स्टील अथॉरिटी ऑफ इण्डिया लि0
बोकारो स्टील प्लान्ट
इस्पात भवन
बोकारो स्टील सिटी – 827 001
जिला : बोकारो (झारखण्ड)
फैक्स संख्या : 06542 242099
दूरभाष संख्या 06542 246605

सेल SAIL

STEEL AUTHORITY OF INDIA LTD.
BOKARO STEEL PLANT
ISPAT BHAWAN
BOKARO STEEL CITY – 827001
DISTRICT – BOKARO (JHARKHAND)
Ph. No. 06542 246605 Fax No. 242099
E-mail : bsl.environment@sail.in

REF NO.इसीएस / इएमएस / 85 / 2023– 244A DATE 30/05/2023

सेवा में,

Addl, PCCF
वन, पर्यावरण एवं क्वाईमेट चेन्ज मंत्रालय
भारत सरकार
स्केण्ड पलोर हेड क्वार्टर झारखण्ड, स्टेट
हाउसिंग बोर्ड, हरमू चौक,
रॉची–834 004

संदर्भ : EC No. J-11011/99/2007-IA(I)-II(I) दिनांक : 24.01.2022
विषय : EC No. J-11011/99/2007-IA(I)-II(I) दिनांक : 24.01.2022 / प्रगति प्रतिवेदन ।

अवधि : अक्तूबर 2022 से मार्च 2023

महाशय,

सेल, बोकारो स्टील प्लान्ट का छमाही अनुपालन / प्रगति प्रतिवेदन–01.10.2022 से दिनांक– 31.03.2023 तक अवलोकनार्थ संलग्न है।

सधन्यवाद ।

संलग्न यथोपरि ।

आपका विश्वासी
वास्ते सेल / बोकारो स्टील प्लान्ट
नवीन 30.5.23
एन पी श्रीवास्तव
महाप्रबंधक / पर्यावरण संरक्षण एवं सस्टेनेबिलिटी

प्रतिलिपि

सदस्य सचिव
झारखण्ड राज्य प्रदूषण नियंत्रण पर्षद
टी ए डिविजन बिल्डिंग
एच0 ई0 सी0 कम्पलेक्स
धूर्वा
रॉची 834 004

244A
30/05/23

SAIL BOKARO STEEL PLANT
ENVIRONMENT CONTROL DEPARTMENT

Compliance to the conditions laid down vide EC No.J-11011/99/2007-IA-II(I) dated 24th January 2022 issued to SAIL/ Bokaro Steel Plant for the period from October 2022 to March 2023.

A. COMPLIANCE TO SPECIFIC CONDITIONS

i. CDQ shall be installed in coke ovens. Modified wet quenching tower shall be used as Stand by quenching in coke ovens battery.

Status:-

CDQ shall be installed along with Stamp charge new Coke oven Battery#9. Installation of CDQ in existing Coke oven Batteries is not feasible due to non-availability of Space. Modified wet quenching towers has been installed in existing Coke oven batteries and the same will be installed in new Coke oven battery #9 for which EC under reference is granted.

ii. Particulate matter emissions shall be less than 30 mg/Nm^3 in new units and in all old units it shall be achieved by Dec 2023 except for Coke oven chimneys which shall be less than 50 mg/Nm^3.

Status:-

The new units will have suitable APC system to maintain PM level less than 30mg/ Nm^3. For existing units, feasibility study was carried out by our in house consultant, Centre for Engineering & Technology (CET) to achieve PM level less than 30mg/ Nm^3 PM. The recommendations of CET will be implemented to achieve PM level less than 30mg/ Nm^3 in all existing units except Coke oven stacks by Dec'2023.

iii. New Blast Furnace shall be equipped with TRT, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

Status:-

Not applicable as No any new Blast Furnace has been envisaged in the current EC.

iv. Sinter Cooler WHR shall be installed for power generation vertically in the space available based on the outcome of the feasibility study as committed.

Status:-

The provision of Steam generation has been envisaged from Waste heat recovered from Sinter cooler in New Sinter plant. The tender had been floated and party has been finalized to study the feasibility for installation of power generation facility from waste heat recovered from sinter cooler.

v. Dust collected by road Sweepers shall be pelletized /briquetted and used in pellet plant.

Status:-

Dust recovered by road Sweeps generally contains non-ferrous material so this cannot be used for briquetting or pelletizing, however dust from sweeping shop floor area is being used in sinter plant.

vi. WHRS in BF stoves shall be installed in various BFs as per following schedule- BF3- FY 22-23; BF5 – FY- 24-25 , BF2- FY- 29-30 & BF4- FY- 31-32 or earlier during major shut down of the furnaces.

Status:-

Tendering done for WHRS for BF3. Installation of WHRS for other Blast furnaces will be complied as per the above time frame.

vii. Secondary fume extraction system in BOF 2 shall be provided by Dec 2023.

Status:-
Secondary fume extraction system will be installed as per above time frame.

viii. Waste to energy system for using oily scum and sludge shall be installed by March'2023

Status:-
Waste to energy system will be installed by using oily scum & sludge along with Municipal Solid waste in township. EOI floated & TS has been prepared for the same.

ix. Project proponent shall undertake rain water harvesting and recharge to the tune of 15244521m^3/year by end of 2025. Level monitoring indicators for on line real time measurement of rain water harvesting shall be provided.

Status:-
This will be complied within the above time frame.

x. Green belt shall be developed in 33.18% of total plant area of 6973.68 ha (including water reservoir) covering entire periphery of the plant. Native plant species shall be chosen and plantation density for green belt shall be 2500 trees per ha.

Status:-
1.2 Lakh saplings have been planted on 48 Ha @ 2500 saplings per Ha during 2022-2. Total green belt cover is on 2072 Ha. Presently percentage green cover is 29.71. The green belt on 232.6 Ha covering entire periphery of plant will be developed by 2025 with native plant species.

xi. Specific performance indicators after implementation of the proposal shall be as under;

a. Specific Water Consumption - 3.00 Cum/TCS by 2025.
b. Specific Energy Consumption as- 6.00Gcal /TCS by 2025.
c. CO_2 emission-2.1T- CO_2/TCS by 2025.

Status:-
Action Plan has been prepared to achieve the above target of the Specific Water consumption, Specific Energy Consumption and CO_2 Emission by Dec'2025

xii. PP shall prepare and implement an action plan giving annual improvement targets for resource conservation and environment improvement. This plan shall be monitored by the concerned Regional Office of the MoEF&CC.

Status:-

Action Plan for Resource Conservation

SN	Name of Resource	Year	2021-22	2022-23	2023-24	2024-25	2025-26
1	Specific Energy Consumption	Gcal/TCS	6.70	6.55	6.40	6.20	6.0
2	Specific Water Consumption	m^3/TCS	3.38	3.30	3.20	3.10	3.00
3	Specific CO_2 emission	T/TCS	2.45	2.38	2.30	2.20	2.10
4	BF coke rate	Kg/T Hot metal	468	460	455	450	445

NB: Presently Specific Energy Consumption, Specific Water consumption, Specific CO_2 emission and Coke rate are 6.571GCal/TCS, 3.38m^3/TCS, 2.43T/TCS and 487Kg/T of Hot metal respectively.

xiii. Energy efficient drives, VFD for auxiliary motors and slip power recovery system for motors above 1000 Kw shall be provided.

Status:-

Auxiliary motors with energy efficient, VFD drive and the motors above 1000 Kw with Slip power recovery system are being used in the plant.

xiv. PTFE Membrane bags shall be used in filter bag house and designed for 150% of normal design air flow.

Status:-

PTFE based membrane bags are being used in Lime discharge building of RMP, SMS ladle furnace and CDI of Blast furnace

xv. Coke Oven Gas shall be desulfurized.

Status:-

Coke oven gas desulfurization system has been proposed along with New Stamp charge Coke oven Battery#9, however coke oven gas is being desulfurized for its use in HDGL of existing Cold rolling mills.

xvi. 100 percent solid waste generated shall be recycled, reused and/or sold . No dumping is permitted and storage for more than 90 days is not permitted.

Status:-

Total Solid waste generated is either being recycled, reused in the process or sold in secondary market.

B. COMPLIANCE OF GENERAL CONDITIONS.

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/consent/permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

Status:-Being complied.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act. 1986 or NABL accredited laboratories.

Status:-

Continuous Emission Monitoring system has been installed in all process stacks under operation and all of them have been uplinked to CPCB & JSPCB server.

Two no. of Continuous Ambient Air Quality Monitoring Station have been installed. The data of these have also been uplinked to CPCB & JSPCB server. This is calibrated time to time by NABL accredited laboratory. Besides this Seven Ambient Air Quality Monitoring

Stations have been set up at different locations surrounding the Plant, which monitors PM_{10}, $PM_{2.5}$, SO_2, NO_2, O_3, NH_3, B(a)P,CO, Pb , As &Ni on twice a week basis. The data of Ambient Air Quality and stack emission are being regularly submitted to CPCB and JSPCB. Monitoring report of stipulated period has been enclosed. The proposal has been initiated to install two more CAAQMS at BSL.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act. 1986 or NABL accredited laboratories.

Status:-

Fugitive emissions from all major shops including Coke Oven Batteries are being monitored on regular basis by our own in house laboratory as well as NABL accredited laboratory. The monitoring reports are being regularly sent to CPCB every month.

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

Status:-

The sampling facilities have been provided in all process stacks and quenching towers for manual monitoring.

iv. 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.

Status:-

Appropriate Air Pollution Control (APC) system has been installed in all shops to comply prescribed stack emission and fugitive emission standards.

v. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

Status:- It is being complied.

vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

Status:-

One mechanized road sweeping machine has been hired for cleaning the entire road inside the plant. Stationery vacuum cleaners have been installed for shop floor cleaning. The roof cleaning job of all the shops is done through CED department.

vii. 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.

Status:-

Iron ore fines, coke breeze from coke ovens, Flue dust from BF, Mill Scale , Lime dust from RMP(ESPs) and processed BOF slag fines are being used in sinter making through agglomeration.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

Status:-

All the raw materials and Products are transported in railway wagons. Water sprinklers have been installed in the tippler area and Raw material stock yard to control fugitive emission during operation. The granulated BF slag is transported through conveyer belt & trucks after properly covering it with tarpaulin/ plastic sheets.

ix. 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).

Status:- It has been provided.

x. Land-based APC system shall be installed to control coke pushing emissions.

Status:-

Land-based APC system has been installed in all coke oven batteries to control Coke Pushing emission

xi. Monitor CO, HC and O_2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

Status:-

Continuous CO and O_2 monitoring system have been installed in all Coke oven batteries in operation. HC monitoring system will be installed within one year.

xii. Vapor absorption system shall be provided in place of vapor compression system for cooling of coke oven gas in case of recovery type coke ovens.

Status:-

Presently, SAIL/BSL has two stage cooling system, i.e. indirect cooling in Primary coolers & direct cooling in secondary coolers. The vapor absorption system has been proposed in new stamp charge battery.

xiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

Status:-

Water spraying is done on regular basis to prevent the diffusion of particles in the Atmosphere.

xiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels. Motor houses, Oil Cellars.

Status:-

Proper ventilation system has been provided in the tunnels, Motor houses and Oil cellars for adequate air exchange.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act. 1986 or NABL accredited laboratories.

Status:-

Three no. of Continuous Effluent Quality Monitoring Station have been installed at our two outfalls & BOD plant outlet and the data of these have also been uplinked to CPCB & JSPCB server. This is calibrated time to time by NABL accredited laboratory.

