(A JSW Group Company)
Village : Thelkoloi, Post : Lapanga, Teh. : Rengali
Dist. : Sambalpur - 768 212, Odisha, INDIA
T +91(0)663 6636000
Website : www.jsw.in, CIN : U27100DL1999PLC098350

Ref: JSWBPSL/ENV/25-26/058 **Date:22.09.2025**

To
The Member Secretary
Odisha State Pollution Control Board
A/118, Nilakantha Nagar, Unit –VIII
Bhubaneswar – 751012
Odisha

Subject-Submission of Annual Environmental Statement for the financial year ending

31st March2025 for M/s Bhushan Power & Steel Limited ,vill-Thelkoloi, Po-Lapanga,Tehsil-Rengali,District-Sambalpur.Pin-768212

Reference-Rule -14 of Environment (Protection) Rule 1986.

Respected Madam,

Inviting your kind reference on the on the above mentioned subject please find enclosed herewith Environmental Statement in Form-V dully filled under Rule -14 of the Environment (Protection)Rule 1986 for M/s Bhushan Power & Steel limited for the year 2024-25

If you require any further information /clarification we shall oblige to submit the same.

Thanking You,

Yours Sincerely,

For Bhushan Power & Steel Limited

Saurabh Singh
HOD–Environment

Encl-As stated above

Cc to-

1.The Additional Director General of Forest(C) Ministry of Environment, Forest &
Climate change,Estern Regional office(EZ) A/3,Chandrasekharpur& Climate Change, Eastern Regional Office, (EZ) A/3,Bhubaneswar,Pin-751023

2.Regional Officer, Odisha State Pollution Control Board, Sambalpur.

GOVT. OF INDIA
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...eswar-751023
25-09-2025
RECEIVED

No.....Dt.....
RECEIVED
25 SEP 2025
S.P.C. BOARD

o/c

Bhushan Power & Steel Limited
(A JSW Group Company)
Village : Thelkoloi, Post : Lapanga, Teh. : Rengali
Dist. : Sambalpur - 768 212, Odisha, INDIA
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Website : www.jsw.in, CIN : U27100DL1999PLC108350

Ref: JSWBPSL/ENV/25-26/058 **Date:22.09.2025.**

To
The Member Secretary
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Bhubaneswar – 751012
Odisha

Subject-Submission of Annual Environmental Statement for the financial year ending
31st March2025 for M/s Bhushan Power & Steel Limited ,vill-Thelkoloi, Po-Lapanga,Tehsil-Rengali,District-Sambalpur.Pin-768212

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2.Regional Officer, Odisha State Pollution Control Board, Sambalpur.

SPC BOARD
No..
Date.22/9/25
SAMBALPUR

[FORM-V]
(See rule 14 of The Environment Protection Act,1986)
Environment Statement for the financial year ending 31st March2025.

PART-A

GENERAL INFORMATION

	Name of the Company	**M/s Bhushan Power & Steel Limited**
1	Name and address of the owner/occupier of the industry operation or process.	**Shri Anil Kumar Singh** President & WTD cum Occupier M/s. Bhushan Power & Steel Limited Village-Thelkoloi, Po-Lapanga, Tehsil-Rengali District- Sambalpur, Odisha, Pin-768212
1.a	Authorized person for the occupier	**Shri Saurabh Singh** GM-Environment M/s. Bhushan Power & Steel Limited Village-Thelkoloi, Po-Lapanga, Tehsil-Rengali District- Sambalpur, Odisha, Pin-768212
2	Industry category	Red Category
3.a	Production capacity	4.5 MTPA
3.b	Units	

