

स्टील अथॉरिटी ऑफ इण्डिया लि०

बोकारो स्टील प्लान्ट

इस्पात भवन

बोकारो स्टील सिटी - 827 001

जिला : बोकारो (झारखण्ड)

फैक्स संख्या : 06542 242099

दूरभाष संख्या 06542 246605



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

SPEED POST

REF NO. इसीएस/इएमएस/85/2023- 387 A

DATE 27/09/2023

सेवा में,

सदस्य सचिव

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद

टी ए डिविजन बिल्डिंग

एच० ई० सी० कम्पलेक्स

धुर्वा

राँची - 834 004

विषय : वर्ष 2022-23 का इन्वारमेंट स्टेटमेंट ।

महाशय,

वर्ष 2022-23 का इन्वारमेंट स्टेटमेंट आपके अवलोकनार्थ संलग्न है।

सधन्यवाद ।

संलग्न यथोपरि ।

आपका विश्वासी
वास्ते सेल/बोकारो स्टील प्लान्ट

नवीन 27.9.23.

एन पी श्रीबास्तव

महाप्रबंधक/पर्यावरण संरक्षण एवं सस्टेनबिलिटी

प्रतिलिपि

क्षेत्रीय पदाधिकारी

झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद

हाउसिंग कोलोनी

एच० आई० जी-1

बरटांड

धनबाद - 826001

ENVIRONMENT STATEMENT FOR THE FINANCIAL
YEAR ENDING 31ST MARCH'2023

PART – A

1.	Name and address of the owner of the industry operation or process	SHRI ATANU BHOWMICK DIRECTOR INCHARGE SAIL / Bokaro Steel Plant, Bokaro Steel City, Jharkhand
2.	Industry Category	Primary
3.	Production capacity	5.006 Million Tonne Crude Steel per annum
4.	Year of establishment	1972
5.	Date of last environment statement submitted	26.09.2022

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(i). WATER CONSUMPTION (Basic data)

Sl. No.	Purpose	2021-22	2022-23
1	Process/ cooling	35692m ³ /day	38098m ³ /day
2	Domestic	154370 m ³ /day	162312 m ³ /day

Sl. No.	Name of products	Process water consumption per unit of product output	
		<i>During the current financial year 2021-22</i>	<i>During the current financial year 2022-23</i>
1	Crude Steel	3.40 m ³ /Tonne crude steel	3.38 m ³ /Tonne crude steel

(ii). RAW MATERIAL CONSUMPTION

Sl. No.	Name of Raw Material	Name of products	CONSUMPTION OF RAW MATERIAL PER UNIT OUTPUT	
			<i>During the current financial year</i>	<i>During the current financial year</i>
		Crude Steel	2021-22	2022-23
1	Coal		0.85870	0.85372
2	Ore fines		0.95812	0.91052
3	Ore lump		0.65897	0.62564
4	Lime Stone		0.33170	0.33258
5	Dolomite		0.23698	0.19444
6	Mn-ore		0.00000	0.01106
7	Other alloying element		0.01310	0.00052
	Total		3.05757	2.92848

PART – C

POLLUTION DISCHARGE TO ENVIRONMENT/UNIT OF OUTPUT

(Parameters as specified in the consent order)

S. N.	PARTICULARS	QUANTITY POLLUTANTS DISCHARGED PER UNIT OF OUT PUT(KG/T OF CRUDE STEEL	QTY. OF POLLUTAN -TS DISCHAR- GED (kg/Day)	CONC. OF POLLUTAN- TS DISCHAR- GED MASS/ VOL. (Unit: mg/Lit.)	% FROM PRESCRIBED STANDARDS REASON
1.	WATER	<i>TOTAL POLLUTANT LOAD FROM PLANT FROM ALL OUTFALLS</i>			
	Suspended Solids	0.007114	80.23	29.28	All below norm
	Oil & Grease	0.000251	2.83	1.033	-do-
	Phenolic Comp.	0.0000135	0.151	0.0552	-do-
	Cyanide	0.0000049	0.0558	0.0204	-do-
	BOD	0.00219	24.74	9.03	-do-
2.	AIR				
	Particulate Matter	0.53	-	-	-do-

