Ministry of Environment, Forest and Climate Change
Impact Assessment Division
(Industry-1 Sector)

Date of zero draft MoM sent to Chairman: 20/07/2021
Approval by Chairman: 27/07/2021
Uploading on PARIVESH: 27/07/2021

Summary record of the Fortieth (40th) meeting of Re-Constituted Expert Appraisal Committee (REAC) held on 15 – 16th July, 2021 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The Fortieth meeting of the Expert Appraisal Committee (EAC) for Industry-1 Sector constituted as per the provisions of the EIA Notification, 2006 for Environment Appraisal of Industry 1 Sector Projects was held on **15- 16th July, 2021** in the Ministry of Environment, Forest and Climate Change (MoEF&CC) through **video conferencing** in view of the ongoing Corona Virus Disease (Covid-19) issue. The list of EAC attendees is as follows:

S. No.	Name	Position	15/07/2021	16/07/2021
1.	Dr. Chhavi Nath Pandey	Chairman	Present	Present
2.	Dr. M.K. Gupta, Director, CPPRI.	Member	Present	Present
3.	Dr. Siddharth Singh,	Member	Present	Present
4.	Dr. Jagdish Kishwan	Member	Present	Present
5.	Dr. Tejaswini Ananth Kumar	Member	Present	Present
6.	Dr. G.V. Subramanyam	Member	Present	Present
7.	Shri. Ashok Upadhyaya	Member	Present	Present
8.	Shri. Rajendra Prasad Sharma	Member	Present	Present
9.	*Dr. Sanjay Deshmukh*	*Member*	*Absent*	*Absent*
10.	Prof. S.K. Singh	Member	Present	Present
11.	*Dr. R. Gopichandran*	*Member*	*Absent*	*Absent*
12.	Shri Jagannadha Rao Avasarala	Member	Present	Present
13.	Shri. J.S. Kamyotra	Member	Present	Present
Officials from MoEF&CC				
14.	Shri. Sundar Ramanathan	Member Secretary	Present	Present
15.	Dr. Mahendra Phulwaria	Scientist 'C'	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 39th meeting held during **30th June -1st July, 2021** were confirmed by the EAC as already uploaded on PARIVESH.

15th July, 2021

40.1 Sponge Iron Plant (4x100 TPD), Induction furnace (2x12T +1x12T), Rolling Mill (90,000 TPA) and 18 MW power plant [6 MW WHRB, 2 MW Coal char based and 10 MW Coal based] of **M/s. Jharkhand Ispat Private Limited** located at Hesla, P.O. Argada, **District Ramgarh, Jharkhand** - [Online Proposal No. IA/JH/IND/212892/2020; File No. J-11011/41/2013-IA-II(I)] – **Environment Clearance** – regarding**.**

40.1.1 M/s. Jharkhand Ispat Private Limited has made an online application vide proposal no. IA/JH/IND/212892/2020 dated 03/06/2021 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous &non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and attracts provisions of S.O. 804 (E) issued by MoEF&CC dated 14.03.2017 for the projects under Violation.

40.1.2 It was apprised to the EAC that aforesaid proposal was transferred from IA-Violation sector to IA-Industry 1 sector on 1/07/2021 for appraisal by the sectoral EAC. With the prior consent of the Chairman, EAC – Industry 1 sector, Shri K. Gowrappan, Member, EAC – Violation sector have been co-opted for appraisal of the instant proposal consideration.

Details submitted by Project proponent

40.1.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
PP made online application dated 25/04/2018 to (Industry-1). Later on, PP requested the MoEF&CC on 27/11/2019 to transfer the proposal made in EAC (Industry-1) to EAC (Violation) as 'Lateral Proposal Entry' as per MoEF&CC Office Memorandum dated 09/09/2019.	31st EAC (Violation) held on 28th Feb, 2020, 33rd EAC (Violation) held on 18-19th May, 2020, 36th meeting of EAC (Violation) held on 21.09.2020	Terms of Reference	09/11/2020

40.1.4 The project of M/s. Jharkhand Ispat Private Limited located in Hesla, P.O. Argada, District Ramgarh, Jharkhand is for Sponge Iron Plant (4x100 TPD), Induction furnace (2x12T +1x12T), Rolling Mill (90,000 TPA) and 18 MW power plant [6 MW WHRB, 2 MW Coal char based and 10 MW Coal based].

40.1.5 Environmental site settings

SNo	Particulars	Details	Remarks
i.	Total land	14.38 ha [Private land: 14.38 ha]	
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Existing units in the plant are installed in 10.34 ha. of land JIPL has taken adjacent land area of 4.04 ha on 30 years lease from with M/s. Durga Cements Co. Ltd, Ramgarhon	The entire project will be installed in total area of 14.38 ha.

SNo	Particulars	Details	Remarks
		12/03/2018	
iii.	Existence of habitation & involvement of R&R, if any.	No R&R is involved	
iv.	Latitude and Longitude of the project site	Latitude: 23^{O}38' 48.47" N Longitude: 85^{O}27'37.77" E	
v.	Elevation of the project site	335 meters above MSL	
vi.	Involvement of Forest land if any	Nil	
vii.	Water body exists within the project site as well as study area	**Project site**: Nil **Study area**: Damodar River : 0.3 km/South	
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil. Following forest are exists in the study area: Protected forest located at 5.0km (SW), 5.5km (NNE), 8.4km (South), 9.2 km (NNW)	

40.1.6 Chronology of exiting NOC/ Clearances:

S No	Date	NOC/ Clearance	Detail
1.	31/07/2003	NOC*	Issued by Jharkhand State pollution Control Board (JSPCB) for Sponge Iron Plant: 200 MT/day (DRI Kiln: 2x100 TPD)
2.	06/11/2006	NOC**	Issued by JSPCB for another Sponge Iron unit: 200 MT/day (DRI Kiln: 2x100 TPD) and MS Billets: 240 TPD (IF: 2x12 T with Billet Caster)
3.	24/12/2011	CTO	Issue by JSPCB for Sponge Iron- 4x100 TPD, M.S. Billet-240 TPD.
4.	10/12/2012	CTO*** renewal	Issued for Sponge Iron Plant: 200 MT/day (DRI Kiln: 2x100 TPD).
5.	10/10/2020	CTO renewal	Issued for Sponge Iron Plant: 200 MT/day (DRI Kiln: 2x100 TPD) and valid up to 30/09/2021.

Note: * *As the project cost was less than 100 Cr., the environmental clearance as per EIA Notification, 1994 was not required.*

****** *PP has been committed Violation under EIA Notification 14th September, 2006.*

******* *JSPCB directed to PP to give clarification in person to Member Secretary as to why the application for grant of CTO for 2x100 TPD sponge Iron Plant and 240 TPD MS Billets plant installed during 2006 should not be revoked. Thereafter, JSPCB granted CTO for the period 01.10.2012 to 30.09.2013 only for operation of 2x100 TPD Sponge Iron Plant, installed during the year 2013.*

40.1.7 After revoked the facilities under violation by JSPCB during CTO renewal, PP sought for Environment Clearance for the following:

- M/s. Jharkhand Ispat Private Limited submitted application on 11/01/2013 for grant of ToR to Obtaining Environmental clearance for the enhancement of sponge iron

production from 60,000 TPA to 120,000 TPA and production of 72,000 TPA MS Billets through already installed 2x100 TPD DRI Kiln and 2x12T Induction Furnace under violation; and for the proposed 1x12T Induction furnace for production of 36,000 TPA MS Billets along with installation of additional 300 TPD Rolling Mill for production of 90,000 TPA TMT bars along with 18MW Captive Power Plant (12MW AFBC & 6MW WHRB), under expansion.

- Proposal was considered in 7th Re-EAC (Industry) held on 04/04/2013 and as the proposal was for violation, MoEF&CC vide letter dated 12/06/2013 directed PP to submit compliance as per OM dated 12/12/2012. Accordingly, PP submitted the Board resolution and credible action to MoEF&CC on 04/01/2014.
- Proposal was considered in 31st Re-EAC (Industry) held on 08/01/2015 and again considered on 1st meeting of EAC held on 20/11/2015 and ToR for the project was recommended, subsequently MoEF&CC granted the ToR on 08/01/2016.
- After conducting the public hearing on 06/05/2017 final EIA submitted on 25/04/2018. EDS was issued by MOEF&CC dated 17/01/2019 mentioned "the proposal is involved violation under the provisions of EIA notification, 2006. Therefore, PP was requested to make application under violation after issue of such notification for dealing of violation proposals". The proposal is delisted from Ministry's website on 07/06/2019.
- PP requested MoEF&CC to relist the proposal and transfer the same to the violation committee as 'lateral Proposal Entry', as per MoEF&CC Office Memorandum dated 09/09/2019.
- Proposal was considered in 33rd meeting of EAC (Violation) held on 18.05.2020. committee recommended to submit the duly signed hard copy of the following documents:
    a) Revised Form-1 and PFR having details of Violation.
    b) Year-wise production detail s including total cost of the project, prior to September, 2006.
- PP submitted the sought documents by EAC (Violation) to MoEF&CC on 08/09/2020.
- Proposal was considered in 36th meeting of EAC (Violation) held on 21-22nd September, 2020. The EAC, after detail deliberation appraised the instant proposal and confirmed the case to be of violation of the EIA Notification, 2006 and recommended for issuing the ToR. Accordingly, MoEF&CC granted the ToR on 09/11/2020.

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

Sl. No	**Project Details**	**Existing Installed Units**				**Proposed Units**		**Total (Existing + Proposed)**	
		Non-Violating		**Violating Units**					
		Unit	**Prod. (TPA)**	**Unit**	**Prod. (TPA)**	**Unit**	**Prod. (TPA)**	**Unit**	**Prod. (TPA)**
1.	Sponge Iron Plant	2x100 TPD	60,000	2x100 TPD	60,000	-	-	4x100 TPD	120,000
2. 3.	Induction Furnaces Billet Caster	-		2x12T 2strand 6/11m	 72,000	1x12T 1strand 6/11m	 36,000	3x12T 3strand 6/11m	 108,000
4.	Rolling Mill	-		-		300 TPD	90,000	300 TPD	90,000
5.	Captive Power Plant AFBC Boiler WHRB	-		-		 1 4	 12 MW 6 MW	 1 4	 12 MW 6 MW

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

Sl. No.	Item	Requirement MT per Year				Source	Mode of Transport (Distance w.r.t. plant
		Existing (Non-Violating Units)	Existing (Violating Units)	Proposed	Total		
1.	Iron Ore	102,000	102,000	-	204,000	Arya Iron & Steel Co. Pvt. Ltd., Odisha	170 km by Rail 10 km from Railway Siding (Barkhakhana)
2.	Coal	84,000	84,000	70,000	238,000	CCL, Saunda	18 km by Rail 10 km from Railway Siding (Barkhakhana)
3.	Dolomite	3,000	3,000	-	6,000	Local Market	50 km by Road
4.	Scrap	-	16,500	8,250	24,750	Local Market	20 km by Road

40.1.10 Existing (Non-violating): 170 KLD, Existing (Violating): 406 KLD, Proposed: 2330 KLD Total after Expansion: 2906 KLD. Thus the make-up water requirement for the project is estimated of 2,906 KLD. Permission for drawl of 0.65MGD (2955KLD) from Damodar River has been obtained from Damodar Valley Corporation vide letter no MRO/Tariff Cell/JIPL/66 dated 04/02/2019.

40.1.11 Existing – 10.5 MW (Non-Violating – 0.8 MW & 9.7 MW for violating Units) Proposed – 7.5 MW (Expansion) Total after expansion: 18.00 MW, which will be met from Captive Power Plant. Prior to commissioning of CPP additional power will be sourced from DVC and JBVNL.

40.1.12 Baseline Environmental Studies

Period	01/10/2020 to 31/12/2020
AAQ parameters at 8 locations	$PM_{2.5}$ = 32.6 to 56.5 µg/m^3 PM_{10} = 61.4 to 95.8µg/m^3 SO_2 = 8.2 to 36.8 µg/m^3 NO_2 = 12.8 to 54.8 µg/m^3 CO = 0.66 to 1.45 mg/m^3
AAQ modelling (Incremental GLC)	PM_{10} = 2.08µg/m^3 $PM_{2.5}$ = 0.83 µg/m^3 SO_2 = 1.08 µg/m^3 NO_x = 0.55µg/m^3
Ground water quality at 8 locations	pH: 7.15 to 7.62, Total Hardness: 185 to 235 mg/l, Chlorides: 50.0 to 61.0 mg/l, Fluoride: 0.22 to 0.38 mg/l, Heavy metals are within the limits
Surface water quality at 8locations	pH: 7.42 to 7.68; DO: 4.61 to 5.20 mg/l BOD: 6.0 to 10.0 mg/l COD: 24.0 to 30.0 mg/l
Noise levels	45.1 to 69.9 dB(A) for the day time and 34.9 to 56.6 dB(A) for the Night time

Traffic assessment study findings	Two Roads were considered for Traffic study i.e. MDR-106 (Ranchi- Naisarai Road) and SH-2 (Ranchi Patratu Ramgarh Road) After proposed Expansion the additional 270 PCU/day will be distributed among both the roads. The Level of Service of SH-2 is 'A' i.e. *Free-flow* and of MDR-106 is 'D' i.e. *Medium Flow*. Therefore, the proposed expansion will not have any significant impact in terms of Road Performance and its Capacity.
Flora and fauna	No Schedule -1 Fauna is present within the study area.

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

Sl. No.	Type of Waste	Source	Quantity in Tons (TPA)			Mode of Disposal
			Existing (Non-Violating Units)	Existing (Violating Units)	Proposed	
1	Dolochar	Sponge Iron Plant	15,000	15,000	---	Will be used in AFBC Boiler
2	De-dusting Dust	Sponge Iron Plant	11,040	11,040	---	MoU with Narsingh Ispat, Ramgarh for use in Sinter Plant or Pellet Plant
3	Wet Scrapper Sludge	Sponge Iron Plant	1,800	1,800	---	Non-hazardous and in small quantity. Used for filling of low-lying area.
4	IF Slag	Steel Melting Shop	---	11,000	5,500	After metal recovery (approx. 10%), remaining slag shall be crushed and will be used as aggregates
5	Sludge from Venturi Scrubber	Steel Melting Shop	--	2,200 (in dry condition)	1,100 (in dry condition)	MoU with Narsingh Ispat for use in Sinter Plant or Pellet Plant
6	Scale	Steel Melting Shop	--	500	250	MoU with Narsingh Ispat for use in Sinter Plant
7	Mill Scale	Rolling Mill	--	---	600	MoU with Narsingh Ispat for use in Sinter Plant
8	Fly-ash from WHRB	CPP	--	--	27500	MoU with Durga Cement
9	Fly-ash from AFBC	CPP	--	--	41500	MoU with Durga Cement
10	Bottom Ash from AFBC	CPP	--	--	10500	Will be given to the nearby Brick kiln owners, to be used as fuel in their Kilns

40.1.14 Public Consultation:

Details of advertisement given	01/04/2017
Date of public consultation	06/05/2017

Venue	Panchayat Bhawan, village & P.O. Marar, Ramgarh District, Jharkhand
Presiding Officer	Additional Collector
Major issues raised	i. Plantation ii. Employment to Locals and adequate wages, iii. Agriculture affected due to pollution iv. Pollution Control Measures, v. Medical Facility and Safe Drinking Water.

