Single-Window Hub

and Virtuous Environmental

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Government of India Ministry of Environment, Forest and Climate Change (Issued by the State Environment Impact Assessment **Authority(SEIAA), JHARKHAND)**

To,

The -1

MANGALAM ISPAT

At: TTT/20, Ground Floor, Civil Township, Rourkela - 769012, Odisha -769012

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam.

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/JH/IND1/447255/2023 dated 11 Oct 2023. The particulars of the environmental clearance granted to the project are as below.

1. EC Identification No.

2. File No.

3. **Project Type**

4. Category

5. Project/Activity including Schedule No.

6. Name of Project EC23B008JH153016

EC/SEIAA/2023-24/2722/2023

Expansion

В

3(a) Metallurgical industries (ferrous &

non ferrous)

production from 13200 TPA to Trock TPA through existing 2x8T Furnace & installing additional 2x10T Furnaces along Expansion of Existing MS Ingot/Billet production of 29700 TPA to 117600 TPA by increasing Rolling Mill capacity to 1x20TPH located at Plot No. IV/A-5(P), Bokaro Industrial Area, Balidih, Bokaro, Jharkhand

Name of Company/Organization 7.

MANGALAM ISPAT

Location of Project JHARKHAND

TOR Date

N/A

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 29/11/2023

(e-signed) Ashok Kumar, IFS **Member Secretary** SEIAA - (JHARKHAŇD)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please guote identification number in all future correspondence.

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Nursery Complex, Near Dhurwa Bus Stand, Dhurwa, Ranchi, Jharkhand-834 004. E-mail: msseiaa.jhk@gmail.com/chr-seiaajhr@gov.in

website: www.jseiaa.org

Letter No.- EC/SEIAA/2022-23/2722/2023/

Ranchi, Date:

To: M/s Mangalam Ispat, Sri Ankit Kumar Agrawal (Partner), At Plot No. IV/A-5(P), Bokaro Industrial Area, Balidih, Village - Gorabali, P.S. - Jaridih,

District - Bokaro, Jharkhand - 827014.

Sub.: Environmental Clearance for the project "Expansion of Existing MS Ingot/Billet production from 13200 TPA to 118800 TPA through existing 2x8T Furnace & installing additional 2x10T Furnaces along with CCM-1x2strand, Rad- 4/7 and production of 29700 TPA to 117600 TPA by increasing Rolling Mill capacity 1x20 TPH of M/s Mangalam Ispat at Plot no. IV/A-5 (P), Bokaro Industrial Area, Balidih, Village: Gorabali, P.S.: Jaridih, Distt.: Bokaro, Jharkhand" (Proposal No.: SIA/JH/IND1/447255/2023) - regarding.

Ref: Your application no. Nil, dated - 11.10.2023.

Sir.

It is in reference to the project "Expansion of Existing MS Ingot/Billet production from 13200 TPA to 118800 TPA through existing 2x8T Furnace & installing additional 2x10T Furnaces along with CCM-1x2strand, Rad- 4/7 and production of 29700 TPA to 117600 TPA by increasing Rolling Mill capacity 1x20 TPH of M/s Mangalam Ispat at Plot no. IV/A-5 (P), Bokaro Industrial Area, Balidih, Village: Gorabali, P.S.: Jaridih, Distt.: Bokaro, Jharkhand". Jharkhand submitted by you for seeking prior Environmental Clearances (EC).

This is a case of violation which has been taken for reappraisal on 17.10.2023.

The project is a violation case since the project proponent has started the construction without prior Environmental Clearance from State Environment Impact Assessment Authority (SEIAA), Jharkhand.

However. The Honourable Supreme court in its order dated 9th December 2021 In the matter of the Civil appeal No 7576-7577 of 2021 in the Electro steel Steels Limited Vs Union of India and Ors in its para 93 has inter- alia observed the following:

> "The interim order passed by the Madras high Court appears to be misconceived. However, this court is not hearing an Appeal from that interim order. The interim stay passed by the Madras High court can have no application of operations of the Standard Operating Procedure to the projects in territories beyond the territorial

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jurisdiction of Madras High court. However, final decision may have been taken in accordance with the Orders/Rules prevailing prior to 7th July, 2021."

Thus, the SEIAA, Jharkhand, in the light of Hon'ble Supreme Court order dated 9th December 2021. Office Memorandum no. F.No.22-21/2020-IA.III[E 138949] dated 28.01.2022 of MoEF&CC, Govt. of India and Standard Operating Procedure (SOP) issued by MoEF&CC, Govt. of India vide its file number 22-21/2020-IA-III, dated 07.07.2021, the matter has been taken for consideration & recommendation of EC for violation projects.

Project Category: B1 – The State Expert Appraisal Committee, Jharkhand deliberated the project during its 100th meeting held on 09 - 14.01.2023 and SEIAA, Jharkhand has approved the **violation** ToRs in 101st meeting held on 23rd & 24th January, 2023. TOR for the project was issued by SEIAA, Jharkhand vide letter no. EC/SEIAA/2022-23/2722/2023/401, dated 01.02.2023. The final EIA / EMP submitted by PP to SEIAA on 11.10.2023 and which was forwarded to SEAC on 12.10.2023.

The project is of M/s Mangalam Ispat for Expansion of existing MS Ingot/Billet production from 13.200 TPA (Consent Capacity) to 118800 TPA through existing 2x8T Furnace & installing additional 2x10T Furnaces along with CCM1x2strand, Rad- 4/7m, TMT Bars & Rolled Products production of 29700 TPA to 117600 TPA by increasing Rolling Mill capacity to 1x20TPH at Plot No. IV/A -5(P), Bokaro Industrial Area, Balidih, Bokaro, Jharkhand within the existing plant premises of 3.20Ha (7.91 Acres).