**PART – D****DETAILS OF HAZARDOUS WASTE GENERATION & DISPOSAL DURING 2022-23**

SN	HAZARDOUS WASTE	ANNUAL QTY (T)	SOURCE OF GENERATION	TYPE OF DISPOSAL	CATEGORY OF WASTE
1.	Acidic Tar Sludge	980	By product plant of coke oven	* 967.32T Disposed in captive secured land fill on regular basis * 12.680 T sold to Authorised recycler	13.4 of Schedule – I
2.	Spent Vanadium Pentoxide	0.700	do	Disposed in captive secured land fill as & when generated	17.2 of Schedule – I
3.	Sulphur Sludge	280	do	do	17.1 of Schedule – I
4.	Decanter Tar Sludge	1290	do	410 T Charged with coal blend in Coke oven batteries	13.3 of Schedule – I
				19.685 T Disposed in captive secured land fill on regular basis 860.315 T sold to Authorised recycler	13.3 of Schedule – I
5.	Tar Muck with Sand etc.	210	do	Disposed in captive secured land fill on regular basis	13.4 of Schedule – I
6.	Oil & Grease Muck	165.40	Mills area	Disposed in captive secured land fill on regular basis	4.1 of Schedule – I 4.4 of Schedule – I
7.	Asbestos Rope	0.1	Coke oven area	Disposed in captive secured land fill as & when generated	15.2 of Schedule – I
8.	Transformer oil	36 KL	DNW	Sold to authorized buyer within one month of its generation	5.1 of Schedule – I
9.	Oil sludge from oil regeneration unit	1.24	Oil regeneration unit	Disposed in captive secured landfill on monthly basis	4.1 of Schedule – I
10.	Zinc dross	377.03	HDGC/CRM	Sold to authorized buyer within one month of its generation	6.3 of Schedule – I
11.	Zinc ash	0	do	do	6.2 of Schedule – I, C-14 of Schedule – II
12.	Used batteries	2285	Mills/Iron zone/OG/Traffic	do	C-12.3 of Schedule – I C-14 of Schedule – II
13.	ETP sludge	825	BOD plant of COBPP	Charged in Coke Oven batteries by mixing in coal	35.3 of Schedule – I
14.	Flue Dust	59680	Blast Furnaces	Reuse in internal process	35.1 of Schedule – I

HAZARDOUS WASTE AUTHORIZATION REF. No.: JSPCB/HO/RNC/HWM-9174576/2021/5 dated: 09.02.2021, valid up to 31.12.2025

PART – E

SOLID WASTE

S. N.		DURING PREVIOUS FINANCIAL YEAR (2021-22) (TONNE/Yr.)	DURING CURRANT FINANCIAL YEAR (2022-23) (TONNE/Yr.)	
1	FROM PROCESS			
	a	Blast Furnace slag	1877415	1783926
	b	SMS Slag	421701	452844
	c	Lime Dust	18276.26	7076.27
	d	Mill Scale	70949	74930
	e	Coke Breeze	431275	448999.79
2	FROM POLLUTION CONTROL FACILITY			
	a	Flue dust	51810	59680
	b	ESP dust	30540	28734.48

1. RECYCLED/REUTILISED WITHIN THE UNIT

	SOLID WASTE	QTY. (Tonne)	
		2021-22	2022-23
a	Blast furnace slag	143260	0.00
b	SMS slag	404709	450625
c	Lime dust	0.00	0.00
d	Mill Scale	70949	74930
e	Coke breeze	430335	447861
f	Flue dust	51810	59680
g	ESP Dust	30540	28734.48