Action plan as per MoEF&CC O.M. dated 30/09/2020

SNo	Concerns raised during the Public Hearing	Activity and Action Plan	Tentative Budget, Rs Lacs			Target date for implementation of action plan
			1st Year	2nd Year	Total	
1	Safe Drinking Water	Installation of one nos. of bore-well based on Solar Pump system along with water storage Tank each in Village Hesla and Mahuatand, District: Ramgarh	**3,068,360** [Complete installation of bore-well having pump based on Solar power and water storage tanks]	-	3,068,360	Oct 2023
2	Medical Facility	Establishment of 16 Bedded Hospital with advance medical facilities with affordable and quality services in village & P.O Marar, District: Ramgarh	**4,278,631** [Civil work for two floor building]	**8,222,479** [Hospital equipment, Lift, Furniture, Electrification, Air Conditioner, etc]	12,501,110	Oct 2023
	Grand Total in Lakhs				**15,569,470**	

40.1.15 The total capital cost of the project is Rs 240.75 Crores and the capital cost for environmental protection measures is proposed as Rs4.71Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.34 Crores. The total employment generation from the proposed project is 394. The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Budget (Rs. In lakhs)	
		Capital Cost	Recurring Cost/Year
1	Air Pollution Control/Noise	200.0	10.0
2	Water Pollution Control	50.0	5.0
3	Environmental Monitoring and Management	-	11.0
4	Green Belt Development	33.5	3.5
5	Solid Waste / Hazardous Waste Management	4.0	1.5
6	OH & S	27.5	3.0
Total		315.0	34
7	Addressal of Public Consultation concerns	155.695	
Total EMP Budget		**470.695**	

40.1.16 1.54 ha area covered with 2000 trees as existing green belt program. After expansion greenbelt will be developed in 5.76 ha which is about 40% of the total project area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. PP proposed total no. of 6700 (Density: 1510 trees/ ha) saplings for 5.76 hectares to be planted in two years.

40.1.17 Summary of violation under EIA, 2006 furnished below:
Company has installed 2x100TPD DRI Kiln and 2x12T Induction Furnace after obtaining NOC from JSPCB on 06.11.2006 and is operating the same till date, without obtaining prior Environmental Clearance as per EIA Notification 2006. The Damage Assessment was carried out for violation period for Construction and Operation Phase. The total amount to be spent on Remediation plan and Natural Resource Augmentation Plan and Community Resource Augmentation Plan will be Rs.355.87 Lakhs. This plan will be implemented in three years after obtaining all necessary clearances. Detail is as given below:

Damage Assessment and Remediation Plan

Activity/ Causes of pollution	Probable Impacts	Environmental measures already taken	Damage Assessment	Remediation plan Budget (Rs. Lakhs)
Land Environment				
1. Land Acquisition 2. Excavation 3. Generation of Hazardous waste like empty cans of paints, fuel/oil 4. Land contamination due to spill of oil, paint, varnishes etc., during construction phase 5. Generation of construction solid wastes 6. Slag deposition from IF 7. Waste from Kilns	1. Change in Land use/ Land cover of site 2. Change in topography and drainage pattern 3. Land contamination due to deposition of dust 4. Soil erosion 5. Impact on productivity and fertility of the soil 6. Contamination of Soil. Leaching may affect Ground water quality. 7. Land contamination due to unmanaged disposal of solid waste/ Construction waste.	1. No change in land use as land taken for expansion is Industrial 2. Sprinkling of water to reduce fugitive dust emission. 3. Material storage on RCC flooring and under sheds. 4. Separate bins for onsite collection and segregation of domestic waste. 5. Filling of low-lying area with construction wastes 6. Construction of storm water drains to divert storm water from flowing over the construction areas. 7. Installation of oil and grease traps in construction workshop 8. IF slag was used for Construction. Kiln waste, Wet Scrapper Sludge used for filling low lying area and PC dust and	1. Removal of top soil 2. Dust pollution in dry season 3. Contamination of land / soil/ water due to no use solid wastes like dolochar and PC dust. 4. Effects on Flora/ Fauna 5. Health effects on workers handling chemical/ oil / fuel / paints etc. 6. Health effects on workers handling slag and solid waste.	1. Assistance to farmers by providing seedlings, manure and bio fertilizers = **Rs.300,000/-** 2. Concrete flooring with Shed for storage of Raw Materials, Solid wastes/ slag/ used oil etc. Rs 200,000/- 3. Domestic waste collection system in village Argada: Rs 200,000/- 4. Providing 10 Nos. colour coded dustbins in nearby villages Rs. 100,000/-. 5. Providing Bund maker, Ridger, plough for agriculture purpose to villagers **Rs. 400,000/-.**

Activity/ Causes of pollution	Probable Impacts	Environmental measures already taken	Damage Assessment	Remediation plan Budget (Rs. Lakhs)
		dolochar were other plants		
Total Cost On Remediation Measures For Land Environment				**1,200,000**
Air Environment				
1. Site Clearance (removal of shrubs) 2. Soil Excavation 3. Loading and Unloading of construction material 4. Operation of DG Sets 5. Transportation of construction materials through Vehicles 6. Operation of construction machineries like Mixer and others 7. Transportation of Raw materials 8. Operation of DRI Kilns and Induction Furnaces	1. Dust emission during site cleaning 2. Dust emission during loading & unloading of construction material 3. Dust and gaseous emission from transportation of construction material 4. Dust emission during loading & unloading of raw materials 5. Dust and gaseous emission from transportation of raw materials. 6. Emissions from DRI Kilns and Induction Furnaces	1. Water sprinkling on haul road. 2. Only PUC certified vehicles were allowed to enter the site. 3. Material were transported with covered trucks 4. Wheel Wash arrangement was provided. 5. 'Pacca road' inside plant 6. Water sprinkling on 'kaccha road' 7. Venturi Scrubber and ESP system was provided to IF and DRI Kilns, respectively for control of air emissions	1. Air Pollution due to installation of two Kilns and IFs 2. Air pollution due to operation of two Kilns and IFs	1. Sprinkling of water through water tankers on roads of Chaingara, Manuan and Hathimara villages = **Rs 1,500,000/-.** 2. Total of 1200 trees will be planted along the approach road of plant = Rs. 1,000,000/- 3. Providing E-Rickshaw for public transport in Hathimara and Hesla villages = Rs 1,600,000/-. 4. Distribution and Maintenance of air purifier at panchayat office of Hesla, Chapri and Manuan villages = Rs. 1,500,000/-. 5. Battery operated Road Sweeping Machine for the main road carrying mineral up to Barkakhana railway siding (2 Machines @ Rs 12 lakh each) = Rs. 2,400,000 6. Providing fixed water sprinklers/ fog canon on the connecting roads of Hesla, Chhotakana and Piri villages = Rs. 900,000.
Total Cost of Remediation Measures for Air Environment				**8,900,000**
Water Environment				
Fresh water requirement 1. Water requirement for Site Preparation and Infrastructure development 2. Water requirement for construction activities 3. Water requirement for domestic use. 4. Water requirement for operation of Induction Furnaces & DRI Kilns	1. Approximately 960 KL water has been used in various construction activities like dust suppression RMC Production, Cement Blocks Brick Preparation, Plastering etc and domestic water for 120 days. 2. Approx. 375,000 KL was used during operation of 2 Induction Furnaces and DRI kilns	1. Curing compounds was used to reduce the usage of water during construction purpose. 2. Industrial and domestic waste water was reused after treatment.	The rain water during construction/ Operation phase was neither used for storage/ recharge and wasted completely Ground water was used during construction and Operation phases	1. Providing drinking water purifiers (Aquafresh RO system) through borewell and storage tank for Hathimara, Chapri and Barakana villages (Rs. 800,000 x 3 + 200,000) = **Rs. 2,600,000/-.** 2. Renovation of Ponds and construction of wharf and platforms in ponds of Chaingara and Sirka villages (Rs. 1,000,000 x 2 + 300,000) = **Rs. 2,300,000/-**

Activity/ Causes of pollution	Probable Impacts	Environmental measures already taken	Damage Assessment	Remediation plan Budget (Rs. Lakhs)
Waste Water 1. Generated due to domestic use 2. Generated during construction activity 3. Waste water generated during operation of Induction Furnace and DRI Kilns	1. Water Logging & Mosquito breeding 2. Soil Contamination 3. Odor issues 4. Ground water contamination.	1. Existing toilet facilities with Septic tank with Soak pit was used by construction labours. 2. Waste water was treated in neutralization pit during operation of Induction Furnace 3. Training of staff & labours on the site for proper usage of water through signage	1. Leaching of waste water in the soil 2. Runoff during rains will lead to increase in pollutants in surface	1. Construction of toilet under Swatch Bharat Mission in Hathimara and Durgi villages = Rs. 1,000,000/- 2. Construction of one solar powered bore well each in Chapri, Marar and Bumri villages for agriculture purpose = Rs. 1,000,000/-
Storm Water	1. Increase in Sediment load 2. Contamination of Soil due to run off from construction site.	1. Separate storm water drainage to avoiding mixing of plant effluent with storm water	1. Water logging in area leading to breading of mosquito 2. Deterioration of the water channel/ drain and impact on aquatic life. 3. Reduction in ground water recharge quantum due to coverage of land with impervious materials	1. Rain water harvesting system at Panchayat office of Chhotakana, Piri and Durgi villages = Rs.1,500,000/- 2. Construction of two Sedimentation tanks for collection of surface water runoff in monsoon for Hesla, Pochra and Chosdhara villages Rs. 1,500,000/- 3. Providing Health camp for water borne diseases in Hesla, Piri, Marar, Sirka and Chainghara villages = Rs. 1,100,000
Total Cost on Remediation Measures for Water Environment				**11,000,000**
Noise Environment				
1. Movement and operation of construction equipment 2. Construction activities 3. Transportation of construction materials in Trucks and Dumpers 4. Transportation of raw materials and finished products 5. Operation of Induction Furnaces and DRI Kilns	Generation of Noise may lead to: • Hearing loss, • Increase in blood pressure • Stress • Sleep interference	1. Construction workers working at site were provided with PPEs like ear plugs and ear muffs 2. Plant boundary wall, which is >3m has act as noise barrier, to reduce the level of noise outside the plant premises. 3. PPE were provided to the employees during operation phase, working in the high noise areas	1. Increase in ambient noise levels, causing discomfort to nearby residents' and fauna.	1. Health camp for Audiometry Test in Hesla and Argada villages = **Rs 500,000/-** 2. Distribution of Hearing aids to the needed Sr. Citizens of the nearby area @ 1000 x 500 person = Rs. 500,000/- 3. Plantation at the Argada village periphery = **Rs. 245,000/-**
Total Cost On Remediation Measures For Noise Environment				**1,245,000**
Socio- Economic Environment				

Activity/ Causes of pollution	Probable Impacts	Environmental measures already taken	Damage Assessment	Remediation plan Budget (Rs. Lakhs)
1. Occupational Health and Amenities 2. Other social attributes	1. Impact on the heath and comfort of nearby residents. 2. Impact on the health of the construction and operational workers 3. Pressure on the existing infrastructure 4. Reduction in crop yield 5. Increased employment opportunities (direct & indirect) 6. Activities under CSR for the benefits of locals	1. PPEs were provided to all construction and operational workers 2. Periodical health examination of workers 3. Existing Medical Establishments in the area are adequate (There are 10-15 hospitals present in the vicinity of project site.)	1. Reduction in crop in the nearby agriculture field due to pollution. 2. Effect on the health of local residents 3. Pressure on the available resource like water 4. Injuries to labours while working at site 5. Health issues of construction and operational workers due to pollution 6. Health issues of cattle due to pollution	1. Organizing health camps for labourers = **Rs 100,000/-** 2. Providing medical camp for domestic animals = Rs 100,000/-. 3. Sports facility i.e. Badminton and Basketball court will be constructed for promoting sports/ games in High school of Chaingara and Bumri villages = **Rs. 762,000**
Total Cost On Remediation Measures For Socio-Economic Environment				**962,000**
Biological Environment				
1. Clearing of shrubs for installation of facilities 2. Air and Noise pollution during construction 3. Air & Noise pollution during operation of violation units	1. Habitat Fragmentation and other ecological attributes 2. Key species likely to be disturbed. 3. Loss of herbs and shrubs	1. No tree felling or removal of vegetation was involved for installation of the facilities under violation. Only shrubs were removed 2. No construction work was undertaken during night time.	1. Reduced photosynthesis due to air pollution has affected plant growth of nearby areas. 2. There may be loss of native species (flora & fauna)	1. Tree plantation at periphery of Hesla and Sirka villages = **Rs 650,000/-** 2. Development of Park and plantation of fruit bearing trees in Chhotakana village = Rs. 700,000/- 3. Funds for conservation of aquatic life in Damodar River to the District collector/ Water resource Department = Rs. 400,000/-. 4. Funds for conservation of fauna residing in Naisarai Protected forest to the District Forest Office = Rs. **400,000/-.**
Total Cost On Remediation Measures for Biological Environment				**2,150,000**
Total Damage Cost on Remediation measures for Land, Air, Water, Noise, Socio & Biological Environment				**25,457,000**

Yearly Budget for Remediation Plan

S No	Environment Component	Activity Description	Total Budgetary Provision in Rs.			
			1st Year	2nd Year	3rd year	Total
1	Land Environment	1. Assistance to farmers by providing seedlings, manure and Bio-fertilizers = **Rs.300,000/-** 2. Concrete flooring with Shed for storage of Raw Materials, Solid wastes/ slag/ used oil etc. Rs 200,000/- 3. Domestic waste collection system in village Argada: Rs 200,000/- 4. Providing 10 Nos. colour coded dustbins in nearby villages Rs. 100,000/-. 5. Providing Bund maker, Ridger, plough for agriculture purpose to villagers **Rs. 400,000/-**	**500,000** (Assistance to farmers and Concrete flooring)	**300,000** (Domestic waste collection system and colour coded dustbins)	**400,000** (Providing Bund maker, Ridger, plough for agriculture purpose)	**1,200,000**
2	Air Environment	1. Sprinkling of water on roads of Chaingara, Manuan and Hathimara villages = **Rs 1,500,000/-** 2. Total of 1200 trees will be planted along the approach road of plant = **Rs. 1,000,000/-** 3. Providing E-Rickshaw for public transport in Hathimara and Hesla village = **Rs 1,600,000/-.** 4. Distribution and Maintenance of air purifier at panchayat office of Hesla, Chapri and Manuan villages = Rs. 1,500,000/-. 5. Battery operated Road Sweeping Machine for the main road carrying mineral upto Barkakhana railway siding (2 Machines @ Rs 12 lakh each) = Rs. 2,400,000 6. Providing fixed water sprinklers/ fog canon on the connecting roads of Hesla, Chhotakana and Piri villages = **Rs. 900,000**	**3,900,000** (Sprinkling of water on roads and Distribution and Battery operated Road Sweeping Machine for the main road)	**2,500,000** (Providing fixed water sprinklers/ fog canon on the connecting roads and Providing E-Rickshaw for public transport)	**2,500,000** (Plantation of 1200 Trees and Maintenance of air purifier)	**8,900,000**
3	Water Environment	1. Providing drinking water purifiers (Aquafresh RO system) for Hathimara, Chapri and Barakana villages (Rs. 800,000 x 3 + 200,000) = **Rs. 2,600,000/-** 2. Construction of toilets under Swatch Bharat Mission in Hathimara and Durgi villages Rs. 1,000,000/-. 3. Construction of one	**5,100,000** (Providing drinking water purifiers, Construction of one solar powered bore well and Construction of two Sedimentation tanks)	**2,500,000** (Construction of toilet and Rain water harvesting pond)	**3,400,000** **(**Providing Health camp for water borne and Renovation of Ponds and construction of wharf and platforms in ponds diseases)	**11,000,000**