S.N	Plant Units	Installed Capacity
01	Sponge Iron (DRI Kiln)	2MTPA
02	Coal Washery (2 nos.)	4.5MTPA
03	Steel Melting Shop-I	
	Electric Arc Furnace (EAF)	4 x 105
	Ladle Furnace	4 x 105
	Billet Caster	1×4 Strand
	Single continuous thin slab caster	(2×1) Strand
	VD/AOD	2x 100 T
04	Steel Melting Shop-II	
	Electric Arc Furnace (EAF)	(1×75T)
	Ladle Furnace	(1×75 T)
	Billet Caster	1×3 Strand+1x4 Strand
	VD/AOD	2x75 T
05	Captive Power Plants (CPP) (a)3x130MW (4x210TPH Boiler +1x390TPH boiler+1x340TPH boiler) (b)2x8MW WHRB of Coke Oven1x75AFBC boiler +150TPH AFBC Boiler	506 MW

			(c)250TPH CFBC Boiler (Using coal & MBF Gas)	
		06	Blast Furnace-I	0.80MTPA
		07	Blast Furnace-II	1.55MTPA
		08	Sinter Plant - 1	1×105 m^2
		09	Sinter Plant-2	1×450 m^2
		10	Coke Oven – 1 (Non recovery Type)	0.45 MTPA
		11	Coke Oven –2 (Recovery Type)	1.2 MTPA
		12	Oxygen Plant	(1×400TPD) +1x660 TPD+3x200 TPD (VPSA)+1000TPD
		13	CSP (Hot Rolling Mill)	4 MTPA
		14	Lime and Dolo Plant	3×300 TPD+3x600 TPD
		15	Wire & Rod Mill Complex (WRM)	2x0.6 MTPA
		16	Pipe & Tube Mill	0.80 MTPA
		17	Iron Ore Beneficiation Plant	1200 TPH
		18	Deep Bed Pest Thickener	200 TPH
		19	Pellet Plant	4 MTPA
		20	Cold Rolling Mill	2.5 MTPA
			Galvanizing /	0.70 MTPA
			Galvalume Unit	0.60 MTPA
			Color Coating Unit	0.70 MTPA
4	Year of Establishment (Commercial Production Declared)	March-2005		
5	Date of the Last Environmental Statement Submitted	19th September 2023.		

PART-B
WATER AND RAWMATERIAL CONSUMPTION

I-Water consumption M3/Year:

Type of water	**Water Consumption in m3**	
	During the previous financial year (23-24)	During the current financial year (24-25)
Industrial	22077526	25928707
Domestic	1466287	1284505

II. Process water consumption per unit of product

Name of Product	**Process Water Consumption per unit of product out put**	**Process Water Consumption per unit of product out put**

	During the current Financial Year 23-24	During the current Financial Year 24-25
Crude Steel	2.75 m3/TCS	2.56 m3/TCS

ii) Raw Material Consumption -2024-25

Sl. No	Raw Material	Quantity FY-24-25 (MT)	Consumption of raw material per unit of product (MT/TCS)
1	PCI Coal	5,99,168	0.17
2	Thermal Coal	21,47,125	0.61
3	DRI Coal	14,29,999	0.40
4	Anthracite Coal	1,57,093	0.04
5	Coking Coal	14,98,007	0.42
6	Iron ore fines	61,56,771	1.74
7	Pellet	38,40,280	1.09
8	Limestone	10,54,526	0.30
9	Dolomite	6,28,144	0.18

PART-C

POLLUTION DISCHARGED TO ENVIRONMENT/UNIT OFOUTPUT

Water-

The characteristics of water quality parameters are monitored at the individual out let of treatment plant is given below

A. Out-let water quality from Wastewater Treatment Plants

Location	pH	TSS mg/l	TDS mg/l	COD mg/l	O& G mg/l
WWTP-1	7.02	11.2	1523.0	28.1	<5.0
WWTP-2	7.01	8.3	1204.0	24.4	<5.0
WWTP-3	7.06	9.3	1084.0	29.3	<5.0

