



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

क्र. म.प्र.प्र.(पर्या.प्रबंधन विभाग)/बी-7/277

दिनांक: 30/09/2025

प्रति,

सदस्य सचिव
छत्तीसगढ़ पर्यावरण संरक्षण मंडल,
पर्यावास भवन
नार्थ ब्लॉक सेक्टर - 19
नया रायपुर (छ.ग.)-490099

विषय:- पर्यावरणीय विवरण (Environment Statement) वर्ष 2024-25.

महोदय,

भिलाई इस्पात संयंत्र का वर्ष 2024-25 का 'पर्यावरणीय विवरण' प्रतिवेदन कृपया अवलोकनार्थ संलग्न है।

धन्यवाद सहित।

भवदीय

Omcein
30/9/2025

(उमा कटोच)

महा प्रबंधक प्रभारी (पर्यावरण)

प्रतिलिपि :

क्षेत्रीय अधिकारी,
छत्तीसगढ़ पर्यावरण संरक्षण मंडल,
5/32 बंगला, भिलाई
दुर्ग, छत्तीसगढ़

→ File B-7

Environmental Statement Report
(पर्यावरणीय विवरण)

for the financial year ending the 31st March 2025

Ref: The Gazette of India, Extraordinary,

Part-II, Section 3(1)

Ministry of Environment & Forests, Govt. of India

Notification dated April 22, 1993



STEEL AUTHORITY OF INDIA LIMITED
स्टील अथॉरिटी ऑफ इंडिया लिमिटेड

BHILAI STEEL PLANT

भिलाई इस्पात प्लांट

BHILAI, CHHATTISGARH, 490 001

भिलाई - 490001; छत्तीसगढ़

PART-A

- | | | | |
|------|--|---|---|
| (i) | Name and address of the owner/
occupier of the industry
operation or process | : | Shri A Dasgupta
Chief Executive Officer
Steel Authority of India Ltd.
Bhilai Steel Plant,
Bhilai - 490 001
(C.G) |
| (ii) | Production Capacity/ Annum | : | 7 Million Tonne Crude Steel |
| (iv) | Year of establishment | : | 1956 |
| (iv) | Date of the last environmental
Statement report submitted. | : | 30.09.2024 |

PART-B

Water and Raw Material Consumption:

(1) Water consumption (m³/day):

	During the financial year 2023-24	During the financial year 2024-25
Process	8467026 m3	8615672 m3
Cooling	14993838 m3	15257069 m3
Domestic	49395335 m3	52073739 m3

Name of Products	Water consumption per unit of product (m ³ /TCS)	
	During the financial year 2023-24	During the financial year 2024-25
Steel	2.746	2.744

(2) Raw Material Consumption:

(a) Raw Material consumption at Blast Furnaces

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of output (Kg/T of product)	
	Hot Metal	During the financial year 2023-24	During the financial year 2024-25
Coke		454.9	430.3
Iron ore		497	397
Sinter/Pallets		1070/166	1113/235
Limestone		39.1	9.7
Coal Dust		120	134.1
Nut Coke		23.2	21.0
Manganese Ore		0.1	0
Quartzite		0.41	0.15
BOF Slag*		13.0	0
Scrap		7.4	7.37
Coal Dust		120	134.1

*Solid Waste (BOF Steel Slag) generated in plant is recycled.

(b) Raw Material Consumption at Steel Melting Shop-II

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of output (Kg/T of product)	
	Crude Steel	During the financial year 2023-24	During the financial year 2024-25
Hot metal		1033.3	1021.5
Scrap		92.7	85.1
Iron ore/ Pallets		0	0.5/0
Lime/lime briquettes		66.4	64.3
Limestone		0	0
Silico-manganese		18.0	18.0
Ferro-silicon		1.80	1.70
Ferro-manganese		0.09	0
Aluminum		0.50	0.40
Cal Dolomite		25.50	23.50

(PART_B Continued)

