to Sarpanch..
			II. C.C. road to be constructed at ward no 05 for approx. 250 meters.	**4.00**	Completed and handed over to Sarpanch..
			III. C.C. road to be constructed at ward no 04 for approx. 250 meters.	**4.00**	Completed and handed over to Sarpanch.. .
			IV. Four seater Sulabh Shauchalya for boys and girls to be constructed.	**12.00**	Completed and handed over to Sarpanch..
9.	BSP	**Aundhi,Durg**	I. Pipeline for drinking water pipeline to be extended further by 1000 m approx.	**7.00**	Completed and handed over to Sarpanch..
			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 and handed over to Sarpanch..
10.	BSP	**Pahandor,**	I. New Bore wells at required location fitted with solar operated Pumps to be provided.	**10.00**	Completed and handed over to Sarpanch..

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.2022)
11.	BSP	**Bhilai, Durg**	I. One E-rickshaw to be provided facilitate the plantation activities	**3.00**	Completed and Handed over
			II. One Power driven portable drilling machine facilitate the plantation activities	**1.00**	Completed. and Handed over
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 and handed over to Sarpanch..
			II. Four seater Sulabh Shauchalya for men and women to be constructed	**12.00**	Completed and handed over to Sarpanch.
			Total	**232.25**	

Note :

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

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

FLAG-D

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD

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

No. 7022/HSMD/HO/CECB/2019 Raipur, Date 18/11/2019

To,

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

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

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

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

FORM 2 [See rule 6 (2)]

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

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

Detail of Authorisation

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

(1) The authorization shall be valid for the period of **Five Years** i.e. from **17/04/2019 to 16/04/2024.**

(2) The authorization is subject to the following conditions:

TERMS & CONDITIONS OF AUTHORIZATION

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

19. Industry shall create new website for Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 and upload all the information above the waste in the website.

20. The waste must be given thermal/biological/physico-chemical treatment; the waste should be completely dewatered, detoxified, and proper conditioned and any possible recovery is made before their disposal.

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

22. An on-site storage of the hazardous wastes for a maximum period of 90 days should be provided and it shall be ensured that there is no leakage or seepage from the surrounding walls or bottom. The site should be covered and properly protected to prevent the entry of rain water in storage area.

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

24. The discarded containers of Hazardous waste and chemical shall not be used for storage of food grade products. At the storage site "Hazardous waste storage site & danger signboard" shall be provided with all safety devices.

25. In the event of any accident due to handling of hazardous waste the authorized person must inform immediately to the Concerned Regional Office and H.O., Atal Nagar, Raipur of the Board by fax/telephone or by E-mail about the incident and details report be sent in form no. 11 [see rule 22].

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

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

28. Board reserves the right to cancel/amend the above condition and add new conditions as and when deemed necessary.

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

Endt. No. 7023/H.O./HSMD/CECB/2019 Atal Nagar, Raipur, Date 18/11/2019

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

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

BHILAI STEEL PLANT

April 2022 to September 2022

FLAG E

E-1

Stack emission

BHILAI STEEL PLANT

April 2022 to September 2022

Month- April 2022

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/N m3)**	**NO_x (150mg/N m3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-4 (Process)	Stoves	60	2.5	--do--	20 Apr, 11:30-12:35 (65 Minute)	2730	115452	18.91	123.80	140.00	0.74% V/V
BF-5 (Space dedusting)				Bag filter	25 Apr, 10:15-11:00 (45 Minute)	-	-	48.85	-	-	-
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	21 Apr, 10:30-10:50 (20 Minute)	2840	118358	48.18	86.90		-
LF-2	Ladle Furnace	50	1.5	Bag Filter	26 Apr, 09:15-10:00 (45 Minute)	3000	117785	35.30	72.50		-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	27 Apr, 10:15-10:50 (35 Minute)	-	-	35.75	-	-	-

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm: 800mg/Nm3)	**NO_x (Norm: 500mg/ Nm3)**	**CO** (Norm: 3 kg/T of Coke

BHILAI STEEL PLANT

April 2022 to September 2022

Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	04 Apr, 10:00-11:00 (60 Minute)	815	129328	46.90	129.80	141.30	2.51Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	19 Apr, 10:30-11:30 (60 Minute)	860	125501	44.83	109.60	124.30	2.45Kg/T coke
Battery No. 4	Battery	100	3.5	Nil	19 Apr, 09:20-10:20 (60 Minute)	782	119345	41.70	142.00	146.80	2.57Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	05 Apr, 11:30-12:30 (60 Minute)	905	115022	48.05	148.60	160.40	2.47Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	07 Apr, 11:00-12:00 (60 Minute)	1608	226821	46.42	132.80	140.20	2.60 Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	08 Apr, 11:15-12:15 (60 Minute)	1040	185084	44.59	265.20	282.00	2.39Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower							-
Battery No. 6	Battery	100	3.5	Nil	Hot Conservation						

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: 600mg/Nm3)	**NO_x** (Norm:600mg/Nm3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	15 Apr, 09:45-10:30 (45 Minute)	2073	256835	41.88	82.60	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	Multi-Cyclone	13 Apr, 10:05-10:45 (40 Minute)	1533	231273	48.75	65.80	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	Multi-Cyclone	13 Apr, 09:00-09:40 (40 Minute)	1533	225393	47.79	80.60	-	-

BHILAI STEEL PLANT

April 2022 to September 2022

SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	11 Apr, 09:15-10:00 (45 Minute)	7796	501043	39.30	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	12 Apr, 10:10-10:50 (40 Minute)	5853	486144	48.96	-	-	-
SP-3, M/c-1(Space dedusting)				ESP	18 Apr, 10:35-11:10 (35 Minute)	-	-	48.24	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	14 Apr, 09:15-10:00 (45 Minute)	2583	117575	45.35	132.60	136.00	-
Boiler 2	Boiler	80	4.3	ESP	14 Apr, 10:10-10:55 (45 Minute)	2429	117913	43.62	128.40	140.00	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	02 Apr, 10:00-10:40 (40 Minute)	1880	86032	38.61	53.90	93.30	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	-	-	-	-	-	-	-
Boiler 5	Boiler	80	4.3	ESP	16 Apr, 08:20-09:00 (40 Minute)	2250	120975	49.30	144.00	122.00	-
Boiler 6	Boiler	80	4.3	ESP	16 Apr, 09:05-09:50 (45 Minute)	1785	329334	39.07	91.30	108.00	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	-	-	-	-	-	-	-
Mills											
BRM	RHF	-	-	-	20 April., 10:00-11:00 (60 Minute)	-	-	17.86	-	-	
WRM	RHF	-	-	-	30 April., 10:30-11:30 (60 Minute)	-	-	18.23	-	-	

BHILAI STEEL PLANT

April 2022 to September 2022

Month- May 2022

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/N m3)**	**NO_x (150mg/N m3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-5 (Process)	Stoves	60	2.5	--do--	19 May, 10:15-11:15 (60 Minute)	2526	119835	21.61	186.20	138.00	0.71% V/V
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	13 May, 11:30-12:00 (30 Minute)	2160	113599	44.66	66.80		-
LF-2	Ladle Furnace	50	1.5	Bag Filter	03 May, 09:15-10:00 (45 Minute)	2760	116535	39.59	65.40		-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	30 May, 10:10-10:45 (35 Minute)	-	-	47.41	-	-	-

A.	Stack emission									
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm: 800mg/Nm3)	**NO_x** (Norm:500mg/Nm3)	**CO** (Norm: 3 kg/T of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	10 May, 11:10-12:10 (60 Minute)	849	120858	48.70	140.20	143.40	2.55Kg/T

BHILAI STEEL PLANT

April 2022 to September 2022

											coke
Battery No. 3	Battery	100	3.5	Nil	16 May, 11:15-12:15 (60 Minute)	827	117088	46.09	132.40	138.40	2.48Kg/T coke
Battery No. 4	Battery	100	3.5	Nil	16 May, 10:00-11:00 (60 Minute)	782	121928	45.62	164.20	148.50	2.60Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	12 May, 10:30-11:30 (60 Minute)	838	125688	44.52	145.90	158.30	2.51Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	10 May, 09:50-10:50 (60 Minute)	1508	224470	47.15	138.60	146.20	2.53 Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	11 May, 11:00-12:00 (60 Minute)	1809	184497	44.72	176.00	189.50	2.45Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	26 May, 10:00-10:30 (30 Minute)	67	5851	-	1.59 Kg/T H_2SO4	-	-
Battery No. 6	Battery	100	3.5	Nil	Hot Conservation						

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: 600mg/Nm3)	**NO_x** (Norm:600mg/Nm3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	25 May, 09:00-09:35 (35 Minute)	1953	250220	41.27	83.00	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	Multi-Cyclone	26 May, 11:00-11:35 (35 Minute)	2105	242193	44.28	79.80	-	-
SP-2 (M/c-4)	Sintering Machine	100	6	Multi-Cyclone	26 May, 11:45-12:25 (40 Minute)	2105	225941	42.21	79.50	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	09 May, 10:10-10:50 (40 Minute)	7231	520642	46.01	-	-	-

BHILAI STEEL PLANT

April 2022 to September 2022

SP-3 (M/c-2)	Sintering Machine	120	7	ESP	26 May, 10:00-10:45 (45 Minute)	8439	504967	46.83	-	-	-
SP-3, M/c-1(Space dedusting)				ESP	31 May, 10:50-11:30 (40 Minute)	-	-	48.02	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	17 May, 09:45-10:30 (45 Minute)	2238	118501	33.22	135.00	139.40	-
Boiler 2	Boiler	80	4.3	ESP	17 May, 10:40-11:25 (45 Minute)	1976	114879	34.61	130.80	136.20	-
Boiler 3	Boiler	80	4.3	Wet Scrubber	14 May, 09:30-10:15 (45 Minute)	2115	87392	37.07	64.80	92.80	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	14 May, 11:15-12:00 (45 Minute)	2039	86167	36.32	70.40	95.80	-
Boiler 5	Boiler	80	4.3	ESP	-	-	-	-	-	-	-
Boiler 6	Boiler	80	4.3	ESP	21 May, 11:00-11:45 (45 Minute)	1890	318436	39.37	89.90	103.00	-
RMP-2											
LK-1	Vertical Kiln	53.2	1.2	Wet Scrubber	28 May, 10:50-11:30 (40 Minute)	273	51802	43.84	-	-	-
LK-2	Vertical Kiln	53.2	1.2	Wet Scrubber	28 May, 10:00-10:40 (40 Minute)	226	51494	43.72	-	-	-
RK	Rotary Kiln	60	2	Wet Scrubber	24 May, 09:30-10:10 (40 Minute)	162	63797	38.64	-	-	-
Mills											
BRM	RHF	-	-	-	30 May, 11:00-12:00 (60 Minute)	-	-	17.00	-	-	
Plate Mill	RHF	-	-	-	02 May , 10:45-11:45 (60 Minute)	-	-	18.62	-	-	