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post -monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

Status:- Being complied.

iii. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30111 May 2008 (Sponge Iron) as amended from time to time e; S.O. 3305 (E) dated 7'December 2015 (Thermal Power Plants) as amended from time to time.

Status:-

A dedicated ETP has been installed for treatment of Coke oven and by-product plant. Continuous effluent quality monitoring system has been installed for measurement of TSS, BOD, COD, Flow, Phenol and Cyanide. The data has also been uplinked to CPCB & JSPCB server. The outlet effluent quality is meeting the standards prescribed in G.S.R 277 (E) dated 31st March 2012.

iv. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to Meet the prescribed standards.

Status:-

BSL Township has Lagoon based STP of total capacity of 31.972 MLD. 3rd party monitoring of the discharge quality is also being regularly done through NABL accredited laboratory. The treatment facility is working effectively and the discharge quality is well within the applicable standards, as stipulated by the MoEF&CC.

v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

Status:-

Garland drains and collection pit have been provided to arrest the run- off in the event of heavy rain and check the water pollution due to surface run –off.

vi. Tire washing facilities shall be provided at the entrance of the plant gates

Status:- It has already been provided..

vii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

Status:- Water meters will be provided at the inlet of all shops.

IV. Noise monitoring and prevention

i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

Status:-

Noise pollution is being monitored as per the Noise Pollution (Regulation and Control)

Rules, 2000. The report in this regard is being submitted to CPCB on monthly basis. This will also be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

Status:- Torpedo ladles are being used for transfer of hot metal.

ii. Restrict Gas flaring to < 1%.

Status:-

Blast furnace gas & Coke oven gas are being used judiciously as fuel inside the plant. Excess of these gases & total BOF gas are used in power plant owned by BPSCL. None of the gas is flared in normal condition.

iii. 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;

Status:-

2 MW roof top Solar lighting system has been installed at BGH & Administrative building of Bokaro steel Plant. 65 Nos. of Solar street lighting system has been installed in ED works building premises and BSL gates. These are being maintained on regular basis.

iv. Provide LED lights in their offices and residential areas.

Status:-

LED lights have been installed in Town ship, inside the plant and in the offices too.

v. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.

Status:-

Being complied

VI. Waste management

i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.

Status:-Total granulated BF Slag is being sold to Cement industries.

ii. Used refractories shall be recycled as far as possible.

Status:-

The used refractories are recycled in the plant. The damaged refractories are sold in secondary market.

iii 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.

Status:- This practice is being followed.

iv Kitchen waste shall be composted or converted to biogas for further use.

Status:- The Kitchen waste to Bio gas plant has been installed at ED (w) office premises.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees.

Status:-

The GHG emission inventory is prepared by the plant on monthly basis. The tender was floated to hire consultant to study the various aspects and submit a detailed report for reduction of GHG emission inside the plant as well as carbon sequestration by the trees. Three renowned parties participated in the bid. The work order has been issued to the successful bidders.

VIII. Public hearing and human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

Status:-

HIRA based emergency preparedness has been implemented. The Disaster management plan is implemented in collaboration with district administration.

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

Status:-

Heat stress analysis of workmen of hot zone is being carried out by our OHS department. The Personal protective equipment (PPE) is provided to all workmen in the plant including contract workers.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

Status:-

Occupational health surveillance of the workers and officers is done by our Occupational Health service center (OHSC) on regular basis and the record is being maintained by them.

IX. Corporate Environmen t Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No.22-65/20 17-I A.III dated 30/09/2020

Status:-

All provisions contained in this Ministry's OM vide F.No.22-65/20 17-I A.III dated 30/09/2020 will be complied

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / 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.

Status:-

The Company (Steel Authority of India) has well laid down policy approved by the Board of Directors containing all desired requirements of the condition. The copy of the board resolution has already submitted to your good office.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

Status:-

A separate Environmental Cell, "Environmental Conservation & Sustainability Department" headed by General Manager has been set up. The HOD directly reports to the head of the works division. The Department consists of qualified officials and other personnel.

IX. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

Status:-

The information that Environment clearance has been granted, was published in Local daily Newspapers, Hindustan and The Telegraph on 21.03.2021. The copy of EC has also been Uploaded on company's website.

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

Status:- It has been complied.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis

Status:- It is being complied.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectorial 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.

Status:-It is being complied.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal

Status:- Being complied.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

Status:- It is being complied.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

Status:-

Regional office of Jharkhand State Pollution Control Board is being updated as and when required about the financial closure and final approval. The date of financial closure and Final approval of the projects under amended EC has been given below.

The Status of Financial closure & Final Approval of the Projects

S.N.	Name of the Projects	Date of Financial closure	Date of final approval of the Projects
1.	CRM-3 (New CRM)	07.12.2006	29.01.2008
2.	Revamping of Sinter M/C-1	07.12.2006	07.11.2011
3.	Sinter Plant-2	29.03.2011	11.04.2015
4.	Modernization of SMS-1	07.06.2013	30.05.2015
5.	Modernization of BF-2	03.08.2006	12.11.2007

viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

Status:- It will be complied.

ix. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

Status:-

No expansion or modification will be carried out without ministry's prior approval.

x. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

Status:- No false or fabricated data will be submitted.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

Status:- All the conditions will be complied with.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

Status:- It will be complied.

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

Status:- The full cooperation and support will be extended to Regional officer.

xiv. Any appeal against this EC shall lie with the National Green Tribunal. if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 20I 0.

Status:- Agreed

ENCLOSURES:

Name of the Steel Plant: BOKARO STEEL PLANT
Production Capacity: 5.77 MT Hot Metal

STACK EMISSION

OCT'2022

Name of the Plant	Stack connected to (Name of the unit)	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of monitoring	Flow rate of the flue gas (NM^3/Hr)	Parameters (whichever are applicable)				
1	2	3	4	5	6	7	8	9				
Blast Furnace (Space dedusting) & Stoves								**Particulate matter (PM)** (mg/Nm^3)	**SO_2** (mg/Nm^3)	**NO_x** (mg/Nm^3)	**HC**	**CO** Kg/TDCP %Vol./vol.
BF-1	Chimney-1	50 mtr.	8.2mtrs.	Wet scrubber	04.10.22	3020 T	268722	69.26	-	-	-	-
BF-2	Chimney-2	50 mtr.	8.2mtrs.	Wet scrubber	12.10.22	3805 T	271070	70.81				
BF-3		50 mtr.	8.2 mtr.	Wet scrubber	Under Shutdown for capital repair				-	-	-	-
BF-4	Chimney-3	50 mtr.	8.2mtrs.	Wet scrubber	26.10.22	6243 T	274336	70.52				
BF-5									-	-	-	-
BF Stoves-1	Chimney-1	70 mtr.	3.5mtrs.	-	18.10.22	3573 T	102627	23.56	19.96	11.20	-	0.46
BF Stoves-2	Chimney-2	70 mtr.	3.5mtrs.	-	07.10.22	3975 T	103442	28.10	20.96	10.55	-	0.49
BF Stoves-4	Chimney-4	70 mtr.	3.5mtrs.	-	20.10.22	3131 T	100345	22.10	18.62	10.36	-	0.44
BF Stoves-5	Chimney-5	70 mtr.	3.5mtrs.	-	28.10.22	2900 T	101776	23.06	20.81	11.08	-	0.47
42.16-* **Standards : Charging side chimney- PM - 100 (Units: mg/Nm^3)** **BF Stoves – PM- 50 mg/Nm3, SO2- 250 mg/Nm3, NOX- 150 mg/Nm3 CO- 1% v/v (Max)** • BF#1 is connected to chimney no-1 , BF#2&BF#3 are connected to chimney no-2 and BF#4&BF#5 are connected to chimney no-3, Each BF stove is connected to corresponding chimney No.												
Refractory Material plant ESP												
Kiln-1	Stack – 1	80 mtr.	3.3mtrs	ESP	22.10.22	11.25 T/hr	148772	46.18	80.25	-	-	-
Kiln-2	Stack - 1	80 mtr	3.3mtrs	ESP	03.10.22	11.25 T/hr	152016	98.86	96.12	-	-	-
Kiln-3	Stack - 2	80 mtr	3.3mtrs	ESP	29.10.22	11.25 T/hr	147231	32.94	78.14	-	-	-
Kiln-4	Stack – 2	80 mtr.	3.3mtrs	ESP	25.10.22	10.00 T/hr	150768	47.11	81.02	-	-	
Kiln-5	Stack – 3	80 mtr.	3.3 mtrs	ESP	17.10.22	11.25 T/hr	149624	48.92	86.14	-	-	-
Kiln-6	Stack – 3	80 mtr.	3.3 mtrs	ESP	21.10.22	10.21 T/hr	146321	39.09	79.75	-	-	-

Standards: PM - 150 , SO_2 , NO_x , CO - (Units: mg/Nm^3) Monitoring values for corresponding Kiln duct81.36. Two Kilns through individual Ducts are connected to a common stack

SMS – 1 (Process unit)					**Date**		**Flow rate (NM^3/Hr)**	**PM (mg/Nm^3)**	**SO_2 (mg/Nm^3)**	**NO_x (mg/Nm^3)**	HC	CO
Conv. – 1 (NB)	Stack – 1	100 m	4.3mtrs	Wet scrubber	05.10.22	-	103521	11.82	-	-	-	-
Conv. – 1 (BL)	Stack – 1	100 m	4.3mtrs	Wet scrubber	05.1022	-	252182	249.77	88.14	34.35	-	-
Conv. – 2	Stack – 1	100 m	4.3mtrs	Wet scrubber	Under Capital Repair							
Conv. – 3	Stack – 1	100 m	4.3mtrs	Wet scrubber							-	-
Conv. – 4	Stack – 1	100 m	4.3mtrs	Wet scrubber								-
Conv. – 5 (BL)	Stack – 1	100 m	4.3mtrs	ESP	11.10.22	-	247336	49.14	-	-	-	-
Conv. – 5 (NB)	Stack – 1	100m	4.3mtrs	ESP	11.10.22	-	100730	8.96	-	-	-	-
SMS-2/CCS	LF- 1	60m	3.11m	Bag filter	13.10.22	-	103470	26.80	-	-	-	-

Standard: PM - 300, SO2 - , NOx - , CO - * Monitored in individual ducts (of dia. 2.5 m each) from corresponding converters. SMS-2/CCS Stack -PM #50mg/Nm3
(Units: mg/Nm^3)

Coke Oven												
Batt. # 1	Stack – 1	100 m.	3.5mtrs	-	06.10.22	-	158942	42.53	285.69	78.15	-	1.41
Batt. # 2	Stack – 2	100 m.	3.5mtrs	-	24.10.22	-	152760	38.35	277.68	96.25	-	1.24
Batt # 3	Stack - 3	100 m	3.5mtrs	-	08.10.22	-	147036	26.50	205.16	80.11	-	2.26
Batt. # 4	Stack – 4	100 m.	3.5mtrs	-	30.10.22	-	149762	33.75	246.51	78.36	-	2.09
Batt. # 5	Stack – 5	100 m.	3.5mtrs	-	15.10.22	-	160998	48.44	288.67	96.25	-	2.66
Batt # 6	Stack - 6	100 m.	3.5mtrs	Shutdown for Rebuilding								
Batt. # 7	Stack – 7	100 m.	3.5mtrs	-	01.10.22	-	147383	24.96	296.62	90.81	-	1.26
Batt. # 8	Stack – 8	100 m.	3.5mtrs	Under Rebuilding								