S No	Environment Component	Activity Description	Total Budgetary Provision in Rs.			
			1st Year	2nd Year	3rd year	Total
		solar powered bore well each in Chapri, Marar and Bumri villages for agriculture purpose = Rs. 1,000,000/- 4. Rain water harvesting pond at Panchayat office of Chhotakana, Piri and Durgi village = Rs.1,500,000/ 5. Construction of two Sedimentation tanks for collection of surface water runoff in monsoon for Hesla, Pochra and Chosdhara villages Rs.1,500,000/- 6. Providing Health camp for water borne diseases in Hesla, Piri, Marar, Sirka and Chainghara villages = **Rs. 1,100,000/-** 7. Renovation of Ponds and construction of wharf and platforms in ponds of Chaingara and Sirka villages (Rs. 1,000,000 x 2 + 300,000) = **Rs. 2,300,000/-**				
4	Noise Environment	1. Health camp for Audiometry Test in nearby villages = **Rs 500,000/-** 2. Distribution of Hearing aids to the needed Sr. Citizens of the nearby area @ 1000 x 500 person= Rs. 500,000/- 3. Plantation at the Argada village periphery = **Rs.245,000/-**	**500,000** (Health camp for Audiometry Test)	**500,000** (Distribution of Hearing aids)	**245,000 (**Plantation at the Argada village)	**1,245,000**
5	Biological Environment	1. Tree plantation at Hesla and Sirka villages = **Rs 650,000/-** 2. Development of Park and plantation of fruit bearing trees in Chhotakana village= Rs. 700,000/- 3. Funds for conservation of fauna residing in Naisarai Protected forest to the District Forest Office = Rs. 400,000/ 4. Funds for conservation of aquatic life in Damodar River to the District collector/ Water resource Department = Rs. **400,000/.**	**700,000** (Development of Park)	**650,000** (Tree plantation and)	**800,000** (Funds for conservation of aquatic life & Funds for conservation of fauna)	**2,150,000**

S No	Environment Component	Activity Description	Total Budgetary Provision in Rs.			
			1st Year	2nd Year	3rd year	Total
6	Socio-economic Environment	1. Organizing health camps for labourers = **Rs 100,000/-** 2. Providing medical domestic animals = Rs 100,000/-. 3. Sports facility i.e. Badminton and Basketball court will be constructed for promoting sports/ games in High school of Chaingara and Bumri villages = **Rs. 762,000**	**100,000** (Providing medical camp for domestic animals)	**100,000** (Organizing health camps)	**762,000** (Sports facility)	**962,000**
Total			**10,800,000**	**6,550,000**	**8,107,000**	**25,457,000**

Natural Resource Augmentation Plan along with budget

Sl. No.	Proposed Activities	Budget (Rs.)			
		1st Year	2nd Year	3rd year	Total
1	Installation of Bio-degradable waste converter in Bumri and Hesla village	200,000	200,000	200,000	600,000
2	Renovation of community wells along with water troughs for animals at Durgi and Hesla villages	300,000	300,000	200,000	800,000
3	Providing Apiary facility in Manuan and Durgi village	200,000	200,000	200,000	600,000
4	Development of drainage system of 2 km in length and Repair of culverts in Argada and Hathimara villages	1,000,000	700,000	300,000	2,000,000
5	Installation of Cow sheds (Dimensions 30x10 m) in Piri and Chaingara villages	400,000	400,000	200,000	1,000,000
Total		**2,100,000**	**1,800,000**	**1,100,000**	**5,000,000**

Community Resource Augmentation Plan along with budget

Sl. No.	Proposed Activities	Budget (Rs.)			
		1st Year	2nd Year	3rd year	Total
1	10 Computers with accessories will be provided to high school of Ramgarh	500,000	500,000	500,000	1,500,000
2	Providing Health Checkup camp and materials related to Covid-19 prevention to the Hesla, Argada, Durgi and Manuan villages**.** (Masks Distribution @ Rs.50/mask, Sanitizers @ Rs.500/sanitizer, Scientific equipment (Shycocan) in four villages for enclosed public spaces like hospital, schools, community hall, etc to prevent viral disease air & surface transmission Including Corona family of viruses@50000/Unit)	1,000,000	500,000	500,000	2,000,000
3	Provision of solar panel lighting (10 Lamps) in community areas of Sirka and Argada villages	400,000	200,000	200,000	800,000
4	Construction of Kalyan Mandap at Durgi and Chapri villages	415,000	215,000	200,000	830,000
Total		**2,315,000**	**1,415,000**	**1,400,000**	**5,130,000**

40.1.18 Name of the EIA consultant: M/s. Vardan Environet [S.L. No. 38 List of ACOs with their Certificate / Extension Letter no. Rev. 12, July 09, 2021].

Certified Compliance report from Jharkhand State Pollution Control Board

40.1.19 The Status of compliance of earlier CTO was obtained from Jharkhand State Pollution

Control Board vide letter no. 476 dated 05/04/2021 in the name of M/s. Jharkhand Ispat Private Limited. As per inspection report of JSPCB, the PP is complying CTO conditions.

Observations of the Committee

40.1.20 The Committee noted the following:

i. Water balance diagram for DRI shall be checked and corrected. The water balance diagram for monsoon season shall be submitted and explained.

ii. In transportation study report, the Level of Service (LOS) in MDR-106 is "D" which has to be improved by working out alternate route or by other measures to bring the LOS to at least B.

iii. In Public hearing Grievances one of the main requirements raised was to reduce dust impact in nearby villages which needs to be addressed by an action plan like providing greenbelt / thick plantation-surrounding nearby villages like Argada, eski, etc. A detailed study of these areas to be conducted to find out the requirements to mitigate the same and the budgetary provision with specific quantity and period shall be incorporated.

iv. Details of management of effluent and storm water during monsoon to be furnished.

v. Action plan for green belt development needs to be revisited as the density proposed for green belt is 1500 trees per ha which is not as per the CPCB norms.

vi. PM_{10} at site, Argada and Sirka in post project scenario shall exceed 100 $\mu g/m^3$ under worst case scenario. No specific EMP has been suggested to bring it down.

vii. AAQ modelling shall be again carried out as same mixing height is used for day and night time which is not correct.

viii. Damage assessment report

a. Lump sum Cost taken for topsoil damage of quantity 25100 cum to be revised by assigning unit cost per Cum (I.e. Rs.15 Per cum) against total quantity.

b. Table 13.5 to be revised and damage due to emission of Sox & NoX during construction to be included. Details of equipment / machinery operating hours, working hours per day, vehicle lead distance, total open area / non constructed area under impact of wind erosion and fuel consumption to be included.

c. Emission from all sources and for total production since 2006 to be considered for calculation of impact due to air emission. Emission from material handling, internal transportation, and impact of wind erosion from stockyard to be included for calculation of total impact.

d. Monetary value in Table 13.13 to be corrected as per revised total emission under controlled environment.

e. Rainwater runoff to be revised based on specific land use runoff coefficient for different types of land cover, covering total plot area for both construction and operation period.

f. For compensation of rainwater loss, total cost of construction of RWH structures shall be taken as damage cost. Cost of RWH structure can be referred from respective state guidelines.

g. Table 13.9 to be revised as per standard water requirement of not less than 1 KL per 1 SqMtr constructed area for total area of 2.97 ha and water usage for other activities

to be included as per water balance table apart from DRI Kiln and induction furnace with CCM for complete operation period since 2006.

h. The damage cost taken for noise to be revised and damage to be calculated as per CPCB guidelines / Noise rules 2000 and NGT directions on same.
i. The damage cost taken for biodiversity and crop damage to be revised as per Indian standards and reference.
j. The damage cost taken against gap plantation to be revised @2500 trees per hectare.
k. The amount allotted against PH grievance as per OM dated 30/09/2020 should be worked out considering Greenbelt / thick plantation for nearby two villages as mentioned above and to be included in the EMP cost.
l. The activities and corresponding cost proposed under Remediation plan, Natural and Community resource augmentation plan to be revisited, and actual cost as per market standards to be included for same. The proposed activity to each village needs to be quantified.
m. The activities under the above shall be specific with time period of 3 years and monitorable.

ix. Argada Village is 200 m from site in west. Raw material yard is located adjacent to boundary facing the village. Hels village is 400 m from site in east. Environmental safeguards to be adopted has not been mentioned.
x. Table number 3.16, 3.17 and 3.18 of EIA report pertaining to analysis of soil samples, land use pattern, villages selected for socio-economic survey needs to be revisited and corrected.
xi. Damodar river is located at a distance of 0.3km from the project site in southern direction. Authenticated HFL details of the river, protection measures to be adopted along river side and impact on riverine ecology has not been submitted.

Recommendations of the Committee

40.1.21 In view of the foregoing and after deliberations, the Committee recommended the proposal to be returned in its present form to address the technical deficiencies enumerated above.

40.2 Proposed Expansion of Ferro Alloy Plant (SAF 1x9 MVA) by installation of 3x5 MVA SAFs and Ferro-Chrome Briquetting Plant (10 TPH) by **M/s. Metsil Exports Private Limited** located at Basudebpur (North), Barjora, **District Bankura, West Bengal** [Online Proposal No. IA/WB/IND/51722/2010; File No. J-11011/371/2009-IA.II (I)] – **Environment Clearance** – regarding.

40.2.1 M/s. Metsil Exports Private Limited has made an online application vide proposal no. IA/WB/IND/51722/2010 dated 28/06/2021 along with copy of EIA/EMP report and Form–2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & nonferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

40.2.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
9th July 2019	9th meeting of EAC held on 30-31st July, 2019	Terms of Reference	26th August, 2019

40.2.3 The project of M/s Metsil Exports Pvt. Ltd. located in Hat Asuria Village, Basudebpur (North), Barjora, Bankura District, West Bengal State is for enhancement of production of Ferro Alloys from

- 17,400 TPA Si-Mn to 46,400 TPA Si-Mn or
- 22,560 TPA Fe-Mn to 60,160 TPA Fe-Mn or
- 16,992 TPA Fe-Cr to 45,312 TPA Fe-Cr or
- 7596 TPA Fe-Si to 20,256 TPA Fe-Si
- and installation of a new 10 TPH Chrome Ore Briquetting Plant.

40.2.4 Environmental Site settings

S. No.	Particulars	Details	Remarks
i.	Total land	5.75 ha [Private: 5.75 ha]	Land use: Industrial - 5.75 ha
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	5.75 ha	Total land under the acquisition of the company.
iIii.	Existence of habitation & involvement of R&R, if any	Not Applicable	
iv.	Latitude and Longitude of the project site	Latitude: 23°24'17.17"N to 23°24'27.00"N Longitude: 87°17'40.47"E to 87°17'51.38"E	
V.	Elevation of the project site	265.7 feet (81 meters)	
vi.	Involvement of Forest land if any.	Nil.	
vii.	Water body exists within the project site as well as study area	Project site**:** None Study area Damodar River - 5.7 km from the project site in NE direction. Irrigation Sluice originating from the River Damodar - 2.3 km in NE direction from the project site Subhankari Nala - 2.1 Km in S direction Kanjor Nala - 2.9 Km in SSW direction Kanjor Reservoir - 4 Km in SSE direction	-

S. No.	Particulars	Details	Remarks
		Feeder Canal - 3 Km in ESE direction	
viii.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil	

40.2.5 The existing project was accorded environmental clearance vide letter no. J-11011/371/2009-IA.II(I) dated 21st June, 2010. Consent to Operate for the existing unit was accorded by West Bengal Pollution Control Board vide Lr. no. CO107882 Memo No. 1705/dr-CO-S/11/1858 dated 15.05.2018. The validity of CTO is up to 30th September, 2023.

40.2.6 Implementation status of the existing EC:

Sl. No.	Facilities	Units	As per EC dated 21.06.2010 and subsequent amendment dated 16.12.2016	Implementation Status as on 11th May, 2021	Production as per CTO
1.	Ferro Alloy Plant	Submerged Arc Furnace (1x9 MVA)	17,400 TPA Si-Mn or 22,600 TPA Fe-Mn or 17,000 TPA Fe-Cr or 7600 TPA Fe-Si	Submerged Arc Furnace (1x9 MVA) under operation	17,400 TPA Si-Mn or 22,560 TPA Fe-Mn or 16,992 TPA Fe-Cr* or 7596 TPA Fe-Si*

*Note: * There is permission to manufacture Fe-Cr & Fe-Si. However, it is not being manufactured presently.*

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

Sl. No	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
1.	Ferro Alloy Plant	Submerged Arc Furnace (1x9 MVA)	17,400 TPA Si-Mn or 22,560 TPA Fe-Mn or 16,992 TPA Fe-Cr* or 7596 TPA Fe-Si*	• Submerged Arc Furnaces (3x5 MVA)	• 29,000 TPA Si-Mn or 37,600 TPA Fe-Mn or 28,320 TPA Fe-Cr or 12,660 TPA Fe-Si • 10 TPH	• Submerged Arc Furnace (1x9 MVA + 3x5MVA)	• 46,400 TPA Si-Mn or 60,160 TPA Fe-Mn or 45,312 TPA Fe-Cr or 20,256 TPA Fe-Si • 10 TPH

Sl. No	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
				• Chrome Ore Briquetting Plant		• Chrome Ore Briquetting Plant	

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

S. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
A. **Ferro Manganese - 60,160 TPA (Existing 22,560 TPA + Proposed 37,600 TPA)**							
1.	Manganese Ore	56400	94000	150400	Imported: Australia / Africa. Domestic: Barbil, Nagpur / Bellary sector		Road
2.	Dolomite	6768	11280	18048	Sundergarh, Orissa		Road
3.	Coke	10152	16920	27072	Imported: China, Ukraine or Colombia Domestic: Dhanbad		Road
4.	Steam Coal	5652	9420	15072	South-Eastern Coalfields of CIL		Road
	Overall	**78972**	**131620**	**210592**			
B. **Silico Manganese – 46,400 TPA (Existing 17,400 TPA + Proposed 29,000 TPA)**							
1.	Manganese Ore	37381	63800	101181	Imported: Australia / Africa Domestic: Barbil, Nagpur or Bellary sector		Road
2.	Dolomite	5947	10150	16097	Sundergarh, Orissa		Road
3.	Coke	15293	26100	41393	Imported: China, Ukraine or Colombia Domestic: Dhanbad		Road
4.	Steam Coal	5098	8700	13798	South-Eastern Coalfields of CIL		Road
5.	Quartzite	4248	7250	11498	Keonjhar / Sundargarh, Orissa		Road
6.	Ferro Manganese Slag	3400	5800	9200	In house / Market		Road
	Overall	**71367**	**121800**	**193167**			
C. **Ferro Chrome- 45,312 TPA (Existing 16,992 TPA + Proposed 28,320 TPA)**							
1.	Friable	6960	11328	18288	Indigenous		Road
2.	Briquette	33060	53808	86868	Own production		-
3.	Coke	6960	11328	18288	Imported: China, Ukraine or Colombia Domestic: Dhanbad		Road
4.	Coal	2610	4248	6858	Indigenous / Imported		Road
5.	Magnesite	2088	3398.4	5486.4	Indigenous		Road

6.	Quartz	2088	3398.4	5486.4	Keonjhar / Sundargarh, Orissa		Road
	Overall	**53766**	**87508.8**	**141274.8**			
D. **Ferro Silicon – 20,256 TPA (Existing 7596 TPA + Proposed 12,660 TPA)**							
1.	Mill Scales	3418	5697	9115	Indigenous		Road
2.	Quartz	12913	21522	34435	Keonjhar/ Sundargarh, Orissa		Road
3.	Coke	13673	22788	36461	Indigenous		Road
	Overall	**30004**	**50,007**	**80011**			

40.2.9 The water requirement for the project is estimated as 160 m^3 /day (overall project after expansion), out of which 160 m^3/day of fresh water requirement will be obtained from the Barjora Panchayat Samity. The permission for drawl of water is obtained from Barjora Panchayat Samity vide Lr. No. Memo No. 168 dated 24.02.2021. No groundwater shall be used.