Environmental Site Settings:

S. No.	Particulars]	Deta	iils		Remarks
1	Total land	3.20Ha [I	Private: 3	3.20Ha]			-	Land Use: Industrial
2	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	already 1	seen acc	quired ai	nd t	for the projecunder the posse we been submitted	ssion of th	
	Existence of	R&R is r	ot applic	eable				
	habitation &	Existenc	xistence of Habitation					
	involvement of	Project S	ite – Nil					
	R&R, if any.	Study Ar	ea: Near	est				LA AGE
		Habit	ation	Distan	ce	Directio	n	
		Goraba	i	0.7		North Ea	ıst	
	Latitude and	Points	Lati	itude		Longitude		
	Longitude of all	A	23°40'5	58.27"N	86	° 03'32.11"E		
3	corners of the project site.	В	23°40'5	55.51"N	86	° 03'30.05"E		
	project site.	C	23°40'5	55.42"N	86	° 03'30.07"E		
		D	2304015	4 90"N	86	° 03'29 59"E		

S. No.	Particulars				Det	ails		Remarks
		Е	23°40'.	54.68"N	86	° 03'29.44"E		
		F	23°40':	54.50"N	86	° 03'28.93"E		
		G	23°40':	55.34"N	86	° 03'27.65"E		
		I-I	23°40°	55.13"N	86	° 03°27.60″E		
		I	23°40'5	53.52"N	86	° 03'27.96"E		
		J	23°40'4	19.23"N	86	° 03'31.93"E		
		K	23°40'5	54.56"N	86	° 03'35.94"E		
4	Elevation of the project site	253 met	ers above	e mean se	a lev	/el		
5	Involvement of Forest land, if any	No invo	lvement (of Forest	Land	.1		
	Water body (Rivers, Lakes, Pond, Nala,	Project Study a		water boo	lies	within the proj	ect site.	
	Pond, Nala, Natural	Water	·Body	Distan	ce	Direction		
6	Drainage. Canal etc.) exists within	Damod River	ar	6.7		NE		
	the project site as	Garga I	Dam	3.5		SSE		
	well as study area	Khanjo	River	4.9		W		
		Garga F	River	6.5		SSW		
7	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	reserve/ of the pro	tiger rese pject site.	erve/ elep	hant	reserve withi	ary/ biosphere n 10km radius n (NE) of the	

The Plant was installed in the year 2003 under the ownership of M/s Shree Hanuman Alloys Pvt. Ltd. after obtaining Consent to Establish (CTE) from Jharkhand State Pollution Control Board (JSPCB) vide ref. no. 3054 dt 17.05.2003 for the production of 50TPD MS Rods and another CTE was obtained from JSPCB vide ref. no. 3736 dt 16.11.2006 for the production of 40TPD MS Ingot & Pencil Ingot. In the year 2018, the plant was purchased by M/s Mangalam Ispat through Bank Punjab National Bank under SARFESI Act 2002 vide sale agreement dated 24.08.2018. First CTO in the name of M/s Mangalam Ispat was obtained



vide ref. no. JSPCB/HO/RNC/CTO-421591/2019/403 dt 26.02.2019 for the production capacity of 40TPD MS Ingots and 90TPD MS Rods. Presently, the company has CTO issued from JSPCB vide ref no. JSPCB/HO/RNC/CTO-7311239/2020/551 dated 03.03.2020 for production of 40TPD MS Ingots and 90TPD MS Rods, valid till 31.12.2024.

Khata No.	Plot No.	Area
42	2489(P)	0.23
50	2490(P)	0.33
	2487(P)	0.10
134	2491(P)	0.34
34	2492(P)	0.34
95	2493(P)	0.22
59	2494(P)	0.41
65	2495(P)	0.46
	2488(P)	0.18
121	2496(P)	0.08
23	2497(P)	0.16
	2499(P)	0.06
21	2498(P)	0.28
	2484(P)	0.12
	2486(P)	0.14
56	2481(P)	0.57
	2502(P)	0.18
147	2482(P)	0.15
177	2483(P)	0.15
	2485(P)	0.08
120	2501(P)	0.20
	2514(P)	0.07
125	2505(P)	0.06
Tot	tal	7.91



The unit configuration and capacity of existing and proposed project is given as below:

		Exis	ting Installed Uni	ts and Capacity		
SI.	Plant	Non-Vio	lation	Violation		
No	Facilities	Unit	Capacity TPA	Unit	Capacity TPA	
		1x8T IF (5 cycles per day)	13,200 MS Ingots (@ 330 working days)			
1.	Induction			1x8T IF (10 cycles per day)	26,400 MS Ingots ('a' 330 working days)	
	Furnace and LRF			1x10T IF (10 Cycles per day)	33,000 MS Ingots/ Billets ((a) 330) working days)	
2.	CCM					
3.	Rolling Mill	90TPD	29,700			
4.	Reheating Furnace	1x10 TPH	33,000			
5.	Slag Crusher	10ТРН	3,000			

	oposed Units	Total After E	Total After Expansion		
Unit	Capacity TPA	Unit	Capacity TPA		
Augmentation of Existing 2x8T IF (10 Cycles per day)	Additional Production of 13,200 MS Ingots/ Billets (@ 330 working days)	2x8T IF +2x10T IF + 1x10T LRF (@330 Working Days)	118.800 MS Ingots/ Billets	Installed as per CTE dated 16.11.2006 and in operation as per CTO valid upto 31.12.2024 Unit installed prior to the purchase by M/s Mangalam Ispat and was in operation till	

Mi

l e	oposed Units	Total After	Total After Expansion			
Unit	Capacity TPA	Unit	Capacity TPA			
				30.04.2023. Currently no in operation Construction started but not operated till date		
1x10T IF +1x10T LRF (10 Cycles per day) 1x2 Strand 4/7m rad	33,000 MS Ingots/ Billets (@ 330 working days)			Proposed under Expansion		
Modification and Expansion to1x20TPH	Production after modification 117600	1x20TPH	117.600	Modification and Expansion of Rolling Mill for Hot Charging (Billet/Ingot).		
Augmentation of Existing 1x10TPH	Additional Capacity of 33,000	1х10ТРН	66,000	HSD/LDO/FO will be used in place of Coal. Increase in working hours from 10hours to 20 hours. Will be operated only in emergencies		
Augmentation of Existing 1x10TPH	Additional Capacity 27.000	10ТРН	30,000	Increasing the Operating hours and number of operational Days		