BHILAI STEEL PLANT

April 2022 to September 2022

Month- June 2022

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/N m3)**	**NO_x (150mg/N m3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-6 (Process)	Stoves	60	3.5	--do--	18 Jun, 11:00-12:00 (60 Minute)	1422	120786	22.19	128.20	148.30	0.70% V/V
BF-8) (Process)	Stoves			--do--	24 Jun, 09:50-10:50 (60 Minute)	7622	161767	23.46	245.00	186.00	0.72% V/V
BF-6 (Space dedusting)				Bag filter	16 Jun, 11:20-12:05 (45 Minute)	-	-	47.87	-	-	-
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	14 Jun, 09:35-10:30 (55 Minute)	2255	135478	47.33	68.59		-
LF-2	Ladle Furnace	50	1.5	Bag Filter	20 Jun, 10:30-11:15 (45 Minute)	2610	123083	35.88	60.43		-
SMS-3											
SMS – 3 (DDSY (Secondary))	Liquid Steel	-	-	-	21 Jun, 09:50-10:20 (30 Minute)	-	-	45.80	-	-	-

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50m	**SO_2** (Norm: 800mg	**NO_x** (Norm:5 00mg/N	**CO** (Norm: 3 kg/T

BHILAI STEEL PLANT

April 2022 to September 2022

								g/Nm3)	/Nm3)	m3)	of Coke
Coke Oven											
Battery No. 1	Battery	100	3.5	Nil	01 Jun, 10:00-11:00 (60 Minute)	827	120311	48.40	118.90	131.30	2.58Kg/T coke
Battery No. 3	Battery	100	3.5	Nil	15 Jun, 09:00-10:00 (60 Minute)	815	121033	44.97	138.20	147.40	2.50Kg/T coke
Battery No. 4	Battery	100	3.5	Nil	15 Jun, 10:10-11:10 (60 Minute)	637	126652	47.90	161.80	145.90	2.57Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	04 Jun, 10:15-11:10 (55 Minute)	637	130144	41.73	144.20	154.80	2.49Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	02 Jun, 10:15-11:15 (60 Minute)	1146	230044	44.80	124.60	135.90	2.53 Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	03 Jun, 09:30-10:30 (60 Minute)	1749	189038	44.65	174.80	184.90	2.47Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	23 Jun, 10:25-11:00 (35 Minute)	75	9556	-	1.4357 Kg/T H_2SO4	-	-
Battery No. 6	Battery	100	3.5	Nil	Hot Conservation						

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: 600mg/Nm3)	**NO_x** (Norm:600mg/Nm3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	17 Jun, 09:40-10:20 (40 Minute)	1797	255879	44.17	88.00	-	-
SP-2 (M/c-3)	Sintering Machine	100	6	Multi-Cyclone	20 Jun, 09:30-10:15 (45 Minute)	2060	225346	46.02	75.60	-	-

BHILAI STEEL PLANT

April 2022 to September 2022

SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	09 Jun, 09:45-10:30 (45 Minute)	8972	488022	40.77	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	10 Jun, 10:40-11:20 (40 Minute)	7116	476571	44.92	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	07 Jun, 11:00-11:45 (45 Minute)	2039	122491	37.89	138.60	144.80	-
Boiler 2	Boiler	80	4.3	ESP	07 Jun, 10:05-10:50 (45 Minute)	2248	122980	34.66	137.20	140.50	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	11 Jun, 09:30-10:15 (45 Minute)	2105	88554	41.17	73.40	91.90	-
Boiler 5	Boiler	80	4.3	ESP	08 Jun, 10:30-11:10 (40 Minute)	2055	124896	42.82	114.50	121.60	-
Boiler 6	Boiler	80	4.3	ESP	08 Jun, 09:30-10:15 (45 Minute)	1645	339781	38.70	120.60	123.00	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	13 Jun, 09:40-10:20 (40 Minute)	166	63712	44.05	-	-	-
Mills											
BRM	RHF	-	-	-	21 June, 10:30-11:30 (60 Minute)	-	-	15.00	-	-	
WRM	RHF	-	-	-	30 June, 10:20-11:20 (60 Minute)	-	-	20.36	-	-	
Merchant Mill	RHF	-	-	-	29 June, 09:00-10:00 (60 Minute)	-	-	20.15	-	-	

BHILAI STEEL PLANT

April 2022 to September 2022

Month-July 2022

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/N m3)**	**NO_x (150mg/N m3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-4 (Process)	Stoves	60	3.5	--do--	11 Jul, 11:00-12:00 (60 Minute)	2346	117916	19.59	121.45	138.80	0.64% V/V
BF-8) (Process)	Stoves			--do--	16 Jul, 09:15-10:15 (60 Minute)	7365	165158	26.06	239.20	141.90	0.67% V/V
BF-5 (Space dedusting)				Bag filter	22 Jul, 10:00-10:45 (45 Minute)	-	-	48.31	-	-	-
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	13 Jul, 10:00-10:35 (35 Minute)	2520	118199	47.67	71.52	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	13 Jul, 09:00-09:40 (60 Minute)	2040	121786	39.59	71.30	-	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	21 Jul, 09:55-10:30 (35 Minute)	-	-	35.25	-	-	-

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of**	**Height of the stack (m)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of**	**Flow rate of the flue gas**	**Parameters (whichever are applicable) (9)**			
								Particulate	**SO_2**	**NO_x**	**CO**

BHILAI STEEL PLANT

April 2022 to September 2022

	the unit) (2)	(3)		(5)		monitoring (7)	(8)	matter(PM) (Norm:50mg/Nm3)	(Norm: 800mg/Nm3)	(Norm:500mg/Nm3)	(Norm: 3 kg/T of Coke
Coke Oven											
Battery No. 3	Battery	100	3.5	Nil	09 Jul, 09:35-10:35 (60 Minute)	793	121449	47.09	133.50	143.50	2.62Kg/T coke
Battery No. 4	Battery	100	3.5	Nil	09 Jul, 10:45-11:45 (60 Minute)	648	119008	46.30	159.00	148.05	2.54Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	12 Jul, 10:30-11:25 (55 Minute)	849	130856	42.50	144.20	152.50	2.58Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	27 Jul, 09:30-10:40 (70 Minute)	603	121932	47.66	147.50	164.20	2.61Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	08 Jul, 11:35-12:35 (60 Minute)	1448	230731	45.80	148.20	155.00	2.50 Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	06 Jul, 10:10-11:10 (60 Minute)	1829	186266	42.41	257.00	188.00	2.46Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	11 Jul, 09:40-10:20 (40 Minute)	21	9677	-	1.4786 Kg/T H_2SO4	-	-

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: 600mg/Nm3)	**NO_x** (Norm:600mg/Nm3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	12 Jul, 09:35-10:15 (40 Minute)	1244	254777	39.78	64.80	-	-

BHILAI STEEL PLANT

April 2022 to September 2022

SP-2 (M/c-3)	Sintering Machine	100	6	Multi-Cyclone	20 Jun, 09:30-10:15 (45 Minute)	2060	225346	46.02	75.60	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	01 Jul, 09:00-09:40 (40 Minute)	8795	490309	43.80	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	05 Jul, 11:35-12:15 (40 Minute)	6745	495539	46.51	-	-	-
SP-3, M/c-1(Space dedusting)				ESP	07 Jul, 08:15-09:00 (45 Minute)	-	-	48.60			
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	08 Jul, 09:30-10:15 (45 Minute)	2217	121483	48.41	130.80	145.20	-
Boiler 2	Boiler	80	4.3	ESP	08 Jul, 10:30-11:15 (45 Minute)	2310	120753	47.79	136.40	160.80	-
Boiler 4	Boiler	80	4.3	Wet Scrubber	04 Jul, 09:10-09:55 (45 Minute)	2190	88319	47.25	69.25	89.40	-
Boiler 5	Boiler	80	4.3	ESP	28 Jul, 09:00-09:45 (45 Minute)	1870	127693	48.68	112.20	126.80	-
Boiler 6	Boiler	80	4.3	ESP	15 Jul, 09:00-09:45 (45 Minute)	1560	341023	35.58	118.20	126.30	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	19 Jul, 09:45-10:30 (45 Minute)	142	61263	39.24	-	-	-
Mills											
BRM	RHF	-	-	-	14 July, 09:30-10:30 (60 Minute)	-	-	17.27	-	-	
URM	RHF	-	-	-	20 July, 09:45-10:45 (60 Minute)	-	-	19.50	-	-	
Merchant Mill	RHF	-	-	-	30 July, 10:30-11:30 (60 Minute)	-	-	22.66	-	-	

BHILAI STEEL PLANT

April 2022 to September 2022

Month- August 2022

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/N m3)**	**NO_x (150mg/N m3)**	**CO (Norm: 1%)**
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	01 Aug, 10:00-11:05 (65 Minute)	2400	117788	47.79	72.84	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	13 Aug, 12:05-12:50 (45 Minute)	2280	112135	37.66	69.84	-	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	17 Aug, 11:00-11:35 (35 Minute)	-	-	33.90	-	-	-