B. Out-let water quality from Effluent Treatment Plants

Location	pH	TSS mg/l	Phenol mg/l	Cyanide mg/l	BOD mg/l	COD mg/l	Total Ammoniacal Nitrogen mg/l	O&G mg/l	TDS mg/l	Fe mg/l	Total Chromium mg/l
BETP	7.04	22.2	<0.1	<0.01	19.9	91.5	9.1	4.35	1448	1.78	<0.1
ETP	7.16	9.9	<0.1	<0.01	6.5	22.5	2.6	<5.0	1736	0.36	0.35

C. Out-let water quality from Sewage Treatment Plants

Location	pH	TSS mg/l	BOD mg/l	Fecal Coliform MPN/100 ml

STP-1	6.98	8.2	5.5	161
STP-2	7.04	9.4	6.6	133
STP-3	7.07	9.5	3.9	141

Air:

Quantity of pollutants measured around the plant is given below

Ambient Air Quality Monitoring: National Ambient Air Quality Monitoring Program (NAAQM)Guidelines for sampling and Measurement of notified Ambient Air Quality Parameters (NAAQMS2009) Under the provisions of the Air (Prevention & Control of Pollution) Act 1981, the CPCB has notified fourth version of national Ambient Air quality Standards (NAAQMS)2009.Ambient Air is being monitored at 4 stations- FY 2024-25

Ambient Air Result-Near Town Ship

Month	Pollutant	PM_{10}	$PM_{2.5}$	SO_2	NO_X	O_3	CO
	Standard	100 (µg/m³)	60 (µg/m³)	80 (µg/m³)	80 (µg/m³)	100(µg/m³)	2000 (µg/m³)
Apr-24		94.3	46.4	32.6	48.4	7.2	0.58
May-24		96	49.3	29.4	45.4	6.7	0.55
Jun-24		95.2	44.5	30.4	45.7	6.9	0.51
Jul-24		91.8	42.2	29.4	43.1	6.3	0.58
Aug-24		61	45	5	22	4.5	0.85
Sep-24		88	44	12.4	21.6	21.1	0.43
Oct-24		84	43.6	17.5	26.9	14.8	0.42
Nov-24		88.4	38.7	21.4	32.6	21.4	0.43
Dec-24		86.6	39.2	22.5	34.2	22.5	0.46
Jan-25		89.4	40.2	24.3	34.1	22.7	0.49
Feb-25		81.8	38.9	22.3	35.4	23.1	0.44
Mar-25		78.6	38.6	33.2	38.6	5	0.85

Ambient Air Result-Near Railway Gate

Month	Pollutant	PM_{10}	$PM_{2.5}$	SO_2	NO_X	O_3	CO
	Standard	100 (µg/m³)	60 (µg/m³	80 (µg/m³)	80 (µg/m³)	100 (µg/m³)	2000 (µg/m³)
Apr-24		86.99	42.6	28.4	31.4	6.2	0.45
May-24		88.5	47.1	27.6	33.4	7.1	0.53
Jun-24		88.6	40.5	27.6	29.4	6.5	0.48
Jul-24		82.7	38.2	22.4	25.8	5.1	0.42
Aug-24		86	43	5	31.1	6.9	0.67
Sep-24		91	41	9.9	24.3	17.7	0.38
Oct-24		63	40.6	18.7	21.4	12.4	0.32

Nov-24	89.9	43	25.6	36.8	28.9	0.39
Dec-24	91	27.8	26.5	35.4	27.8	0.63
Jan-25	92.2	45.7	28.7	37.4	27.2	0.72
Feb-25	88.6	41.5	29.7	38.7	28.6	0.74
Mar-25	89.4	42.6	28.6	43.4	5	0.71