The details of the raw material requirement for the proposed expansion project along with its source and mode of transportation is given as below:

Raw Material		Consum	ption (TPA)		Source	Distance &	
	Non- Violation	Violation	Proposed	Total After Expansion		Mode of Transportation	
Induction Furn	ace with CCN	1					
Billets/Ingot	13,200	26,400	79,200	1,18,800		-	
Sponge Iron	10.560	21.120	63.360	95.040		40 to 120 Km	
Cast Iron/ Pig Iron	3.960	7.920	23.760	35,640	Local Plant in Bokaro, Ramagarh,	By Road	
Scrap	1,980	3.960	11.880	17.820	Giridih, etc.		
Ferro Alloys	26	53	158	238	_		
Total	16,526	33,053	99,158	1,48,738			
Rolling Mill							
Rolled Products	29,700		87,900	1,17,600			
MS Billets	30,000		88,800	118.800	In House	Direct Charging from CCM	

The total make-up water requirement of the plant after the proposed expansion is estimated to 182KLD (Non Violation 32KLD, Violation 31KLD, Proposed 119KLD). At present the water is sourced from Jharkhand Industrial Area Development Authority (JIADA), Bokaro Region Water Supply. A Letter dated 30.01.2022 has been given to Drinking Water and Sanitation Dept, Balidih, Bokaro by JIADA for assuring the water supply of 182KLD from Garga Dam Pump House to M/s Mangalam Ispat.

Total requirement of power for the after proposed expansion is 13MVA (Non-Vioaltion 4.5MVA. Violation 1.5MVA & Proposed 7MVA). Power requirement is met through Damodar Valley Corporation. Permission for the same will be obtained from DVC. One DG Set of 125kVA has been installed in the plant.

Baseline Environmental Studies: 1stDecember 2022 to 28th February 2023 and March 2023

Danamatana		Permissible			
Parameters	Dec 202	2 to Feb 2023	N	larch 2023	Level
AAQ parameters at 8 Locations	PM2.5PM10SO213.0 toNO2	34.1 to 48.8μg/m ³ 54.6 to 76.2μg/m ³ 526.7μg/m ³ 20.5 to 31.4 μg/m ³	PM2.5PM10SO211.8NO2	27.2 to 46.5 μg/m ³ 53.6 to 75.9 μg/m ³ to 23.5 μg/m ³ 12.6 to 29.6 μg/m ³	100 μg/ m ³ 80 μg/ m ³