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm: 800mg/Nm3)	**NO_x** (Norm:500mg/Nm3)	**CO** (Norm: 3 kg/T of Coke
Coke Oven											
Battery No. 3	Battery	100	3.5	Nil	12 Aug, 01:45-02:45 (60 Minute)	815	122146	40.72	143.27	139.70	2.59Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	10 Aug, 09:45-10:45 (60 Minute)	771	127313	45.78	168.50	186.80	2.45Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	10 Aug, 11:00-12:00	681	116797	47.44	152.30	171.20	2.53Kg/T coke

BHILAI STEEL PLANT

April 2022 to September 2022

					(60 Minute)						
Battery No. 9	Battery	100	3.5	Nil	04 Aug, 10:10-11:10 (60 Minute)	1468	231875	42.65	151.72	170.50	2.47 Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	19 Aug, 11:15-12:15 (60 Minute)	1448	237000	44.32	142.60	146.80	2.50 Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	03 Aug, 11:00-12:00 (60 Minute)	1829	190568	38.90	165.00	230.00	2.42Kg/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: 600mg /Nm3)	**NO_x** (Norm: 600mg/ Nm3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	05 Aug, 10:55-11:35 (40 Minute)	1452		251612	48.22	69.30	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	02 Aug, 11:30-12:20 (50 Minute)	7250		490016	45.89	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	11 Aug, 11:20-12:05 (45 Minute)	5880		475179	47.19	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	09 Aug, 10:30-11:10 (40 Minute)	2290		121040	48.77	63.60	88.30	-
Boiler 2	Boiler	80	4.3	ESP	09 Aug, 09:30-10:10 (40 Minute)	2355		120366	47.55	59.80	89.40	
Boiler 4	Boiler	80	4.3	Wet Scrubber	06 Aug, 11:45-12:25 (40 Minute)	2108		88477	45.17	65.30	87.70	-
Boiler 5	Boiler	80	4.3	ESP	16 Aug, 10:00-10:45 (45 Minute)	1840		144697	44.50	126.20	146.00	-

BHILAI STEEL PLANT

April 2022 to September 2022

Boiler 6	Boiler	80	4.3	ESP	16 Aug, 11:00-11:45 (45 Minute)	1210	338372	36.52	132.00	142.30	-
RMP-2											
RK	Rotary Kiln	60	2	Wet Scrubber	08 Aug, 10:30-11:10 (40 Minute)	81	60904	46.58	-	-	-
Mills											
BRM	RHF	-	-	-	18 Aug., 11:10-12:10 (60 Minute)	-	-	18.68	-	-	
Rail Mill	RHF	-	-	-	22 Aug., 11:00-12:00 (60 Minute)	-	-	21.47	-	-	

BHILAI STEEL PLANT

April 2022 to September 2022

Month- September 2022

A.	Stack emission										
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/ Nm3)	**SO_2 (250mg/Nm3)**	**NO_x (150mg/Nm3)**	**CO (Norm: 1%)**
Blast Furnace											
BF-5 (Process)	Stoves	60	3.5	--do--	16 Sep, 12:00-01:00 (60 Minute)	2602	121346	25.10	163.40	154.70	0.61% V/V
BF-6 (Process)	Stoves	60	3.5	--do--	30 Sep, 10:15-11:15 (60 Minute)	2001	120165	24.84	119.20	137.40	0.64% V/V
SMS-2											
LF-1	Ladle Furnace	60	1.65	Bag Filter	01 Sep, 10:20-10:40 (20 Minute)	1560	117977	47.87	79.40	-	-
LF-2	Ladle Furnace	50	1.5	Bag Filter	17 Sep, 09:15-10:00 (45 Minute)	1560	110378	38.65	72.60	-	-
SMS-3											
SMS – 3 (DDSY (Secondary)	Liquid Steel	-	-	-	26 Sep, 11:10-11:45 (35 Minute)	-	-	42.68	-	-	-

A.	Stack emission									
Name of the Plant (1)	**Stack connected to (Name of the unit) (2)**	**Height of the stack (m) (3)**	**Diameter of the stack (m) (4)**	**Pollution Control unit provided (Name) (5)**	**Date & Time of the monitoring (duration) (6)**	**Production fig. of the unit, during the period of monitoring (7)**	**Flow rate of the flue gas (8)**	**Parameters (whichever are applicable) (9)**			
								Particulate matter(PM) (Norm:50mg/Nm3)	**SO_2** (Norm: 800mg/Nm3)	**NO_x** (Norm:500mg/Nm3)	**CO** (Norm: 3 kg/T of Coke
Coke Oven											

BHILAI STEEL PLANT

April 2022 to September 2022

Battery No. 3	Battery	100	3.5	Nil	02 Sep, 11:00-12:00 (60 Minute)	894	119196	45.07	195.60	220.40	2.48Kg/T coke
Battery No. 5	Battery	100	3.5	Nil	20 Sep, 10:25-11:25 (60 Minute)	648	127291	41.49	143.00	159.70	2.51Kg/T coke
Battery No. 6	Battery	100	3.5	Nil	20 Sep, 11:35-12:35 (60 Minute)	648	116680	45.17	154.50	174.50	2.57Kg/T coke
Battery No. 9	Battery	100	3.5	Nil	13 Sep, 10:05-11:05 (60 Minute)	1468	229182	40.57	148.80	175.20	2.63Kg/T coke
Battery No. 10	Battery	120	4.2	Nil	08 Sep, 11:05-12:05 (60 Minute)	1387	238251	42.88	37.30	114.80	2.68Kg/T coke
Battery No. 11	Battery	120	4.2	Nil	22 Sep, 11:05-12:05 (60 Minute)	1246	193013	44.02	138.00	180.40	2.42Kg/T coke
DCDA Acid Plant	DCDA Acid Plant	40	0.8	Absorption Tower	28 Sep, 10:50-11:30 (40 Minute)	65	9461	-	1.746 Kg/T H_2SO4	-	-

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: 600mg /Nm3)	**NO_x** (Norm: 600mg/ Nm3)	**CO**
SP-2											
SP-2 (M/c-1)	Sintering Machine	100	6	Multi-Cyclone	15 Sep, 12:00-12:40 (40 Minute)	1877	249026	42.55	62.15	-	-
SP-3											
SP-3 (M/c-1)	Sintering Machine	120	7	ESP	19 Sep, 11:20-12:00 (40 Minute)	5464	472512	47.96	-	-	-
SP-3 (M/c-2)	Sintering Machine	120	7	ESP	21 Sep, 12:00-12:40 (40 Minute)	7504	479609	46.31	-	-	-
TPP/CPP											
Boiler 1	Boiler	80	4.3	ESP	05 Sep, 11:30-12:15 (45 Minute)	1820	119657	38.03	131.00	153.50	-

BHILAI STEEL PLANT

April 2022 to September 2022

Boiler 2	Boiler	80	4.3	ESP	27 Sep, 09:50-10:30 (40 Minute)	2360	119307	48.70	62.70	93.10	
Boiler 4	Boiler	80	4.3	Wet Scrubber	07 Sep, 10:20-11:05 (45 Minute)	2075	94084	35.37	49.80	96.30	-
Boiler 5	Boiler	80	4.3	ESP	07 Sep, 09:30-10:10 (40 Minute)	2100	85229	37.35	52.50	103.00	-
Boiler 6	Boiler	80	4.3	ESP	10 Sep, 11:05-11:50 (45 Minute)	2010	120463	40.10	86.20	128.00	-
Mills											
BRM	RHF	-	-	-	06 Sep., 11:40-12:40 (60 Minute)	-	-	16.62	-	-	
WRM	RHF	-	-	-	29 Sep., 11:00-12:00 (60 Minute)	-	-	22.32	-	-	
Plate Mill	RHF -J1	-	-	-	12 Sep., 11:25-12:25 (60 Minute)	-	-	18.36			
Plate Mill	RHF-J2	-	-	-	12 Sep., 10:00-11:00 (60 Minute)	-	-	20.16			

FLAG E

E-2

Fugitive Emission

Fugitive Emissions Status Month- April 2022

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM_{10} µg/m^3 (4000)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150)	Pb* µg/m^3 (2)	CO (5000)	BaP** 2000 ng/m^3	Remarks*
1	Coke Oven area	In front of Batt.-5		05 Apr -10:45	1830	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-3 & 4)		13 Apr -11:00	1880	-	-	-	-	-	-
3	Blast Furnace	BF # 6, Near furnace		26 Apr -10:15-12:15	596	50.60	40.20	NT*	1025	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LD Convertor		21 Apr -10:00-01:00	1475	39.90	36.70	NT*	1106	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-3		02 Apr -10:00	1830	-	-	-		-	
6	Lime dolomite plant- 1	RMP-1 (Entrance)		22 Apr -10:00	1590	-	-	-		-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		22 Apr -10:45	1870	-	-	-		-	-

Note : * Coke Oven (Battery1) BaP monitoring done in October 2021 and analysis results submitted by RDCIS in December. 2021.
**** NT- not Traceable**

Fugitive Emissions Status Month- May 2022

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM_{10} µg/m^3 (4000)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150)	Pb* µg/m^3 (2)	CO (5000)	BaP** 2000 ng/m^3	Remarks*
1	Coke Oven area	In front of Batt.-5		10 May -11:35	1790	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-3 & 4)		25 May -10:50	1840	-	-	-	-	-	-
3	Blast Furnace	BF # 6, Near furnace		25 May -09:00-01:08	1271	62.70	76.20	NT*	972	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Near LD Convertor		20 May -09:10-01:15	1117	56.80	60.40	NT*	1238	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-3		14 May -10:45	1880	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 (Entrance)		24 May -10:35	1640	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		24 May -11:00	1880	-	-	-	-	-	-

Note : * Coke Oven (Battery1) BaP monitoring done in October 2021 and analysis results submitted by RDCIS in December. 2021.
**** NT- not Traceable**

Fugitive Emissions Status Month- June 2022

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM_{10} µg/m^3 (4000)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150)	Pb* µg/m^3 (2)	CO (5000)	BaP** 2000 ng/m^3	Remarks*
1	Coke Oven area	In front of Batt.-5		22 Jun -10:00	1690	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		22 Jun -11:00	1890	-	-	-	-	-	-
3	Blast Furnace	BF # 6, Near weight bridge		16 Jun -09:25-01:05	397	60.60	72.50	NT*	894	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Convertor Shop Near Furnace		14 Jun -09:30-01:00	395	58.40	63.20	NT*	1108	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-1		22 Jun -12:15	1790	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 (Entrance)		22 Jun -11:45	1590	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		22 Jun -11:55	1700	-	-	-	-	-	-