2. SOLD

	SOLID WASTE	QTY. (Tonne)	
		2021-22	2022-23
a	Blast furnace slag	1734255	1885462
b	SMS slag	36076	9882
c	Lime dust	18276.26	7076.27
d	Mill Scale	0.00	0.00
e	Ferric Oxide	5957.06	5042.74

3. DISPOSAL

a	Blast furnace slag	NIL	NIL
b	SMS slag	NIL	NIL
c	Flue dust	NIL	NIL

PART – F

S. N.	SOLID WASTE	PERCENTAGE COMPOSITION		QTY.(YEAR)
1	BF SLAG	SiO₂	34.49-37.66	PLEASE REFER PART-E
		Al₂O₃	16.42-16.88	-do-
		CaO	37.17-37.90	-do-
		MgO	8.34-8.48	-do-
		FeO	0.39-0.54	-do-
		K₂O	0.35-0.49	-do-
		TiO₂	0.75-0.90	-do-
		MnO	0.10-0.18	-do-
		S	0.54-0.68	-do-
		Basicity	1.07-1.10	-do-
2	SMS SLAG	CaO	45.36-55.06	-do-
		FeO	16.61-24.81	-do-
		SiO₂	13.51-16.65	-do-
		MgO	5.31-11.49	-do-
		MnO	1.31-1.43	-do-
		P₂O₅	1.45-1.92	-do-
		Al₂O₃	0.57-1.67	-do-
		Basicity	3.04-3.60	-do-
3	LIME DUST	CaO	61.85-88.01	-do-
		SiO₂	2.13-6.48	-do-
		Al₂O₃	1.06-1.28	-do-
		Fe₂O₃	0.29-1.56	-do-
		FeO	0.50-1.75	-do-
		MgO	4.35-25.07	-do-
4	FLUE DUST	FeO	41.75-52.24	-do-
		SiO₂	8.80-10.59	-do-
		CaO	5.40-8.30	-do-
		MgO	0.97-1.24	-do-
		Al₂O₃	2.76-6.22	-do-
		K₂O	0.57-0.97	-do-
		C	18.5-23.6	-do-

PART – G
WASTE MATERIAL RECYCLED IN SINTER PLANT DURING 2022-23

S. N.	WASTE MATERIAL	QTY (In Tonne)
1	LIME DUST/ ESP DUST	28734.48
2	MILL SCALE	74930
3	FLUE DUST	59680
4	L.D.SLAG DUST	174339
5	Coke Breeze	447861

PART - H
SECONDARY SCHEMES FOR AIR

S. N.	AREA	SCHEMES
1	COKE OVEN	Energy Efficient, Environment friendly Battery # 8 rebuilt & inaugurated on 08/12/2022.
2	SINTER PLANT	Installation of ESP-2 in half band of M/C-1 by replacing Battery Cyclone#2 has been completed. ESP#6 has already in operation. These ESPs have been refurbished to meet the futuristic norm of 50mg/Nm ³ . NIT has been issued for installation of rest ESPs by replacing remaining four Battery cyclones.
3	BLAST FURNACE	ESP based de-dusting system has been installed in BF #2.
4	SMS	Secondary emission control system has been installed in SMS-I. NIT issued for installation of Secondary Emission Control system in SMS-II.
5.	RMP	All the Six nos. of ESPs have been refurbished in RMP. These ESPs have been refurbished to meet the futuristic norm of 50mg/Nm ³ .

SCIENTIFIC GREEN BELT DEVELOPMENT INSIDE AND OUTSIDE THE PLANT

TOTAL NO. OF TREES PLANTED IN WORKSTILL DATE	-	3919352
TOTAL NO. OF TREES PLANTED IN TOWNSHIP TILL DATE	-	790200
TOTAL NO. OF TREES PLANTED INSIDE BSL QUARTERS IN VARIOUS SECTORS TILL DATE	-	47700

TOTAL - 4757252

(New replacement plantation is also going on)