CO 0.8 to 1.5 mg/m ³ CO 0.7 to 1.4 mg/m ³ O2 mg/m ⁴	Parameters			Permissible					
PH varies from to 7.60 to 7.75 Total Hardness varies from 2.04.16 to 287.00 mg/l Total Hardness varies from 2.05.18 to 289.00 mg/l 205.18 to 289.00 mg/l 205.18 to 289.00 mg/l 205.00 mg/l		Dec 2	Dec 2022 to Feb 2023 March 2023						Level
Total Hardness varies from 204.16 to 287.00 mg/l 200-600 mg/l		• CO 0.8	to 1.5 mg/m ³		• C(0.7 to 1.4 n	ng/m³		02 mg/m ³
Dissolved Oxygen varies from 6.0 to 6.7 mg/l BOD varies from 2.4 to 15.0 BOD varies from 2.4 to 15.0 BOD varies from 2.4 to 15.0 BOD varies from 2.4 to 16.0 mg/l PII 7.41 to 7.7 Potassium K 141.86 to 189.45 kg/ha Available nitrogen N 159.46 to 205.11 (Kg/hee) Organic matter 0.35% to 0.51% Day Time (6:00 a.m. to 10:00 p.m.) 50.98 to 73.65 dB (A) Night Time (10:00 p.m. to 6:00 a.m.) 41.88 to 68.84 dB (A) One Time (6:00 a.m. to 10:00 p.m.) 47.98 to 53.75 dB (A) Night Time (10:00 p.m. to 6:00 a.m.) 38.39 to 44.05 dB (A) One Time (10:00 p.m. to 6:00 a.m.) 38.39 to 44.05 dB (A) One Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Transportation of Raw material, Fuel and Finished product will be done by Road. Existing PCU is 3279PCU/Day in NH-320existing level of service (LOS) is: Capacity in PCU/day Nil- 320 3279 15000 Dissolved Oxygen varies from 5.1 to 7.2 mg/l Available nitrogen N 139.10 to 189.56 kg/ha Available nitrogen N 139.10 to 205.36 (Kg/hec) Organic matter 0.38% to 0.56 kg/ha Available nitrogen N 139.10 to 205.36 (Kg/hec) Organic matter 0.38% to 0.56 kg/ha Available nitrogen N 139.10 to 205.36 (Kg/hec) Organic matter 0.38% to 0.56 kg/ha Available nitrogen N 139.10 to 205.36 (Kg/hec) Organic matter 0.38% to 0.56 kg/ha One Day Time (6:00 a.m. to 10:00 p.m. to 6:00 a.m.) 42.10 to 67.84 dB (A) One Day Time (6:00 a.m. to 10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (6:00 a.m. to 10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) One Day Time (10:00 p.m. to 6:00 a.m.) 39.10	Water	• Total E 204.16 to • TDS va	 Total Hardness varies from 204.16 to 287.00 mg/l TDS varies from 409.00 to Total Hardness varies from 205.18 to 289.00 mg/l TDS varies from 407.00 to 					200-600 mg/L 500-2000	
• Potassium K 141.86 to 189.45 kg/ha • Available nitrogen N 159.46 to 205.11 (Kg/hec) • Organic matter 0.35% to 0.51% • Day Time (6:00 a.m. to 10:00 p.m.) 50.98 to 73.65 dB (A) • Night Time (10:00 p.m. to 6:00 a.m.) 41.88 to 68.84 dB (A) • Day Time (6:00 a.m. to 10:00 p.m.) 47.98 to 53.75 dB (A) • Night Time (10:00 p.m. to 6:00 a.m.) 38.39 to 44.05 dB (A) • The traffic assessment study findings Traffic assessment study Findings • Potassium K 142.10 to 189.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 139.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 129.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Available nitrogen N 129.10 to 205.36 (Kg/hec) • Organic matter 0.38% to 0.56 kg/ha • Day Time (6:00 a.m. to 10:00 p.m. to 6:00 a.m.) 42.10 to 67.84 dB (A) • Day Time (6:00 a.m. to 10:00 p.m. to 6:00 a.m.) 42.10 to 67.84 dB (A) • Night Time (10:00 p.m. to 6:00 a.m.) 42.10 to 67.84 dB (A) • Night Time (10:00 p.m. to 6:00 a.m.) 39.10 to 44.20 dB (A) • The traffic study was carried at one location NI1-320 at a distance of 1.4km in SSE Direction. • Traffic assessment study in PCU/day) • VV (Volume in PCU/day) • VV (Volume in PCU/day) • PC	Water	Dissolve6.0 to 6.BOD va	ed Oxygen varie 7 mg/l	s from	Dis5.1BC	ssolved Oxyg to 7.2 mg/l DD varies fro	en varies fro	əm	Class C
Dight Time (10:00 p.m. to 6:00 a.m.) 41.88 to 68.84 dB (A)	Soil Quality	 Potassiu kg/ha Availabl to 205.1 Organic 	m K 141.86 to e nitrogen N l (Kg/hec)	189.45 159.46	 Por kg/ Av to 2 Or; 	tassium K-14 'ha ailable nitro 205.36 (Kg/h	2.10 to 189. gen N 139. ec)	.10	
Noise Level (A) (B) (A) (A) (A) (A) (A) Day Time (6:00 a.m. to 10:00 p.m.) 47.98 to 53.75 dB (A) Night Time (10:00 p.m.) to 6:00 a.m.) 38.39 to 44.05 dB (A) The traffic study was carried at one location NII-320 at a distance of 1.4km in SSE Direction. Transportation of Raw material, Fuel and Finished product will be done by Road. Existing PCU is 3279PCU/Day in NH-320existing level of service (LOS) is: C		p.m.) 50 • Night T	.98 to 73.65 dB Time (10:00 p.	(A) .m. to	p.n • Nig	n.) 51.1 to 73 ght Time (1	3.20 dB (A) 0:00 p.m.	to	(A)
Day Time (6:00 a.m. to 10:00 p.m.) 47.98 to 53.75 dB (A) Night Time (10:00 p.m. to 6:00 a.m.) 38.39 to 44.05 dB (A) The traffic study was carried at one location NH-320 at a distance of 1.4km in SSE Direction. Traffic assessment study findings Traffic assessment study Indicate the product will be done by Road. Product the product will be done by Road. Existing PCU is 3279PCU/Day in NH-320existing level of service (LOS) is: C	Naina Larra	i	1.) 41.88 to 68.	84 dB		· · · · · · · · · · · · · · · · · · ·	0 to 67.84 (dB	-
Traffic assessment study findings Traffic Traffic assessment Study From PCU/day) Traffic Traffic assessment study From PCU/day) Traffic Broad Assessment Study From PCU/day) From PCU/day From PCU/da	Noise Level	p.m.) 47	.98 to 53.75 dB	(A)	p.n	n.) 48.20 to 5	3.85 dB (A)		
distance of 1.4km in SSE Direction. Transportation of Raw material, Fuel and Finished product will be done by Road. Existing PCU is 3279PCU/Day in NH-320existing level of service (LOS) is: C		6:00 a.n		1	6:0	0 a.m.) 39.1			-
Road V (Volume in PCU/day) (Capacity in PCU/day) LOS NH- 320 3279 15000 0.22 B • PCU load after proposed expansion project will be 4439	Twaffi o	distanceTransportbe doneExisting	of 1.4km in SSI rtation of Raw r by Road. PCU is 3279	E Direction in the Britanian in the Brit	on. Fuel	and Finished	product wi	11	
findings in PCU/day) in V/C Ratio NH- 320 3279 15000 0.22 B • PCU load after proposed expansion project will be 4439	assessment		V (Volume		eitv	Existing			
NH- 320 3279 15000 0.22 B • PCU load after proposed expansion project will be 4439	•	Road	1	in	-	-	LOS		
• PCU load after proposed expansion project will be 4439									
lentification No EC23B008JH153016 File No EC/SEIAA/2023-24/2722/2023 Date of Issue EC - 29/11/2023				4				-	29/11/2023

Davamatava	Description								
1 arameters		Dec 202	22 to Feb 2023	3	Mar	ch 2023	Level		
		(LOS) wil	l be after expa	nsion will rer	nain 'B'				
	Road (Volume in PCU/day) PCU/day) V/C Ratio LOS								
		NH-320 3350 15000 0.22 B							
	32 No	20 including	gadditional tre ity as per IR	el of Service will be "B" i.e. Very Good for NH- ditional traffic due to proposed project. as per IRC 64:1990 Guideline for capacity for reas.					
Flora and fauna	TORM radius study area. Wildlife conservation plan is prepared and I					e d			

The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

• .			Qty. In TPA	\	
Units	Solid Wastes	Non Violation	Violation	Total after Expansion	
Induction Furnace	Slag	3.036	6.072	27.324	After metal recovery remaining crushed slag shall be will be supplied to vendors - use as
	Waste Lining	165	165	660	aggregates for construction filling.
CCM	Scale & End Cuts	132	264	1.188	Recycled in-house along with scrap in the induction furnace
Bag Filter Dust from process	Dust from process	13	26	119	Partly recycled (metal content). Rest supplied outside for further in the construction work and filling.
Rolling Mill	End Cuts & Scales	303		1.200	Scales will be given to the nearby Sinter Plant and End Cuts will be charged back to the induction furnace.