40.2.10 The power requirement for the project is estimated as 22,500 KVA (overall project after expansion), will be obtained from the DVC (Damodar Valley Corporation).

40.2.11 Baseline Environmental Studies

Period	1st March, 2019 to 31st May, 2019
AAQ parameters at 8 locations	$PM_{2.5}$ = 19 to 41 µg/m^3 PM_{10} = 53 to 90 µg/m^3 SO_2 = 5 to 16 µg/m^3 NO_2 = 10 to 33 µg/m^3 CO = 0.18 to 1.38 mg/m^3
AAQ modelling (Incremental GLC)	PM = 2.95 µg/m^3 SO_2 = 2.82 µg/m^3 NOx = 1.15 µg/m^3
Ground water quality at 9 locations	pH: 6.7 to 7.5, Total Hardness: 144 to 226 mg/l, Chlorides: 45 to 111 mg/l, Fluoride: 0.24 to 0.57 mg/l. Heavy metals are within the limits.
Surface water quality at 10 locations	**Damodar River** pH: 7.5 to 7.6; DO: 7.1 to 7.2 mg/l and BOD: 2 to 3 mg/l. COD : 8 mg/l **Canal water** pH: 6.9; DO: 6.2 mg/l and BOD: 6 mg/l. COD : 28 mg/l **Pond Water** pH: 6.9 to 7.6; DO: 5.7 to 7.2 mg/l and BOD: 6 to 9 mg/l. COD : 20 to 31 mg/l
Noise levels	56.3 to 71.3 L_{eq} in dB(A) for the day time and 44.6 to 56.8 L_{eq} in dB(A) for the Night time.
Traffic assessment study findings	Traffic density was monitored at Hat Asuria More on Durgapur-Bankura SH-9 and Metsil More on Hat Asuria - Pakhanna Road. Existing load at Hat Asuria More on Durgapur-Bankura SH-9 is 5494 PCU/ day against 15000 PCU/ day and Metsil More on Hat Asuria - Pakhanna Road

	is 2403 PCU/ day. Both roads can well accommodate existing vehicular traffic load along with additional load due to M/s. Metsil Exports Private Limited.
Flora and fauna	There is no schedule species within the study area.

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

Sl. No.	Solid Waste	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Utilization or Management
1	Ferro Manganese Slag	22,560	37,600	60,160	1. The optimum quantity of slag generated in Fe-Mn operation shall be 60160 TPA considering 100% production in all furnaces. In such situation the entire slag will be sold to other Si-Mn producers. 2. In case Si-Mn is produced, Fe-Mn slag will be proportionately reduced and shall be used @1 Ton Fe-Mn slag for each Ton of Si-Mn production and surplus/balance if any shall be sold in market.
OR					
2	Ferro Silicon Slag	608	1,013	1,621	In Fe-Si process a negligible quantity of slag will be generated which shall be used for Si-Mn production in place of Quartz. Also, it is a sellable material.
OR					
3	Silico Manganese Slag	15,293	26,100	41,393	The optimum quantity of slag generated in Si-Mn operation shall be 41393 TPA considering 100% production in all furnaces. After metal recovery through jigging process about 7-10% metal shall be recovered from the total slag and the balance 37260 TPA in the size range of 5 mm – 30 mm (as a stone chips / road construction materials) shall be used for road construction & repairing purposes. Considering 3 m width & depth 12 inch (0.3 m) of the road and density of the slag as 3.2 ton/cu.m, 2880 tons Si-Mn slag may be consumed for construction of 1.0 km stretch of road. Therefore, the entire quantity of Si-Mn slag generated in year (41,393 TPA) can be utilized for the construction of around 14 km village road. Besides, there are a number of coal & other mines in the surrounding areas. Alternatively, these slags may also be disposed through mine filling.
OR					
4	Ferro Chrome Slag	13,920	22,656	36,576	The optimum quantity of slag generated in Fe-Cr operation shall be 36576 TPA considering 100% production in all

Sl. No.	Solid Waste	Existing Quantity (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	Utilization or Management
					furnaces. After metal recovery through jigging process about 7-10% metal shall be recovered from the total slag and the balance 32900 TPA in the size range of 5 mm – 30 mm (as a stone chips / road construction materials) shall be used for road construction & repairing purposes after TCLP Test approval. Considering 3 m width & depth 12 inch (0.3 m) of the road and density of the slag as 2.0 ton/cu.m, 1800 tons Fe-Cr slag may be consumed for construction of 1.0 km stretch of road. Therefore, the entire quantity of Fe-Cr slag generated in year (36,576 TPA) can be utilized for the construction of around 20 km village road. As per an estimate, conducted it is found that around 500 km undeveloped (Kuchha) road is existing in the surrounding villages in the 10 km radius area. Hence, there is lot of potential of the Si-Mn & Fe-Cr slag utilization during construction of these roads. Besides, there are a number of coal & other mines in the surrounding areas. Alternatively, these slags may also be disposed through mine filling.

40.2.13 Public Consultation:

Details of advertisement given	22nd October, 2019
Date of public consultation	26th November, 2019
Venue	"Meeting Hall, Barjora Panchayet Samiti", Barjora, Dist. Bankura, West Bengal
Presiding Officer	Sri Asim Kumar Biswas, WBCS (Executive), ADM (General)
Major issues raised	i. Employment ii. Pollution iii. Greenery iv. Upgradation of road v. Infrastructure Development Work of Local School and College

Action plan as per MOEF&CC O.M. dated 30/09/2020

Concerns raised during public hearing	Physical activity and action plan	Particulars	YEAR OF IMPLEMENTATION		
			1st Year	2nd Year	3rd Year
• Generation of local employment.	In the proposed expansion project, top most priority will be given to the local people based on their academic qualification. Besides, there will be programme for the skill development to the unemployed local youth through National Skill Development Corporation, Govt. of India Scheme. In this connection, a building with necessary infrastructures shall be constructed.	Physical Target	Construction of a 2 – room building with infrastructure development like installation of 4 sewing machines, 3 computer systems & 5 machines for making hand craft items along with necessary raw materials for training purpose.		-
		Budget : Rs. 6 Lakhs	3 Lakhs	3 Lakhs	-
• Development and upgradation of the connecting road from main gate of existing plant to Hat Ashuria Road.	The connecting Road from the main gate of the existing plant to Hat Ashuria Road will be developed and constructed. Total length of the road is 700 m. and the width is 6 m.	Physical Target	Development & upgradation of existing road to metallic road - total length 700 m & width 6 m.	-	-
		Budget : Rs. 4 Lakhs	4 Lakhs	-	-
• Tree plantation in the surrounding areas. • Plantation may be carried out at vested land of the Government besides plantation within factory premises.	• Plantation will be carried out at abandoned land occupied by Government and nursing of the plants will be done by engaging the local people. • Tree plantation and park development programme in the nearby villages will be done and distribution of saplings will be done to the nearby villagers and school students. • Around 4750 number of trees (@ 2500 nos. of tree	Physical Target	Development of 1 no. park along with tree plantation & distribution of saplings.	Development of 1 no. park along with tree plantation & distribution of saplings.	Tree plantation & distribution of saplings.
		Budget : Rs. 2.5 Lakhs	1 Lakh	1 Lakh	0.5 Lakhs

Concerns raised during public hearing	Physical activity and action plan	Particulars	YEAR OF IMPLEMENTATION		
			1st Year	2nd Year	3rd Year
	per hectares) have already been planted under greenbelt development programme within the plant premises.				
• Operation of the unit following environmental norms especially in the night time • Operation of Air Pollution Control Devices as per norms.	• Adequate control measures like installation of Bag filters, dust suppression system & Stacks of adequate height at relevant places will be installed. • Air borne dust shall be controlled by mobile water tanker inside the plant premises. • Maintenance of air pollution control equipment shall be done regularly. • All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. • No waste water will be discharged outside the plant area. The plant is designed as a zero discharge plant. The entire wastewater will be re-circulated and recycled. • The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be provided.	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.		
		Budget	Included in the EMP Cost.		
• Infrastructure Development Work of Local School and College under	Best efforts will be given for the Infrastructure Development Work of the schools and	Physical Target	• Renovation & repairing of existing library along with	• Development of existing playground along with supply of	

Concerns raised during public hearing	Physical activity and action plan	Particulars	YEAR OF IMPLEMENTATION		
			1st Year	2nd Year	3rd Year
CER Activity.	colleges in the nearby villages based on the requirements.		supply of 2 nos. of computers in 1 school.	sports items in 1 local college.	
		Budget : Rs. 3 Lakhs	1.5 Lakhs	1.5 Lakhs	-
• Ground water shall not be used for industrial purposes.	Requirement of the total 160 KLD water (Existing: 40 KLD and Expansion: 120 KLD) will be supplied by the Barjora Panchayat Samity. No Ground water shall be used for industrial purposes.	Physical Target	-	-	-
		Budget	-	-	-
Total Budget - Public Hearing related: Rs. 15.5 Lakhs					

Need Based Assessment:

Need based Activities	Particulars	YEAR OF IMPLEMENTATION		
		1st Year	2nd Year	3rd Year
Construction of Toilets (2 sets) in nearby villages separately for Ladies & Gents (@ Rs. 50 thousands per set of 2 Toilets).	Physical Target:	1 set Toilet	1 set Toilet	
	Budget: Rs. 1 Lakh	Rs. 0.5 Lakh	Rs. 0.5 Lakh	-
Development of Drinking Water Infrastructure - 2 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target:	2 nos. Tube well / Hand Pump		
	Budget: Rs. 1 Lakh	Rs. 1 Lakh	-	-
Infrastructure development in the existing Primary Health Care Centres in the nearby villages. Covid detection machine like pulse oximeter & thermal sensor gun in health care center.	Physical Target:	Development & repairing of 1 no. existing Primary Health Care Centre. 4 pulse oximeter & 2 thermal sensor gun.	Development & repairing of 1 no. existing Primary Health Care Centre. 4 pulse oximeter & 2 thermal sensor gun.	-
	Budget: Rs. 1.5 Lakhs	Rs. 0.75 Lakh	Rs. 0.75 Lakh	-
Street Lighting (Solar) provision at suitable public places in and	Physical Target:	2 nos. Solar light	2 nos. Solar light	-
	Budget: Rs. 1.0 Lakhs	Rs. 0.5 Lakhs	Rs. 0.5 Lakhs	-

Need based Activities around the nearby villages (4 numbers, @ Rs. 25,000/- per Solar Light)	**Particulars**	**YEAR OF IMPLEMENTATION**		
		1st Year	**2nd Year**	**3rd Year**
Rain Water Harvesting through ground Water recharging in the surrounding village	Physical Target:	-	1 no. Recharging system	-
	Budget: Rs. 3 Lakhs	-	Rs. 3 Lakhs	-
Strengthening of village roads in the surrounding area in collaboration with the local administration.	Physical Target:	Development & up-gradation of existing road to metallic road - total length 2 km & width 3 m.	-	-
	Budget: Rs. 2 Lakhs	2 Lakhs	-	-
Total Budget - Need based activities : Rs. 9.5 Lakhs				
Overall Budget (Public Hearing related + Need based Activities): Rs. 25 Lakhs				

40.2.14 The capital cost of the project is Rs. 25 Crores and the capital cost for environmental protection measures is proposed as Rs. 5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 0.5 Crores. The employment generation from the proposed project / expansion is 200. The details of cost for environmental protection measures is as follows:

S. No.	**Description of Item**	**Existing (Rs. in Lakhs)**	
		Capital Cost	**Recurring Cost**
i.	Air Pollution Control system	300	30
ii.	Water Conservation & Pollution Control	85	7.0
iii.	Waste management system	30	2.5
iv.	Noise Reduction system	25	2.0
v.	Occupational Health Manangement	22	1.6
vi.	Rsik Mitigation and Safety Plan	20	1.5
vii.	Environment Management Department	18	1.5
viii.	Green Belt Development	-	3.9
	Total	**500**	**50**
ix	Addressed to Public Consultation concerns	**15.5**	-
x	Need based assessment	**9.5**	

40.2.15 Greenbelt is already developed in 1.9 ha which is about 33% of the total project area. Local and native species have been planted with a density of 2500 trees per hectare. Total no. of 4750 saplings have already been planted and nurtured in 1.9 hectares.

40.2.16 There is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

40.2.17 Name of the EIA consultant: M/s Envirotech East Pvt. Ltd. [Validity extended by QCI/NABET till 8/10/2021 vide letter dated no. QCI/NABET/ENV/ACO/21/1796 dated 9/7/2021].

Certified compliance report from Regional Office

40.2.18 The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneswar vide letter no. 102-379/09/EPE dated 19/11/2020 in the name of M/s Metsil Exports Pvt. Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Regional Officer MoEF&CC, Bhubaneswar vide letter no. MEPL/38/2020-21 dated 18th December, 2020. MoEF&CC Integrated Regional Office, Kolkata evaluated the same and has issued letter dated 19th February, 2021. The details of the observations made by RO in the report dated 19th February, 2021 along with its re-assessment/ present status as furnished by the PP is given as below.

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MOEF, the respective Zonal Office of CPCB and the WBPCB. The Regional Office of this Ministry at Bhubaneswar / CPCB / WBPCB shall monitor the stipulated conditions.	As per Regional Office file records, it has been observed that the PAs are not submitting the six-monthly compliance reports. It is required to submit the six-monthly compliance reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (by e-mail) to Regional Office, Bhubaneswar on regular basis.	21.06.2010		(xv)	**Complied** It was observed that the project was shut down for the period (December, 2013 to December, 2018) due to the prevailing market condition during which the PA did not submit the compliance report. However, after the said period it submitted 6 monthly compliance reports since 2019. The 1st six monthly compliance report was submitted in the year 2019. The 2nd six monthly compliance report was submitted in 2020.
2	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal	It has been observed that the PAs are monitoring stack emissions once in six months only. It is recommended to monitor Stack emissions for at least once in two months and the monitoring reports to be submitted along with six monthly compliance reports on regular basis.	21.06.2010		(xiv)	**Complied**.