Note : * Coke Oven (Battery1) BaP monitoring done in October 2021 and analysis results submitted by RDCIS in December. 2021.
**** NT- not Traceable**

Fugitive Emissions Status Month- July 2022

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM_{10} µg/m^3 (4000)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150)	Pb* µg/m^3 (2)	CO (5000)	BaP** 2000 ng/m^3	Remarks*
1	Coke Oven area	In front of Batt.-5		09 Jul -10:30	1700	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		12 Jul -10:00	1790	-	-	-	-	-	-
3	Blast Furnace	BF # 6, Near weight bridge		22 Jul -08:40-12:45	591.98	43.80	58.70	NT*	728	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Convertor Shop Near Furnace		18 Jul -08:30-12:30	383.64	49.60	59.40	NT*	937	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-1		04 Jul -09:30	1700	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 (Entrance)		19 Jul -11:35	1530	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		19 Jul -10:45	1660	-	-	-	-	-	-

Note : * Coke Oven (Battery1) BaP monitoring done in October 2021 and analysis results submitted by RDCIS in December. 2021.
**** NT- not Traceable**

Fugitive Emissions Status Month- Aug. 2022

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM_{10} µg/m^3 (4000)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150)	Pb* µg/m^3 (2)	CO (5000)	BaP** 2000 ng/m^3	Remarks*
1	Coke Oven area	In front of Batt.-9		04 Aug -10:45	1690	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		05 Aug -11:30	1810	-	-	-	-	-	-
3	Blast Furnace	BF # 8, Cast House		22 Aug - 10:00-02:35	737.32	45.30	51.60	NT*	831	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Beside of RH Degassar		23 Aug - 10:30-03:15	970.77	44.30	51.30	NT*	1174	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-4		06 Aug -10:15	1730	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 (Entrance)		08 Aug -12:45	1580	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		08 Aug -11:50	1760	-	-	-	-	-	-

Note : * Coke Oven (Battery1) BaP monitoring done in October 2021 and analysis results submitted by RDCIS in December. 2021.
**** NT- not Traceable**

Fugitive Emissions Status Month- Sep. 2022

S. No (1)	Name of the Unit (2)	Location of the Station (distance) (3)	Up wind / Down wind (4)	Date & time of the monitoring (5)	Parameters (as applicable) (6)						
					PM_{10} µg/m^3 (4000)	SO_2 µg/m^3 (200)	NOx µg/m^3 (150)	Pb* µg/m^3 (2)	CO (5000)	BaP 2000 ng/m^3	Remarks
1	Coke Oven area	In front of Batt.-5		20 Sep -10:40	1590	-	-	-	-	1267*	Norms as per GSR 277 (E) dtd 30/03/2012
2	Sinter Plant	SP-II (Near M/c-1)		15 Sep -10:25	1880	-	-	-	-	-	-
3	Blast Furnace	BF-6 #, Near Weigh bridge		29 Sep -09:35-01:45	679.96	60.60	82.40	NT*	760	-	Norms as per GSR 277 (E) dtd 30/03/2012
4	Steel Melting Shop-2	Ladle preparation bay		30 Sep -10:30-01:00	545.21	83.50	86.80	NT*	912	-	Norms as per GSR 277 (E) dtd 30/03/2012
5	Thermal Power Plant-1	Near Boiler-1		05 Sep -11:50	1790	-	-	-	-	-	
6	Lime dolomite plant- 1	RMP-1 (Entrance)		29 Sep -12:50	1420	-	-	-	-	-	-
7	Lime dolomite plant-2	RMP-2 (Near welfare building)		29 Sep -11:30	1580	-	-	-	-	-	-

Note : * Coke Oven (Battery1) BaP & Pb monitoring done in October 2021 and analysis results submitted by RDCIS in December. 2021.
**** NT- not Traceable**

FLAG E

E-3

AMBIENT AIR QUALITY

AMBIENT AIR QUALITY														
Month - April'22														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6***
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m³***											***ng/m³***		
1	Civic Centre			25.94	59.64	15.25	15.90	1.70	271	NT	44.86	NT	NT	5.200	2.02
2	OP-2			23.98	45.74	15.61	16.58	2.05	387	NT	66.30	NT	NT	12.00	1.11
3	Rail Mill			29.17	57.65	17.47	20.11	3.21	566	NT	67.53	NT	NT	11.00	1.56
4	Ispat Bhavan			25.66	54.50	15.95	17.83	2.84	378	1.00	NA**	NT	NT	4.900	NA**

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000*µg/m³*. Otherwise, norm is 4000*µg/m³,* when monitoring of CO is done for 1 hr.

* Not done regularly**.**

BaP analysis results submitted by RDCIS in December 2021 (Sample collected in Oct.-2021)

Heavy metal analysis results submitted by RDCIS in October 2021 (Sample collected in July-2021)

* NT- not Traceable

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

AMBIENT AIR QUALITY														
Month-May'22														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_{6**}**
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m³***											***ng/m³***		
1	Civic Centre			26.49	59.62	15.94	16.34	1.69	274	NT	44.12	NT	NT	5.200	2.04
2	OP-2			24.06	44.97	16.02	16.43	1.98	379	NT	65.95	NT	NT	12.00	1.15
3	Rail Mill			27.84	58.17	17.14	18.98	3.15	523	NT	63.21	NT	NT	11.00	1.49
4	Ispat Bhavan			24.29	54.50	15.95	17.83	2.84	378	1.00	NA**	NT	NT	4.900	NA**

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000*µg/m³*. Otherwise, norm is 4000*µg/m³,* when monitoring of CO is done for 1 hr.

* Not done regularly**.**

BaP analysis results submitted by RDCIS in December 2021 (Sample collected in Oct.-2021)

Heavy metal analysis results submitted by RDCIS in October 2021 (Sample collected in July-2021)

* NT- not Traceable

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

AMBIENT AIR QUALITY

Month-June

S No.	Location of the Station	Up wind / Down wind	Date & time of the monitoring	Parameters (as applicable)												
1	2	3	4	5												
				$PM_{2.5}$	PM_{10}	SO_2	NO_2	NH_3	CO	BaP*	O_3	Pb*	As*	Ni*	C_6H_6**	
		Norms	24 hrs	60	100	80	80	400	2000 (8 hrs)	-	180	1	-	-	-	
			Annual	40	60	50	40	100	4000(1 hrs)	1	100	0.5	6	20	5	
	Unit	$\mu g/m^3$											ng/m^3			
1	Civic Centre			25.81	59.18	14.73	16.11	1.80	282	NT	48.28	NT	NT	5.200	1.96	
2	OP-2			25.82	46.26	16.79	17.21	2.01	348	NT	64.67	NT	NT	12.00	1.09	
3	Rail Mill			29.05	59.30	18.87	19.11	2.98	589	NT	60.96	NT	NT	11.00	1.54	
4	Ispat Bhavan			26.80	56.41	17.22	18.01	2.43	352	1.00	NA**	NT	NT	4.900	NA**	

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

* Not done regularly.

BaP analysis results submitted by RDCIS in December 2021 (Sample collected in Oct.-2021)

Heavy metal analysis results submitted by RDCIS in October 2021 (Sample collected in July-2021)

* NT- not Traceable

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

AMBIENT AIR QUALITY																
Month-July																
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**												
1	**2**	**3**	**4**	**5**												
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m³***											***ng/m³***			
1	Civic Centre			23.01	55.44	12.54	14.02	1.68	251	NT	47.83	NT	NT	5.200	1.91	
2	OP-2			22.17	43.58	14.22	16.34	1.72	324	NT	63.93	NT	NT	12.00	1.02	
3	Rail Mill			27.83	57.94	15.20	18.04	2.81	562	NT	59.82	NT	NT	11.00	1.43	
4	Ispat Bhavan			24.50	54.12	15.86	15.92	2.25	343	1.00	NA**	NT	NT	4.900	NA**	

Note: if monitoring of CO is done on 8 hourly basis, then Norm is 2000*µg/m³*. Otherwise, norm is 4000*µg/m³,* when monitoring of CO is done for 1 hr.

* Not done regularly**.**

BaP analysis results submitted by RDCIS in December 2021 (Sample collected in Oct.-2021)

Heavy metal analysis results submitted by RDCIS in October 2021 (Sample collected in July-2021)

* NT- not Traceable

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

AMBIENT AIR QUALITY														
Month-August														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m³***											***ng/m³***		
1	Civic Centre			21.40	55.17	11.47	12.84	1.62	239	NT	46.92	NT	NT	5.200	1.88
2	OP-2			20.58	42.76	13.63	15.88	1.69	307	NT	60.27	NT	NT	12.00	1.05
3	Rail Mill			27.20	57.28	14.93	17.92	2.78	544	NT	58.08	NT	NT	11.00	1.42
4	Ispat Bhavan			22.65	53.83	15.15	14.86	2.23	318	1.00	NA**	NT	NT	4.900	NA**

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

* Not done regularly**.**

BaP analysis results submitted by RDCIS in December 2021 (Sample collected in Oct.-2021)

Heavy metal analysis results submitted by RDCIS in October 2021 (Sample collected in July-2021)

* NT- not Traceable

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

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AMBIENT AIR QUALITY														
Month-September														
S No.	**Location of the Station**	**Up wind / Down wind**	**Date & time of the monitoring**	**Parameters (as applicable)**										
1	**2**	**3**	**4**	**5**										
				$PM_{2.5}$	**PM_{10}**	**SO_2**	**NO_2**	**NH_3**	**CO**	**BaP***	**O_3**	**Pb***	**As***	**Ni***	**C_6H_6****
		Norms	**24 hrs**	**60**	**100**	**80**	**80**	**400**	**2000 (8 hrs)**	**-**	**180**	**1**	**-**	**-**	**-**
			Annual	**40**	**60**	**50**	**40**	**100**	**4000(1 hrs)**	**1**	**100**	**0.5**	**6**	**20**	**5**
	Unit	***µg/m³***											***ng/m³***		
1	Civic Centre			21.07	51.20	11.49	12.46	1.58	241	NT	45.88	NT	NT	5.200	1.67
2	OP-2			19.86	41.54	13.01	14.73	1.61	289	NT	58.21	NT	NT	12.00	1.02
3	Rail Mill			25.87	56.02	13.86	16.22	2.57	535	NT	57.96	NT	NT	11.00	1.38
4	Ispat Bhavan			21.58	52.70	14.82	14.10	2.01	306	1.00	NA**	NT	NT	4.900	NA**