Public Consultation

Details of advertisement given	"Times of India" on 18.07.2023&"Hindustan" on 19.07.2023					
Date of public consultation	21.08.2023					
Venue	BIADA Bhawan, Balidih, Bokaro Steel City – 14. District Bokaro, State- Jharkhand					
Presiding Officer	Mrs. Maneka, Director, Land and Rehabilitation, Bokaro, Jharkhand					

Major issues raised	• The major issues raised in the Public Hearing is Employment to the Local People. Development of Area under CSR. Widening of road from Govind Market to Dalmia Cement Plant, Health Care Facility shall be provided in the area as there is no hospital nearby.
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Action plan as per MoEF&CC O.M. dated 30/09/2020

		Year of Imp	Total		
SI. No.	Activities	1 st Year	2 nd Year	3 rd Year	Expenditure (Rs.)
1.	Maintenance of 1 km of Road between Dalmia Cement Plant and Govind Market for traffic and congestion free flow of vehicle.	6.0 Lakhs	6.0 Lakhs		12.0 Lakhs
2.	Providing I no. Mobile Medical Units to the Railway Hospital located in the Railway Colony provide health care covering the Village Balidih, Gorabali, Khurti			23.0 Lakhs	23.0 Lakhs
	Total	6.0 Lakhs	6.0 Lakhs	23.0 Lakhs	35.0 Lakhs

Existing Capital Cost of project was Rs. 1,389.03 Lakhs(Violation Rs. 135.69 Lakhs+ Non-Violation Rs. 1253.34 Lakhs). The capital cost of the proposed project is envisaged as Rs. 876.83 Lakhs and the capital cost of the Environmental Protection Measures (EMP) is proposed as Rs. 214.04 Lakhs. The annual recurring cost towards the environmental protection measures as Rs. 28.43 Lakhs.

The employment generation from the proposed expansion is 70.

The details of cost for environmental protection measures are as follows:

SI. No.	Environmental Protection Measures	Capital Cost	Recurring Cost Rs. In lakhs/year				
1 (0.		Rs. In lakhs					
1	Air Pollution Control Measures						
	Augmentation of existing 1 no. of Bag Filter	10.0	1.5				
	1 no. of Spark arrestor with Pulsejet type Bag Filter with proposed 2x10T Induction Furnace +1x10T LRF	50.0	3				
	Recuperator with Reheating Furnaces	100.0	2.0				

Sl.	Environmental Protection Measures	Capital Cost	Recurring Cost
No.		Rs. In lakhs	Rs. In lakhs/year
	Water Sprinkler (4 Nos.)	(5,()	0.8
	Sub Total (A)	166.0	7.3
2	Water Pollution Control Measures		
	Installation of 3 no. of RWH Pit	7.5	0.5
	Sub Total (B)	7.5	0.5
3.	Noise Pollution Control Measures		
	Acoustic Enclosure or Separate housing for DG Set and Compressor	10.0	1.5
	Sub Total (C)	10.0	1.5
4.	Storage and Solid Waste Management		
	RCC flooring for storage raw materials and storage of Bag filter Dust, to avoid leaching	5.0	0.5
	Concrete platform with bund wall and oil collection system for storage of HSD, and other Oil Drums and Used Oil	2.0	0.5
	Sub Total (D)	7.0	1.0
5.	Environment Monitoring Program		
	Cost of Monitoring of Environmental Parameters for Air. Water and Noise	-,	4.68
	Monitoring of Performance of Pollution Control Equipment		2.0
	Occupational Health & Safety		2.0
	Socio-Economic Development		1.0
	Plantation		0.75
	Sub Total (E)		10.43
6.	Occupational Health & Safety	11.0	6.5
7.	Greenbelt Development and Landscaping	12.54	1.20
	Sub-Total (F)	214.04	28.43

SI. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year	
8.	Budget for implementation of commitments n the public hearing	nade to address the	issues raised during	
(a)	Maintenance of Road	12.0		
(b)	Provision of Mobile Medical Units	23.0		
	Sub-Total (G)	35.0		
	Total	249.04	28.43	

Company has proposed to develop greenbelt on 1.06Ha of area (33% of the total plant area (3.20Ha)) by planting 3135 number of indigenous trees with local board leaf specification along the boundary and inside the plant area. Capital budget of Rs. 12.54 Lakhs will be spent on tree plantation and the budget of approx. Rs. 1.20 Lakhs/ annum shall be kept for yearly maintenance.

STATUTORY CLEARANCES

1	LOI/Lease does	: Lease Deed.
2	CO	: The CO, Chas (Bokaro) vide memo no. 1924, dated 12.08.2022 has mentioned the plot no. of the project is not recorded as "Jungle Jhari" in R.S. Khatiyan & Register II.
3	DFO Wild Life	: DFO Wildlife, Hazaribagh vide letter no. 1290, dated 14.07.2022 certified that the proposed project site is outside Eco Sensitive Zone of Parasnath & Topchanchi Wildlife Sanctuary.
4	DFO Forest Distance	: DFO, Bokaro vide letter no. 2563, dated 10.09.2022 certified that the distance of notified forest is 100 meters from project site.
5	Emission Consent Order (ECO) & Discharge Consent Order (DCO)	 i. ECO issued by JSPCB vide Ref. no. DB/8057/N-3633. dated 12.11.2002. ii. DCO issued by JSPCB vide memo no. DB/8294/W-3794, dated 21.06.2003.
6	No Objection Certificate (NOC) & Consent to Operate (CTO)	 i. Ref. no. 3736, dated 16.11.2006, ii. Memo no. 3054, dated 17.05.2003. CTO granted by JSPCB vide: i. Memo no. D-3194 (C), dated 15.10.2013. ii. Ref. no. PC/CTO/DHN/206359/D-965 (C), dated

			08.04.2016.				
			iii. Ref. no. JSPCB/HO/RNC/CTO-4215911/2019/403.				
			dated 26.02.2019.				
			iv. Ref. no. JSPCB/HO/RNC/CTO-7311239/2020/551.				
			dated 03.03.2020.				
7	Public Hearing	:	Public Hearing conducted on 21.08.2023.				
8	Compliance report of CTO	:	Compliance report of CTO certified by Regional Officer, JSPCB, Dhanbad vide memo no. 1019, dated 12.08.2023.				
9	Power Source	:	Power Source : Damodar Valley Corporation.				