Standard: PM - 50, SO2 - 800, NOx - 500, CO – 3.00 Kg/TDCP, HC - (Units: mg/Nm^3)

Sinter Plant												
SM-1	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	19.10.22	-	430252	94.31	89.12	47.22	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	19.10.22	-	432162	46.40	78.42	40.15	-	-
SM-2	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	10.10.22	-	429696	90.01	92.25	53.02	-	-
	Duct-B	100 m.*	3.5mtrs	Batt. cyclone	10.10.22	-	426720	89.70	93.50	50.16	-	-
SM-3	Duct-A	100 m	3.5mtrs	Batt. cyclone	29.10.22	-	436726	98.14	83.56	45.81	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	29.10.22	-	432562	39.82	84.26	42.96	-	-

Standard: PM - 150 , SO2 - , NOx - (Units: mg/Nm^3) * All three Sinter M/c Exhaust are connected to a common single stack of 100m height

Mill zone												
HSM	RHF 2		8.0mtrs	-	27.10.22	-	-	36.54	48.00	30.15	-	-

Standard: PM-150mg/Nm^3

NOV'2022

Name of the Plant	Stack connected to (Name of the unit)	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of monitoring	Flow rate of the flue gas (NM^3/Hr)	Parameters (whichever are applicable)				
1	2	3	4	5	6	7	8	9				
Blast Furnace (Space dedusting) & Stoves								**Particulate matter (PM)** (mg/Nm^3)	**SO_2** (mg/Nm^3)	**NO_x** (mg/Nm^3)	**HC**	**CO** Kg/TDCP %Vol./vol.
BF-1	Chimney-1	50 mtr.	8.2mtrs.	Wet scrubber	02.11.22	2680 T	270664	70.24	-	-	-	-
BF-2	Chimney-2	50 mtr.	8.2mtrs.	Wet scrubber	08.11.22	3764 T	269302	68.80				
BF-3		50 mtr.	8.2 mtr.	Wet scrubber	Under Shutdown for capital repair				-	-	-	-
BF-4	Chimney-3	50 mtr.	8.2mtrs.	Wet scrubber	19.11.22	5962 T	271816	71.96				
BF-5									-	-	-	-
BF Stoves-1	Chimney-1	70 mtr.	3.5mtrs.	-	23.11.22	3475 T	102121	24.82	20.14	12.06	-	0.47
BF Stoves-2	Chimney-2	70 mtr.	3.5mtrs.	-	04.11.22	3436 T	104532	26.16	16.26	11.95	-	0.48
BF Stoves-4	Chimney-4	70 mtr.	3.5mtrs.	-	14.11.22	3301 T	102822	23.95	18.81	10.05	-	0.52
BF Stoves-5	Chimney-5	70 mtr.	3.5mtrs.	-	25.11.22	3311 T	101774	22.80	16.96	10.96	-	0.48
42.16-* **Standards : Charging side chimney- PM - 100 (Units: mg/Nm^3)** **BF Stoves – PM- 50 mg/Nm3, SO2- 250 mg/Nm3, NOX- 150 mg/Nm3 CO- 1% v/v (Max)** • BF#1 is connected to chimney no-1 , BF#2&BF#3 are connected to chimney no-2 and BF#4&BF#5 are connected to chimney no-3, Each BF stove is connected to corresponding chimney No.												
Refractory Material plant ESP												
Kiln-1	Stack – 1	80 mtr.	3.3mtrs	ESP	22.11.22	11.25 T/hr	147345	47.26	99.69	-	-	-
Kiln-2	Stack - 1	80 mtr	3.3mtrs	ESP	29.11.22	11.29 T/hr	153412	96.72	102.15	-	-	-
Kiln-3	Stack - 2	80 mtr	3.3mtrs	ESP	26.11.22	10.63 T/hr	148302	41.68	88.70	-	-	-
Kiln-4	Stack – 2	80 mtr.	3.3mtrs	ESP	07.11.22	11.11 T/hr	146712	40.98	87.26	-	-	-
Kiln-5	Stack – 3	80 mtr.	3.3 mtrs	ESP	09.11.22	11.25 T/hr	148820	46.20	78.44	-	-	-
Kiln-6	Stack – 3	80 mtr.	3.3 mtrs	ESP	15.11.22	10.53 T/hr	143422	39.12	70.81	-	-	-

Standards: PM - 150 , SO_2 , NO_x , CO - (Units: mg/Nm^3) Monitoring values for corresponding Kiln duct81.36. Two Kilns through individual Ducts are connected to a common stack.

SMS – 1 (Process unit)					**Date**		**Flow rate (NM^3/Hr)**	**PM (mg/Nm^3)**	**SO_2 (mg/Nm^3)**	**NO_x (mg/Nm^3)**	HC	CO
Conv. – 1 (NB)	Stack – 1	100 m	4.3mtrs	Wet scrubber	17.11.22	-	100678	12.88	-	-	-	-
Conv. – 1 (BL)	Stack – 1	100 m	4.3mtrs	Wet scrubber	17.11.22	-	253621	254.77	75.5	34.8	-	-
Conv. – 2	Stack – 1	100 m	4.3mtrs	Wet scrubber	Under Capital Repair							
Conv. – 3	Stack – 1	100 m	4.3mtrs	Wet scrubber							-	-
Conv. – 4	Stack – 1	100 m	4.3mtrs	Wet scrubber								-
Conv. – 5 (BL)	Stack – 1	100 m	4.3mtrs	ESP	12.11.22	-	250268	48.08	-	-	-	-
Conv. – 5 (NB)	Stack – 1	100m	4.3mtrs	ESP	12.11.22	-	101705	8.81	-	-	-	-
SMS-2/CCS	LF- 2	60m	3.11m	Bag filter	05.11.22	-	103776	23.94	-	-	-	-

Standard: PM - 300, SO2 - , NOx - , CO - * Monitored in individual ducts (of dia. 2.5 m each) from corresponding converters. SMS-2/CCS Stack -PM #50mg/Nm3
(Units: mg/Nm^3)

Coke Oven												
Batt. # 1	Stack – 1	100 m.	3.5mtrs	-	21.11.22	-	150536	28.60	295.67	60.78	-	1.30
Batt. # 2	Stack – 2	100 m.	3.5mtrs	-	10.11.22	-	143434	26.58	230.70	74.81	-	1.37
Batt # 3	Stack - 3	100 m	3.5mtrs	-	24.11.22	-	144326	36.81	276.80	68.22	-	2.24
Batt. # 4	Stack – 4	100 m.	3.5mtrs	-	29.11.22	-	145290	40.26	269.75	74.87	-	2.06
Batt. # 5	Stack – 5	100 m.	3.5mtrs	-	18.11.22	-	158362	47.98	280.20	90.16	-	2.62
Batt # 6	Stack - 6	100 m.	3.5mtrs	Shutdown for Rebuilding								
Batt. # 7	Stack – 7	100 m.	3.5mtrs	-	03.11.22	-	142522	32.11	216.55	86.15	-	1.38
Batt. # 8	Stack – 8	100 m.	3.5mtrs	Under Rebuilding								

Standard: PM - 50, SO2 - 800, NOx - 500, CO – 3.00 Kg/TDCP, HC - (Units: mg/Nm^3)

Sinter Plant												
SM-1	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	11.11.22	-	440282	89.86	98.14	46.55	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	11.11.22	-	430368	44.81	82.82	40.12	-	-
SM-2	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	30.11.22	-	435622	96.82	90.22	49.30	-	-
	Duct-B	100 m.*	3.5mtrs	Batt. cyclone	30.11.22	-	442303	85.92	95.63	52.66	-	-
SM-3	Duct-A	100 m	3.5mtrs	Batt. cyclone	16.11.22	-	436542	91.36	88.14	54.81	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	16.11.22	-	433666	42.96	90.26	44.36	-	-

Standard: PM - 150 , SO2 - , NOx - (Units: mg/Nm^3) * All three Sinter M/c Exhaust are connected to a common single stack of 100m height

Mill zone												
HSM	RHF 2		8.0mtrs	-	28.11.22	-	-	28.25	51.06	28.95	-	-

Standard: PM-150mg/Nm^3

DEC'2022

Name of the Plant	Stack connected to (Name of the unit)	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of monitoring	Flow rate of the flue gas (NM^3/Hr)	Parameters (whichever are applicable)				
1	2	3	4	5	6	7	8	9				
Blast Furnace (Space dedusting) & Stoves								**Particulate matter (PM)** (mg/Nm^3)	**SO_2** (mg/Nm^3)	**NO_x** (mg/Nm^3)	**HC**	**CO** Kg/TDCP %Vol./vol.
BF-1	Chimney-1	50 mtr.	8.2mtrs.	Wet scrubber	09.12.22	2326 T	272015	72.81	-	-	-	-
BF-2	Chimney-2	50 mtr.	8.2mtrs.	Wet scrubber	01.12.22	2190 T	275422	68.17				
BF-3		50 mtr.	8.2 mtr.	Wet scrubber	Under Shutdown for capital repair				-	-	-	-
BF-4	Chimney-3	50 mtr.	8.2mtrs.	Wet scrubber	19.12.22	3348 T	269662	70.66				
BF-5									-	-	-	-
BF Stoves-1	Chimney-1	70 mtr.	3.5mtrs.	-	06.12.22	3375 T	103510	24.06	21.66	13.07	-	0.48
BF Stoves-2	Chimney-2	70 mtr.	3.5mtrs.	-	23.12.22	3872 T	101444	22.81	19.15	14.05	-	0.49
BF Stoves-4	Chimney-4	70 mtr.	3.5mtrs.	-	12.12.22	3389 T	102630	23.15	20.76	16.05	-	0.51
BF Stoves-5	Chimney-5	70 mtr.	3.5mtrs.	-	28.12.22	2957 T	100369	24.60	21.34	14.81	-	0.50
42.16-* **Standards : Charging side chimney- PM - 100 (Units: mg/Nm^3)** **BF Stoves – PM- 50 mg/Nm3, SO2- 250 mg/Nm3, NOX- 150 mg/Nm3 CO- 1% v/v (Max)** • BF#1 is connected to chimney no-1 , BF#2&BF#3 are connected to chimney no-2 and BF#4&BF#5 are connected to chimney no-3, Each BF stove is connected to corresponding chimney No.												
Refractory Material plant ESP												
Kiln-1	Stack – 1	80 mtr.	3.3mtrs	ESP	29.12.22	11.25 T/hr	146380	41.25	60.15	-	-	-
Kiln-2	Stack - 1	80 mtr	3.3mtrs	ESP	05.12.22	11.25 T/hr	152670	96.28	82.19	-	-	-
Kiln-3	Stack - 2	80 mtr	3.3mtrs	ESP	27.12.22	11.25 T/hr	157973	45.50	96.75	-	-	-
Kiln-4	Stack – 2	80 mtr.	3.3mtrs	ESP	Under Shutdown					-	-	-
Kiln-5	Stack – 3	80 mtr.	3.3 mtrs	ESP	15.12.22	11.25 T/hr	158798	47.69	85.69	-	-	-
Kiln-6	Stack – 3	80 mtr.	3.3 mtrs	ESP	17.12.22	8.24 T/hr	148351	36.72	79.15	-	-	-

Standards: PM - 150 , SO_2 , NO_x , CO - (Units: mg/Nm^3) Monitoring values for corresponding Kiln duct81.36. Two Kilns through individual Ducts are connected to a common stack.