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

* Not done regularly**.**

BaP analysis results submitted by RDCIS in December 2021 (Sample collected in Oct.-2021)

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Water Pollution Status

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Month- April 2022

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.0-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
27 Apr, 10:40:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	100	***9.65***	-	229	10.40	-	3190	240.3	6.31	Treated water used for quenching
27 Apr, 11:00:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	7.79	76	0.300	0.19	16	223	3.89	2.19	Treated water used for quenching
Shutdown	**Steel Melting Shop-1**	Settling Tank	-	**-**	-	-	**-**	-	-	**-**	**-**	Recycled back
02 Apr, 10:15:00 AM	**Sinter Plant-2**	Settling Tank	1400	8.47	62	-	**-**	-	-	**-**	1.52	Recycled back
02 Apr, 10:00:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	8.05	40	-	**-**	-	-	**-**	1.12	Recycled
15 Apr, 09:05:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.16	48	BDL	0.15	-	-	29.00	1.68	Recycled Back
08 Apr, 10:30:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	7.61	44	-	**-**	-	-	**-**	3.16	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)								
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	32.13	7.68	36	BDL	BDL	14	44	2.82	1.15
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	31.20	7.60	45	BDL	BDL	17	53	6.20	2.89
04, 11, 18, 25, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	31.25	7.52	24	0.07	0.07	17	51	3.35	1.01

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)				
			Temp.	pH	SS	BOD	COD
	Norms			**6.5 -8.5**	**100**	**30**	**250**
19 Apr, 10:25 AM	30 MLD	1150	27	7.26	27	4	10
08 Apr, 11:20 AM	Risali (Oxi. Pond)	700	30	8.31	64	19	68
21 Apr, 12:00 PM	Works area	390	31	6.96	65	18	48
19 Apr, 10:25 AM	30 MLD	1150	27	7.26	27	4	10

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Month- May 2022

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

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)								
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**
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	33.38	7.63	40	**BDL**	**BDL**	14	43	2.78	1.01
03, 10, 17, 24, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	32.55	7.52	60	**BDL**	**BDL**	17	48	5.73	2.49
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	31.88	7.56	33	0.04	0.08	18	50	5.39	0.96

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)				
			Temp.	pH	SS	BOD	COD
	Norms			**6.5 -8.5**	**100**	**30**	**250**
31 May, 07:45 AM	30 MLD	1150	29	7.12	20	6	12
07 May, 11:25 AM	Risali (Oxi. Pond)	700	36	7.48	56	21	70
07 May, 12:00 PM	Works area	390	36	7.02	39	16	51
31 May, 07:45 AM	30 MLD	1150	29	7.12	20	6	12

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Month- June 2022

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.0-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
29 Jun, 07:50:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	152	9.41	-	172	6.90	-	2825	249.8	8.90	Treated water used for quenching
29 Jun, 08:10:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	8.00	73	0.84	0.16	15	224	40.31	2.12	Treated water used for quenching
02 Jun, 08:25:00 AM	**Sinter Plant-2**	Settling Tank	1400	8.48	32	-	-	-	-	-	1.25	Recycled back
02 Jun, 08:40:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	8.37	30	-	-	-	-	-	1.12	Recycled
11 Jun, 08:10:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.18	47	BDL	0.13	-	-	24.20	1.32	Recycled Back
09 Jun, 09:10:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	8.21	48	-	-	-	-	-	2.83	Recycled Back
03 Jun, 09:00:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	7.65	64	-	-	-	-	-	1.43	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)								
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**
07, 14, 21, 28, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	31.88	7.81	34	BDL	BDL	15	43	3.42	1.42
07, 14, 21, 28, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	31.05	7.63	47	BDL	BDL	18	47	6.22	2.70
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	31.48	7.71	32	0.05	0.08	17	46	7.68	1.04

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)				
			Temp.	pH	SS	BOD	COD
	Norms			**6.5 -8.5**	**100**	**30**	**250**
28 Jun, 08:50 AM	30 MLD	1150	27	7.63	25	7	12
30 Jun, 09:55 AM	Risali (Oxi. Pond)	700	28	7.41	50	22	67
17 Jun, 08:30 AM	Works area	390	31	6.12	45	21	58
28 Jun, 08:50 AM	30 MLD	1150	27	7.63	25	7	12

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Month- July 2022

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.0-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
27 Jul, 08:25:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	170	9.99	-	167	17.70	-	2832	365.3	7.25	Treated water used for quenching
27 Jul, 08:30:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	8.05	75	0.293	0.18	13	216	22.60	2.17	Treated water used for quenching
02 Jul, 08:30:00 AM	**Sinter Plant-2**	Settling Tank	1400	8.17	40	-	-	-	-	-	1.52	Recycled back
02 Jul, 08:10:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	7.81	70	-	-	-	-	-	1.23	Recycled
15 Jul, 08:30:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.48	41	BDL	0.13	-	-	20.10	1.20	Recycled Back
08 Jul, 08:30:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	7.90	39	-	-	-	-	-	2.54	Recycled Back
14 Jul, 09:00:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	7.60	41	-	-	-	-	-	2.85	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)								
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – A	SMS I & II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	27.90	7.59	34	BDL	BDL	15	43	2.73	1.45
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	27.93	7.53	37	BDL	BDL	18	48	4.97	2.59
04, 11, 18, 25, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	26.60	7.94	32	0.09	0.08	15	47	3.89	1.29

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)				
			Temp.	pH	SS	BOD	COD
	Norms			**6.5 -8.5**	**100**	**30**	**250**
26 Jul, 09:20 AM	30 MLD	1150	27	7.45	23	10	12
09 Jul, 07:30 AM	Bhilai House (Oxi. Pond)	475	28	7.78	25	24	47
26 Jul, 09:40 AM	Risali (Oxi. Pond)	700	27	7.74	41	22	54
07 Jul, 08:10 AM	Works area	390	28	7.29	35	20	36

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Month- August 2022

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.0-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
17 Aug, 10:00:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	153	9.32	-	179	20.30	-	2910	375.5	8.64	Treated water used for quenching
17 Aug, 10:20:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	8.16	76	0.420	0.19	12	239	39.55	2.32	Treated water used for quenching
04 Aug, 09:40:00 AM	**Sinter Plant-2**	Settling Tank	1400	7.83	42	-	-	-	-	-	1.36	Recycled back
04 Aug, 09:25:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	8.18	46	-	-	-	-	-	1.18	Recycled back
13 Aug, 10:00:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.16	49	BDL	0.15	-	-	25.90	1.33	Recycled Back
06 Aug, 09:45:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	8.08	35	-	-	-	-	-	1.72	Recycled Back
11 Aug, 11:30:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	8.16	46	-	-	-	-	-	2.05	Recycled Back
	CPP/TPP	Ash Dyke										Recycled Back

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Date & time of the Monitoring	Name of the stream	Name of the production units contributing to the stream	Parameters (mg/l, except pH and temp.)								
			Temp.	pH	SS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**
02, 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	29.00	7.59	34	BDL	BDL	14	43	4.44	1.73
02, 09, 16, 23, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	28.85	7.57	39	BDL	BDL	19	50	6.89	2.66
01, 08, 15, 22, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	27.58	7.88	30	0.03	0.07	16	49	4.18	1.33

Date & time of the Monitoring	Name of the STP	Quantity of the Effluent m3/hr	Parameters (mg/l, except pH and temp.)				
			Temp.	pH	SS	BOD	COD
	Norms			**6.5 -8.5**	**100**	**30**	**250**
26 Aug, 10:30 AM	30 MLD	1150	27	7.39	26	7	10
27 Aug, 09:00 AM	Bhilai House (Oxi. Pond)	475	29	7.85	24	24	55
26 Aug, 09:55 AM	Risali (Oxi. Pond)	700	27	7.60	39	20	50
18 Aug, 09:45 AM	Works area	390	29	7.22	55	10	58

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

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

Month- September 2022

Date & Time of the sample	Location of the sampling point	Type of treatment provided	Flow rate m3/Hr	Parameters monitored (mg/l, except pH)								Remarks
				pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O & G	
Norms				**6.0-8.5**	**100 (50 for BF)**	**1**	**0.2**	**30**	**250**	**50**	**10**	
COBP Effluent												
21 Sep, 09:30:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	100	***9.08***	-	185	10.40	-	2509	371.8	8.15	Treated water used for quenching
21 Sep, 09:50:00 AM	**Outlet to BOD plant**	Physiochemical & Biological	-	8.22	75	0.375	0.18	14	245	41.25	3.21	Treated water used for quenching
02 Sep, 10:50:00 AM	**Sinter Plant-2**	Settling Tank	1400	8.39	38	-	-	-	-	-	1.22	Recycled back
02 Sep, 11:00:00 AM	**Steel Melting Shop-2**	Settling Tank	1650	7.90	64	-	-	-	-	-	1.10	Recycled
09 Sep, 09:40:00 AM	**Blast Furnace-RST**	Settling Tank /Cooling Pond	12500	7.27	45	BDL	0.15	-	-	25.10	1.46	Recycled Back
08 Sep, 10:00:00 AM	**Mills (Rail Mill)**	Settling Tank with oil separators	-	8.04	29	-	-	-	-	-	1.59	Recycled Back
10 Sep, 09:50:00 AM	**Plate Mill**	Settling Tank with oil separators	16000	7.91	39	-	-	-	-	-	2.16	Recycled Back
21 Sep, 09:30:00 AM	**Inlet to BOD plant**	Physiochemical & Biological	100	***9.08***	-	185	10.40	-	2509	371.8	8.15	Treated water used for