Summary of Violation under EIA Notification, 2006: At the time of purchase of plant by M/s Mangalam Ispat facilities present were 1x8T Induction Furnace (installed after obtaining CTE from JSPCB), 1x8T Induction Furnace (installed without obtaining CTE from JSPCB) and Rolling Mill (installed after obtaining CTE from JSPCB). During December, 2021 to February, 2022 M/s Mangalam Ispat under market/financial pressure and to make the plant operations economically viable, started construction of 1x10TInduction Furnace within the existing plant area of 3.20Ha (7.91 Acres). However, company never operated this 1x10T furnace till date.

As these units were installed (1x8T & 1x10T furnaces) and operated (only 1x8T furnace) without prior environmental clearance, Hence the project attracts provision of S.O. 804(E) issued by MoEF&CC dated 14.03.2017 and OM dated 07.07.2021 regarding SOP for identification and handling for the projects under violations. The company has suo-moto reported violation to the JSPCB so the penalty will be halved as per the SOP dated 07.07.2021 M/s Mangalam Ispat will be submitting 0.5% of the Project Cost (i.e. Rs. 67.845) and 0.125% of the total turnover during the violation period (i.e. Rs. 15.84,600.94) as penalty for the violation activity in addition to Damage Assessment Cost. The company has also prepared a Natural and Community Resource Augmentation Plan for 3 years and the details are mention in the table given below:

Cost of Penalty as per MoEF&CC OM dated 07.07.2021

Particulars	Value	Cost	Penalty Cost (as per <i>Suo-Moto)</i>		
Turn Over	1.26.76.80.751.56	31,69,201.88	15.84.600.94		
Total Project Cost	1,35,69,000	1.35,690	67,845		
То	Total Penalty Cost (Rs.)				

Environmental Compensation as per C	PCB Guidelines (in Rs.)
Environmental Compensation	1.05.37.500

- The penalty of Rs. $16.52.445.94 \sim \text{sav Rs. } 16.52.446.00 \text{ will be deposited by a bank}$ Demand Draft (DD) to JSPCB, Ranchi and
- The Bank Guarantee (BG) of above amount Rs. 1,05,37,500 will be deposited by as per norms to JSPCB, Ranchi.

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On the basis of above the State Level Expert Appraisal Committee (SEAC), Jharkhand recommended an amount of rupees 1,05,37,500 as per CPCB guidelines towards remediation plan and natural & community resource augmentation plan to be spent within a period 03 years. The details of summary of Natural resource and Environmental / Ecological Damage assessment with budgetary provision for expenditure under the below mention head for remediation:-

Damage Remediation Plar	Damage	Remedi	ation	Plan
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S.	Environment	Activity	Total Budgetary Provision in Rs.				
No.	Component	Description	1 st Year	2 nd Year	3 rd year	Total	
1	Land Environment	Assistance to farmers by providing seedlings, manure and Bio-fertilizers to villagers of Tantri, Bandhdih and Thakurtanr.	8,78,125 (Providing Bund maker. Ridger. Plough in Nagar panchayat of Balidih)			35,12,500	
		Providing one tractor (Make Mahindra) with Bund maker, Ridger, plough for agriculture purpose to be provided to Nagar panchayat of Balidih	8,78,125 (providing seedlings, manure and Biofertilizers to villagers of Tantri)	8,78,125 (providing seedlings. manure and Biofertilizers to villagers of Bandhdih)	8,78,125 (providing seedlings, manure and Biofertilizers to villagers of Thakurtanr)		
	Tota	1	17,56,250	8,78,125	8,78,125	35,12,500	

Natural Resource Augmentation Plan along with Budget

SI.	Proposed Activities	Budget (Rs.)				
No.		1 st Year	2 nd Year	3 rd Year	Total	
1.	Installation of Bio-degradable waste converter (Make: Reddonatura, Capacity: 75 kg/day) in Gorabali		8.78,125		8.78.125	
	Construction of Covered Drainage system along in the village Tantri and Pipradih	4.39,062.5 village Tantri	4,39,062.5 village Pipradih		8.78.125	
	Construction of community dustbins at Four locations in	8.78,125		~	8.78.125	

SI. No.	Proposed Activities	Budget (Rs.)				
		1 st Year	2 nd Year	3 rd Year	Total	
	village Gorabali					
	Distribution of household dustbin baskets in each village Gorabali	8.78.125			8.78.125	
	To	otal			35,12,500	

Community Resource Augmentation Plant along with Budget

SI.	Proposed Activities	Budget (Rs.)			
No.		1 st Year	2 nd Year	3 rd Year	Total
1.	Development of Naw Prathmik School, Manjhaladih is at a distance of 0.31km in SE Direction (construction of one (1) classroom & along with maintenance of other classrooms, providing furniture & white boards in all classrooms, construction of separate Two (2) pair of toilets for boys & girls, development of playground in the school and installation of drinking water system (submersible pump and Water Cooler) in school)	35,12,500		- -	35,12,500

Damage Remediation, Natural Resource Augmentation Plan and Community Resource Augmentation Plan

SI. No.	Aspects	Budget (Rs.)		
Λ.	Cost of Damage Remediation Plan	3512500		
В.	Natural Resource Augmentation Plan for 3 Years	3512500		
C.	Community Resource Augmentation Plan for 3 Years	3512500		
	Total	1,05,37,500		

- i. Total budgetary provision with respect to remediation plan and natural and community resource augmentation plan is **Rs. 1,05,37,500**.
- ii. Therefore, PAs shall be required to submit a bank guarantee of an amount of Rs. 1,05,37,500 (Rupees One Crore Five Lakh Thirty Seven Thousand and Five Hundred Only) towards implementation of remediation plan and natural and community resource augmentation plan with the Jharkhand State Pollution Control

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Board and evidence of the same submitted to SEIAA/SEAC. Jharkhand prior to grant of EC. The evidence of submission of Bank Gurantee to Jharkhand State Pollution Control Board is submitted to SEAC vide letter dated 18.10.2023.