SMS – 1 (Process unit)					**Date**		**Flow rate (NM^3/Hr)**	**PM (mg/Nm^3)**	**SO_2 (mg/Nm^3)**	**NO_x (mg/Nm^3)**	HC	CO
Conv. – 1 (NB)	Stack – 1	100 m	4.3mtrs	Wet scrubber	16.12.22	-	100268	10.11	-	-	-	-
Conv. – 1 (BL)	Stack – 1	100 m	4.3mtrs	Wet scrubber	26.12.22	-	254302	248.19	80.16	30.48	-	-
Conv. – 2	Stack – 1	100 m	4.3mtrs	Wet scrubber	Under Capital Repair							
Conv. – 3	Stack – 1	100 m	4.3mtrs	Wet scrubber							-	-
Conv. – 4	Stack – 1	100 m	4.3mtrs	Wet scrubber								-
Conv. – 5(BL), Recovery type	Stack – 1	100 m	1.18mtr	ESP	08.12.22	-	248620	47.47	-	-	-	-
Conv. – 5 (NB)	Stack – 1	100m	4.3mtrs	ESP	08.12.22	-	100824	9.80	-	-	-	-
SMS-2/CCS	LF- 2	60m	3.11m	Bag filter	07.12.22	-	102514	24.95	-	-	-	-

Standard: PM - 300, SO2 - , NOx - , CO - * Monitored in individual ducts (of dia. 2.5 m each) from corresponding converters. SMS-2/CCS Stack -PM #50mg/Nm3 **(Units: mg/Nm^3)**

Coke Oven												
Batt. # 1	Stack – 1	100 m.	3.5mtrs	-	22.12.22	-	141968	22.48	277.60	80.15	-	1.31
Batt. # 2	Stack – 2	100 m.	3.5mtrs	-	14.12.22	-	155091	24.65	285.69	96.15	-	1.39
Batt # 3	Stack - 3	100 m	3.5mtrs	-	13.12.22	-	148709	26.95	250.15	78.30	-	2.27
Batt. # 4	Stack – 4	100 m.	3.5mtrs	-	02.12.22	-	150202	30.50	260.30	68.15	-	2.19
Batt. # 5	Stack – 5	100 m.	3.5mtrs	-	Shutdown for Cold repair							
Batt # 6	Stack - 6	100 m.	3.5mtrs	Shutdown for Rebuilding								
Batt. # 7	Stack – 7	100 m.	3.5mtrs	-	10.12.22	-	146352	24.91	244.30	78.14	-	1.37
Batt. # 8	Stack – 8	100 m.	3.5mtrs		20.12.22		145362	21.94	210.15	65.80		1.24

Standard: PM - 50, SO2 - 800, NOx - 500, CO – 3.00 Kg/TDCP, HC - (Units: mg/Nm^3)

Sinter Plant												
SM-1	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	03.12.22	-	442825	91.28	92.14	50.11	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	03.12.22	-	430811	42.81	80.72	38.27	-	-
SM-2	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	24.12.22	-	442822	79.95	93.15	46.15	-	-
	Duct-B	100 m.*	3.5mtrs	Batt. cyclone	24.12.22	-	438310	88.77	94.30	42.06	-	-
SM-3	Duct-A	100 m	3.5mtrs	Batt. cyclone	16.12.22	-	456244	92.86	94.30	43.06	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	16.12.22	-	412909	45.69	85.69	40.82	-	-

Standard: PM - 150 , SO2 - , NOx - (Units: mg/Nm^3) * All three Sinter M/c Exhaust are connected to a common single stack of 100m height

Mill zone												
CRM	CAL		3.0mtrs	-	30.12.22	-	-	31.26	45.30	29.86	-	-

Standard: PM-150mg/Nm^3

JAN'2023

Name of the Plant	Stack connected to (Name of the unit)	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of monitoring	Flow rate of the flue gas (NM^3/Hr)	Parameters (whichever are applicable)				
1	2	3	4	5	6	7	8	9				
Blast Furnace (Space dedusting) & Stoves								**Particulate matter (PM)** (mg/Nm^3)	**SO_2** (mg/Nm^3)	**NO_x** (mg/Nm^3)	**HC**	**CO** Kg/TDCP %Vol./vol.
BF-1	Chimney-1	50 mtr.	8.2mtrs.	Wet scrubber	04.01.23	3650 T	271062	71.80	-	-	-	-
BF-2	Chimney-2	50 mtr.	8.2mtrs.	Wet scrubber	16.01.23	2735 T	273366	74.24				
BF-3		50 mtr.	8.2 mtr.	Wet scrubber	Under Shutdown for capital repair				-	-	-	-
BF-4	Chimney-3	50 mtr.	8.2mtrs.	Wet scrubber	06.01.23	3660 T	271963	72.76				
BF-5									-	-	-	-
BF Stoves-1	Chimney-1	70 mtr.	3.5mtrs.	-	10.01.23	3282 T	102648	23.96	22.15	14.07	-	0.50
BF Stoves-2	Chimney-2	70 mtr.	3.5mtrs.	-	13.01.23	4181 T	104730	22.15	18.30	13.80	-	0.52
BF Stoves-4	Chimney-4	70 mtr.	3.5mtrs.	-	25.01.23	3739 T	102974	24.81	19.30	12.02	-	0.48
BF Stoves-5	Chimney-5	70 mtr.	3.5mtrs.	-	19.01.23	3443 T	101774	28.25	20.66	15.06	-	0.49
42.16-* **Standards : Charging side chimney- PM - 100 (Units: mg/Nm^3)** **BF Stoves – PM- 50 mg/Nm3, SO2- 250 mg/Nm3, NOX- 150 mg/Nm3 CO- 1% v/v (Max)** • BF#1 is connected to chimney no-1 , BF#2&BF#3 are connected to chimney no-2 and BF#4&BF#5 are connected to chimney no-3, Each BF stove is connected to corresponding chimney No.												
Refractory Material plant ESP												
Kiln-1	Stack – 1	80 mtr.	3.3mtrs	ESP	27.01.23	10.30 T/hr	153769	47.62	65.38	-	-	-
Kiln-2	Stack - 1	80 mtr	3.3mtrs	ESP	07.01.23	11.25 T/hr	152072	96.30	91.15	-	-	-
Kiln-3	Stack - 2	80 mtr	3.3mtrs	ESP	03.01.23	11.25 T/hr	153302	46.30	72.06	-	-	-
Kiln-4	Stack – 2	80 mtr.	3.3mtrs	ESP	Under Shutdown					-	-	-
Kiln-5	Stack – 3	80 mtr.	3.3 mtrs	ESP	23.01.23	11.25 T/hr	150301	47.81	80.81	-	-	-
Kiln-6	Stack – 3	80 mtr.	3.3 mtrs	ESP	17.01.23	11.25 T/hr	152972	45.45	63.39	-	-	-

Standards: PM - 150 , SO_2 , NO_x , CO - (Units: mg/Nm^3) Monitoring values for corresponding Kiln duct. Two Kilns through individual Ducts are connected to a common stack.

SMS – 1 (Process unit)					**Date**		**Flow rate (NM^3/Hr)**	**PM (mg/Nm^3)**	**SO_2 (mg/Nm^3)**	**NO_x (mg/Nm^3)**	HC	CO
Conv. – 1 (NB)	Stack – 1	100 m	4.3mtrs	Wet scrubber	14.01.23	-	101362	20.14	-	-	-	-
Conv. – 1 (BL)	Stack – 1	100 m	4.3mtrs	Wet scrubber	14.01.23	-	256344	252.42	82.14	26.48	-	-
Conv. – 2	Stack – 1	100 m	4.3mtrs	Wet scrubber	Under Capital Repair							
Conv. – 3	Stack – 1	100 m	4.3mtrs	Wet scrubber							-	-
Conv. – 4	Stack – 1	100 m	4.3mtrs	Wet scrubber								-
Conv. – 5 (BL)	Stack – 1	100 m	4.3mtrs	ESP	28.01.23	-	249362	48.28	-	-	-	-
Conv. – 5 (NB)	Stack – 1	100m	4.3mtrs	ESP	28.01.23	-	101336	9.86	-	-	-	-
SMS-2/CCS	LF- 1	60m	3.11m	Bag filter	11.01.23	-	102566	28.14	-	-	-	-

Standard: PM - 300, SO2 - , NOx - , CO - * Monitored in individual ducts (of dia. 2.5 m each) from corresponding converters. SMS-2/CCS Stack -PM #50mg/Nm3
(Units: mg/Nm^3)

Coke Oven												
Batt. # 1	Stack – 1	100 m.	3.5mtrs	-	24.01.23	-	148906	26.57	285.3	59.9	-	1.27
Batt. # 2	Stack – 2	100 m.	3.5mtrs	-	26.01.23	-	147718	26.99	288.7	63.9	-	1.32
Batt # 3	Stack - 3	100 m	3.5mtrs	-	09.01.23	-	149502	32.16	208.1	58.2	-	1.37
Batt. # 4	Stack – 4	100 m.	3.5mtrs	-	12.01.23	-	150724	28.95	265.3	57.6	-	1.22
Batt. # 5	Stack – 5	100 m.	3.5mtrs	-	Shutdown for Rebuilding							
Batt # 6	Stack - 6	100 m.	3.5mtrs	Shutdown for Rebuilding								
Batt. # 7	Stack – 7	100 m.	3.5mtrs	-	02.01.23	-	150948	31.82	269.75	73.9	-	1.26
Batt. # 8	Stack – 8	100 m.	3.5mtrs		05.01.23		152353	24.62	243.30	65.5	-	1.20

Standard: PM - 50, SO2 - 800, NOx - 500, CO – 3.00 Kg/TDCP, HC - (Units: mg/Nm^3)

Sinter Plant												
SM-1	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	30.01.23	-	443722	98.23	69.30	52.10	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	30.01.23	-	421793	38.23	68.92	51.72	-	-
SM-2	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	21.01.23	-	430725	95.38	79.11	48.30	-	-
	Duct-B	100 m.*	3.5mtrs	Batt. cyclone	21.01.23	-	441362	94.23	78.84	49.30	-	-
SM-3	Duct-A	100 m	3.5mtrs	Batt. cyclone	18.01.23	-	448360	96.15	79.30	56.30	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	18.01.23	-	410316	42.56	80.74	55.25	-	-

Standard: PM - 150 , SO2 - , NOx - (Units: mg/Nm^3) * All three Sinter M/c Exhaust are connected to a common single stack of 100m height

Mill zone												
HSM	RHF-1		8.0mtrs	-	27.01.23	-	-	25.94	50.15	26.42	-	-

Standard: PM-150mg/Nm^3

FEB'2023

Name of the Plant	Stack connected to (Name of the unit)	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of monitoring	Flow rate of the flue gas (NM^3/Hr)	Parameters (whichever are applicable)				
1	2	3	4	5	6	7	8	9				
Blast Furnace (Space dedusting) & Stoves								**Particulate matter (PM)** (mg/Nm^3)	**SO_2** (mg/Nm^3)	**NO_x** (mg/Nm^3)	**HC**	**CO** Kg/TDCP %Vol./vol.
BF-1	Chimney-1	50 mtr.	8.2mtrs.	Wet scrubber	11.02.23	3296 T	272624	70.23	-	-	-	-
BF-2	Chimney-2	50 mtr.	8.2mtrs.	Wet scrubber	01.02.23	4262 T	270664	71.86				
BF-3		50 mtr.	8.2 mtr.	Wet scrubber	Under Shutdown for capital repair				-	-	-	-
BF-4	Chimney-3	50 mtr.	8.2mtrs.	Wet scrubber	23.02.23	5621 T	273800	73.81				
BF-5									-	-	-	-
BF Stoves-1	Chimney-1	70 mtr.	3.5mtrs.	-	18.02.23	3572 T	101352	22.06	20.96	15.17	-	0.49
BF Stoves-2	Chimney-2	70 mtr.	3.5mtrs.	-	09.02.23	4343 T	100766	21.72	21.70	12.87	-	0.51
BF Stoves-4	Chimney-4	70 mtr.	3.5mtrs.	-	22.02.23	3588 T	103625	23.24	22.80	14.30	-	0.48
BF Stoves-5	Chimney-5	70 mtr.	3.5mtrs.	-	27.02.23	3220 T	102525	24.95	23.66	14.96	-	0.50

42.16-*

Standards : Charging side chimney- PM - 100 (Units: mg/Nm^3) **BF Stoves – PM- 50 mg/Nm3, SO2- 250 mg/Nm3, NOX- 150 mg/Nm3 CO- 1% v/v (Max)**

- BF#1 is connected to chimney no-1 , BF#2&BF#3 are connected to chimney no-2 and BF#4&BF#5 are connected to chimney no-3, Each BF stove is connected to corresponding chimney No.