Ambient Air Quality Result-Behind CRM

Month	Pollutant / Standard	PM_{10} 100 (µg/m³)	$PM_{2.5}$ 60 (µg/m³)	SO_2 80 (µg/m³)	NO_X 80 (µg/m³)	O_3 100 (µg/m³)	CO 2000 (µg/m³)
Apr-24		90.8	47.1	32.5	37.4	7.4	0.62
May-24		93.9	48.4	31.2	39.4	7.8	0.59
Jun-24		94.8	49.2	31.8	39.4	7.8	0.71
Jul-24		91.6	44.8	28.5	37.4	7.2	0.59
Aug-24		59	37	5	6.9	8.9	0.72
Sep-24		82	37	13.8	18.7	19.8	0.42
Oct-24		88	44.2	21.8	26.7	20.9	0.41
Nov-24		91.1	46.4	27.7	34.9	23.4	0.56
Dec-24		94.8	47.6	31.5	36.7	24.8	0.63
Jan-25		89.8	36.7	31.8	39.4	5	0.77
Feb-25		84.3	37.4	32.3	37.6	5	0.78
Mar-25		83.6	38.9	34.6	39.4	5	0.87

Ambient Air Quality Result-Near ETP

Month	Pollutant / Standard	PM_{10} 100 (µg/m³)	$PM_{2.5}$ 60 (µg/m³)	SO_2 80 (µg/m³)	NO_X 80 (µg/m³)	O_3 100 (µg/m³)	CO 2000 (µg/m³)
Apr-24		94.71	41.9	25.4	32.4	7.8	0.42
May-24		95.3	43.4	26.8	34.5	6.7	0.57
Jun-24		96.5	43.7	26.5	34.8	7.2	0.49
Jul-24		92.8	40.6	23.8	31.8	6.4	0.45
Aug-24		62	42	5	31	4.6	0.96
Sep-24		92	42	16.8	26.9	17.7	0.33
Oct-24		81.8	43.8	26.4	28.9	21.1	0.38
Nov-24		91.1	37.8	19.9	31.6	21.4	0.43
Dec-24		86.2	42.9	19.6	32.4	24.7	0.47
Jan-25		92.1	36.4	21.6	34.8	5	0.62
Feb-25		88.4	35.8	20.8	33.2	5	0.58
Mar-25		86.8	37.6	21.2	35.8	5	0.58

Stack Emission

Sl.No	Unit	Stack Name	Average in mg/Nm3	% of Variation from Prescribed Standard
1	DRI	DRI/WHRB-1	25.5	-48.9
2		DRI/WHRB-2	20.7	-58.5
3		DRI/WHRB-3	15.8	-68.3
4		DRI/WHRB-4	17.6	-64.6
5		DRI/WHRB-5	20.8	-58.3
6		DRI/WHRB-6	18.2	-63.6
7		DRI/WHRB-7	18.4	-63.1
8		DRI/WHRB-8	22.4	-55.2
9		DRI/WHRB-9	20.0	-60.0
10		DRI/WHRB-10	20.5	-59.1
11		DRI/WHRB-11&12	28.3	-43.4
12		DRI De-dusting 1&2	36.8	-26.4
13		DRI De-dusting 3&4	32.6	-34.9
14		DRI De-dusting 5& 6	33.1	-33.7
15		DRI De-dusting 7&8	25.5	-49.0
16		DRI De-dusting 9&10	35.3	-29.4
17		DRI De-Dusting 11&12	29.5	-41.0
18	CPP	CPP 3X130 MW Unit 1	29.0	-42.0
19		CPP 3X130 MW Unit 2	31.9	-36.1
20		CPP 3X130 MWUnit-3 CFBC 5	35.4	-29.2
21		CPP3X130 MW Unit-3 CFBC 6	32.7	-34.5
22		CPP 60 MW	26.0	-48.0
23		CPP40 MW	27.0	-10.2
24	SMS-1	Fumes Treatment Plant-1 Stack	23.5	-52.9
25		Fumes Treatment Plant-2 Stack	15.6	-68.9
26		Fumes Treatment Plant-3 Stack	17.0	-66.0
27		Fumes Treatment Plant-4 Stack	16.9	-66.2
28	SMS-2	Fumes Treatment Plant Stack	21.6	-56.7
29		SMS#2 (ZPF-FTP stack)	20.7	-31.0
30	Pellet Plant	Pellet Plant Process Stack	38.9	-22.3
31		Pellet plant dedusting stack	37.4	-25.3
32	Coke Oven-1	Coke Oven-1-WHRB-1&2	30.8	-38.3
33		Coke Oven-1 WHRB-3&4	31.7	-36.6
34	Coke Oven-2	Coke Oven-2 Process Stack	21.6	-56.7
35		Coke_Oven_2_Dedusting	22.1	-55.8
36	Blast Furnace -2	BF-2 Cast House	20.6	-58.9
37	Blast Furnace-1	BF-1-Cast_House	25.3	-49.3
38	Sinter Plant-1	Charging Stack	29.4	-41.1
39		Discharging Stack	29.0	-41.9
40	Sinter Plant-2	Charging stack	23.9	-52.1
41		Discharging Stack	21.2	-57.6
42	LCP	Lime Calcination Plant-1	39.9	-20.1