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	Office of CPCB and WBPCB. The criteria pollutant levels namely: SPM, RSPM, SO2, NOX (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.					
3	Continuous monitoring facilities for all the stacks and sufficient air pollution control equipment viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control particulate emissions below 50 mg/Nm^3. At no time, the emission level shall go beyond the prescribed standards, interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	It has also been observed that the PAs have not installed interlocking facilities in the process. It is required to install interlocking facilities so that process can be automatically stopped in case emission level exceeds the limit.	21.06.2010	1.		**Not Complied** It has been stated by the PA that it is under technical evaluation, which is expected to be completed shortly.
4	Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated waste water	It is required to monitor influent and effluent surface, sub-surface and ground water on regular basis and treated	21.06.2010	10.		**Complied** It was observed that the plant is designed as a zero discharge plant as far as the process effluent is concerned. The

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.	wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E (P) Act whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.				waste water from cooling tower is re-circulated through cooling and treatment. The treated waste water (having Total Dissolved Solid as around 402 mg/l) is being used for various purposes inside the plant.
5	All the ferro alloy slag shall be used for land filling inside the plant or used as building material only after passing through Toxic Chemical Leachability Potential (TCLP) test. Otherwise, hazardous substances should be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.	It is required to conduct Toxic Chemical Leachability Potential (TCLP) test for the raw material and all the ferro alloy slag used for land filling inside the plant or used as building material. Hazardous substances, if any should be recovered from the slag and output waste and be disposed in secured landfill as per CPCB guidelines.	21.06.2010	12.		It has been stated by the PA that only Ferro manganese and Silico manganese are being manufactured after the installation of the project. No ferro chrome has been produced. Ferro manganese slag is being used as a raw material for Silico manganese production and Silico manganese slag is being used for land filling. Ferro chrome slag shall also be used for land filling after chrome recovery and after TCLP test as and when Ferro chrome is manufactured. However, TCLP Test for the Silico manganese slag has been conducted.
6	Regular monitoring of influent and effluent surface, sub-surface and	It is required to submit the report regarding toxic metal content in	21.06.2010	10.		**Complied**

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	ground water should be ensured and treated waste water shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneswar, WBPCB and CPCB.	the waste material and its composition, end use of soli/hazardous waste shall be submitted to Bhubaneswar, WBPCB and CPCB on regular basis.				
7	All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 30th November, 2009 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneswar.	All the commitments made to the public during the Public Hearing/ Public Consultation meeting held on 30th November, 2009 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Regional Office at Bhubaneswar.	21.06.2010	18.		**Partially complied** It was been stated by the PA that the issues raised during Public Hearing were mainly related to employment generation for the local people, Pollution control measures, CSR, greenbelt development etc. The company has given preference to the local people for the employment in the existing project. It has taken adequate pollution control measures with respect to stack emission, wastewater generation and solid waste. Rs. 155 Lakhs have already been spent for this purpose. The Company commenced its operation only in the year 2019 after implementation of

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						the project in 2012 due to adverse market conditions. So, it could just commence its CSR activities after actual realisation of the profit in its business. It was observed that the PA has done only single and two tier plantation along boundary wall which not sufficient.
8	Recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro Alloy Units shall be strictly implemented	It is required to provide the detailed implementation status of recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Ferro Alloy Units.	21.06.2010	17.		**Complied**
9	At least 5% of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.	At least 5% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner. It requires immediate action.	21.06.2010	19.		**Complied** It has been stated by the PA that the company has recently resumed the operation of its plant after 5 years' shut down due to financial loss. The company has recently done mask distribution among the local people in the present context and has decided to continue the same.
10	Occupational health surveillance of the workers shall be done on a regular	It is required to provide the detailed information	21.06.2010		(v)	**Complied** The relevant information regarding the

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	basis and records maintained as per the Factories Act.	regarding the occupational health surveillance of the workers done for the year 2019-20 and 2020-21 (till date).				Occupational Health of the Workers done for the period March, 2020 to September, 2020
11	All the environment management measures given in the EIA/EMP shall be implemented and complied with.	It is required to provide the detailed information regarding the implementation status of environment management measures given in the EIA/EMP.	21.06.2010		(vi)	**Complied** It was observed that the Company has installed Bag Filters & Automatic Stack Emission Monitoring System to control stack emission. The entire wastewater, generated from the plant is reused inside the plant after proper treatment. Ferro manganese slag is being used as a raw material for Silico manganese production and Silico manganese slag is being used for land filling.
12	The company shall undertake eco-development measures including community welfare measures in the project area.	It is required to undertake eco-development measures including community welfare measures in the project area. It requires immediate action.	21.06.2010		(ix)	**Complied**
13	The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.	It is required to provide for solar light system for all common areas, street lights, villages, parking around project area and maintains the same regularly.	16.12.2016	4.		**Complied** It was observed that the company has installed solar light system around office gate as well as at other locations inside the plant premises.
14	As proposed, Rs. 150.00 Lakhs shall be earmarked towards total capital cost and recurring cost/annum for	It is required to provide detailed information regarding item wise expenditure on expenditure	21.06.2010		(xi)	**Complied**

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	environmental pollution control measures and used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.	incurred under environmental pollution control measures during the year 2019-20 and 2020-21 (till date).				
15	The Project Authorities 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 and the date of commencing the land development work.	It is required to submit the details regarding the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	21.06.2010		(xii)	Initially, the project was started in February 2011 and the project was completed in March 2012.
16	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional	As per the Regional Office file records, it has been observed that the PAs are not submitting environmental statement for each financial year ending 31st March in Form-V. It is required to submit the environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules,	21.06.2010		(xvi)	**Complied**

Sl. No.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
	Offices of the MOEF by e-mail.	1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions.				
17	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored date on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely: PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	It is required to upload the status of compliance of the stipulated environment clearance conditions, including results of monitored date on their website and should be update the same periodically.	21.06.2010	4.		**Complied** The status of compliance of the stipulated environment clearance conditions, including results of monitored date has been uploaded on the company's website. The same will be uploaded periodically.

40.2.19 The Committee observed the following:

i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

iii. The Committee also deliberated upon the certified compliance report of RO and found satisfied with the action taken report submitted by the proponent.

Recommendations of the Committee

40.2.20 In view of the foregoing and after deliberations the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

A. Specific conditions

i. Particulate Matter emissions from all the stacks shall be less than 30mg/Nm^3.

ii. All roads shall be made Pucca and a vacuum cleaner shall be used to clean the roads.

iii. Rain Water Harvesting shall be carried out as per the action plan submitted in the EIA report.

iv. 100 % solid waste generated in the facility shall be utilized as committed by the project proponent. Storage of solid waste will not be allowed for more than 90 days.

v. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

vi. Submerged Arc Furnaces shall be equipped with the fourth hole fume extraction system.

vii. Green Belt shall be developed in 33 % of total area with tree density of 2500 trees per ha.

viii. Project proponent shall provide a Jigging plant to recover chrome metal in FeCr Circuit. The rejects from jigging plant shall be subjected to TCLP test and only in situation where chromium content in slag is found within limits, it shall be used for construction otherwise the slag shall be sent to TSDF.

ix. 160 KLD water shall be drawn from Barjora municipality. GW abstraction is not permitted.

x. An affidavit shall be submitted to the Ministry stating that observations made in the inspection report of Regional Office dated 19/02/2021 has been complied within three months from date of issue of the Environment Clearance.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vi. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.

vii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

ii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.

ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same and also estimate carbon sequestration by the plantations.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. 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.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
ii. 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.
iii. 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.

X. Miscellaneous

i. 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.
ii. 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.
iii. 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.
iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, 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.
v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.3 Ferro Alloy Plant 2x9 MVA Submerged Arc Furnace to produce 24,000 TPA (Fe-Mn/ Fe-Si/ Si-Mn) and Induction Furnace (1x15 Ton) along with 5 MT Laddle and 1 Nos 2 strand continuous Caster for manufacturing of 36,000 TPA MS Billets by **M/s. Aryavarta Khanija Private Limited** located at Village & Post Hat Ashuria, Mauza Basudevapur, P.S. Barjora, **District Bankura, West Bengal** [Online Proposal No. IA/WB/IND/127431/2019, File No. J-11011/410/2019-IAII(I)] –**Environment Clearance–** regarding.

40.3.1 M/s. Aryavarta Khanija Private Limited has made an online application vide proposal No-IA/WB/IND/127431/2019 dated 28/06/2021 along with copy of EIA/EMP report and Form-2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 due to which it will be appraised at Central Level.

Details submitted by the project proponent

40.3.2 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord
26/11/2019	14th meeting of Re-Constituted EAC	Terms of	21/01/2020

	held on 23-24th December, 2019	Reference	

40.3.3 The project of M/s. Aryavarta Khanija Private Limited in Village & Post Hat Ashuria, Mauza Basudevapur, P.S. Barjora, District Bankura State is for setting up of Ferro Alloy Plant 2x9 MVA Submerged Arc Furnace to produce 24,000 TPA (Fe-Mn/ Fe-Si/ Si-Mn) and Induction Furnace (1x15 Ton) along with 5 MT Laddle and 1 Nos 2 strand continuous Caster for manufacturing of 36,000 TPA MS Billets.

40.3.4 Environmental Site settings:

SNo	Particulars	Details
1	Total Land	Total Land – 3.877 ha Land Use – Converted to Industrial Use.
2	Land acquisition details as per MoEF&CC O.M dated 7/10/2014	Entire land of 3.877 ha is under the possession of M/s. Aryavarta Khanija Pvt. Ltd.
3	Existence of habitation & involvement of R&R, if any.	Nil
4	Latitude and Longitude of the project site	**Latitude** / **Longitude** 23°24'36.97"N / 87°17'47.29"E 23°24'33.14"N / 87°17'56.26"E 23°24'29.30"N / 87°17'54.26"E 23°24'32.23"N / 87°17'45.52"E
5	Elevation of the project site	76 meter above MSL
6	Involvement of Forest land if any.	Nil
7	Water body exists within the project site as well as study area	**Project Site –** Nil **Study Area** Damodar River – 5.0 km/ NE Kanjor Reservoir – 3.12 km/ SE Sali River: 8.1km/ SSE
8	Existence of ESZ / ESA/ national park /wildlife sanctuary /biosphere reserve /tiger reserve /elephant reserve etc. if any within the study area	Nil, following are forest present in study area: Beliator PF: 1.9 km/ West Gobindapur PF: 6.2km/ South Gangabandh PF: 9.9km/ South

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

Facility	Proposed	Total Capacity
Ferro Alloys (Fe-Mn, Si-Mn, Fe-Si)		
No of SAF	02 No's	**24,000 TPA**
Capacity of SAF	9 MVA	
Production capacity per day	80 Ton	
No. of days operation per day	300	
Installed Capacity Per Annum	24,000 TPA	
Billets Production		
No of Induction Furnace	1 No.	**36,000 TPA**
Melting Capacity of Induction Furnace	15 Ton	

Facility	Proposed	Total Capacity
No of Heat per Day	8	
Production capacity per day	120 Ton	
No. of days operation per day	300	
Installed Capacity Per Annum	36,000 TPA	

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

Raw Material Details for Ferro Alloy (24,000 TPA)

SNo	Name	Quantity (TPA)	Source	Transportation	Distance w.r.t Project Site
1	Manganese Ore	52,800	Purchase from Mines, Odisha	Through Rail /Road	Between 200-250 km
2	Coke	10,800	Purchase from Dhanbad	Through Rail /Road	Between 90-100 km
3	Coal	6,240	Purchase from Raniganj Coal Field	Through road	Between 20-30 km.
4	Dolomite	6,000	Purchase from Mines, Odisha	Through Rail /Road	Between 200 to 250 KMs
5	Carbon Paste	480	Purchase from Local Traders	Through road	Between 20-30 km.
	Total	**76,320**			

Raw Material for Billets (36,000 TPA)

SNo	Name	Quantity (TPA)	Source	Transportation	Distance w.r.t Plant
1	Sponge Iron	32,400	Local Units	Road through covered trucks	Between 5-10 km
2	Pig Iron	4,320	Durgapur	Road through covered trucks	Between 10-15 km
3	MS Scrap	6,480	Local Traders	Road through covered trucks	Between 5-10 km
Total		**43,200**			

40.3.7 Total Water requirement will be 96 KLD (0.021 MGD) and will be sourced from Water Treatment Plant of Damodar Valley Corporation. Permission for the same has been obtained vides Letter No-MD/DVRR/W-6(144)/2020/1475-80 dated 07.01.2021.

40.3.8 Total 25 MW of electricity will be required for the project. It will be supplied by Damodar Valley Corporation. DG Set of 500 KVA will be used for power backup in case of power failure.

40.3.9 Baseline Environmental Studies:

Period	Winter Season :7th December 2019 to 6th March 2020
AAQ parameters at 08 locations	$PM_{2.5}$ = 24.20 to 34.80 μg/m^3 PM_{10} = 52.50 to 64.50 μg/m^3 SO_2 = <4.0 to 10.14 μg/m^3

	NO_2 = 11.80 to 25.05 µg/m^3
AAQ modelling	Incremental GLCs due to the proposal: PM_{10} =0.5µg/m^3 SO_2 = 0.2µg/m^3 NO_x= 0.1µg/m^3 $PM_{2.5}$ = 0.2µg/m^3
Ground water quality at 08 locations	pH: 6.82 to 6.92, Total Hardness:180 to 268 mg/l, Chlorides: 48.39 to 71.43 mg/l, Fluoride: 0.5 to 0.6 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations	pH: 7.23 to 7.50, DO: 5.8 to 6.7 mg/l, BOD: 6 to 8 mg/l and COD from 14.28 to 28.56mg/l
Noise levels	45.36 to 58.45 dBA for the day time and 35.97To 54.90 dBA For the Night time.
Traffic assessment Study findings	Existing Level of Service is A (Excellent) with 0.17 V/C ratio. Incremental Load due to proposed project will be 37 vehicles/ hour. Level of Service after proposed project will be B (Very good) with 0.25 V/C ratio.
Flora and fauna	There is no schedule I species within the study area.

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

SNo	Name	Quantity,	Utilization
1	Slag from SAF	18,000	Fe-Mn slag will be used for making Silico Manganese. Si-Mn slag & Fe-Si slag will be given for use in civil construction and road making.
2	Slag from IF	5,180	It will be crushed for metal recovery and crushed slag will be sold for use in road making and as filler in various civil construction purpose.
3	Bag Filter Dust from SAF	9,600	Given for use in civil construction and road making or land filling
4	Bag Filter Dust from IF	900	

Hazardous waste generation, storage & disposal

Waste Oil: 0.5 KL / Annum: This will be stored in covered HDPE drums in a designated area and will be given to WBPCB approved vendors.