Refractory Material plant ESP

Kiln-1	Stack – 1	80 mtr.	3.3mtrs	ESP	16.02.23	10.25 T/hr	148362	38.05	69.85	-	-	-
Kiln-2	Stack - 1	80 mtr	3.3mtrs	ESP	25.02.23	11.25 T/hr	151362	82.70	79.06	-	-	-
Kiln-3	Stack - 2	80 mtr	3.3mtrs	ESP	28.02.23	11.09 T/hr	144304	48.36	81.55	-	-	-
Kiln-4	Stack – 2	80 mtr.	3.3mtrs	ESP	15.02.23	11.25 T/hr	147258	49.31	85.78	-	-	-
Kiln-5	Stack – 3	80 mtr.	3.3 mtrs	ESP	14.02.23	11.25 T/hr	146258	42.85	70.54	-	-	-
Kiln-6	Stack – 3	80 mtr.	3.3 mtrs	ESP	02.02.23	10.63 T/hr	147308	38.72	64.84	-	-	-

Standards: PM - 150 , SO_2 , NO_x , CO - (Units: mg/Nm^3) Monitoring values for corresponding Kiln duct. Two Kilns through individual Ducts are connected to a common stack.

SMS – 1 (Process unit)					**Date**		**Flow rate (NM^3/Hr)**	**PM (mg/Nm^3)**	**SO_2 (mg/Nm^3)**	**NO_x (mg/Nm^3)**	HC	CO
Conv. – 1 (NB)	Stack – 1	100 m	4.3mtrs	Wet scrubber	04.02.23	-	102362	18.96	-	-	-	-
Conv. – 1 (BL)	Stack – 1	100 m	4.3mtrs	Wet scrubber	04.02.23	-	254376	249.08	96.30	30.16	-	-
Conv. – 2	Stack – 1	100 m	4.3mtrs	Wet scrubber	Under Capital Repair							
Conv. – 3	Stack – 1	100 m	4.3mtrs	Wet scrubber							-	-
Conv. – 4	Stack – 1	100 m	4.3mtrs	Wet scrubber								-
Conv. – 5 (BL)	Stack – 1	100 m	4.3mtrs	ESP	14.02.23	-	250388	47.72	-	-	-	-
Conv. – 5 (NB)	Stack – 1	100m	4.3mtrs	ESP	14.02.23	-	102621	8.16	-	-	-	-
SMS-2/CCS	LF- 2	60m	3.11m	Bag filter	20.02.23	-	103625	23.15	-	-	-	-

Standard: PM - 300, SO2 - , NOx - , CO - * Monitored in individual ducts (of dia. 2.5 m each) from corresponding converters. SMS-2/CCS Stack -PM #50mg/Nm3
(Units: mg/Nm^3)

Coke Oven												
Batt. # 1	Stack – 1	100 m.	3.5mtrs	-	08.02.23	-	147362	32.60	216.35	80.96	-	1.28
Batt. # 2	Stack – 2	100 m.	3.5mtrs	-	17.02.23	-	148004	38.72	210.30	87.36	-	1.20
Batt # 3	Stack - 3	100 m	3.5mtrs	-	21.02.23	-	147726	48.36	262.60	62.81	-	2.33
Batt. # 4	Stack – 4	100 m.	3.5mtrs	-	03.02.23	-	147672	41.24	293.42	69.82	-	2.20
Batt. # 5	Stack – 5	100 m.	3.5mtrs	-	Shutdown for Rebuilding							
Batt # 6	Stack - 6	100 m.	3.5mtrs	Shutdown for Rebuilding								
Batt. # 7	Stack – 7	100 m.	3.5mtrs	-	10.02.23	-	146322	28.36	224.30	70.30	-	1.25
Batt. # 8	Stack – 8	100 m.	3.5mtrs		07.02.23	-	145320	26.92	218.66	65.95	-	1.24

Standard: PM - 50, SO2 - 800, NOx - 500, CO – 3.00 Kg/TDCP, HC - (Units: mg/Nm^3)

Sinter Plant												
SM-1	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	13.02.23	-	442620	97.92	72.30	52.42	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	13.02.23	-	403521	43.74	61.30	42.80	-	-
SM-2	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	06.02.23	-	439885	94.35	81.52	49.47	-	-
	Duct-B	100 m.*	3.5mtrs	Batt. cyclone	06.02.23	-	438007	95.12	83.12	47.81	-	-
SM-3	Duct-A	100 m	3.5mtrs	Batt. cyclone	24.02.23	-	444336	98.74	82.24	50.14	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	24.02.23	-	410366	41.30	62.06	45.20	-	-

Standard: PM - 150 , SO2 - , NOx - (Units: mg/Nm^3) * All three Sinter M/c Exhaust are connected to a common single stack of 100m height

Mill zone												
CRM1&2	CAL		3.0mtrs	-	25.02.23	-	-	26.25	39.15	26.84	-	-

Standard: PM-150mg/Nm^3

MAR'2022

Name of the Plant	Stack connected to (Name of the unit)	Height of the stack (m)	Diameter of the stack (m)	Pollution Control unit provided (Name)	Date & Time of the monitoring (duration)	Production fig. of the unit, during the period of monitoring	Flow rate of the flue gas (NM^3/Hr)	Parameters (whichever are applicable)				
1	2	3	4	5	6	7	8	9				
Blast Furnace (Space dedusting) & Stoves								**Particulate matter (PM)** (mg/Nm^3)	**SO_2** (mg/Nm^3)	**NO_x** (mg/Nm^3)	**HC**	**CO** Kg/TDCP %Vol./vol.
BF-1	Chimney-1	50 mtr.	8.2mtrs.	Wet scrubber	13.03.23	3613 T	273630	69.12	-	-	-	-
BF-2	Chimney-2	50 mtr.	8.2mtrs.	Wet scrubber	03.03.23	4681 T	271669	70.81				
BF-3		50 mtr.	8.2 mtr.	Wet scrubber	Under Shutdown for capital repair				-	-	-	-
BF-4	Chimney-3	50 mtr.	8.2mtrs.	Wet scrubber	20.03.23	6860 T	274344	72.58				
BF-5									-	-	-	-
BF Stoves-1	Chimney-1	70 mtr.	3.5mtrs.	-	28.03.23	3488 T	102625	23.75	21.15	14.85	-	0.50
BF Stoves-2	Chimney-2	70 mtr.	3.5mtrs.	-	01.03.23	2381 T	105362	26.12	22.86	13.97	-	0.51
BF Stoves-4	Chimney-4	70 mtr.	3.5mtrs.	-	17.03.23	3250 T	101271	21.17	20.80	12.80	-	0.49
BF Stoves-5	Chimney-5	70 mtr.	3.5mtrs.	-	24.03.23	3154 T	102646	28.55	21.06	13.76	-	0.48

42.16-*

Standards : Charging side chimney- PM - 100 (Units: mg/Nm^3) **BF Stoves – PM- 50 mg/Nm3, SO2- 250 mg/Nm3, NOX- 150 mg/Nm3 CO- 1% v/v (Max)**

- BF#1 is connected to chimney no-1 , BF#2&BF#3 are connected to chimney no-2 and BF#4&BF#5 are connected to chimney no-3, Each BF stove is connected to corresponding chimney No.

Refractory Material plant ESP												
Kiln-1	Stack – 1	80 mtr.	3.3mtrs	ESP	04.03.23	11.25 T/hr	149625	49.10	70.80	-	-	-
Kiln-2	Stack - 1	80 mtr	3.3mtrs	ESP	Under Shutdown					-	-	-
Kiln-3	Stack - 2	80 mtr	3.3mtrs	ESP	22.03.23	11.06 T/hr	148302	48.72	68.12	-	-	-
Kiln-4	Stack – 2	80 mtr.	3.3mtrs	ESP	14.03.23	11.25 T/hr	147305	42.30	74.30	-	-	-
Kiln-5	Stack – 3	80 mtr.	3.3 mtrs	ESP	30.03.23	11.25 T/hr	143857	45.81	83.39	-	-	-
Kiln-6	Stack – 3	80 mtr.	3.3 mtrs	ESP	18.03.23	9.17 T/hr	145672	39.57	80.11	-	-	-

Standards: PM - 150 , SO_2 , NO_x , CO - (Units: mg/Nm^3) Monitoring values for corresponding Kiln duct. Two Kilns through individual Ducts are connected to a common stack.

SMS – 1 (Process unit)					**Date**		**Flow rate (NM^3/Hr)**	**PM (mg/Nm^3)**	**SO_2 (mg/Nm^3)**	**NO_x (mg/Nm^3)**	HC	CO
Conv. – 1 (NB)	Stack – 1	100 m	4.3mtrs	Wet scrubber	07.03.23	-	101326	17.59	-	-	-	-
Conv. – 1 (BL)	Stack – 1	100 m	4.3mtrs	Wet scrubber	07.03.23	-	252606	250.17	80.36	29.56	-	-
Conv. – 2	Stack – 1	100 m	4.3mtrs	Wet scrubber	Under Capital Repair							
Conv. – 3	Stack – 1	100 m	4.3mtrs	Wet scrubber							-	-
Conv. – 4	Stack – 1	100 m	4.3mtrs	Wet scrubber								-
Conv. – 5 (BL)	Stack – 1	100 m	4.3mtrs	ESP	11.03.23	-	251360	49.14	-	-	-	-
Conv. – 5 (NB)	Stack – 1	100m	4.3mtrs	ESP	11.03.23	-	101308	8.72	-	-	-	-
SMS-2/CCS	LF- 1	60m	3.11m	Bag filter	16.03.23	-	103824	30.46	-	-	-	-

Standard: PM - 300, SO2 - , NOx - , CO - * Monitored in individual ducts (of dia. 2.5 m each) from corresponding converters. SMS-2/CCS Stack -PM #50mg/Nm3
(Units: mg/Nm^3)

Coke Oven												
Batt. # 1	Stack – 1	100 m.	3.5mtrs	-	08.03.23	-	148362	36.90	283.68	66.73	-	1.33
Batt. # 2	Stack – 2	100 m.	3.5mtrs	-	09.03.23	-	149502	31.30	230.15	70.06	-	1.37
Batt # 3	Stack - 3	100 m	3.5mtrs	-	21.03.23	-	151726	22.76	220.06	81.30	-	1.39
Batt. # 4	Stack – 4	100 m.	3.5mtrs	-	26.03.23	-	148776	29.87	258.17	82.15	-	1.15
Batt. # 5	Stack – 5	100 m.	3.5mtrs	-	Shutdown for Rebuilding							
Batt # 6	Stack - 6	100 m.	3.5mtrs	Shutdown for Rebuilding								
Batt. # 7	Stack – 7	100 m.	3.5mtrs	-	31.03.23	-	145306	24.30	236.91	68.81	-	1.19
Batt. # 8	Stack – 8	100 m.	3.5mtrs		15.03.23	-	144709	23.96	228.55	70.15	-	1.20