Bhilai Steel Plant
Water Pollution Status April 2022 to Septmber 2022

												quenching
	CPP/TPP	Ash Dyke										Recycled Back

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

Date & time of the Monitoring	**Name of the stream**	**Name of the production units contributing to the stream**	**Parameters (mg/l, except pH and temp.)**								
			Temp.	**pH**	**SS**	**Phenol**	**Cyanide**	**BOD**	**COD**	**Amm. Nitrogen**	**O&G**
Norms			**-**	**6.5-8.5**	**100**	**1**	**0.2**	**30**	**250**	**50**	**10**
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – A	SMS- II, Foundry, PP-1, BF, OP-I, RMP-I, ARS and Plate mill	28.50	7.67	41	BDL	BDL	14	43	2.75	1.65
06, 13, 20, 27, 8:00 to 12:30, Grab	Stream – B	MSDS-I, RTS, T&D, and R&SM	27.60	8.12	34	BDL	BDL	18	52	5.05	2.41
05, 12, 19, 26, 8:00 to 12:30, Grab	Stream – C	COBPP, SP-II, SP-III, Coke Ovens and Mills	27.20	8.17	32	0.09	0.08	19	51	5.12	1.43

Date & time of the Monitoring	**Name of the STP**	**Quantity of the Effluent m3/hr**	**Parameters (mg/l, except pH and temp.)**				
			Temp.	**pH**	**SS**	**BOD**	**COD**
	Norms			**6.5 -8.5**	**100**	**30**	**250**
20 Sep, 10:50 AM	30 MLD	1150	27	7.25	28	8	13
30 Sep, 07:45 AM	Bhilai House (Oxi. Pond)	475	29	7.70	26	23	60
23 Sep, 11:45 AM	Risali (Oxi. Pond)	700	28	7.86	59	20	61
22 Sep, 09:35 AM	Works area	390	27	7.15	34	14	56

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Noise Pollution Control Status

Noise Pollution Control Status

Month-April 2022

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) *90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)*	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	28-Apr	5 m	Air tight control Room	66.9	2 Minute	
Blast Furnace-4(Control Room)	20-Apr	5 m	Acoustic Room	68.7	2 Minute	
Mills (Rolling / forgoing) Rail Mill	28-Apr	5 m	Acoustic pulpit	88.6	2 Minute	
TPP/CPP (Turbines-3) (Control Room)	02-Apr	5 m	Acoustic cabins	67.4	2 Minute	
SP-2, (M/c-3 & 4) Operator's room	13-Apr	5 m	Acoustic Room	68.7	2 Minute	
Coke-oven area (Batt.-1) (Control Room)	04-Apr	5 m	Air Tight control Room	70.3	2 Minute	
Others						

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

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	58.2	56.6
Near Joratarai Gate	75	60.4	57.2
Near Main Gate	75	62.1	56.8
Near Khursipar Gate	75	68.2	65.3
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	56.1	43.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	60.5	44.0
Sector-09 (Goal Market)	65 Day & 55 Night	60.0	40.2
Maroda Sector (BSP Market)	65 Day & 55 Night	53.2	51.3
Risali Sector (BSP Market)	65 Day & 55 Night	58.1	50.2
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	53.6	44.1
Sector-05 (Street No. - 32)	55 Day & 45 Night	54.3	41.0
Sector-07 (Street No. - 17)	55 Day & 45 Night	45.3	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	46.2	41.0
Sector-10 (Street No. - 25)	55 Day & 45 Night	46.2	42.3
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.0	39.2
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.4	39.4
Sector-07 (English Medium Middle School)	50 Day & 40 Night	47.6	38.5
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	44.8	39.2
Maroda Sector (Estate Court)	50 Day & 40 Night	48.2	38.3

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

Noise Pollution Control Status

Month-May 2022

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) *90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)*	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	28-May	5 m	Air tight control Room	66.3	2 Minute	
Blast Furnace-4(Control Room)	07-May	5 m	Acoustic Room	70.1	2 Minute	
Mills (Rolling / forgoing) Rail Mill	28-May	5 m	Acoustic pulpit	85.7	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	14-May	5 m	Acoustic cabins	65.9	2 Minute	
SP-2, (M/c-1) Operator's room	25-May	5 m	Acoustic Room	68.3	2 Minute	
Coke-oven area (Batt.-1) (Control Room)	10-May	5 m	Air Tight control Room	70.3	2 Minute	
Others						

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

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	58.2	56.6
Near Joratarai Gate	75	60.4	57.2
Near Main Gate	75	62.1	56.8
Near Khursipar Gate	75	68.2	65.3
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	56.1	43.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	60.5	44.0
Sector-09 (Goal Market)	65 Day & 55 Night	60.0	40.2
Maroda Sector (BSP Market)	65 Day & 55 Night	53.2	51.3
Risali Sector (BSP Market)	65 Day & 55 Night	58.1	50.2
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	53.6	44.1
Sector-05 (Street No. - 32)	55 Day & 45 Night	54.3	41.0
Sector-07 (Street No. - 17)	55 Day & 45 Night	45.3	42.3
Sector-08 (Street No. - 05)	55 Day & 45 Night	46.2	41.0
Sector-10 (Street No. - 25)	55 Day & 45 Night	46.2	42.3
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.0	39.2
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	48.4	39.4
Sector-07 (English Medium Middle School)	50 Day & 40 Night	47.6	38.5
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	44.8	39.2
Maroda Sector (Estate Court)	50 Day & 40 Night	48.2	38.3

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

Noise Pollution Control Status

Month-June 2022

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) *90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)*	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	22-Jun	5 m	Air tight control Room	60.4	2 Minute	
Blast Furnace-6(Control Room)	25-Jun	5 m	Acoustic Room	68.8	2 Minute	
Mills (Rolling / forgoing) Rail Mill	22-Jun	5 m	Acoustic pulpit	86.7	2 Minute	
TPP/CPP (Turbines-3 & 4) (Control Room)	22-Jun	5 m	Acoustic cabins	68.0	2 Minute	
SP-2, (M/c-1) Operator's room	22-Jun	5 m	Acoustic Room	64.3	2 Minute	
Coke-oven area (Batt.-1) (Control Room)	01-Jun	5 m	Air Tight control Room	67.9	2 Minute	
Others						

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

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	58.3	54.9
Near Joratarai Gate	75	60.4	55.8
Near Main Gate	75	63.1	59.2
Near Khursipar Gate	75	65.2	63.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	51.0	53.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.2	51.5
Sector-09 (Goal Market)	65 Day & 55 Night	48.8	53.0
Maroda Sector (BSP Market)	65 Day & 55 Night	56.0	52.0
Risali Sector (BSP Market)	65 Day & 55 Night	55.0	52.8
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	49.1	43.7
Sector-05 (Street No. - 32)	55 Day & 45 Night	48.2	42.9
Sector-07 (Street No. - 17)	55 Day & 45 Night	44.8	44.1
Sector-08 (Street No. - 05)	55 Day & 45 Night	44.8	44.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	45.6	43.5
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.9	38.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	47.7	37.3
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	38.0
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	49.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	49.2	39.3

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

Noise Pollution Control Status

Month-July 2022

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) *90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)*	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	23-Jul	5 m	Air tight control Room	71.4	2 Minute	
Blast Furnace-6(Control Room)	11-Jul	5 m	Acoustic Room	71.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	23-Jul	5 m	Acoustic pulpit	86.3	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	07-Jul	5 m	Acoustic cabins	70.3	2 Minute	
SP-2, (M/c-1) Operator's room	12-Jul	5 m	Acoustic Room	68.8	2 Minute	
Coke-oven area (Batt.-9) (Control Room)	08-Jul	5 m	Air Tight control Room	69.4	2 Minute	
Others						

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

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	58.3	54.9
Near Joratarai Gate	75	60.4	55.8
Near Main Gate	75	63.1	59.2
Near Khursipar Gate	75	65.2	63.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	51.0	53.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.2	51.5
Sector-09 (Goal Market)	65 Day & 55 Night	48.8	53.0
Maroda Sector (BSP Market)	65 Day & 55 Night	56.0	52.0
Risali Sector (BSP Market)	65 Day & 55 Night	55.0	52.8
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	49.1	43.7
Sector-05 (Street No. - 32)	55 Day & 45 Night	48.2	42.9
Sector-07 (Street No. - 17)	55 Day & 45 Night	44.8	44.1
Sector-08 (Street No. - 05)	55 Day & 45 Night	44.8	44.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	45.6	43.5
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.9	38.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	47.7	37.3
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	38.0
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	49.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	49.2	39.3

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

Noise Pollution Control Status

Month-Aug. 2022

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) *90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)*	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	20-Aug	5 m	Air tight control Room	65.3	2 Minute	
Blast Furnace-6(Control Room)	06-Aug	5 m	Acoustic Room	70.3	2 Minute	
Mills (Rolling / forgoing) Rail Mill	22-Aug	5 m	Acoustic pulpit	87.4	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	06-Aug	5 m	Acoustic cabins	69.8	2 Minute	
SP-2, (M/c-1) Operator's room	05-Aug	5 m	Acoustic Room	67.9	2 Minute	
Coke-oven area (Batt.-9) (Control Room)	04-Aug	5 m	Air Tight control Room	70.3	2 Minute	
Others						