On the basis of 110th Minutes of Meeting of SEAC, the project Authority has submitted the Bank Guarantee to Jharkhand State Pollution Control Board, Ranchi, and the evidence of the same has been submitted to SEIAA/SEAC, Jharkhand on 18.10.2023 bearing Bank Guarantee No.: 0195NDDG00010924 dated: 18.10.2023

- The bank guarantee shall be released after successful completion of remediation plan. duly recommended by the SEAC. Regional Office - MoEF & CC. Govt. of India and its approval from Regulatory authority(SEIAA). Remediation plan shall be completed iii. in 03 years with the consultation of Local / Urban Bodies / State Govt. Deptt.
- Approval / permission from CGWA shall be obtained before drawing ground water for the project activities. if applicable. Jharkhand State Pollution Control Board shall iv. not issue Consent to Operate (CTO) until the PAs obtains such permission.
 - PAs shall take other necessary clearances / permissions under various act and rules if any, from the respective authorities / departments. V.
- STP of adequate capacity shall be established within the project premises. vi.
- Energy conservation measures adhering to part of ECBC norms shall be complied
- The penalty of Rupees 67,845 being 0.5% (Suo-Moto) of the project cost incurred till vii. date (Rs. 1,35,69,000) Plus Rupees 15,84,601 being 0.125% (Total Rs. 16, 52, 446/-Rupees Sixteen Lakhs Fifty Two Thousand and Four Hundred Forty Six Only) viii. of the total turn over till date (Rs. 1,26,76,80,752) shall be submitted to Jharkhand State Pollution Control Board in the form of demand draft and evidence of the same to be submitted to SEIAA/SEAC. Jharkhand prior to grant of EC. The evidence of submission of Penalty amount to Jharkhand State Pollution Control Board is submitted to SEAC vide letter dated 18.10.2023.

On the basis of 110th Minutes of Meeting of SEAC, the project Authority has also submitted the penalty amount to Jharkhand State Pollution Control Board. Ranchi, and the evidence of the same has been submitted to SEIAA/SEAC, Jharkhand on 18.10.2023 bearing demand draft no.: 501958 dated: 16.10.2023.

Action will be taken for the violation by the Jharkhand State Pollution Control Board under the provision of section 19 the Environment (Protection) Act. 1986. ix.

The PAs have submitted the above required documents.

Jharkhand State Pollution Control Board and project Authorities will ensure that the amount of Bank Guarantee shall not be released/lapsed till the completion of remediation plan, natural and community resource augmentation plan as directed by MoEF & CC vide O.M. No. F.No.22-21/2020-1A.III, dated 07th July, 2021. In case of non compliance of the said directions/conditions, the Environmental Clearance issued will be deemed to be cancelled with immediate effect.

The proposal was appraised by State Level Expert Appraisal Committee (SEAC) and recommended for grant of Environmental Clearance in its 110th meeting held on 17th, 18th, 19th, 20th and 21st October, 2023.

EC Identification No. - EC23B008JH153016 File No. - EC/SEIAA/2023-24/2722/2023

State Level Environment Impact Assessment Authority (SEIAA). Jharkhand in its 110th meeting held on 27^{th} , 28^{th} & 29^{th} October, 2023 discussed the project proposal along with recommendations made by SEAC and decided to grant EC to the project.

Following the decision of SEIAA, as mentioned above. Environmental Clearance is hereby issued to the "Expansion of Existing MS Ingot/Billet production from 13200 TPA to 118800 TPA through existing 2x8T Furnace & installing additional 2x10T Furnaces along with CCM-1x2strand, Rad- 4/7 and production of 29700 TPA to 117600 TPA by increasing Rolling Mill capacity 1x20 TPH of M/s Mangalam Ispat at Plot no. IV/A-5 (P), Bokaro Industrial Area, Balidih, Village: Gorabali, P.S.: Jaridih, Distt.: Bokaro, Jharkhand" alongwith the following specific conditions as recommended by SEAC.

I. **Specific Conditions:**

- 1. This Environmental Clearance is valid subject to the following condition below That this project has
 - a. Obtained all legal rights to operate at concerned place.
 - b. Complied with all existing concerned laws of the land and
 - c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.
- 2. Ground water to be drawn for use in the project only after obtaining permission from the Competent Authority.
- 3. Environment management system including organization structure to be drawn to ensure compliance of EC conditions stipulated based on principles of Continual Improvement and periodical management review.
- 4. All raw material to be stored only under covered shed.
- 5. PAs to offset (upto20%) consumption of conventional energy sources by promoting use of solar energy, passive energy utilization, optimum fenestration, shading effect and heat islands.
- 6. Developers to promote energy conservation measures such that it offsets not less than 02 % of connected load. It is to be achieved by solar panels etc meeting ECBC norms.
- 7. Trees should be developed & maintained not less than 33% of project area.
- 8. Developers/Company to install STP of sufficient capacity such that all the sewer produced is treated and reused.
- 9. Developers/Company to install Rain water harvesting structures such that all the roof top water runoff is collected and harvested including reuse on 100% basis.
- 10. Developers/Company to conduct and submit carbon footprint and carbon sequestration study report including mitigation measures as a part of EC compliance.
- 11. MSW Collection centre should be located in isolated and preferably unmanned area. Movement of the vehicle carrying waste should be under tarpaulin covered condition only. Route of vehicle should be such that it avoids residential areas as far as practical.