Standard: PM - 50, SO2 - 800, NOx - 500, CO – 3.00 Kg/TDCP, HC - (Units: mg/Nm^3)

Sinter Plant												
SM-1	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	06.03.23	-	415306	96.30	89.72	51.36	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	06.03.23	-	426725	46.70	81.96	48.30	-	-
SM-2	Duct-A	100 m.*	3.5mtrs	Batt. cyclone	23.03.23	-	465341	94.17	75.88	48.30	-	-
	Duct-B	100 m.*	3.5mtrs	Batt. cyclone	23.03.23	-	469440	93.84	92.59	49.30	-	-
SM-3	Duct-A	100 m	3.5mtrs	Batt. cyclone	29.03.23	-	493056	83.64	99.68	50.15	-	-
	Duct-B	100 m.*	3.5mtrs	ESP	29.03.23	-	486311	36.70	86.39	46.33	-	-

Standard: PM - 150 , SO2 - , NOx - (Units: mg/Nm^3) * All three Sinter M/c Exhaust are connected to a common single stack of 100m height

Mill zone												
HSM	RHF-1		8.0mtrs	-	10.03.23	-	-	26.30	38.15	24.30	-	-

Standard: PM-150mg/Nm^3

Status of compliances to the Fugitive emission standards of coke oven batteries in (Bokaro Steel plant)

OCT'2022

Plant/Bat. No.	Date of commissioning		Current age in year	PLD (%)	PLL (%)	PLO (%)	Charge-ing emission (sec/ charge.) (TC)	Stack emission (mg/Nm^3)			SPM emission charging ($mg/-Nm^3$)	SPM emission push-ing (g/ TDCP)	PM for quenching g/ TDCP	Status of compliance
	Initial	After rebuilding						PM	SO_2	NOx				
EP (Act) Norm (at green field site)				*5*	*1*	*4*	*16*	*50*	*800*	*500*	*25*	*5*	*50*	
(Rebuild battery)				*10*	*1*	*4*	*50*	*50*	*800*	*500*	*25*	*5*	*50*	
(Existing battery)				***10***	***1***	***4***	***75***	***50***	***800***	***500***	*25*	-	-	
Battery No. 1				1.62-2.17	0.36-0.60	1.26-2.35	36-44					2.24	22.36	
Battery No. 2				2.35-3.25	0.48-0.84	1.26-2.71	34-46					*2.06*	*24.91*	
Battery No. 3				3.44-5.43	0.68-0.96	2.71-3.25	35-46					2.16	25.80	
Battery No. 4				2.89-4.16	0.36-0.72	2.25-3.43	38-48					2.30	24.20	
Battery No. 5				9.00-9.86	0.96-1.00	3.10-3.88	40-50					2.60	30.14	
Battery No. 6				**Under Shutdown for Rebuilding**										
Battery No. 7				0.36-0.72	0.00-0.36	0.00-0.36	38-46					2.07	21.96	
Battery No. 8				**Under Shutdown for Rebuilding**										

Coke oven & mixed gas used for heating: * Data provided under Stack emission status at section: A of this format

SC – Stamp Charge
NC –Non Compliance
C - Compliance
TC- Top charge

NB: Batt # 6 & Batt # 8 have been shut down for rebuilding

NOV'2022

Plant/Bat. No.	Date of commissioning		Current age in year	PLD (%)	PLL (%)	PLO (%)	Charge-ing emission (sec/ charge.) (TC)	Stack emission (mg/Nm^3)			SPM emission charging ($mg/-Nm^3$)	SPM emission push-ing (g/ TDCP)	PM for quenching g/ TDCP	Status of compliance
	Initial	After rebuilding						PM	SO_2	NOx				
EP (Act) Norm (at green field site)				*5*	*1*	*4*	*16*	*50*	*800*	*500*	*25*	*5*	*50*	
(Rebuild battery)				*10*	*1*	*4*	*50*	*50*	*800*	*500*	*25*	*5*	*50*	
(Existing battery)				***10***	***1***	***4***	***75***	***50***	***800***	***500***	*25*	-	-	
Battery No. 1				1.26-1.99	0.36-0.60	1.26-1.44	34-44					2.14	21.92	
Battery No. 2				2.35-2.78	0.60-0.96	1.80-1.99	36-48					*2.20*	*22.96*	
Battery No. 3				3.98-4.39	0.36-1.00	2.17-3.81	38-46					2.30	23.94	
Battery No. 4				3.07-5.24	0.72-1.00	2.53-3.43	38-48					2.42	25.11	
Battery No. 5				8.80-9.92	0.96-1.00	3.12-3.74	40-50					2.72	30.46	
Battery No. 6				**Under Shutdown for Rebuilding**										
Battery No. 7				0.00-1.94	0.12-0.48	0.00-1.26	34-42					1.96	22.05	
Battery No. 8				**Under Shutdown for Rebuilding**										

Coke oven & mixed gas used for heating: * Data provided under Stack emission status at section: A of this format

SC – Stamp Charge
NC –Non Compliance
C - Compliance
TC- Top charge
NB: Batt # 6 & Batt # 8 have been shut down for rebuilding

DEC'2022

Plant/Bat. No.	Date of commissioning		Current age in year	PLD (%)	PLL (%)	PLO (%)	Charge-ing emission (sec/ charge.) (TC)	Stack emission (mg/Nm^3)			SPM emission charging ($mg/-Nm^3$)	SPM emission push-ing (g/ TDCP)	PM for quenching g/ TDCP	Status of compliance
	Initial	After rebuilding						PM	SO_2	NOx				
EP (Act) Norm (at green field site)				*5*	*1*	*4*	*16*	*50*	*800*	*500*	*25*	*5*	*50*	
(Rebuild battery)				*10*	*1*	*4*	*50*	*50*	*800*	*500*	*25*	*5*	*50*	
(Existing battery)				***10***	***1***	***4***	***75***	***50***	***800***	***500***	*25*	-	-	
Battery No. 1				1.08-1.80	0.36-0.60	0.90-1.44	33-46					2.16	23.14	
Battery No. 2				1.98-2.71	0.60-0.96	1.62-2.17	34-48					*2.42*	*22.96*	
Battery No. 3				2.53-4.16	0.72-1.00	1.99-2.89	34-46					2.60	23.87	
Battery No. 4				2.35-3.98	0.72-1.00	1.99-2.63	34-44					2.40	24.96	
Battery No. 5														
Battery No. 6				**Under Shutdown for Rebuilding**										
Battery No. 7				0.00-1.44	0.24-0.60	0.00-0.90	34-46					1.96	21.06	
Battery No. 8				0.00-0.90	0.24-0.36	0.00	34-40					2.06	23.72	

Coke oven & mixed gas used for heating: * Data provided under Stack emission status at section: A of this format

SC – Stamp Charge
NC –Non Compliance
C - Compliance
TC- Top charge

NB: Batt # 6 & Batt # 8 have been shut down for rebuilding

JAN'2023

Plant/Bat. No.	Date of commissioning		Current age in year	PLD (%)	PLL (%)	PLO (%)	Charge-ing emission (sec/ charge.) (TC)	Stack emission (mg/Nm^3)			SPM emission charging ($mg/-Nm^3$)	SPM emission push-ing (g/ TDCP)	PM for quenching g/ TDCP	Status of compliance
	Initial	After rebuilding						PM	SO_2	NOx				
EP (Act) Norm (at green field site)				*5*	*1*	*4*	*16*	*50*	*800*	*500*	*25*	*5*	*50*	
(Rebuild battery)				*10*	*1*	*4*	*50*	*50*	*800*	*500*	*25*	*5*	*50*	
(Existing battery)				***10***	***1***	***4***	***75***	***50***	***800***	***500***	*25*	-	-	
Battery No. 1				1.26-2.17	0.48-0.60	1.08-1.81	36-44					2.18	21.80	
Battery No. 2				2.35-2.71	0.60-0.96	1.62-2.53	32-48					*2.60*	*24.96*	
Battery No. 3				3.07-4.16	0.60-0.96	2.01-2.89	38-48					2.32	22.08	
Battery No. 4				2.71-3.44	0.84-0.84	2.17-2.63	34-48					2.40	24.15	
Battery No. 5														
Battery No. 6				**Under Shutdown for Rebuilding**										
Battery No. 7				0.00-0.54	0.00-0.24	0.00-0.36	32-40					2.19	22.6	
Battery No. 8				0.00-0.18	0.00-0.36	0.00-0.18	32-42					2.24	21.0	

Coke oven & mixed gas used for heating: * Data provided under Stack emission status at section: A of this format

SC – Stamp Charge
NC –Non Compliance
C - Compliance
TC- Top charge

NB: Batt # 6 & Batt # 8 have been shut down for rebuilding

FEB'2023

Plant/Bat. No.	Date of commissioning		Current age in year	PLD (%)	PLL (%)	PLO (%)	Charge-ing emission (sec/ charge.) (TC)	Stack emission (mg/Nm^3)			SPM emission charging ($mg/-Nm^3$)	SPM emission push-ing (g/ TDCP)	PM for quenching g/ TDCP	Status of compliance
	Initial	After rebuilding						PM	SO_2	NOx				
EP (Act) Norm (at green field site)				*5*	*1*	*4*	*16*	*50*	*800*	*500*	*25*	*5*	*50*	
(Rebuild battery)				*10*	*1*	*4*	*50*	*50*	*800*	*500*	*25*	*5*	*50*	
(Existing battery)				***10***	***1***	***4***	***75***	***50***	***800***	***500***	*25*	-	-	
Battery No. 1				1.26-1.99	0.36-0.60	1.08-1.44	34-44					2.20	28.14	
Battery No. 2				2.35-2.71	0.60-0.72	1.62-1.81	36-46					*2.14*	*26.91*	
Battery No. 3				2.89-4.52	0.36-0.96	2.35-3.44	36-48					2.32	27.52	
Battery No. 4				3.26-5.61	0.60-0.96	2.53-3.69	35-46					2.41	26.32	
Battery No. 5				**Under Shutdown**								-	-	
Battery No. 6				**Under Shutdown for Rebuilding**										
Battery No. 7				0.36-0.72	0.00-0.36	0.00-0.36	32-44					2.06	24.1	
Battery No. 8				0.00-0.18	0.00-0.24	0.00-0.18	32-46					2.08	23.7	

Coke oven & mixed gas used for heating: * Data provided under Stack emission status at section: A of this format