43		Lime Calcination Plant-2	41.2	-17.7
44		Lime Calcination Plant-3	35.8	-28.4
45		Lime Calcination Plant-4	32.9	-34.2

PART-D
HAZARDOUS WASTE

Hazardous Waste Generation

		During the Financial Year 2024-25
a) From Process	Used Oil	149 MT
	Waste /residue containing Oil	82 MT
	Oil & Grease Skimming Residue	163 MT
	Zinc Dross/Flux/Ash/Skimming	660 MT
	Discarded Containers/Barrels	3.4 MT
	Spent ion exchange resin	0 MT
	Tar Storage Tank Residue	0 MT
	Waste Pickled liquor	39065 MT
(b) Pollution Control facilities	ETP Sludge	143 MT

B. Method of Disposal of Hazardous Wastes:

Hazardous waste			Method of handling
From Process	**Waste category**	**Disposed Quantity**	
Used oil/ Spent Oil	5.1	152.56 MT	Stored in MS drum over concrete floor under shed and sale to authorized recycler /reprocesser having valid authorization from SPCB, Odisha.
Wastes/Residues Containing Oil	5.2	80.52 MT	Stored in the Hazardous waste container under shed and sale to authorized recycler, preprocessor or disposed through authorized Hazardous waste incinerator /CHWTSDF authorized by SPCB, Odisha.
Oil and Grease Skimming Residue from ETP	5.1	172.81 MT	Disposed through Authorized Hazardous waste incinerator/Common Hazardous Waste Treatment Storage Disposal facility (CHWTSDF) authorized by SPCB,Odisha.
Zinc Dross/Flux/Ash/Skimming	6.2	713.86 MT	Storage in impervious pit/containers under covered shed and sale to authorized recycler/reprocessor.

Empty barrel/Containers/Liners contaminated with hazardous chemicals/wastes	33.1	2.93 MT	Bye back through Supplier/Actual user or disposed through authorized recycler.
Spent Ion exchange resin	35.2	0 MT	Disposed through Authorized Hazardous waste incinerator/Common Hazardous Waste Treatment Storage Disposal facility (CHWTSDF) authorized by SPCB,Odisha.
Tar Storage Tank Residue	13.5	0 MT	In house recycling within plant
Waste Pickled liquor	13.1	39065	Inhouse recycling through ARP
Chemical Sludge from wastewater treatment plant-	35.3	170.92 MT	Disposed through Authorized Hazardous waste incinerator/Common Hazardous Waste Treatment Storage Disposal facility (CHWTSDF) authorized by SPCB,Odisha.