(c) Raw Material Consumption at Steel Melting Shop-III

Name of Raw Material	Name of Product	Consumption of Raw Material per unit of output (Kg/T of Product)	
	Crude Steel	During the financial year 2023-24	During the financial year 2024-25
Hot metal		1036.3	1030.7
Scrap		74.6	68.3
Iron ore		27.3	22.8
Lime/lime briquettes		82.5	81.9
Limestone		0	0
Silico-manganese		16.33	15.3
Ferro-silicon		2.50	2.80
Ferro-manganese		0.1	0.1
Aluminum		0.39	0.40
Cal Dolomite		27.56	28.80

PART-C

Pollution Generated
(Parameters as Specified in the consent issued)

(a) Effluent

Pollutants	Unit	Norm	Concentration (Annual Avg)	Percentage variation From proscribed Standards with reasons
(a) Water				
pH	-	5.5-9.0	7.13	Nil
Temperature	°C	40 max*	29.30	Nil
Suspended Solids	mg/L	100	43.96	Nil
BOD at 27°C	mg/L	30	18.00	Nil
COD	mg/L	250	47.30	Nil
Oil & Grease	mg/L	10	2.70	Nil
Phenolic Compounds	mg/L	1.0	0.10	Nil
Ammonical Nitrogen	mg/L	50	22.20	Nil
Cyanide	mg/L	0.2	0.10	Nil

*shall not exceed 5°C above the receiving water temperature.

(PART-C continued)

(b) Air Emissions:

A. Particulate Matter

Shops	Stack		Norm mg/Nm ³	Concentration (Annual Avg) mg/Nm ³	%Deviation From Norm
	Total	Working			
COB	11	7	50	43.85	Nil
SP-II	2	2	50	44.48	Nil
SP-III	2	2	50	47.05	Nil
BF _s	5	4	50	19.00	Nil
SMS-II-LF	2	2	50	41.46	Nil
SMS-III	1	1	50	38.60	Nil
PBS	4	4	50	30.60	Nil
BRM	1	1	50	18.52	Nil
WRM	1	1	50	18.75	Nil
MM	1	1	50	17.87	Nil
RSM(with URM)	2	2	50	19.05	Nil
RMP-II	2	2	50	40.20	Nil
RMP-III	5	5	50	34.93	Nil
PM(RHF)	2	2	50	17.36	Nil
Total	41	36			

PART-D
Hazardous Wastes

(As specified Hazardous Waste (Management, Handling and Transboundary Movement) Rules,2008)

Hazardous Wastes		Total Quantity (in Tonnes/KL)	
		During the year (2023-24)	During the year (2024-25)
(a)	From Process		
1.	Used/ Spent Oil	196.98 KL	185.85 KL
2.	Acid Tar Sludge	Nil	Nil
3.	Tarry Waste	276.314 T	407.79 T
4.	Tar Storage Tank Residue	733.215T	767.504 T
5.	i)ETP Sludge from DAF	1009.553 T	1017.48 T
	ii)ETP Sludge from Bio reactors	-	
	iii) Skimmed Oil	200 T	189.64
6.	Spent solvent	-	-
7.	Filter cake	37.00 T	0
8.	Discarded containers of Hazardous chemicals	300.90 T	412.205 T
9.	i) Non Ferrous (copper compounds & Cables, Brass dross)	67.99 T	152.06 T
	ii)Lead & Lead compounds	-	
10.	Discarded Asbestos	0.05 T**	0.05 T**
11.	Mercury arc rectifiers tanks	NIL	NIL
(b)	From Pollution control facilities	NIL	NIL

**Asbestos waste (B-1) : Stored in drums at kept inside rooms under lock & key.

PART-E
Solid Wastes

Description	Total Quantity (Unit'000T)	
	During the financial year 2023-24	During the financial year 2024-25
(a) From Process	4969.73	4309.643
(b) From pollution control facilities	512.14	615.189
(c) Quantity recycled or re-utilized	2796.58	990.20