SC – Stamp Charge
NC –Non Compliance
C - Compliance
TC- Top charge

NB: Batt # 6 & Batt # 8 have been shut down for rebuilding

MAR'2022

Plant/Bat. No.	Date of commissioning		Current age in year	PLD (%)	PLL (%)	PLO (%)	Charge-ing emission (sec/ charge.) (TC)	Stack emission (mg/Nm^3)			SPM emission charging ($mg/-Nm^3$)	SPM emission push-ing (g/ TDCP)	PM for quenching g/ TDCP	Status of compliance
	Initial	After rebuilding						PM	SO_2	NOx				
EP (Act) Norm (at green field site)				*5*	*1*	*4*	*16*	*50*	*800*	*500*	*25*	*5*	*50*	
(Rebuild battery)				*10*	*1*	*4*	*50*	*50*	*800*	*500*	*25*	*5*	*50*	
(Existing battery)				***10***	***1***	***4***	***75***	***50***	***800***	***500***	*25*	-	-	
Battery No. 1				1.08-1.80	0.48-0.60	1.06-1.62	36-48					2.30	26.15	
Battery No. 2				2.38-2.89	0.60-0.96	1.62-2.17	38-42					2.41	24.66	
Battery No. 3				3.26-4.39	0.72-0.96	1.99-2.93	34-46					2.24	25.11	
Battery No. 4				3.25-4.58	0.60-0.96	1.80-2.17	36-48					2.60	26.52	
Battery No. 5				**Under Shutdown**										
Battery No. 6				**Under Shutdown for Rebuilding**										
Battery No. 7				0.00-0.18	0.00	0.12-0.72	32-42					2.12	23.56	
Battery No. 8				0.00	0.00	0.00-0.48	36-44					2.16	24.10	

Coke oven & mixed gas used for heating: * Data provided under Stack emission status at section: A of this format

SC – Stamp Charge
NC –Non Compliance
C - Compliance
TC- Top charge

NB: Batt # 6 & Batt # 8 have been shut down for rebuilding

Ambient Air Quality

Ambient Air Quality (AAQ) (All Ambient Air Quality Monitoring Station)

Standards : PM_{10} - 100, $PM_{2.5}$ -60, SO_2 - 80, NO_2 – 80, NH_3 – 400 , O_3-100, Pb -1.0 , C_6H_6 – 5.0 , (Units: micro gram/meter^3), As - 6.0, B(a)P - 1.0, Ni – 20.0 (units – Nano gram/meter^3), CO – 2.0 mg/m^3

Ambient air quality is monitored on bi-weekly basis. Average value of the month is reported

OCT'2022

S. No	Location of the Station	Date	Parameters (as applicable)											
			PM_{10}	$PM_{2.5}$	SO_2	NO_2	NH_3	O_3	Pb	C_6H_6	As	B(a)P	Ni	CO
1	B.S. City Rly. Station		67.77	37.77	26.11	35.39	20.43	11.94	0.43	<0.6	<0.01	<0.08	1.57	710
2	Garga Dam		65.64	27.23	20.29	27.48	17.95	11.00	0.42	<0.6	<0.01	<0.08	1.92	510
3	Sector-12		59.72	31.84	23.86	27.39	14.42	15.25	0.37	<0.6	<0.01	<0.08	1.40	580
4	Sector-9		63.67	32.06	25.50	29.95	13.50	14.35	0.29	<0.6	<0.01	<0.08	1.03	610
5	Bokaro Nivas		55.51	29.30	18.87	26.18	10.96	13.48	0.29	<0.6	<0.01	<0.08	1.14	520
6	CISF (SGP)		64.04	38.94	23.50	28.76	13.33	15.06	0.48	<0.6	<0.01	<0.08	1.69	570
7	BGH		57.56	37.68	23.03	29.71	11.20	13.48	0.28	<0.6	<0.01	<0.08	0.84	550
8	CAAQMS at Main gate	13.10.22	86.03	34.03	29.12	16.0	18.70	3.90	-	0.5	-	-	-	1350
9	CAAQMS at TA building	01.10.22	63.48	16.26	36.99	8.52	7.71	28.63	-	0.6	-	-	-	3930

NOV'2022

S. No	Location of the Station	Date	Parameters (as applicable)											
			PM_{10}	$PM_{2.5}$	SO_2	NO_2	NH_3	O_3	Pb	C_6H_6	As	B(a)P	Ni	CO
1	B.S. City Rly. Station		80.25	42.81	30.52	34.82	22.14	12.12	0.50	<0.6	<0.01	<0.08	1.60	810
2	Garga Dam		72.14	39.12	28.06	33.72	18.20	9.15	0.40	<0.6	<0.01	<0.08	1.72	620
3	Sector-12		80.15	30.04	31.06	40.15	20.74	11.20	0.38	<0.6	<0.01	<0.08	1.36	530
4	Sector-9		77.20	31.70	30.14	41.52	17.25	13.06	0.30	<0.6	<0.01	<0.08	1.38	700
5	Bokaro Nivas		70.62	30.42	28.70	36.15	15.60	11.72	0.32	<0.6	<0.01	<0.08	1.15	580
6	CISF (SGP)		83.62	31.25	29.30	37.06	21.80	12.81	0.38	<0.6	<0.01	<0.08	1.35	600
7	BGH		74.72	28.25	30.25	34.30	16.32	10.55	0.30	<0.6	<0.01	<0.08	1.06	780
8	CAAQMS at Main gate	03.11.22	99.10	42.11	28.16	9.08	18.62	18.79	-	0.6	-	-	-	1320
9	CAAQMS at TA building	06.11.22	57.06	17.86	42.08	3.28	4.77	31.09	-	0.6	-	-	-	3250

DEC'2022

S. No	Location of the Station	Date	Parameters (as applicable)											
			PM_{10}	$PM_{2.5}$	SO_2	NO_2	NH_3	O_3	Pb	C_6H_6	As	B(a)P	Ni	CO
1	B.S. City Rly. Station		88.15	48.15	34.25	36.15	23.30	13.30	0.46	<0.6	<0.01	<0.08	1.48	925
2	Garga Dam		79.30	42.30	32.10	34.10	24.22	10.36	0.44	<0.6	<0.01	<0.08	1.60	820
3	Sector-12		85.16	43.62	28.95	40.35	20.60	9.95	0.39	<0.6	<0.01	<0.08	1.49	772
4	Sector-9		90.10	44.77	30.04	41.30	21.56	8.86	0.42	<0.6	<0.01	<0.08	1.35	698
5	Bokaro Nivas		81.96	40.36	31.40	38.26	19.15	11.30	0.44	<0.6	<0.01	<0.08	1.39	704
6	CISF (SGP)		90.30	49.16	32.14	42.30	21.96	12.30	0.52	<0.6	<0.01	<0.08	1.52	990
7	BGH		85.15	46.34	30.58	39.74	20.60	10.76	0.50	<0.6	<0.01	<0.08	1.48	494
8	CAAQMS at Main gate	16.12.22	94.22	56.0	12.10	10.1	20.5	14.20	-	0.2	-	-	-	1290
9	CAAQMS at TA building	15.12.22	92.70	17.32	41.03	5.05	6.77	31.49	-	0.8	-	-	-	3020

JAN'2023

S. No	Location of the Station	Date	Parameters (as applicable)											
			PM_{10}	$PM_{2.5}$	SO_2	NO_2	NH_3	O_3	Pb	C_6H_6	As	B(a)P	Ni	CO
1	B.S. City Rly. Station		92.14	51.30	36.72	41.20	26.15	14.06	0.48	<0.6	<0.01	<0.08	1.51	826
2	Garga Dam		82.60	43.36	33.12	38.12	24.30	11.86	0.36	<0.6	<0.01	<0.08	1.50	720
3	Sector-12		87.30	45.81	30.30	36.30	22.89	9.86	0.40	<0.6	<0.01	<0.08	1.30	1103
4	Sector-9		85.30	44.17	28.50	37.15	23.15	10.72	0.41	<0.6	<0.01	<0.08	1.28	670
5	Bokaro Nivas		86.36	42.88	33.17	34.36	26.91	11.82	0.42	<0.6	<0.01	<0.08	1.42	770
6	CISF (SGP)		90.81	49.62	35.30	38.30	25.30	12.66	0.44	<0.6	<0.01	<0.08	1.49	1002
7	BGH		87.71	47.30	30.82	35.30	24.42	11.07	0.39	<0.6	<0.01	<0.08	1.36	880
8	CAAQMS at Main gate	21.01.23	72.84	57.42	10.72	10.13	20.51	58.56	-	0.7	-	-	-	964
9	CAAQMS at TA building	10.01.23	75.6	35.23	11.14	11.54	16.07	33.0	-	0.8	-	-	-	1052

FEB'2023

S. No	Location of the Station	Date	Parameters (as applicable)											
			PM_{10}	$PM_{2.5}$	SO_2	NO_2	NH_3	O_3	Pb	C_6H_6	As	B(a)P	Ni	CO
1	B.S. City Rly. Station		90.15	52.88	35.70	41.30	26.52	13.06	0.50	<0.6	<0.01	<0.08	1.48	720
2	Garga Dam		84.91	46.16	37.32	42.66	24.52	12.08	0.42	<0.6	<0.01	<0.08	1.26	786
3	Sector-12		86.72	45.34	36.06	43.12	23.71	11.20	0.40	<0.6	<0.01	<0.08	1.30	825
4	Sector-9		88.81	46.10	40.34	40.17	26.00	10.36	0.38	<0.6	<0.01	<0.08	1.34	726
5	Bokaro Nivas		82.60	44.44	38.62	38.12	24.34	11.27	0.39	<0.6	<0.01	<0.08	1.35	828
6	CISF (SGP)		93.60	49.76	37.54	39.30	25.95	12.84	0.41	<0.6	<0.01	<0.08	1.41	936
7	BGH		85.12	43.38	36.63	36.92	26.06	11.36	0.37	<0.6	<0.01	<0.08	1.33	725
8	CAAQMS at Main gate	06/02/23	76.55	34.04	28.92	10.75	20.99	44.78	-	0.50	-	-	-	1220
9	CAAQMS at TA building	09/02/23	98.2	39.29	11.07	14.24	19.09	55.33	-	0.22	-	-	-	2790

MAR'2022

S. No	Location of the Station	Date	Parameters (as applicable)											
			PM_{10}	$PM_{2.5}$	SO_2	NO_2	NH_3	O_3	Pb	C_6H_6	As	B(a)P	Ni	CO
1	B.S. City Rly. Station		88.15	48.87	32.86	38.15	27.12	12.86	0.48	<0.6	<0.01	<0.08	1.50	1826
2	Garga Dam		87.30	50.10	31.72	39.06	26.30	14.30	0.41	<0.6	<0.01	<0.08	1.40	950
3	Sector-12		85.76	47.36	28.10	40.15	25.11	12.72	0.38	<0.6	<0.01	<0.08	1.38	1281
4	Sector-9		84.20	46.91	30.86	39.20	24.70	13.06	0.36	<0.6	<0.01	<0.08	1.27	1006
5	Bokaro Nivas		81.70	45.30	31.08	39.88	23.84	12.14	0.39	<0.6	<0.01	<0.08	1.30	850
6	CISF (SGP)		90.46	48.44	32.06	40.15	26.95	13.89	0.43	<0.6	<0.01	<0.08	1.44	1270
7	BGH		84.28	39.86	29.88	37.51	23.86	10.80	0.40	<0.6	<0.01	<0.08	1.29	780
8	CAAQMS at Main gate	21.03.23	72.84	47.87	14.00	10.53	20.89	12.83	-	0.30	-	-	-	1300
9	CAAQMS at TA building	10.03.23	83.34	27.45	10.9	15.89	89.2	56.59	-	0.23	-	-	-	1780

Water Pollution Status

Water Consumption 3.86 m^3 /Tonne of Crude Steel produced

Effluent discharged to: (Name of the river / drain / land etc.): Damodar River
Quality of various effluent streams at the Boundary line of the plant
Standards : Temp.- Upto 40^{0}C, pH -6.0-8.50, TSS- 100, Phenol- 1.0, Cyanide- 0.20, BOD- 30, COD- 250, Amm. Nitrogen- 50, O&G- 10.0

Note:- Outfall-1 (COBPP, Sinter Plant, TPP, BF, RMP), Outfall-2:(SMS-1, SMS-2 &CCS, Rolling Mills)Outfall-3; Due to huge excavation work in new CRM-3 area, this outfall cease to exist.