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

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	58.3	54.9
Near Joratarai Gate	75	60.4	55.8
Near Main Gate	75	63.1	59.2
Near Khursipar Gate	75	65.2	63.7
Commercial Area			
Sector-05 (Market area)	65 Day & 55 Night	51.0	53.0
Sector-06 (Near 'B' Market)	65 Day & 55 Night	59.2	51.5
Sector-09 (Goal Market)	65 Day & 55 Night	48.8	53.0
Maroda Sector (BSP Market)	65 Day & 55 Night	56.0	52.0
Risali Sector (BSP Market)	65 Day & 55 Night	55.0	52.8
Residential Area			
Sector-01 (Street No. - 23)	55 Day & 45 Night	49.1	43.7
Sector-05 (Street No. - 32)	55 Day & 45 Night	48.2	42.9
Sector-07 (Street No. - 17)	55 Day & 45 Night	44.8	44.1
Sector-08 (Street No. - 05)	55 Day & 45 Night	44.8	44.6
Sector-10 (Street No. - 25)	55 Day & 45 Night	45.6	43.5
Silence Area			
Sector-02 (English Medium Middle School)	50 Day & 40 Night	48.9	38.1
Sector-05 (Girls Higher Secondry School)	50 Day & 40 Night	47.7	37.3
Sector-07 (English Medium Middle School)	50 Day & 40 Night	49.0	38.0
Risali Sector (Aadarsh Hindi Medium Middle School)	50 Day & 40 Night	49.0	39.0
Maroda Sector (Estate Court)	50 Day & 40 Night	49.2	39.3

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

Noise Pollution Control Status

Month-Sep. 2022

1. Noise Monitoring in Work Zone

Location	Date of Monitoring	Distance from the source	Name of control equipment provided	Noise Level Leq dB(A) *90 dB (A) for 8 hrs. exposure (As per Factory Act, 1948)*	Duration of the monitoring (time)	Remarks
Oxygen plant-2 (Control Room)	28-Sep	5 m	Air tight control Room	66.3	2 Minute	
Blast Furnace-5(Control Room)	16-Sep	5 m	Acoustic Room	68.4	2 Minute	
Mills (Rolling / forgoing) Rail Mill	28-Sep	5 m	Acoustic pulpit	86.9	2 Minute	
TPP/CPP (Turbines-4) (Control Room)	05-Sep	5 m	Acoustic cabins	68.9	2 Minute	
SP-2, (M/c-1) Operator's room	15-Sep	5 m	Acoustic Room	67.4	2 Minute	
Coke-oven area (Batt.-3) (Control Room)	02-Sep	5 m	Air Tight control Room	69.7	2 Minute	
Others						

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

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

- **Noise Monitoring in township area done (Quarterly) in the month of Sep.-22**

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Environmental Projects Implemented at BSP

Let’s commit to Clean & Green Bhilai

S.No.	Projects	Status (As on 30th Sep. 2022)
1.	Water recycling schemes for Plant Outlet-B Cost : 3.91 Crs	Completed.
2.	Water recycling schemes for Plant outlet-C Cost : 44.8 Crs	Completed
3.	To de-link the HUDCO sewerage line from sewerage net-work of Bhilai Township & divert house & laying of 2.5 KM sewer line.	• BSP requested CECB to delist this project from the list of BG project earlier submitted by BSP.
4.	Construction of Secured Land Fill for disposal of hazardous waste. Cost : 12.4 Crs	Completed.
5.	Replacement of Multi-cyclones (wet scrubbers) by ESPs at Sinter Plant-II for control of Stack emission. Cost : 43.91 Crs	Completed.
6.	ESP based de-dusting system at SP-II for work-zone/fugitive emission control. Cost : 2.987Crs	Completed.
7.	Up-gradation of waste gas ESP of SP-III for control of Stack emission. Cost : 6.24 Crs	
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 in Progress.
10.	Installation of secondary Emission control system/Dog-House for three Convertors at Steel melting Shop-II . Cost : 411.89 Crs	• Tender Extended upto 15th December 2022.

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant Covered	Total # Participants.
1.	Safety Training On Human Factor.	**4**	12.04.22	24	**91**
			13.04.22	25	
			16.04.22	21	
			18.04.22	21	
2.	TTT On Human Factor	**1**	18.04.22 to 20.04.22 (3Days)	6	**6**
3.	Safety In Crane Operation & Maintenance.	**1**	01.04.22	28	**28**
4.	Safety In Traffic Operation.	**1**	06.04.22	18	**18**
5.	Safety Training For Trade Apprentice	**2**	06.04.22	90	**160**
			07.04.22	70	
6.	Gas Safety In Steel Industries.	**1**	07.04.22	26	**26**
7.	Chemical safety for COCCD	**1**	26.04.22	33	**33**
Total Number of Programme Conducted		**11**	**Total Participants =**		**362**

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training On Human Factor.	**1**	11.04.22	29	**29**
2	Safety Training On Human Factor.	**1**	22.04.22	26	**26**
3.	Train The Trainer On i-SEE	**1**	11.04.22 to 13.04.22	07	**07**
4.	Train The Trainer On Defensive Driving	**1**	11.04.22 to 13.04.22	10	**10**
5.	Train The Trainer On Human Factor	**1**	21.04.22 to 23.04.22	7	**7**
6	Goal & Role For Safety Professionals(GRIL)	**1**	25.04.22 to 27.04.22	21	**21**
7	Interaction for safety encouragement and engagement. (i-SEE)	**1**	16.04.22	20	**20**
7	HHP Bow-Tie Workshop	**6**	18.04.22	8	**36**
			19.04.22	5	
			20.04.22	2	
			21.04.22	14	
			22.04.22	4	
			23.04.22	3	
Total Number of Programme Conducted		**13**	**Total Participants =**		**156**

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1	Safety Training On Human Factor.	**7**	19.04.22	30	**180**
			20.04.22	27	
			21.04.22	26	
			23.04.22	23	
			25.04.22	20	
			26.04.22	25	
			27.04.22	29	
2.	Safety Training For Shunting Staff of T & D	**1**	07.04.22	15	**15**
Total Number of Programme Conducted		**8**	**Total Participants =**		**195**

Summary:

***TOTAL PROGRAMS (For Regular Employees)** ORGANISED IN APRIL.-2022: **24 (11 NE + 13 Exe.)**

***TOTAL PARTICIPANTS (REG. Employees)** ATTENDED IN APRIL -2022: **518 (362 NE & 156 Exe.)**

* **Refresher Safety Training for Contract Workers** at Works Area in APRIL2022: #Prog:**24**Participants:**222**

Safety Training Status of Reg. Employees at a Glance:

YEAR	No of Programmes		No. of employees Covered		Total No. of Employees Covered
	Exe.	Non Exe	Exe.	Non Exe.	
Fin.Year-2022-23 **(01.04.22-30.4.22)**	13	11	156	362	**518**
Cal. Year-2022 **(01.01.22-30.4.22)**	29	41	293	1039	**1332**

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant Covered	Total # Participants.
1.	Safety Training On Human Factor.	**7**	10.05.22	28	**196**
			11.05.22	26	
			12.05.22	30	
			13.05.22	24	
			14.05.22	32	
			17.05.22	28	
			18.05.22	28	
2.	Safety In Traffic Operation.	**1**	02.05.22	20	**20**
3.	Defensive Driving.	**1**	07.05.22	35	**35**
4.	Chemical safety for COCCD	**2**	06.05.22	34	**66**
			13.05.22	32	
Total Number of Programme Conducted		**11**	**Total Participants =**		**317**

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Leadership Training For ED’s & CGM’s	**1**	05.05.22 to 06.05.22 (2-Days)	13	**13**
2	Safety Training On Human Factor.	**1**	09.05.22	17	**17**
3.	Train The Trainer On Incident Investigation	**2**	04.05.22 to 06.05.22 (3-Days)	7	**14**
			17.05.22 to 19.05.22 (3-Days)	7	
4.	Audit Training.	**1**	07.05.22	21	**21**
5.	HHP Bow-Tie Workshop	**4**	09.05.22	3	**15**
			10.05.22	3	
			11.05.22	5	
			12.05.22	4	
6.	i-SEE	**2**	20.05.22	24	**50**
			21.05.22	26	
7.	TTT On Working At Height.	**2**	23.05.22 to 25.05.22 (3-Days)	7	**7**
			26.05.22 to 28.05.22 (3-Days)	7	**7**
8.	Electrical safety	**1**	30.5.22	18	18
Total Number of Programme Conducted		**14**	**Total Participants =**		**162**

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1	Safety Training On Human Factor.	**6**	19.05.22	31	**180**
			20.05.22	33	
			21.05.22	36	
			23.05.22	26	
			24.05.22	26	
			25.05.22	28	
2.	Safety Training For Shunting Staff of T & D	**1**	17.05.22	16	**16**
Total Number of Programme Conducted		**7**	**Total Participants =**		**196**

Summary:

***TOTAL PROGRAMS (For Regular Employees)** ORGANISED IN MAY-2022: **25 (11 NE + 14 Exe.)**

***TOTAL PARTICIPANTS (REG. Employees)** ATTENDED IN MAY -2022: **479 (317 NE & 162 Exe.)**

* **Refresher Safety Training for Contract Workers** at Works Area in MAY2022: #Prog: **19**Participants:**274**

Safety Training Status of Reg. Employees at a Glance:

YEAR	No of Programmes		No. of employees Covered		Total No. of Employees Covered
	Exe.	Non Exe	Exe.	Non Exe.	
Fin.Year-2022-23 **(01.04.22-31.5.22)**	**27**	**22**	**318**	**679**	**997**
Cal. Year-2022 **(01.01.22-31.5.22)**	**43**	**52**	**455**	**1356**	**1811**

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant Covered	Total # Participants.
1.	Safety Training On Human Factor.	**3**	07.06.22	29	**85**
			08.06.22	29	
			09.06.22	27	
2.	Safety In Traffic Operation.	**1**	28.06.22	20	**20**
3.	Train The Trainer On Defensive Driving.	**1**	02.06.22 - 04.06.22 (3-Days)	9	**9**
4	TTT On Human Factor.	**1**	23.06.22 – 25.06.22 (3Days)	8	**8**
5	Defensive Driving.	**1**	30.06.22	1	**15**
Total Number of Programme Conducted		**7**	**Total Participants =**		**137**

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training On Human Factor.	**1**	06.06.22	32	**32**
2	TTT On Confined Space.	**1**	09.06.22 - 11.06.22 (3Days)	08	**08**
3.	TTT On Human Factor.	**2**	13.06.22 - 15.06.22 (3Days)	07	**15**
			16.06.22 – 18.06.22 (3Days)	08	
4.	Work Shop On Bow-Tie Analysis	**3**	27.06.22	08	**16**
			29.06.22	06	
			30.06.22	02	
5.	Interaction On Safety Encouragement and Engagement. (i-SEE)	**2**	21.06.22	27	**49**
			22.06.22	22	
Total Number of Programme Conducted		**9**	**Total Participants =**		**120**