PART-E

Solid Waste

Generation and Utilization of Solid Waste

		During the Year 2023-24	During the Year 2024-25	Mode of Utilization
(a) From Process	Coal fines from crushing and screening plant area	1,894	2,107	Reused within plant
	Process dust from Dedusting ESP	1,47,335	1,38,319	Reused in CPP
	Kiln Accretion	17,785	7,029	Land filling
	Char	3,06,915	2,46,828	Used in CPP
	Dust from ESP hopper of WHRB	2,22,461	2,28,424	
	Fly Ash from CPP	10,12,693	10,66,794	Utilized in Bricks plant, Land filling and road making
	Bottom Ash from CPP	253173	2,66,699	
	SMS Slag	9,04,049	9,08,333	SMS slag metallic part reuse in sinter plant and SMS and residue used in land filling
	Sinter plant ESP dust	11456	4949	Recycled in Sinter / Pellet plant
	Granulated Slag BF	10,13,721	11,18,159	Sold to cement Plant
	Dust from GCP of Blast furnace	18426	18915	Reused
	Mill scale from CSP	28,435	28,246	Used in Sinter plant
(b)From Pollution Control Facilities	Sludge From STP	80	102	Mixed with soil & used as manure in Horticulture application inside plant premises.
	FES Dust from EAF/LF	39,609	35,412	Recycle through pellet/sinter plant
	Char	3,06,915	2,46,828	Used in CPP

(c) Quantity recycled or reutilized within the Unit	Bottom Ash	2,53,173	2,66,699	Utilized in Bricks plant, Quarry filling, Embankment raising, Land filling and road making
	Fly Ash	10,12,693	10,66,794	
	Sludge from STP	80	102	Mixed with soil & used as manure in Horticulture application inside plant premises.
	FES Dust from EAF/LRF	39,609	35,412	Recycled in Sinter / Pellet plant
	Sinter plant ESP Dust	11,456	4949	Recycled in Sinter / Pellet Plant
	Granulated Slag from Blast furnace	10,13,721	11,18,159	Sold to cement plant

PART-F

Characteristic of Solid waste

Type of waste	Char	Accretion	Wet scrapper	Dedusting dust	Slag		Mill scale		
Source	DRI	DRI	DRI	DRI	BF Granulated slag	SMS	CSP	WRM	Pipe & Tube Mill
Fe(T)							73.94	72.03	
SiO2	47.21	49.96	40.15	37.35	35.18	14.10	2.68	1.36	2.06
Al2O3	27.58	22.13	21.75	20.54	20.02	9.22	0.611	0.75	1.53
CaO	7.01	1.21	4.56	1.80	34.10	34.19	4.96	0.92	1.41
MgO	4.51	0.86	1.1	1.01	7.44	9.87		0.25	0.67
MnO	-	-	-	-	0.8	-	0.191	0.637	0.164
TiO2	1.25	-	-	1.47	0.51	0.87		-	-
S	-	-	0.5	-	-	-	-	-	-
P									
C			22.71						

Type of waste	Fly Ash	Bottom Ash	WHRB Ash	Lime dust	Sludge			Flue dust	
Source	CPP	CPP	DRI		ETP	BF	WRM	BF	Sinter plant
Fe(T)					43.64	39.12	63.35		
SiO2	55.30	49.67		4.72	5.01	6.09	3.44	11.3	6.33
Al2O3	32.10	24.83		0.86	1.04	3.93	1.28	7.22	4.85
CaO	2.14	1.76		62.45	13.83	3.35	2.10	6.68	9.99
MgO	1.21			1.92	1.25	0.58	0.39	2.23	2.10
MnO	0.052				0.054	0.48			0.264
TiO2	1.162	0.958		0.12		0.069			0.048
S			0.51				0.135	0.14	
P									
C			14.49				8.39		

PART– G
IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES

All the units are equipped with adequate pollution measure. Smooth operation of Pollution abatement measures has resulted in following impact in conservation of natural resources and the cost of production.

