

**ENVIRONMENT STATEMENT FOR THE FINANCIAL
YEAR ENDING 31ST MARCH'2014.**

PART – A

1.	Name and address of the owner of the industry operation or process	SRI ANUTOSH MAITRA Chief Executive Officer SAIL / Bokaro Steel Plant, Bokaro Steel City, Jharkhand
2.	Industry Category	Primary
3.	Production capacity	4.0 Million Tonne crude steel per annum
4.	Year of establishment	1972
5.	Date of last environment statement submitted	22.06.2013

PART – B

WATER AND RAW MATERIAL CONSUMPTION

(i). WATER CONSUMPTION (Basic data)

Sl. No.	Purpose	2012-13	2013-14
1	Process/ cooling	46400 m ³ /day	46296 m ³ /day
2	Domestic	197389 m ³ /day	195504 m ³ /day

Sl. No.	Name of products	Process water consumption per unit of product output	
		<i>During the current financial year 2012-13</i>	<i>During the current financial year 2013-14</i>
1	Crude Steel	4.51m ³ /tonne crude steel	4.48 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 previous financial year</i>	<i>During the current financial year</i>
		Crude Steel	2012-13	2013-14
1	Coal		0.91720	0.91645
2	Ore fines		1.01434	0.78798
3	Ore lump		0.68361	0.72563
4	Lime Stone		0.27893	0.25308
5	Dolomite		0.21254	0.19991
6	Mn-ore		0.00069	0.00000
7	Other alloying element		0.01038	0.00818
	Total		3.11769	2.89123

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	0.06487698	685.26	38.07	All below norm
	Oil & Grease	0.0006135	6.84	0.36	-do-
	Phenolic Comp.	0.00004584	0.4842	0.0269	-do-
	Cyanide	0.00002744	0.2898	0.0161	-do-
	BOD	0.01256469	132.714	7.373	-do-
2.	AIR				
	Particulate Matter	1.07525	-	-	-do-



PART – D

DETAILS OF HAZARDOUS WASTE GENERATION & DISPOSAL FOR 2013-14

S.N.	HAZARDOUS WASTE	ANNUAL QTY (T)	SOURCE OF GENERATION	TYPE OF DISPOSAL	CATEGORY OF WASTE
1	Acid Sludge	Nil	By Product plant of Coke Ovens	Neutralised with lime and disposed in hazardous waste pit	13.1 of schedule – 1
2	Spent Alkaline	Nil	do	Disposed in hazardous waste pit	12.6 of Schedule -2
3	Acidic Tar Sludge	820	do	Disposed in hazardous waste pit	13.4 of Schedule – I
4	Spent Vanadium Pent oxide	0.800	do	do	17.2 of Schedule - I
5	Sulphur Sludge	390	do	do	17.1 of Schedule – I
6	Decanter Tar Sludge	75	do	Charged with coal blend in Coke oven batteries	13.3 of Schedule – I
7	Decanter Tar Sludge	350	do	Disposed in hazardous waste pit	13.3 of Schedule – I
8	Tar Muck with Sand etc.	180	do	Disposed in hazardous waste pit	13.4 of Schedule – I
9	Oil & Grease Muck	117	Mills area	do	4.1 of Schedule – I 4.4 of Schedule – I
10	Asbestos Rope	10.52	Coke oven area	do	15.2 of Schedule – I
11	Transformer oil	95 KL	DNW	Sold to authorised buyer	5.1 of Schedule – I
12	Oil sludge from oil regeneration unit	0.642	Oil regeneration unit	Handed over to I.O.C. For regeneration/disposal	4.1 of Schedule – I
13	Zinc dross	281.33	HDGC/CRM	Sold to authorised parties	6.3 of Schedule – I
14	Zinc ash	59.57	do	do	6.2 of Schedule – I, C-14 of Schedule – II
15	Used batteries	921	Mills/Iron zone/OG/Traffic	do	C-12.3 of Schedule – I C-14 of Schedule – II
16	ETP sludge	1100	BOD plant of COBPP	Charged in Coke Oven batteries by mixing in coal	34.3 of Schedule – I
17	Flue Dust	53002	Blast furnace	Internal Recycling	34.1 of Schedule – I

HAZARDOUS WASTE AUTHORIZATION REF. No.: PC/HW/DHN/66/06/D-3021(A) dtd. 24.10.11
valid upto 31.3.2015