40.3.11 Public Consultation:

Details of advertisement given	21/12/2020
Date of public consultation	27/01/2021
Venue	"Meeting Hall, Barjora Panchayet Samiti", Barjora, Dist. Bankura, West Bengal
Presiding Officer	Additional District Magistrate (General), Bankura
Major issues raised	i. Execution of commitments made during Public hearing and CER fund ii. Local Employment iii. Rain water Harvesting and plantation iv. Pollution v. Up-gradation of road

	vi. Infrastructure Development Work of Local School and College

Action plan as per MOEF&CC O.M. dated 30/09/2020

S No	Concerns raised during public hearing	Physical activity and action plan	Tentative Budget	Target for Implementation of action plan	
				1st Year	2nd Year
1	Development of Access Road	Strengthening the approach road (WBM) from Project Site to Hatashuria-Pakhanna Road. (1.0 km) 500 m road till Metsil plant is WBM, 3.5 m wide and 500 m road from Metsil plant to our plant is WBM, 3.0 m wide. WBIDC is developing this area for locating industries. We have earmarked Rs.16 lakhs for strengthening this WBM road and make it concrete. We will do this work in consultation with WBIDC. The work will start after getting EC and CTE	**13 Lakhs** Estimate	The work will be completed in first year	
2	Giving slag for local road development	The PP will install slag processing plant and metal recovery will be done. The PP will give the slag to local contractors, in consultation with gram panchayats of the area. PP will ensure that it is used for road making and other construction purposes. We will provide entry at fixed hours and facility to park the tractors near the slag processing area and supervise the lifting operations. Before lifting from slag dump, water sprinkling on dump will be done. PP will ensure that the tractors carrying slag are covered with tarpaulin sheets	Budget of slag processing unit already covered in project cost	-	-
3	Providing employment to local people	Willing and employable youths will be identified in consultation with gram panchayat of Hat Asuria (25 Nos). They will be trained in Barjora ITI for trades namely electrician, fitters, welders, painters, and civil construction work, etc. Fees will be paid by us. Scholarship of Rs.2500/- per month will be given to the trainees for the entire duration. After successful completion of training, the youths will be offered employment in company.	**10.5 Lakhs** Stipend- 3.0 Lakh (1000/- stipend to 25 persons for 1 year) ITI Fee – 7.5 Lakhs (30000/- yearly fee for 25 persons)	Training of 12 persons will be completed in 1st year	Training of 13 persons will be completed in 2nd year
4	Infrastructure development of local School	PP will make separate toilets for boys and girls (in 3 local schools around the project, Hatasuria (2 schools) and Mandabani), kitchen in 3 local schools supplying mid-day meals, providing furniture, computers and	**10 Lakhs** 6 Toilets-1 Lakh 3 Kitchen- 1.5 Lakhs 400 Tables & Chairs - 4.0 L	We will complete work in Hat Asuria schools (2 schools)	We will complete work in Hat Mandabani school

S No	Concerns raised during public hearing	Physical activity and action plan	Tentative Budget	Target for Implementation of action plan	
				1st Year	2nd Year
		colour printers	12Computer- 3.0 Lakhs 3 Colour printer- 1.5 Lakhs		
5	Drinking Water Supply in nearby areas	Company will make bore wells, with pump, piping and RO system in 5 surrounding villages	**7.5 Lakhs** Bore with pump & piping -1 lakh RO – 0.5 Lakh (5 sets)	We will complete drinking water supply in Hatasuria, Songram, Kotgram villages	We will complete drinking water supply in Birsinpur & Sahibdih villages
6	Rain Water Harvesting System	Company will make 10 recharge type shafts for ground water recharging in 2 nearby panchayat bhawans and community centres	**10 Lakhs** Rs.2.5 lakhs each	In Hatasuria & Kotgram village	In Songram & Birsinpur village
7.	Concern about health of local people	Donate medical equipment like Beds, Stretcher, Oxygen Cylinder, Oxygen Concentrator, Air Purifier, AC, in Health centre of Hatasuria village	**7.0 Lakhs** 10 Bed-1.0 Lakhs 10 - O_2 Cylinder - 1 Lakh 4- Oxygen Concentrator - 2 Lakh 4- Air Purifier- 1.0 L 4 AC- 2.0 L	Donated to Health centre at Hat Asuria village	-
Total			**58.0 Lakhs**		

40.3.12 The capital cost of the project is Rs 67.60 Cr and the capital cost for environmental protection measures is proposed as Rs 2.85 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs 70 Lakhs. The total employment generation from the proposed project is 99 persons.

S. No	Activity	Capital Cost (Lakh)	Recurring expenses proposed/ annum (Lakh)
1	Pollution Control during construction stage (barricading around stockpiles, covers for aggregates and sand, water sprinkling system, smog gun, wheel washing arrangement, pucca roads, and waste water treatment systems.	10	**--**
2	Air Pollution Control Systems (FES, Cyclones, Bag Filters, Chimney)	85	20
3	Rainwater Harvesting System inside plant	15	5
4	Wastewater Treatment & Recycling Systems	15	5

S. No	Activity	Capital Cost (Lakh)	Recurring expenses proposed/ annum (Lakh)
5	Environment Management Department	35	20
6	Environment Monitoring Instruments - CEMS (2) & CAAQMS (1), Stack Monitoring Kit, Fine Dust samplers, RDS, Noise meter, Water testing devices, Piezometers.	50	7
7	Noise Abatement Measures (acoustic enclosures, vibration free foundation)	10	1
8	Occupational Health Management (basic instruments and ambulance)	20	5
9	Green Belt Development	10	2
10	Risk Mitigation Measures and PPEs	35	5
	Total	**285**	**70**
11	Addressed to issue raised during PH	**58.0**	

40.3.13 Total 1.28 ha greenbelt will be developed which is about 33% of the total area. A 10m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 3200 saplings will be planted and nurtured in 1.28 hectares in 1-2 years.

40.3.14 There is no violation under EIA Notification, 2006/ court case/ show cause/ direction related to the project under consideration.

40.3.15 Name of the EIA consultant: -M/s. Grass Roots Research & Creation India (P) Ltd. [Sl. No. 158, QCI NABET List of ACOs with their Certificate / Extension Letter no. Rev. 12, July 09, 2021].

40.3.16 During the course of meeting, PP has submitted written submissions on the following points:

i. Revised action plan to address the issues raised during public hearing
ii. Revised plant layout.
iii. Commitment regarding installation of 2.5 TPH slag crusher and maintenance of 600 m long road from Metsil factory to Aryavrata

Observations of the Committee

40.3.17 The Committee noted the following:

i. The EAC found that the revised EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures.

ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.

iii. The EAC noted that the written submissions made by the project proponent during the course of meeting are addressing the concerns of the Committee.

Recommendations of the Committee

40.3.18 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

A. Specific conditions

i. Particulate Matter emissions from all the stacks shall be less than 30mg/Nm^3.
ii. Submerged Arc Furnace shall be equipped with the fourth hole fume extraction system.
iii. All roads shall be made Pucca and a vacuum cleaner shall be used to clean the roads.
iv. Green Belt shall be developed in 33 % of total land with tree density of 2500 trees per ha. (or 1000 trees per acre).
v. Parking area for trucks/dumpers shall be provided within the unit.
vi. Rain water harvesting shall be carried out as per the action submitted in the EIA report.
vii. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
viii. No Ferro Chrome shall be manufactured without obtaining prior EC from MoEF&CC.
ix. 0.021 MGD water shall be drawn from Damodar River. Ground water abstraction shall not be permitted.
x. Slag crusher of 2.5 TPH shall be installed to process the slag to recover metallics, flux and aggregate for recycle/reuse. Various slags generated in the plant shall be recycled/Reused/sold for brick manufacturing and/or cement making. Storage of solid waste will not be allowed for more than 90 days.
xi. 600 m long road from Metsil factory to Aryavrata shall be widened (6m) and maintained by project proponent.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or

NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vi. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.

vii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

ii. 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.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.

ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same and also estimate carbon sequestration by the plantations.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. 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.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. 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.

iii. 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.

X. Miscellaneous

i. 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.

ii. 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.

iii. 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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.4 Proposed expansion of Steel Manufacturing Unit by enhancing the production of Steel Ingots/ Billets from 29,400 TPA to 1,26,000 TPA for increase production of Round, Square, TMT Bars, Angle, Channel, Flats, MS Pipes etc. from 25,000 TPA to 1,20,000 TPA by **M/s. JAY AAY Alloys Private Limited** located at Village Kala Amb, Trilokpur Road, Tehsil Nahan, **District Sirmour, Himachal Pradesh** [Online Proposal No. IA/HP/IND/74439/2018, File No. IA- J-11011/153/2018-IAII.(I)] – **Environment Clearance**– regarding.

40.4.1 M/s. JAY AAY Alloys Private Limited has made an online application vide proposal no. IA/HP/IND/74439/2018 dated 01/07/2021 along with copy of EIA/EMP report and Form– 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non ferrous) under Category "B1" of the schedule of the EIA Notification, 2006 and attracts general condition because the project site falls within 5 km radius of the inter-state boundary of Haryana, the project is to be treated as Category 'A' and appraised at Central Level.

Details submitted by Project proponent

40.4.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
13/04/2018	32nd meeting of EAC held on 11-13th June, 2018	Terms of Reference	21/06/2018

40.4.3 The project of M/s. JAY AAY Alloys Private Limited located at Village Kala Amb, Trilokpur Road, Tehsil Nahan, District Sirmour, Himachal Pradesh is for Proposed expansion of Steel Manufacturing Unit by enhancing the production of Steel Ingots/ Billets from 29,400 TPA to 1,26,000 TPA (by replacing existing 7TPH of IF with 2x15 TPH of IF) for increase production of Round, Square, TMT Bars, Angle, Channel, Flats, MS Pipes etc. from 25,000 TPA to 1,20,000 TPA.

40.4.4 Environmental Site Settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>1.806691ha (4.77 Acres)</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td colspan="2"><table>
<tr><th>S No</th><th>Particulars</th><th>Area</th></tr>
<tr><td>1.</td><td>Total Area</td><td>18066.91m^2</td></tr>
<tr><td>2.</td><td>Shed Covered Area</td><td>7888.47 m^2</td></tr>
<tr><td>3.</td><td>Office Block Covd Area</td><td>210.03 m^2</td></tr>
<tr><td>4.</td><td>Store’s, Toilet block, Check RM & meter RM & Hazardous waste room, etc. covd area</td><td>120.81 m^2</td></tr>
<tr><td>5.</td><td>Plantation Area</td><td>7002.78 m^2</td></tr>
<tr><td>6.</td><td>Road Area</td><td>2881.04 m^2</td></tr>
<tr><td>7.</td><td>Transporting Parking Area</td><td>827.88 m^2</td></tr>
<tr><td>8.</td><td>Open Area</td><td>172.11 m^2</td></tr>
</table></td></tr>
<tr><td>iii.</td><td>Existence of habitation & Involvement ofR&R, if any.</td><td>Nil</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of theproject site</td><td>Latitude:
30°30'14.59"N, 30°30'16.05"N, 30°30'15.06" N, 30°30'13.31" N
Longitude:
77°12'32.28"E, 77°12'35.59"E, 77°12'38.27"E, 77°12'34.99"E</td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>343 m above MSL</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land is involved.</td><td></td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td><u>Project Site:</u> Nil

<u>Study Area:</u>
Markanda River: 0.8 km/East
Trilokpur River: 2.3 km/ West
Run River: 4.0 km/ West
Ujjar River: 6.9 km/ NW
Nala: 0.09km/ WNW</td><td></td></tr>
</table>

S No	Particulars	Details	Remarks
viii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. Following forest are exists in the study area: Salehpur PF : 4 km/ SE Shishamwala RF : 3 km/ East Mandpa RF : 7.5 km/ East Kala Amb RF : 3 km/ North Lala Devi RF : 4.5 km/ North Trilokpur RF : 7 km/ North Banswala RF : 8.5 km/ North Bhogpur Kotla RF : 8.4 km/ North Jabal RF : 8.75 km/ North Kangniwala RF : 7.25 km/ N Pairwala RF : 8 km/ NE Ambwala RF : 6km / NE Satkhumba RF : 2.5 km/ East Sadiopur PF : 8.1 km/ South	

40.4.5 The industry has valid Consent to operate under Air and Water act vide lr no. CTO/BOTH/RENEW/RO/2019/1267389 dated on 27.11.2019 obtained from Himachal Pradesh Pollution Control Board valid from 01.04.2019 to 31.03.2022.

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

S No	Description	Existing	Proposed	After Expansion
1	Induction Furnace	1x7 (to be replaced)	2 x 15 TPH	2 x 15 TPH
2.	Rolling Mill	01 No.	Increase capacity in existing rolling mill	01 No.
3.	D.G. Set	200,125,63 KVA	--	200,125,63 KVA
4.	Re-circular Cooling Water System & Water Condition	01 No.	01 No.	02 no.
5.	EOT Crane	05 No.	01 No.	06 No.
6.	Steel Ingots/ Billets (TPA)	29,400	96,600	1,26,000
7.	Round, Square, TMT/MS Bars, Angle, Channel, Flats, MS Pipes etc (TPA)	25,000	95,000	1,20,000

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

Capacity	Existing	Additional	Total
MS Scrap, Ferro Alloys, Sponge iron etc (TPA)	32,634	1,07,226	1,39,860

Capacity	Existing	Additional	Total
Source & Transportation	Local & international markets and transport through covered trucks		

40.4.8 The total water requirement of the project is estimated at (existing: 32 KLD + proposed: 45 KLD) 77.0 KLD. For proposed project domestic water requirement is 2.7 KLD and for cooling purposes is 74.3KLD. The daily requirement of water will be met through the Ground Water. For ground water extraction from existing 2 no of bore wells within plant site, application to HPGWA, Himachal Pradesh is submitted and the same is under process.

40.4.9 The total power requirement for the project is estimated as 15MWwhich will be obtained from the HPSEB. Three DG sets (200KVA, 125 KVA and 63 KVA) are available at existing unit.

40.4.10 Baseline Environmental Studies:

Period	Baseline data is collected during March to May, 2018 Additional Baseline data for 45 days was collected during 1st May to 15th June, 2015
AAQ parameters at 8 locations	**<u>For March-May, 2018</u>** PM_{10} = 51.2 to 85.9 µg/m^3 $PM_{2.5}$ = 15.1 to 45.7 µg/m^3 SO_2 = 6.2 to12.9 µg/m^3 NO_2 = 16.5 to 39.2 µg/m^3 CO = 0.24 to 0.63 mg/m^3 **<u>For 1st May- 15th June, 2021</u>** PM_{10} = 52.3 to 89.8 µg/m^3 $PM_{2.5}$ = 24.2 to 33.7 µg/m^3 SO_2 = 6.3 to13.6 µg/m^3 NO_2 = 16.5 to 39.2 µg/m^3 CO = 0.25 to 0.58 mg/m^3
AAQ modelling (Incremental GLC)	The maximum predicted GLC for 24 hourly average concentrations after the proposed expansion at site shall be 4.11 µg/m^3. The maximum predicted concentration of PM_{10} after unit operation will be **90.01 µg/m^3** which is below the prescribed standard of 100 µg/m^3.
Ground water quality at 8 locations	**For March-May, 2018** pH- 7.38.to 7.98, Total Hardness: 190 to 230 mg/l, chlorides: 24.9 to 29.9 mg/l, Heavy metals are within the limits. **For May- Mid June, 2021** pH- 7.41.to 7.88, Total Hardness: 200 to 240 mg/l, Chlorides: 24.2 to 26.8 mg/l, Heavy metals are within the limits

Surface water quality at 1 locations	**For March-May, 2018** pH : 7.59 – 7.62, TDS: 140-160 mg/l, Total hardness: 186.2-196 mg/l, Total Coliform: 90-110 MPN/100ml. **For May- Mid June, 2021** pH: 7.59 – 7.74, TDS: 146-154 mg/l. Total hardness: 190-199 mg/l. Total Coliform: 110-130 MPN/100ml.
Noise levels	**For March-May, 2018** The day time: 30.1to 67.4 dB (A) and Night time: 20.1 to 55.3 dB (A) **For 1st May- 15th June, 2021** The day time: 66.6 dB (A) and Night time : 54.6 dB (A)
Traffic assessment study findings	From the above traffic study, it is inferred that there will addition of 19-20 trucks in existing Traffic. It is concluded that there will be not be much increase of traffic load on the existing roads. Therefore, the additional load on the carrying capacity of existing road network is not likely to have significant impact on the Level of Service.
Flora and fauna	Although the Forest department records the presence of few Schedule I species, no such records could be established during field visit or during interaction with local people.