Water Environment:

- BPSL receives water from Back water of Hirakud reservoir and stored in two numbers of reservoir inside the plant.
- BPSL has installed 03 numbers of Wastewater treatment plant for complete recycling of entire wastewater generated from surface runoff and storm water, cooling tower blowdown water. After treatment in the wastewater treatment plants, the water is used for makeup water for DRI, Pellet plant, Captive power plant ash quenching, SMS slag quenching, firefighting, sprinkling on haul roads to control fugitive emissions and for horticulture application.
- BPSL has installed one ETP for CRM effluent ,BETP for Coke Oven -2 and 03nos. of STP for Sewage of township.
- Installation of RO system of Capacity 510 m3/hr. The permeate water generated of 350m3/hr is being utilized as DM water plant feed and cooling tower make up water.
- Following action taken for reduction in Raw water consumption and achieve zero liquid discharge
    a) Production of RO water as per design of the plant.
    b) Running of Cooling towers on High cycle of concentration (COC 5.0 to 6.0) and Reducing water losses through blow down.
    c) Acidic/Alkaline wastewater generated from DM plant is neutralized in neutralization pit and reused for ash conditioning.
    d) Cooling towers blow down water of CPP 3x 130 MW is completely reused for ash quenching in silos.
    e) Using treated effluent of ETP for dust suppression inside plant premises.
    f) Recycling backwash water from Sand filters to Wastewater Treatment plant.
    g) Increase OBR of Ion-exchangers beds in DM plant to reduce effluent generation by modifying flow-measuring instruments and RO water feed.
    h) Reduction of water loss due to leakages.
    i) Installation of best available technology
    j) Reduce the blowdown of cooling tower to reduce the consumption of water.

Air Environment:

- Reduction of greenhouse gases by use of by product gases for power generation.
    a) The hot gas generated from coke oven is being utilized in the power generation passing through waste heat recovery boilers (WHRB) feeding to two numbers of turbo generators which generate 16 MW power.
    b) The hot gas generated from all DRI kilns is used for power generation through waste heat recovery boilers (WHRB).
    c) Installation of PCI in BF -2 to reduce carbon footprint.
    d) Reduce CO2 emission pneumatic air leakage prevented, and 4 numbers of running compressor stopped.
- Blast furnace gas after treatment in Gas Cleaning Plant utilized in tunnel furnace of CSP, Sinter Plant, Lime Plant, Electric Arc furnace, Cold Rolling Mill, Wire Rod Mill and Pellet plant.
- Concrete all internal roads work under progress to reduce the fugitive dust emissions inside plant premises.
- Mobile water sprinkling tankers are being engaged for regular water sprinkling on haul roads and in construction areas for control of fugitive dust emissions.
- Eight numbers of truck mounted vacuum road sweepers are being engaged for continuous cleaning of concrete roads inside the plant premises to control fugitive dust.

- Fixed water sprinklers have been installed in the potential areas of DRI units, Raw material handling and stacking areas for suppression of fugitive dust emissions.
- Installation of Six numbers of wheel washing system to clean the wheel of heavy vehicle and control fugitive dust carrying outside.
- For compliance and effective monitoring by installation of CEMS, CAAQMS and CEEQMS and HDIP Camera.
- For proper maintenance of all the online monitoring system a dedicated AMC team engaged and for transmission of data to OSPCB /CPCB server a dedicated AMC team has been engage

PART – H

ADDITIONAL MEASURES/INVESTMENT PROPOSAL FOR ENVIRONMENTAL PROTECTION

Efficient measures for abatement of pollution were implemented under the project these are working satisfactorily. However, following additional measures have been taken for overall environmental improvement.

Water Pollution:

- Installation of ZLD/RO plant of capacity 510 m3/hr.
- Upgradation of CRM Effluent Treatment plant work has completed and Under operation
- Coke oven ZLD proposal order has given to the vendor, and it will completed by 31st March2025
- WWTP-3 water feeding into the RO plant ensure100% productivity of the RO plant.