11. **Statutory Compliance:**

- 1. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act. 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
- 2. The project proponent shall obtain clearance from the National Board for Wildlife. if applicable.
- 3. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. recommendations of the approved Site-Specific Conservation Plan Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the sixmonthly compliance report, (in case of the presence of schedule-1 species in the study area).
- 4. In the writ petition (Civil) no. 202/1995, T.N. Godaverman Thirumulpad vs union of India and ors. the Hon'ble Supreme Court passed an order dated 03.06.2022 " National Park or Wildlife Sanctuary must have an ESZ of minimum 01 km in which the activities prescribed and prescribed in the guidelines of 09th February, 2011 shall be strictly adhered to".
- 5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act. 1981 and the Water (Prevention & Control of Pollution) Act. 1974 from the concerned State pollution Control Board Committee.
- 6. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- 7. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules. 2016 as amended from time to time.
- 8. No mining/activity shall be undertake in the forest land or deemed forest without obtaining requisite prior forestry clearance.
- 9. This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT. MoEF & CC and any other Court of Law, if any, as may be applicable to this project.
- 10. Environmental clearance is subject to obtaining prior clearance from forestry and Wildlife angle including clearance from standing committee of NBWL, as may be applicable to this project (in case any fauna occurs / is found in the Project area or if the area involves forest land or Wildlife habitat i.e. core zone of elephant/tiger reserve etc. and or located with in 10 km. of protected area).
- 11. The project proponent may apply simultaneously for forest and NBWL clearance. in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained.

III. Air quality monitoring and preservation:

- 1. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) 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.
- 2. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act. 1986 or NABL accredited laboratories.
- 3. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PMIO and PM25 in reference to PM emission, and S02 and NOx in reference to S02 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis small plants: Manual; Large plants: Continuous)
- 4. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality *I* fugitive emissions to Regional Office of MoEF&CC. Zonal office of CPCB and Regional Office of SPCB along with sixmonthly monitoring report.
- 5. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.
- 6. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- 7. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- 8. 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 *briquettingl* agglomeration.
- 9. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- 10. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.
- 11. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- 12. Design the ventilation system for adequate air changes as per ACGIII document for all tunnels, motor houses, Oil Cellars.





IV. Water quality monitoring and preservation:

- 1. 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 (applicable to IF / EAF) 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 recognised under Environment (Protection) Act. 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous).
- 2. 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 recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- 3. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC. Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 4. Adhere to 'Zero Liquid Discharge'.
- 5. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- 6. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- 7. 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
- 8. The project proponent shall practice rainwater harvesting to maximum possible extent.
- 9. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water

V. Noise monitoring and prevention:

- 1. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- 2. The ambient noise levels should conform to the standards prescribed under E(P)A Rules. 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

Energy Conservations measures:

- 1. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- 2. Practice hot charging of slabs and billets/blooms as far as possible.
- 3. Ensure installation of regenerative type burners on all reheating furnaces.
- 4. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- 5. Provide the project proponent for LED lights in their offices and residential areas.

VII. Waste Management:

- 1. Used refractories shall be recycled as far as possible.
- 2. Oily seum and metallic sludge recovered from rolling mills ETP shall be mixed. dried, and briquetted and reused melting Furnaces
- 3. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- 4. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules. 2016.
- 5. Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant).

VIII. Green Belt:

- 1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- 2. The project proponent shall prepare GHG emissions inventory for the plant and shall the program for reduction of the same including carbon sequestration including plantation.

IX. **Public Hearing and Human Health issues:**

- 1. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 2. 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.
- 3. Provision shall be made for the housing of construction labour within the site with all necessary intrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The

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housing may be in the form of temporary structures to be removed after the completion of the project.

X. Corporate Environment Responsibility:

- 1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- 2. 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.
- 3. 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 to the head of the organization.
- 4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry / Regional Office along with the Six Monthly Compliance Report.
- 5. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- 6. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the plants shall be implemented.
- 7. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

XI. Miscellaneous:

- 1. 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.
- 2. 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.

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- 3. 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.
- 4. The project proponent shall monitor the criteria pollutants level namely: PMIO, S02, NOx (ambient levels as well as stack emissions) or critical sectoral 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.
- 5. 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.
- 6. 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.
- 7. 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.
- 8. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- 9. 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.
- 10. 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).
- 11. 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.
- 12. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 13. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- 14. 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 / information/monitoring reports.
- 15. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their

amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

16. 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, 2010.

XII. Other Conditions:

- 1. The Authority reserves the right to add any new condition or modify the above conditions or to revoke the clearance if conditions stipulated above are not implemented to the satisfaction of Authority or for that matter for any other Administrative reason.
- 2. The Prescribed EC is valid as per Notification no. S.O. 1807(E) dated 12.04.2022 of MoEF&CC, Govt. of India.
- 3. In case of any deviation or alteration in the project proposed from those submitted to SEIAA, Jharkhand for clearance, a fresh reference should be made to SEIAA to assess the adequacy of the conditions imposed and to incorporate any new conditions if required.

Sd/-Member Secretary State Level Environment Impact Assessment Authority, Jharkhand.

Dated: 02/11/2023

Memo No.- EC/SEIAA/2022-23/2722/2023/477

Copy to:

- 1. Additional Chief Secretary, Department of Forests, Environment & Climate Change. Govt. of Jharkhand.
- 2. Deputy Commissioner, District Bokaro, Jharkhand.
- 3. Divisional Forest Officer, Bokaro West Forest Division, Bokaro, Jharkhand.
- 4. Divisional Forest Officer, Wildlife Division, Hazaribagh, Jharkhand.
- 5. Director IA Division, Monitoring Cell, MoEF and Climate Change, Indira Paryavaran Bhavan, Jorbag Road, Aligani, New Delhi – 110003.
- 6. Integrated Regional Office, Ranchi, Ministry of Environment, Forest and Climate Change, 2nd Floor, Jharkhand State Housing Board (HQ), Harmu Chowk, Ranchi. Jharkhand - 834002.
- 7. Member Secretary, Jharkhand State Pollution Control Board, Ranchi.
- 8. Secretary, Jharkhand State Expert Appraisal Committee, Ranchi.
- 9. Website.

10. Guard file.

State Level Environment Impact Assessment Authority, Jharkhand.

EC Identification No. - EC23B008JH153016 File No. - EC/SEIAA/2023-24/27/29/2023 Date of Issue EC - 29/11/2023

Member-Secretary