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

Waste	Source	Quantity	Disposal
APCD Dust	Induction Furnace	0.8 TPD	Sent to TSDF Site of M/s. Shivalik Solid Waste Management Limited for final Disposal
Furnace Slag	Induction Furnace	16 TPD	disposed to cement manufacturing unit/ tile manufacturers
Used Oil	DG sets	0.02 Kl/A	Re-used as lubricants within the industry

40.4.12 Public Consultation:

Details of advertisement given	05/07/2019 'The Tribune Trust' and 'Punjabi Kesari'
Date of public consultation	06/08/2019
Venue	At project site
Presiding Officer	1) Smt. Priyanka Verma – Additional Deputy Commissioner, Sirmour 2) Sh. A.K. Sharda – Environmental Engineer, Himachal Pradesh State Pollution Control Board, Paonta Sahib

Major issues raised	i. Employment to local people ii. Sanitation facilities for workers iii. Cleaning of roads nearby plant iv. Notice board for name of deploying local people v. Parking facility vi. Water utilization and management detail vii. Rain water harvesting viii. Smoke in nearby areas due to low chimney height. ix. Plantation at plant site x. Waste water disposal into Markanda River, provision for same. xi. CSR detail made publicly available.

Action plan as per MoEF&CC O.M. dated 30/9/2020

Sr. No.	Name & Address of the person	Detail of query/statement/ information/ clarification sought by the person present	Reply of the query/ statement/ information/ clarification given by the project proponent	Action Plan
1.	Yashpal, BDC, Nahan Binay Gupta, Member- Zilla Parishad	Employment to local residents, cleanliness in and around factory premises	The project proponent appraised that as per State Govt. guidelines it is mandatory for them to ensure that 70% of workers in their unit are bonafide Himachali. In this project employment to around 60 persons will be provided by the proponent. The management further assured that preference will be given to local residents. The Management also said that they will ensure that road in front of them is regularly cleaned.	The recruitment of locals based on their qualification and requirement will start with the commencement of construction and continue delivering the course of operations solicited to their satisfactory performances. Cleanliness in and around the factory is being maintained.
2.	Gourav Goyal, Kala Amb	Source of water and provision of rain water harvesting	The project proponent appraised that at present they are using Borewell as	Rooftop Rain water harvesting will be done after the

Sr. No.	Name & Address of the person	Detail of query/statement/ information/ clarification sought by the person present	Reply of the query/ statement/ information/ clarification given by the project proponent	Action Plan
			a source of water and they have not provided rain water harvesting system at the existing unit. However, there is provision of rooftop rain water harvesting in the expansion project.	completion of the work taking into account the covered area from where the rain water can be harvested. RWH Costing: Rs. 5 Lakh
3.	Ashiq Mohammad, Panchayat sachiv, Kala Amb Sahil Goyal, Kala Amb	Air, noise and water pollution from the unit	The project proponent appraised that they will provide side suction hood followed by a bag house and a stack height approx. 100 feet as Air Pollution Control Devices in the induction furnaces. Water is only used for cooling purposes in the unit and the same is recycled in a loop. Further, DG set provided will be equipped with acoustic enclosure to minimize the noise level.	All the environment safeguards with respect to air, water, and noise will be in place before the commencement of operation. EMP Costing: Monitoring Cost: Rs. 141 Lakh
4.	Anuj Rana, Trilokpur	Plantation	The project proponent appraised that as per tor issued to them that have to carry out plantation in 33 % of the total plot area of the project. They further added that plants of native species will be planted in and around	Plantation will be done as per the CPCB guidelines and the agro climatic conditions of the area. The same ill be completed within one year of grant of E.C. Cost: Rs. 5.0

Sr. No.	Name & Address of the person	Detail of query/statement/ information/ clarification sought by the person present	Reply of the query/ statement/ information/ clarification given by the project proponent	Action Plan
			factory premises.	Lakh

40.4.13 The capital cost of the project is Rs. 7.8065 Crores including the cost of expansion and the capital cost for environmental protection measures is proposed as Rs 161 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 9.3 Lakhs. The employment generation from the after expansion is 60 Nos. The details of cost for environmental protection measures is as follows:

S. No	Title	Capital Cost Rs. Lakh	Recurring Cost Rs. Lakh
1	Pollution Control during construction stage	10.0	---
2	Air Pollution Control (Installation of APCD)	90.0	5.0
3	Water Pollution Control	20.0	2.0
4	Noise Pollution Control	1.0	0.20
5	Green Belt development	5.0	1.0
6	Solid Waste Management	5.0	--
7	Environment Monitoring and Management	5.0	0.10
8	Occupational health, Safety and Risk Management	10.0	0.50
9	RWH	5.0	0.50
10	Miscellaneous	10.0	-
	TOTAL	**161.0**	**9.3**
11	Addressed to issues raised during public hearing	**5.0**	

40.4.14 Greenbelt will be developed in 7002.78 sq m which is about 33 % of the total project area. A total of 1051 trees will be planted. 100 trees have already been planted. Hence, 951 plants have to be planted as 317 trees per years for 2021 to 2023.

40.4.15 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.4.16 Name of the EIA consultant: M/s. Chandigarh Pollution Testing Laboratory [(S No. 95 QCI/ NABET Certificate No: NABET/EIA/1922/RA 0146, valid up to 12/02/2022; Rev. 12, July 09, 2021).

Certified compliance report from HP State Pollution Control Board

40.4.17 The Status of compliance of earlier CTO was obtained from HP State Pollution Control Board dated 10/06/2021. As per the certified report PP is complying with existing CTO conditions.

Observations of the Committee

40.4.18 The Committee noted the following:

i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures.

ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.

Recommendations of the Committee

40.4.19 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

A. Specific conditions

i. Particulate Matter emissions from all the stacks shall be less than 30mg/Nm^3.
ii. Project proponent shall commence the project activity only after obtaining prior 77 KLD ground water withdrawal permission from concerned competent authority.
iii. All roads shall be made Pucca and a vacuum cleaner shall be used to clean the roads.
iv. Rain Water Harvesting shall be carried out as per the action plan submitted in the EIA report.
v. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.
vi. Green Belt shall be developed in 38.8 % of total land with tree density of 2500 trees per ha. (or 1000 trees per acre).
vii. 100 % solid waste generated in the facility shall be utilized as committed by the project proponent. Storage of solid waste will not be allowed for more than 90 days production.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as one Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall monitor fugitive emissions in the plant premises at least

once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vi. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.

vii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

ii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iii. 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.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.

ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces

iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same and also estimate carbon sequestration by the plantations.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. 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.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. 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.

iii. 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.

X. Miscellaneous

i. 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.

ii. 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.

iii. 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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.5 Proposed Greenfield project for installation of manufacturing facilities for production of: Sponge Iron 2,31,000 TPA; Mild Steel Billet 2,32,848 TPA; Rerolled Steel Products through Hot Charging and through Reheating Furnace 2,25,863 TPA; Captive Power Plant 25MW (16MW through WHRB and 9MW through AFBC) and Fly Ash Bricks of 34,600 TPA by **M/s. Neerganga Ispat Private Limited** located at Village Boriya, Tehsil Berla, District Bemetara**, Chhattisgarh** [Online Proposal No. IA/CG/IND/214437/2021; File No. IA-J-11011/262/2021-IA-II(I)] **- Prescribing for Terms of Reference– regarding**.

40.5.1 M/s. Neerganga Ispat Private Limited has made an application online vide proposal no. IA/CG/IND/214437/2021, dated 22/06/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. Project Activity 3(a) Metallurgical Industries and 1(d) Thermal Power Plant under Category "A" of the schedule of the EIA Notification.

Details submitted by project proponent

40.5.2 The project of M/s. Neerganga Ispat Private Limited located at Village Boriya, Tehsil Berla, District Bemetara, Chhattisgarh is for Proposed Greenfield project for installation of manufacturing facilities for production of: Sponge Iron 231,000 TPA; Mild Steel Billet 232,848 TPA; Rerolled Steel Products through Hot Charging and through Reheating Furnace 225,863 TPA; Captive Power Plant 25MW (16MW through WHRB and 9MW through AFBC) and Fly Ash Bricks of 34600TPA.

40.5.3 Environmental site settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>19.16 ha [Private:19.16ha]</td><td>Land use:</td></tr>
<tr><td>ii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>No</td><td></td></tr>
<tr><td>iii.</td><td>Latitude and Longitude of the project site</td><td>Latitude-21°29'3.37"N,
Longitude-81°27'57.79"E</td><td></td></tr>
<tr><td>iv.</td><td>Elevation of the Project site</td><td>292.61m</td><td></td></tr>
<tr><td>v.</td><td>Involvement of Forest land if any.</td><td>Nil</td><td></td></tr>
<tr><td>vi.</td><td>Water body exists within the project site as well as study area</td><td><u>Study area</u>
<table>
<tr><th>Name</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>1.Seonath River</td><td>9.6</td><td>W</td></tr>
<tr><td>2.Khurmura Minor</td><td>3.0</td><td>E</td></tr>
<tr><td>3.Tarkori Minor</td><td>1.0</td><td>W</td></tr>
<tr><td>4.Tandula Canal</td><td>8.0</td><td>ENE</td></tr>
<tr><td>5. Anand gaon Minor</td><td>9.2</td><td>ENE</td></tr>
<tr><td>6. Berla Minor</td><td>3.5</td><td>NE</td></tr>
<tr><td>7. Gandharwan Nala</td><td>6.5</td><td>N</td></tr>
<tr><td>8. Tandula Distributary</td><td>4.6</td><td>WNW</td></tr>
<tr><td>9. Sinwar Minor</td><td>6.6</td><td>NW</td></tr>
<tr><td>10. Sond Distributary</td><td>3.3</td><td>WSW</td></tr>
<tr><td>11. Biroda Minor</td><td>4.3</td><td>WSW</td></tr>
<tr><td>12. Dargaon Minor</td><td>7.2</td><td>WSW</td></tr>
<tr><td>13. Gota Minor</td><td>4.3</td><td>SE</td></tr>
<tr><td>14. Kokri Minor</td><td>5.3</td><td>SE</td></tr>
<tr><td>15. Canal nr. Kokri</td><td>5.5</td><td>SE</td></tr>
<tr><td>16. Semariya Minor</td><td>7.9</td><td>SSE</td></tr>
<tr><td>17. Girhola Minor</td><td>9.0</td><td>SSE</td></tr>
<tr><td>18. Tandula Canal</td><td>4.0</td><td>SE</td></tr>
<tr><td>19. Kharra Distributary</td><td>6.7</td><td>S</td></tr>
<tr><td>20. Bhatiya Minor</td><td>6.0</td><td>SE</td></tr>
<tr><td>21. Pahra Sub minor</td><td>7.3</td><td>SE</td></tr>
<tr><td>22. Narki Nala</td><td>8.9</td><td>SE</td></tr>
<tr><td>23. Ghuri Nala</td><td>5.7</td><td>SE</td></tr>
<tr><td>24. Navnara Minor</td><td>4.3</td><td>SE</td></tr>
<tr><td>25. Suroli Minor</td><td>3.7</td><td>NE</td></tr>
<tr><td>26. Tathiya Minor</td><td>6.2</td><td>W</td></tr>
</table></td><td>The project area is far away from flood zone. The nearby Canals are man-made and are not likely to cause any flooding.</td></tr>
</table>

S No	Particulars	Details	Remarks
vii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil	Not present in 10 km radius area.

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

S No	Name	Proposed Units	
		Configuration	Production TPA
1	Sponge Iron	DRI Kilns, (350TPD X 2 Nos.)	231,000
2	MS Billet	Induction Furnace, (20 Tons X 4 Nos.)	232,848
3	Rerolled Steel product	Hot Charging Rolling Mill	171,144
4	Rerolled Steel product	Billet Reheating Furnace (Fuel Fired)	54,719
5	Captive Power Plant	WHRB	16 MW
6	Captive Power Plant	AFBC	9MW
7	Fly Ash Bricks	Fly ash Brick making	34,600

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

For Sponge Iron Plant

S. No.	Raw Material	Quantity (TPA)	Source	Distance from site (Kms)	Mode of Transportation
1	Iron Ore	369600.00	Odisha Iron Ore Mine and NMDC	Within 500 kms	By Road through covered vehicles
2	Coal	277200.00	SECL Coal mines	Within 300 kms	By Road through covered vehicles
3	Limestone/ Dolomite	8085.00	Open Market	Within 100 kms	By Road through covered vehicles
4	Refractory Material	300.00	Open Market	Within 100 kms	By Road through covered vehicles
	Total	**655185.00**			

For Induction furnace

S No	Raw Material	Quantity (TPA)	Source	Distance from site (Kms)	Mode of Transportation
1	Sponge Iron	237600.0	Captive production/ Local market	Within 50 kms	By Road through covered vehicles
2	Pig Iron / CI Scrap	29393.0	Local market	Within 50 kms	By Road through Covered vehicles/ Internally available
3	Melting Scrap	4900.00	Captive generation/ Local market	Within 100 kms	Internally available/ By Road through covered vehicles

S No	Raw Material	Quantity (TPA)	Source	Distance from site (Kms)	Mode of Transportation
4	Ferro Alloys	2376.00	Local market	Within 100 kms	Internally available/ By Road through covered vehicles
5	Aluminum	237.60	Open Market/BALCO	Within 250 kms	By Road through covered vehicles
6	Ramming Mass	594.00	Open Market	Within 300 kms	By Road through covered vehicles
7	Steel Sheet Former	60.00	Open Market	Within 50 kms	By Road through covered vehicles
8	Furnace Oil for Laddle Preheating	460.94	Open Market	Within 50 kms	By Road through Tankers
9	Calcined Lime for Refining of Liquid Steel	11880.00	Open Market	Within 250 kms	By Road through covered vehicles
10	Flurospar and other additives for de phos	2376.00	Captive production/ Local market	Within 300 kms	By Road through covered vehicles
11	Electrode for Arc Furnace	475.20	Captive production/ Local market	Within 300 kms	By Road through covered vehicles
	Total	**290352.74**			

For Hot Charging Rerolling Mill

S. No.	Raw Material	Quantity (TPA)	Source	Distance from site (Km)	Mode of Transportation
1	Hot Billets	174636.00	Captive Production in Steel Melting shop	-	Internal Transfer
	Total	**174636.00**			

For Reheating Furnace based Rerolling Mill

S. No.	Raw Material	Quantity (TPA)	Source	Distance from site (Km)	Mode of Transportation
1	Cold Billets	58212.00	Captive production/ Local market as per requirement	Within 50 km	Internal Transfer/ By Road through covered vehicles
2	Coal	5822.00	SECL Mines/ Local Market	Within 250 km	By Road through covered vehicles
	Total	**64034.00**			

Captive AFBC Power Plant (9MW)

S. No.	Raw Material	Quantity (TPA)	Source	Distance from site (Km)	Mode of Transportation
1	Char Dolochar	57750.00	Captive generation in SID	0.5 km	Internally available.
2	Coal	30086.00	SECL Mines	Within 250 km	By Road through covered vehicles
3	Fluidizing Bed Media	150.00	Open Market	Within 50 km	By Road through covered vehicles
	Total	**87986.00**			

Fly Ash Bricks

S. No.	Raw Material	Qty (in TPA)	Distance from site (Km)	Source & Mode of Transportation
1	Fly Ash/ Coal Ash etc	22490.00	-	Internally available.