Air Pollution:

- Individual Fume treatment Plant (FTP) attached to EAF-1, EAF-2, EAF-3 and EAF-4 has been provided for control of Primary as well as secondary emission from SMS-1.
- High-pressure mist beam sprinkler has been installed at raw material stacking yard for control of fugitive dust.
- Revamping of ESP of Captive Power plant.
- Conveyor junction house inspection and modification to reduce the fugitive dust
- Charging emissions is also reduced by strengthening the operation performance of SUPERCO in Coke Oven-2
- Regularly Bags are replaced in baghouse of BF-1&2 Cast house , LCP and DRI dedusting and bag filter installed in other areas.
- Installation of CEMS in Lime plant,,SMS-2 ZPF and 250 TPH CFBC boiler Stack .
- Installation of 176 nos. of rubbish chute in junction houses to reduce fugitive dust generation at sources.
- 4 nos. of dry fog system installed and effectevily in operation at wagon tippler area to control fugitive dust.
- 7 nos. of dedusting bag filter has been installation at coke oven-2 Coal Circuit.

Waste Disposal:

- Disposal of E-waste as per the rule to the authorized E-waste dismantler and recycler.
- Bio medical waste has been disposed of through Medi aid marketing services at common facility of Medi aid Marketing services at Sundargarh.
- Plastic barrel disposed through authorized vendor by OSPCB
- Used oil sold to authorized recyclers.
- Waste residue containing oil, Oil skimming residue & ETP sludge disposed through authorized vendor M/S Re sustainability.
- The total quantity of BF granulated slag sold to Cement Manufacture.
- All the hazardous waste stored under Covered Hazardous storage Shed and disposed as per the rules.

Others:

- Continuous development of flora by tree plantation and green belt development. In the year 2024-25, 58211numbers of saplings were planted within the plant and 1800 sapling distributed in periphery villages.
- Six numbers of IP camera installed and connected to OSPCB server.

- Adequate capacity silencer has been installed in drain and vent lines of turbine of blower house of Blast Furnace to reduce Noise Pollution while rolling of Turbine & stopping of Turbine.
- Biodiversity Study Completed within 10 Km radius of the plant.
- The performance evaluation of the Pollution control and Monitoring devices completed and submitted at the OSPCB.

Investment made in Pollution Control System during the financial year 2024-25.

Sl. No	Description	Expenditure in Crores during 2024-25
1	Water Pollution Control	2
2	Air Pollution Control	248
3	Solid Waste Management	53
3	Hazardous waste management	2.5
4	Biomedical Waste Management	0.10

PART-I
ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF THE ENVIRONMENT

The possible areas of resource conservation and the source of pollutants are identified, assessed and subsequently proper arrangements for their control are incorporated. Some actions taken in direction to improve the quality of Environment at Bhushan Power & Steel Limited are:

A-Key performance Indicators (KPI)

The key environmental performance parameters for Iron & Steel Industry is being measured for benchmarking with best practices in the industry. Though there are no regulatory norms, these parameters provide guide for overall improvements. We are monitoring the below mention parameter on monthly basis.

Sl No	Key performance indicator
01	Sp.CO2 Emission(tCO2/tcs)
02	Sp.Energy Consumption Gcal/tcs
03	Sp. water consumption (M3/tcs)
04	PM Emission(kg/tcs)
05	SO_2 Emission (kg/tcs)
06	NOx Emission(kg/tcs)
07	Sp. Solid waste generation
08	% Solid waste utilization

B-Implementation of ISO System:

Accredited ISO-14001:2015 [Environmental Management System] and ISO 9001:2015 [Quality Management System for operations of Integrated Steel Plant.

Accredited ISO-45001(Occupational Health and Safety Management System) for operation of Integrated Steel Plant.

C-Implementation of 5S System throughout the plant & maintained

D-Implementation of TPM System through out the plant.

E- Word Environment Day 2024 Observed on 5th June 2024 with drive of mass plantation through out the plant.

F-World Ozone Day 2024 also observed on 16th Septemebr2024 in association with OSPCB Regional office team.

G- Regular inspection carried out through out the plant to address the non-compliances.

H-Awareness and training imparted through out the plant on Environment training modules like ,Legal compliance, Air pollution , Water pollution and conservation, Solid waste management, Hazardous waste management.