OCT'2022

Date of Monitoring	Name of the stream	Parameters (mg/l, except pH and temp.)									Flow rate m3/hr
		Temp. ^{0}C	pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
11.10.22	OF - 1	23.6	7.36	29	0.084	0.034	7.2	80	7.81	0.96	45
	OF – 2	22.9	7.96	5 6	0.038	0.022	8.4	92	2.94	1.48	50

NOV'2022

Date of Monitoring	Name of the stream	Parameters (mg/l, except pH and temp.)									Flow rate m3/hr
		Temp. ^{0}C	pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
14.11.22	OF - 1	22.4	7.32	19	0.064	0.025	7.4	84	8.15	0.74	45
	OF – 2	22.6	7.82	4 6	0.034	0.012	9.8	90	1.04	1.32	50

DEC'2022

Date of Monitoring	Name of the stream	Parameters (mg/l, except pH and temp.)									Flow rate m3/hr
		Temp. ^{0}C	pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
13.12.22	OF - 1	22.0	7.32	21	0.028	0.022	8.2	74	2.96	1.20	45
	OF – 2	21.8	7.90	3 9	0.020	0.012	7.6	82	1.14	1.44	50

JAN'2023

Date of Monitoring	Name of the stream	Parameters (mg/l, except pH and temp.)									Flow rate m3/hr
		Temp. ^{0}C	pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
10.01.23	OF - 1	22.0	7.74	26	0.044	0.028	66	80	4.81	1.36	45
	OF – 2	21.8	7.30	3 6	0.018	0.020	8.8	92	1.06	1.44	50

FEB'2023

Date of Monitoring	Name of the stream	Parameters (mg/l, except pH and temp.)									Flow rate m3/hr
		Temp. ^{0}C	pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
14.02.23	OF - 1	24.1	7.23	28	0.056	0.026	6.1	74	6.72	1.02	45
	OF – 2	23.7	7.02	3 6	0.030	0.014	5.6	60	3.14	1.56	50

MAR'2022

Date of Monitoring	Name of the stream	Parameters (mg/l, except pH and temp.)									Flow rate m3/hr
		Temp. ^{0}C	pH	TSS	Phenol	Cyanide	BOD	COD	Amm. Nitrogen	O&G	
14.03.23	OF - 1	23.6	7.10	24	0.038	0.022	5.21	72	8.72	0.96	45
	OF – 2	23.8	7.30	3 0	0.026	0.024	6.20	64	2.14	1.24	50

Status of Sewage Treatment Plant (STP)

Standards : Temp.- Upto 40^{0}C, pH -6.0-8.5, TSS- 100, Phenol- 1.0, Cyanide- 0.20, BOD- 30, COD- 250.

OCT'2022

Date	Time of Monitoring	Name of the STP	Quantity of the Effluent	Temp. ^{0}C	pH	TSS	BOD	COD	Fecal Coliform (FC), MPN/100ml	Remarks
18.10.22	12.20 pm	BGH	-	23.0	7.20	19	9.80	92	390	
	11.30 am	Dhandabra	-	22.9	7.60	17	10.1	98	340	
	11.00 am	Sector -6	-	23.1	7.55	20	9.60	90	360	
	10.35 am	Camp-2	-	23.5	7.36	24	14.9	140	420	
	10.15 am	Sector-12	-	23.2	7.10	23	9.50	95	380	

NOV'2022

Date	Time of Monitoring	Name of the STP	Quantity of the Effluent	Temp. ^{0}C	pH	TSS	BOD	COD	Fecal Coliform (FC), MPN/100ml	Remarks
05.11.22	12.20 pm	BGH	-	24.1	7.40	32	10.10	78	410	
	11.30 am	Dhandabra	-	23.6	6.88	25	11.34	98	420	
	11.00 am	Sector -6	-	22.9	6.95	22	10.20	82	380	
	10.35 am	Camp-2	-	23.4	7.25	35	14.62	92	510	
	10.15 am	Sector-12	-	23.6	7.19	24	9.30	88	390	

DEC'2022

Date	Time of Monitoring	Name of the STP	Quantity of the Effluent	Temp. ^{0}C	pH	TSS	BOD	COD	Fecal Coliform (FC), MPN/100ml	Remarks
16.12.22	12.20 pm	BGH	-	22.1	7.30	30	9.1	65	490	
	11.30 am	Dhandabra	-	23.0	7.44	24	11.9	92	420	
	11.00 am	Sector -6	-	22.8	7.36	26	8.1	64	430	
	10.35 am	Camp-2	-	22.0	6.98	31	17.6	125	6	
	10.15 am	Sector-12	-	21.6	7.12	24	11.0	105	380	

JAN'2023

Date	Time of Monitoring	Name of the STP	Quantity of the Effluent	Temp. ^{0}C	pH	TSS	BOD	COD	Fecal Coliform (FC), MPN/100ml	Remarks
04.01.23	12.20 pm	BGH	-	22.8	7.56	17.0	9.7	85	480	
	11.30 am	Dhandabra	-	21.5	7.10	20.0	10.6	95	420	
	11.00 am	Sector -6	-	21.7	6.89	18.0	9.7	96	400	
	10.35 am	Camp-2	-	22.2	7.29	35.0	17.0	150	650	
	10.15 am	Sector-12	-	21.9	7.31	23.0	10.5	79	380	

FEB'2023

Date	Time of Monitoring	Name of the STP	Quantity of the Effluent	Temp. ^{0}C	pH	TSS	BOD	COD	Fecal Coliform (FC), MPN/100ml	Remarks
02.02.23	12.20 pm	BGH	-	24.2	7.32	20	8.7	85	410	
	11.30 am	Dhandabra	-	24.6	6.75	20	9.6	95	400	
	11.00 am	Sector -6	-	23.4	6.88	18	8.2	80	420	
	10.35 am	Camp-2	-	24.2	7.26	32	15.4	150	610	
	10.15 am	Sector-12	-	23.8	7.44	18	10.5	102	390	

MAR'2022

Date	Time of Monitoring	Name of the STP	Quantity of the Effluent	Temp. ^{0}C	pH	TSS	BOD	COD	Fecal Coliform (FC), MPN/100ml	Remarks
07.03.23	12.20 pm	BGH	-	23.8	7.06	21	7.9	78	420	
	11.30 am	Dhandabra	-	24.0	7.16	20	8.0	90	420	
	11.00 am	Sector -6	-	24.1	7.30	18	7.6	96	430	
	10.35 am	Camp-2	-	23.6	7.50	29	10.2	132	590	
	10.15 am	Sector-12	-	23.9	7.56	24	9.2	88	380	

Ambient Noise Level

OCT'2022

Date of Monitoring	Location	Noise Level dB(A) (Day time)	Noise Level dB(A) (Night time)
20.10.22	**Commercial Area**	**Norm (65 dB)**	**Norm (55 dB)**
	City centre, sector-4	64.1	52.6
	Naya more	63.8	53.0
	Bokaro Mall, Sec-3	54.9	53.6
	Ram mandir	58.2	51.2
	Laxmi market	62.2	50.6
	Residential Area	**Norm (55 dB)**	**Norm (45 dB)**
	Sector – 1 C	50.2	44.2
	Sector – 4 C	47.8	43.8
	Silence Zone	**Norm (50 dB)**	**Norm (40 dB)**
	BGH	48.4	38.2
	Biological Park sector-4	42.3	37.2
	DPS, Sector-4	48.2	38.0

NOV'2022

Date of Monitoring	Location	Noise Level dB(A) (Day time)	Noise Level dB(A) (Night time)
09.11.22	**Commercial Area**	**Norm (65 dB)**	**Norm (55 dB)**
	City centre, sector-4	59.6	53.4
	Naya more	65.0	54.5
	Bokaro Mall, Sec-3	59.9	51.0
	Ram mandir	58.8	52.4
	Air port	63.6	49.0
	Residential Area	**Norm (55 dB)**	**Norm (45 dB)**
	Sector – 2 C	52.6	43.5
	Sector – 4D	52.0	44.1
	Silence Zone	**Norm (50 dB)**	**Norm (40 dB)**
	BGH	49.6	39.0
	Biological Park sector-4	48.0	38.2
	DPS, Sector-4	48.8	39.1

DEC'2022

Date of Monitoring	Location	Noise Level dB(A) (Day time)	Noise Level dB(A) (Night time)
15.12.22	**Commercial Area**	**Norm (65 dB)**	**Norm (55 dB)**
	City centre, sector-4	62.4	54.1
	Naya more	63.9	53.4
	Bokaro Mall, Sec-3	60.4	52.5
	Ram mandir	61.4	53.6
	Air port	62.0	53.7
	Residential Area	**Norm (55 dB)**	**Norm (45 dB)**
	Sector – 12A	53.8	43.1
	Sector – 6A	54.2	42.8
	Silence Zone	**Norm (50 dB)**	**Norm (40 dB)**
	BGH	48.2	38.2
	Biological Park sector-4	47.0	39.0
	DPS, Sector-4	48.6	38.6

JAN'2023

Date of Monitoring	Location	Noise Level dB(A) (Day time)	Noise Level dB(A) (Night time)
16.01.23	**Commercial Area**	**Norm (65 dB)**	**Norm (55 dB)**
	City centre, sector-4	63.3	54.2
	Naya more	63.4	55.0
	Bokaro Mall, Sec-3	54.2	53.0
	Ram mandir	59.1	51.6
	Air port	61.6	49.8
	Residential Area	**Norm (55 dB)**	**Norm (45 dB)**
	Sector – 4D	51.6	45.7
	Sector – 9B	53.6	43.6
	Silence Zone	**Norm (50 dB)**	**Norm (40 dB)**
	BGH	49.6	38.1
	Biological Park sector-4	43.2	36.6
	DPS, Sector-4	48.8	37.8

FEB'2023

Date of Monitoring	Location	Noise Level dB(A) (Day time)	Noise Level dB(A) (Night time)
04.02.23	**Commercial Area**	**Norm (65 dB)**	**Norm (55 dB)**
	City centre, sector-4	57.4	53.9
	Naya more	65.0	54.2
	Bokaro Mall, Sec-3	58.3	52.6
	Ram mandir	62.1	53.1
	Air port	59.1	51.6
	Residential Area	**Norm (55 dB)**	**Norm (45 dB)**
	Sector – 1C	46.9	44.1
	Sector – 3B	48.9	43.9
	Silence Zone	**Norm (50 dB)**	**Norm (40 dB)**
	BGH	49.8	38.2
	Biological Park sector-4	42.7	36.5
	DPS, Sector-4	49.4	37.2

MAR'2022

Date of Monitoring	Location	Noise Level dB(A) (Day time)	Noise Level dB(A) (Night time)
17.03.23	**Commercial Area**	**Norm (65 dB)**	**Norm (55 dB)**
	City centre, sector-4	59.3	53.8
	Naya more	60.7	53.0
	Bokaro Mall, Sec-3	62.2	52.6
	Ram mandir	60.9	50.5
	Air port	60.3	49.6
	Residential Area	**Norm (55 dB)**	**Norm (45 dB)**
	Sector – 6B	53.8	43.6
	Sector – 9B	54.2	44.0
	Silence Zone	**Norm (50 dB)**	**Norm (40 dB)**
	BGH	48.2	38.2
	Biological Park sector-4	49.2	39.2
	DPS, Sector-4	48.2	39.8