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1	Safety Training On Human Factor.	**2**	10.06.22	32	**62**
			11.06.22	30	
2.	Safety Training For Shunting Staff of T & D	**1**	29.06.22	15	**15**
Total Number of Programme Conducted		**3**	**Total Participants =**		**77**

Summary:

*__TOTAL PROGRAMS (For Regular Employees)__ ORGANISED IN JUNE-2022: **16 (7 NE + 9 Exe.)**

*__TOTAL PARTICIPANTS (REG. Employees)__ ATTENDED IN JUNE -2022: **257 (137 NE & 120 Exe.)**

* **Refresher Safety Training for Contract Workers** at Works Area in JUNE2022: #Prog: **18**Participants:**260**

Safety Training Status of Reg. Employees at a Glance:

YEAR	No of Programmes		No. of employees Covered		Total No. of Employees Covered
	Exe.	Non Exe	Exe.	Non Exe.	
Fin.Year-2022-23 **(01.04.22-30.6.22)**	**36**	**29**	**438**	**816**	**1254**
Cal. Year-2022 **(01.01.22-30.6.22)**	**52**	**59**	**575**	**1493**	**2068**

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant Covered	Total # Participants.
1.	Safety Training On Human Factor.	**7**	05.07.22	27	**209**
			06.07.22	39	
			07.07.22	29	
			08.07.22	33	
			09.07.22	27	
			18.07.22	29	
			19.07.22	25	
2.	Safety In Traffic Operation.	**1**	01.07.22	27	**27**
3.	Train The Trainer On Human Factor.	**2**	11.07.22 - 13.07.22 (3Days)	8	**15**
			14.07.22 – 16.07.22 (3Days)	7	
4	Train The Trainer On Defensive Driving.	**1**	26.7.22 – 28.7.22 (3Days)	1	**6**
5	Refresher Training On Safe Operating Practices of Hydromoc Crane/ Hydra / Fowler working In BSP	**1**	28.07.22	1	**20**
6	Defensive Driving For Non-Exe.	**1**	01.07.22	14	**14**
Total Number of Programme Conducted		**13**	**Total Participants =**		**291**

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training On Human Factor.	**1**	04.07.22	24	**24**
2	TTT On Incident investigation.	**2**	04.07.22 - 06.07.22 (3Days)	08	**15**
			07.07.22 - 09.07.22 (3Days)	07	
3.	TTT On Permit to Work	**2**	21.07.22 – 23.07.22 (3Days)	08	**15**
			25.07.22 –27.07.22 (3Days)	07	
4	Standard's Awareness On Confined Space	**1**	21.07.22	24	**24**
5	Standard's Awareness On Working At Height	**1**	22.07.22	22	**22**
6	Elect. Safety Training By SIEMENS	**2**	15.07.22	26	**49**

			16.07.22	23	
Total Number of Programme Conducted		**9**		**Total Participants =**	**149**

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1	Safety Training On Human Factor.	**3**	20.07.22	34	**95**
			21.07.22	36	
			28.07.22	25	
2.	Safety Training For Shunting Staff of T & D	**1**	02.07.22	26	**26**
3	Awareness Programme On Health & Safety	**1**	08.07.22	65	**65**
Total Number of Programme Conducted		**5**	**Total Participants =**		**186**

Summary:

***TOTAL PROGRAMS (For Regular Employees)** ORGANISED IN JULY-2022: **22(13 NE + 9 Exe.)**
***TOTAL PARTICIPANTS (REG. Employees)** ATTENDED IN JULY -2022: **440 (291 NE & 149 Exe.)**
* **Refresher Safety Training for Contract Workers** at Works Area in JULY2022: #Prog: 22 Participants- 255

Safety Training Status of Reg. Employees at a Glance:

YEAR	No of Programmes		No. of employees Covered		Total No. of Employees Covered
	Exe.	Non Exe	Exe.	Non Exe.	
Fin.Year-2022-23 **(01.04.22-31.7.22)**	**45**	**42**	**587**	**1107**	**1694**
Cal. Year-2022 **(01.01.22-31.7.22)**	**61**	**72**	**724**	**1784**	**2508**

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant Covered	Total # Participants.
1.	Safety Training On Human Factor.	6	06.08.22	31	158
			08.08.22	25	
			09.08.22	25	
			10.08.22	24	
			24.08.22	29	
			25.08.22	24	
2.	Safety In Traffic Operation.	1	01.08.22	13	13
3.	Defensive Driving For Non-Exe.	2	12.08.22	21	46
			19.08.22	25	
Total Number of Programme Conducted		**9**	**Total Participants =**		**217**

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training On Human Factor.	3	04.08.22	26	74
			05.08.22	27	
			11.08.22	21	
2.	TTT On HIRA & JSA.	1	11.08.22 - 13.08.22 (3Days)	08	8
3.	Standard TTT On Permit to Work	1	22.08.22 – 24.08.22 (3Days)	08	8
4.	TTT On Human Factor.	2	22.08.22 – 24.08.22 (3Days)	08	16
			25.08.22 – 27.08.22 (3Days)	08	
5.	TTT On Energy Isolation.	2	25.08.22 – 27.08.22 (3Days)	08	16
			29.08.22 – 31.08.22 (3Days)	08	
6.	Standards’ Awareness Prog On Confined Space	1	17.08.22	19	19
7.	Standards’ Awareness Prog On Permit to work.	1	29.08.22	24	24
8.	Work Shop On Bow-Tie Analysis.	2	24.08.22	5	9
			25.08.22	4	
9.	Audit Training.	2	29.08.22	28	59
			30.08.22	31	
Total Number of Programme Conducted		**15**	**Total Participants =**		**233**

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1	Safety Training On Human Factor.	**7**	12.08.22	30	**194**
			13.08.22	27	
			18.08.22	31	
			19.08.22	26	
			20.08.22	31	
			26.08.20	25	
			27.08.22	24	
2.	Safety Training For Shunting Staff of T & D	**1**	02.08.22	22	**22**
Total Number of Programme Conducted		**8**	**Total Participants =**		**216**

Summary:

***TOTAL PROGRAMS (For Regular Employees)** ORGANISED IN AUGUST-2022: **24 (9 NE + 15 Exe.)**
***TOTAL PARTICIPANTS (REG. Employees)** ATTENDED IN AUGUST -2022: **450 (217 NE & 233 Exe.)**
* **Safety Training for Contract Workers** at Works Area in AUGUST 2022: #Prog: **14** Participants-**164**

Safety Training Status of Reg. Employees at a Glance:

YEAR	No of Programmes		No. of employees Covered		Total No. of Employees Covered
	Exe.	Non Exe	Exe.	Non Exe.	
Fin.Year-2022-23 **(01.04.22-31.8.22)**	**60**	**51**	**820**	**1324**	**2144**
Cal. Year-2022 **(01.01.22-31.8.22)**	**76**	**81**	**957**	**2001**	**2958**

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Safety Training For Non-Executives:

S.NO	Module	# Prog	Date	#Participant Covered	Total # Participants.
1.	Safety Training On Human Factor.	**7**	06.09.22	24	**200**
			07.09.22	32	
			08.09.22	31	
			09.09.22	29	
			10.09.22	26	
			12.09.22	29	
			13.09.22	29	
2.	Refresher Training On Safe Operating Practices of Hydromoc Crane/ Hydra / Fowler working In BSP	**1**	01.09.22	20	**20**
3.	Chemical Safety for COCCD	**1**	09.09.22	28	**28**
4.	Safety In Traffic Operation (T & D)	**1**	29.09.22	17	**17**
Total Number of Programme Conducted		**10**	**Total Participants =**		**265**

Safety Training For Executives:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training On Human Factor.	**1**	05.09.22	27	**27**
2.	Standard’s Awareness On Permit to Work.	**1**	10.09.22	16	**16**
3.	Under Standing Your Culture	**10**	12.09.22	27	**223**
			13.09.22	21	
			14.09.22	20	
			15.09.22	18	
			19.09.22	13	
			20.09.22	27	
			21.09.22	26	
			22.09.22	24	
			23.09.22	25	
			24.09.22	22	
4.	TTT On HIRA & JSA	**2**	19.09.22 – 21.09.22	08	**16**
			29.09.22 – 01.10.22	08	

5.	TTT On Permit To Work	**2**	22.09.22 – 24.09.22	07	**15**
			26.09.22 – 28.09.22	08	
6.	TTT On Human Factor	**1**	26.09.22 – 28.09.22	08	**08**
Total Number of Programme Conducted		**17**	**Total Participants =**		**305**

Safety Training For Contractor Workers:

S.NO	Module	# Prog	Date	#Participant	#Total
1.	Safety Training On Human Factor.	**8**	01.09.22	26	**181**
			02.09.22	28	
			03.09.22	19	
			14.09.22	17	
			15.09.22	20	
			16.09.22	17	
			29.09.22	29	
			30.09.22	25	
2.	Safety Training For Shunting Staff of T & D	**1**	30.09.22	26	
Total Number of Programme Conducted		**9**	**Total Participants =**		**207**

Summary:

***TOTAL PROGRAMS (For Regular Employees)** ORGANISED IN **SEPT.-2022**: **27 (10 NE + 17 Exe.)**

***TOTAL PARTICIPANTS (REG. Employees)** ATTENDED IN **SEPT. -2022**: **570 (265 NE & 305 Exe.)**

* **Safety Training for Contract Workers** at Works Area in **SEPT. 2022**: #Prog: **27** Participants-**576**

Safety Training Status of Reg. Employees at a Glance:

YEAR	No of Programmes		No. of employees Covered		Total No. of Employees Covered
	Exe.	Non Exe	Exe.	Non Exe.	
Fin.Year-2022-23 **(01.04.22-30.9.22)**	**77**	**61**	**1125**	**1589**	**2714**
Cal. Year-2022 **(01.01.22-30.9.22)**	**93**	**91**	**1262**	**2266**	**3528**

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