PART – E
SOLID WASTE

S. N.		DURING PREVIOUS FINANCIAL YEAR (2012-13) (TONNE/Yr.)	DURING CURRANT FINANCIAL YEAR (2013-14) (TONNE/Yr.)
1	FROM PROCESS		
	a	Blast Furnace slag	1583940
	b	SMS Slag	411436
	c	Lime Dust	5589
	d	Mill Scale	50190
	e	Coke Breeze	166979
2	FROM POLLUTION CONTROL FACILITY		
	a	Flue dust	71930
	b	ESP dust	10503

1. RECYCLED/REUTILISED WITHIN THE UNIT			
	SOLID WASTE	QTY. (Tonne)	
		<i>2012-13</i>	<i>2013-14</i>
a	Blast furnace slag	839230	703490
b	SMS slag	228426	267993
c	Lime dust	0.00	0.00
d	Mill Scale	50190	49453
e	Coke breeze	328399	314465
f	Flue dust	71930	53002
g	ESP Dust	10503	10060

2. SOLD			
	SOLID WASTE	QTY. (Tonne)	
		<i>2012-13</i>	<i>2013-14</i>
a	Blast furnace slag	660400	914829
b	SMS slag	49553	52744
c	Lime dust	5589	4252.81
d	Mill Scale	0.00	0.00
e	Ferric Oxide	2597.29	2132.45

3. DISPOSAL			
a	Blast furnace slag	84310	3480
b	SMS slag	133557	94591
c	Flue dust	NIL	NIL

PART – F

S. N.	SOLID WASTE	COMPOSITION		QTY.(YEAR)
1	BF SLAG	SiO₂	29.25-30.05	PLEASE REFER PART-E
		Al₂O₃	20.51-22.23	-do-
		CaO	33.20-34.35	-do-
		MgO	10.99-11.71	-do-
		FeO	0.47-0.60	-do-
		K₂O	0.46-0.52	-do-
		T₁O₂	1.06-1.11	-do-
		Basicity	1.14-1.17	-do-
2	SMS SLAG	CaO	44.23-55.48	-do-
		FeO	18.95-22.19	-do-
		SiO₂	11.42-13.63	-do-
		MgO	7.03-13.69	-do-
		MnO	0.83-0.91	-do-
		P₂O₅	1.80-1.96	-do-
		AL₂O₃	1.10-1.81	-do-
		Basicity	3.25-4.78	-do-
3	LIME DUST	CaO	79.06%	-do-
		SiO₂	3.61%	-do-
		Al₂O₃	2.48%	-do-
		Fe₂O₃	0.75%	-do-
		FeO	Nil	--
		MgO	8.76%	-do-
		Alkalines		--
4	FLUE DUST	Total Fe	29.02%	-do-
		SiO₂	10.57%	-do-
		CaO	8.26%	-do-
		MgO	0.15%	-do-
		P₂O₅	0.08%	-do-
		S	0.08%	-do-

PART – G

WASTE MATERIAL RECYCLED IN SINTER PLANT DURING 2013-14

S. N.	WASTE MATERIAL	QTY (In Tonne)
1	LIME DUST/ ESP DUST	10060
2	MILL SCALE	49453
3	FLUE DUST	53002
4	L.D.SLAG DUST	93606

PART - H

SECONDARY SCHEMES FOR AIR

S. N.	AREA	SCHEMES
1	COKE OVEN	Rebuilding of coke oven Battery# 1 & Battery #2 completed in June'2011 and February'2012 respectively. Battery #7 is under rebuilding. Cold Repair of Battery #4 & Hot Repair of Battery#5 completed. Dry Fog Dust Suppression System has been installed in Coke Sorting & Coal Handling plant of Coke oven.
2	SINTER PLANT	Installation of ESP in half band of M/C-3 completed .
3	BLAST FURNACE	ESP based de-dusting system has been installed in BF #2
4	SMS	Secondary emission control system is to be installed in SMS#2 .Price bid is to be opened shortly.

SCIENTIFIC GREEN BELT DEVELOPMENT INSIDE AND OUTSIDE THE PLANT

TOTAL NO. OF TREES PLANTED IN TOWNSHIP TILL DATE - 3401402
TOTAL NO. OF TREES PLANTED IN WORKS TILL DATE - 704350

TOTAL NO. OF TREES PLANTED INSIDE BSL QUARTERS
IN VARIOUS SECTORS TILL DATE - 43200

TOTAL - 4148952

(New replacement plantation is also going on)