PART-F

Please specify the characteristics(in terms of concentration and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Description of Wastes	Quantity	Mode of Disposal		Remarks
		Recycled/Sold	Dumped/Stock	
	Tonnes	Tonnes	Tonnes	
(a) Hazardous Wastes	2946.729(T) + 185.85 KL	2953.429(T) + 211.00 KL	38.302(T) +117.92 (KL)	Previous Stock sold along with current quantity.
(b) Solid Wastes				
BF Slag	3304447	3121329.25	183117	
LD Slag	786895	378388	408507	
THF Slag	0	26708	-	Previous Stock sold
Mill Scale	150495	150495	-	
Lime & Dolo fines	425482	425482	-	
Refractory Wastes	11883	8413	3470	
Sinter Dust	85380	85380	-	
BF Flue dust	104327	47850	-	Previous Stock sold along with current quantity
Fly ash	771	771	-	
Sludge(BF+SP+THF)	27632	0	27632	
LD Sludge	28373	76221	-	Previous Stock sold along with current quantity

PART-G

Cost of Production during 2024-25

	2023-24	2024-25
1.BF Coke - Dry	39582	32573
2. Hot Metal	35596	31816
3. Crude Steel		
a. Steel Melting Shop-II	50131	45094
b. Steel Melting Shop-III	47231	42953

PART-H

Additional investment proposal for environmental protection including abatement of pollution

Description	Cost in Rs. Lakh (during 2024-25)
Installation of secondary emission control system (DOG House) for converters at Steel Melting Shop-II	41189.00 (411.89 Crs) (Contract signed on 15/12/2023 with MECON. Project is in Progress)
Installation of Bag filters to replace wet scrubbers for waste gas cleaning at Line Kilns of RMP-2	395.00 (Project Completed on 12/08/2024.)
Cast house de-fuming system of BF-7	2167.00 (Project Completed)
Installation of ESP at Sinter Dispatch Route (Jn. House #17, 20, 27) of SP-II	1345.00 (Commissioning test completed. (from 14/05/2024 to 17/05/2024) (Project Completed)
ESP based de-dusting system at SP-II for work-zone/fugitive emission control	298.70 (Project Completed)

PART-I

Miscellaneous

Any other particulars in respect of environment protection and abatement of pollution

- Bhilai Steel Plant has won, Greentech Sustainability award 2025 in the category of “ Environment Protection” Management and Recycling for the year 2023-24 received in June’25.
- Bhilai Steel Plant has won, The Green Enviro Environment Excellence Award 2025, instituted by the GreenEnviro Foundation, in the category of “ Environment Environmental Excellence” 24 received in June’25.
- Bhilai Steel Plant has won, Golden Peacock Award-2025 in the category of “ Eco Innovation” for SAL Green Tiles and Paver blocks using LD slag received in July’25.
- At Bhilai Steel Plant, the ESP Contract for centralized O&M of 22 ESPs commenced on April 2, 2024, to enhance operational efficiency.
- BSP signed a Power Purchase Agreement (PPA) with NTPC-SAIL Power Supply Company Limited (NSPCL) for a 15MW floating solar plant in the Maroda-1 reservoir—a first-of-its-kind project in Chhattisgarh—set for completion by June 2025.
- A 200 KWp grid-connected solar power plant project has started at Maitri Bagh in collaboration with CREDA, with a budget of ₹195 lakh. Installation completed.
- On April 5, 2024, BSP issued a sale order for 10 lakh T of unprocessed BOF slag to M/s Mangalam Enterprises, Raipur and M/s Ram Raheem Enterprises, Asansol, with each party set to lift 5 lakh T over 24 months. About 2.5 Lakh tonnes despatched in 2024-25
- BSP has developed a decarburization roadmap to reduce CO2 emissions from 2.636 T/TCS to 2.19 T/TCS by 2030, with targeted improvements starting from FY 2024-25.
- Lowest ever monthly CO2 emission of 2.491 TCO2/TCS recorded in the month of March’25.
- BSP achieved a significant environmental milestone by successfully destroying 100 T of PCB Oil during the year.