2	Gypsum and Cement	3460.00	50 to 100 KM	Local Market
3	Granulated slag from Induction Furnace	8650.00	-	Internally available.
	Total::	**34600.00**	-	

40.5.6 The water requirement for the project is estimated as 1180 m^3 /day (389400 KLA), The management had decided to implement a 50000 KL Rain water collection Tank which will be enough to cater water requirement of 42 days, and in rainy day of 75 days water requirement will be met through rain water collections in it. Therefore, it is considered that about 117 days (138,060 KLA) water requirement will be met through rain water and rain water collection, and balance 213 days water (251,340 KLA) will be sourced from Surface Water from Shivnath River. The company has applied to CG State Water Resources Department to allocate the required qty of water.

40.5.7 The power requirement for the project is estimated as 30MW, out of which 25 MW will be obtained from captive power plant and 5 MW will be sourced through State Grid (CSPDCL). In addition, 2 Nos. of 3300 kVA DG sets are proposed for emergency backup.

40.5.8 The capital cost of the project is INR 265.55 Crores. The employment generation from the proposed project is 630 persons.

40.5.9 Proposed Terms of Reference (**Baseline data collection Winter Season period- 1st December 2020 to 28th February 2021**):

Attributes		**Sampling**		**Remarks**
		No. of stations	**Frequency**	
A. Air	Parameter			
a. Meteorology	Temperature, Relative Humidity, rainfall, wind direction & wind speed.	1 (Project site)	Daily	Hourly Met. data (Continuous during baseline period through data logger
b. AAQ parameters	PM_{10}, $PM_{2.5}$, SO_2, NO_x, NH_3, Ozone, CO, Benzene and Benzopyrene & Heavy metals, Heavy metals : Ni, Pb, As	9	Monthly	Twice in a week continuously 24 hrs
B. Noise	Sound pressure level (Leq)	8	Monthly(day time and night time)	Leq (dB A) Day time (6am to 10pm) and Night time (10pm to 6am) with hourly Measurement (Continuous 16 hrs.)
C. Water		16		

Attributes		Sampling		Remarks
		No. of stations	Frequency	
Surface water/ Groundwater quality parameters	As per IS10500 : 2012 (Drinking Water – Specification) TDS, TSS, Conductivity, Turbidity, pH, Alkalinity, Total hardness, Calcium hardness, Chloride, Sulphate, Fluoride, Sodium, Potassium Heavy Metals: As, Cd, Cr, Cu, Pb, Fe, Mn, Zn, Ni, CO. Total Nitrogen, Nitrate nitrogen, Total Phosphate, DO, BOD, COD Total hydrocarbon, oil & Grease Note: BOD & COD should be excluded for groundwater Bacteriological Parameters: Total Coliform & Faecal coliform.	8 8	Once in a month	Grab sample
D. Land				
a. Soil quality b. Land use	Physical and nutrition properties of soil	2	Once in a season	--
E. Biological a. Aquatic b. Terrestrial	Flora and fauna within study area depending on Ecological receptors in the study area Aquatic Ecological Study 3 locations at Seonath River and other River in study area		Once in a Season	--
F. Socio-economic parameters	Employment and Working Conditions, Income Water Supply, Communication, Sanitation, Education, Housing, Health, Environment and Pollution, Food, Energy & Fuel, Recreation, Clothing, Transportation,	8	Once in a Season	--

Attributes		Sampling		Remarks
		No. of stations	Frequency	
	Social Security and Occupational Health monitoring of employees			

40.5.10 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.5.11 Name of the EIA consultant: M/s. Anacon Laboratories Pvt. Ltd., Nagpur [S No 62 with Certificate no. NABET/EIA/1922/RA 0150, Valid till 30/09/ 2022; Rev. 12, July 09, 2021].

Observations of the Committee

40.5.12 The EAC noted the following:

i. 19.16 ha land is required for the project. 6.706 ha (35%) is allocated for green belt. The land acquisition details for purchase and registered land, agreements between buyer and seller for 19.10 ha land has been furnished.
ii. 1180 KLD water shall be drawn from Sheonath River.
iii. Boriya village is 1.6 km from site.
iv. The site is 23.2 km away from Highway and almost 30 Km from Railway station. Plant can be approached through village roads. State Highway is passing by the side of plant that connects Bematara Dist.

Recommendations of the Committee

40.5.13 After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. The Project Proponent shall submit action plan for reuse/ recycling of entire wastewater after treatment.
ii. Action plan to limit the dust emission from all the stacks below 30 mg/Nm^3 shall be furnished.
iii. Action plan for fugitive emission control in the plant premises shall be provided.
iv. Action plan for green belt development covering 33% of the plant area shall be submitted.
v. Action plan for 100 % solid waste utilization shall be submitted.
vi. Action plan for rain water harvesting shall be submitted.
vii. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
viii. Air Cooled condensers shall be used in Captive Power Plant.
ix. Coal gasifier shall be proposed and details of the gasifier shall be furnished in EIA report including the method to handle coal tar, tar sludge and phenolic water generated from coal gasifier.
x. 6.706 ha land shall be allocated for green belt and the green belt shall be developed with a tree density of 2500 trees per ha. This shall include 30 m green belt development inside the project area towards Boriya Village.

40.6 Proposed expansion of existing Rolling Mill products-Angles (Structure), Pipes, Profile and Strips from 77400 TPA to 280000 TPA) & New installation of 3x15T Induction Furnace with 1x2 stand of CCM for Manufacturing of M.S. Ingot/Billet (200000 TPA) by **M/s. Purbanchal Concast Private Limited** located at Khori bari Ghoshpukur Road, Village Kashiram, P.S. Phansidewa, **District Darjeeling, West Bengal [**Online Proposal No. IA/WB/IND/214613/2021; File no: IA-J-11011/265/2021-IA-II(I)] – **Prescribing for Terms of Reference**– regarding.

40.6.1 M/s. Purbanchal Concast Private Limited has made online application vide proposal no. IA/WB/IND/214613/2021dated 25/06/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) under Category "A" of the schedule of the EIA Notification, 2006 and attracts general condition due to existence of India-Bangladesh International boundary at a distance of 2.55 Km in SE direction from the project site. Hence, the project is being appraised at Central Level.

Details submitted by the project proponent

40.6.2 The project of M/s. Purbanchal Concast Private Limited (PCPL) located in Kashiram Village, Phansidewa Tehsil, Darjeeling District, West Bengal State is for Proposed expansion of existing Rolling Mill products-Angles (Structure), Pipes, Profile and Strips from 77400 TPA to 280000 TPA) & New installation of 3x15T Induction Furnace with 1x2 stand of CCM for Manufacturing of M.S. Ingot/Billet (200000 TPA).

40.6.3 Environmental site settings:

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th></tr>
<tr><td>i</td><td>Total land</td><td>4.17 ha [Private: 4.17 ha]
Land use of the existing area is industrial.</td></tr>
<tr><td>ii</td><td>Existence of habitation & involvement of R&R, if any</td><td>Not Applicable. Since, it is an existing plant and the proposed expansion will be coming within the existing plant premises.</td></tr>
<tr><td>iii</td><td>Latitude and Longitude of the project site</td><td><table><tr><td>A</td><td>26.628835°, 88.369272°</td></tr><tr><td>B</td><td>26.627442°, 88.369566°</td></tr><tr><td>C</td><td>26.627593°, 88.370109°</td></tr><tr><td>D</td><td>26.627625°, 88.371800°</td></tr><tr><td>E</td><td>26.628800°, 88.371778°</td></tr><tr><td>F</td><td>26.628744°, 88.372421°</td></tr><tr><td>G</td><td>26.629341°, 88.371468°</td></tr><tr><td>H</td><td>26.629057°, 88.369785°</td></tr></table></td></tr>
<tr><td>iv</td><td>Elevation of the project site</td><td>Highest – 105 MSL; Lowest – 103 MSL.</td></tr>
<tr><td>v</td><td>Involvement of Forest land if any.</td><td>No Forest Land is Involved.</td></tr>
<tr><td>vi</td><td>Water body exists within the project site as well as study area</td><td><u>Project site:</u> Nil
<u>Study area</u>:<table><tr><th>S N</th><th>Particulars</th><th>Distance (Km)</th><th>Direction</th></tr><tr><td>1.</td><td>Mahananda river</td><td>2.68</td><td>E</td></tr></table></td></tr>
</table>

S No	Particulars	Details
		2. Tista sub canal — 2.55 — E 3 Fulbari Ghoshpukur canal — 0.6 — W 4 Fuleswari River — 6.22 — NE
vii	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	None within the study area

40.6.4 The existing project was accorded Consent to establish vide lr. no. N427/WPB/SRO/NOC/Dar/P-140-2011 dated 09-12-2011. Consent to Operate renewal for the existing unit was accorded by West Bengal State Pollution Control Board vide lr. No C248/WPB/SRO/Dar/P.139.2015 dated 13/10/2017. The validity of CTO is up to 31/12/2022.

40.6.5 It was apprised to the EAC by PP that they are applying for EC in pursuance to the Order dated 12/02/2020 of Hon'ble National Green Tribunal in Appeal no. 55 of 2019 held that Cold Rolled Stainless Steel manufacturing industries require prior Environment Clearance (under Environment Impact Assessment Notification, 2006 but, having regard to the fact that there were a large number of such industries operating on the strength of CTE and CTO, opportunity should be provided to such units to fall within the EC regime by granting a period of at least one year to operate for the purpose. Further, informed that they could not approach the Ministry timely due to Covid-19 pandemic situation.

40.6.6 Implementation status of the existing CTE/CTO

S No	Facilities	Units	As per CTE dated	Implementation Status	Production as per CTO
1	Induction furnace	1x8MT	09/12/2011	--	--
2	Expansion of Gross Capital Investment, 1 No. Coal Fired Furnace for production of Angles (Structures), Pipes Profile, Strips	Angles (Structures) 500T, Pipes Profile, 750T, Strips 750T	27/02/2015	Implemented	Angles (Structures) 500T, Pipes Profile, 750T, Strips 750T
3	1 No. Coal Fired Furnace for production of MS Angle, Pipes & Profile, MS Strips	MS Angle 1500 MT/Month, Pipes & Profile 3500 MT/Month, MS Strips 2500 Mt/Month	13/10/2017	Implemented as on present	MS Angle 1250 T/Month, Pipes & Profile- 3000 T/Month, MS Strips 2200 T/Month

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

Name of Facility	Existing Units		Proposed Units		Total (Existing +Proposed)	
	Configuration	Capacity TPA	Configuration	Capacity TPA	Configuration	Capacity TPA
Reheating Furnace	2x15TPH	Rolling Mill Products [Angles (structure), Pipes, Profile and Strips] 77400 TPA	1x 25TPH	Rolling Mill Products [Angles (structure), Pipes, Profile and Strips] 202600	2x15TPH, 1x25TPH	Rolling Mill Products [Angles (structure), Pipes, Profile and Strips] 280000
Rolling Mill	2x15TPH, 1x25TPH		1x25TPH		2x15TPH, 1x25TPH,	
Tube Mill	9x5TPH		--		9x 5 TPH	
Induction Furnace (MS Billet/Ingot)	--	--	3 x 15T	200000	3 x 15T	200000
Continuous Casting Machine (CCM)	--	--	1x2 Strand and 7 m Dia	200000	1x2 Strand and 7 m Dia	200000

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

S No	Raw Material	Quantity (TPA)			Source	Distance from site (Kms)	Mode of Transport
		Existing	Expansion	Total			
1	MS Billets/ Ingot	Outsourced 81497	213303 [Captive 200000 Outsourced 13303]	294800 [Captive 200000 Outsourced 94800]	Durgapur & Bhutan	~ 480 to 500 Kms	Truck
2	Sponge Iron	--	175000	175000	Durgapur, Jharsuguda and other local sources	~ 500 to 900 Kms	Truck
3	MS Scrap	--	45000	45000			
4	Ferro alloy	--	2350	2350			
5	CPC Coke	--	1250	1250			

Fuel	Machinery	Existing	Proposed	Total After Proposed Expansion
Coal	Re-heating Furnace	300 TPM	250 TPM	550 TPM
HSD	DG Set	5.2 Lit/Hr	37.12 Lit/Hr	42.32 Lit/Hr

40.6.9 The water requirement for the project is estimated as 135m^3 /day, out of which 49 m^3 /day of fresh water requirement will be obtained from the Ground Water and the remaining requirement of 86 m^3 /day will be met from the recycled water. The permission for drawl of groundwater will be obtained from the concerned competent authority.

Waste Water		
Type of Waste Water	**Total Quantity**	**Treatment/ Disposal**
Domestic waste water	11 KLD	Disposed through drain after treatment in STP.
Industrial waste water (cooling)	84 KLD	Water will be recycled after sedimentation in settling tank

40.6.10 The power requirement for the project is estimated as 10000 kVA, which will be obtained from the WBSEDCL. Back-up Power: DG Set will be there [Existing 1x45 kVA, Proposed 1x320 kVA].

40.6.11 The capital cost of the project is Rs24 Crores and the capital cost for environmental protection measures is proposed as Rs1.24 Crores. The employment generation from the proposed project / expansion is 165.

40.6.12 Proposed Terms of Reference **(Baseline data collection period: January 2021 To March 2021):**

Attributes	**Sampling**		**Remarks**
A. Air	**No. of Stations**	**Frequency**	
a. Meteorology	1 location	Continuous for three month with hourly recording at one central location and secondary data collected from nearest IMD	Wind speed, wind direction, temperature, relative humidity, rainfall, and other non-instrumental observations
b.AAQ Parameters	8 locations	24 hourly samples twice a week for three months	PM_{10}, $PM_{2.5}$, SO_2, NOx, CO.
B. Noise	8 locations	Hourly readings for 24 hours at 8 locations, once during study period	Lday, Lnight, Leq
C. Water			
Surface water/Ground water quality parameters	8 locations (GW) + 8 location (SW)	Grab samples were collected from surface water (SW) and ground water (GW) sources. Sampling and analysis is carried out for once during study period	Physical, chemical and bacteriological parameters
D. Land			
a. Soil Quality	8 locations	Once during study period	Soil profile with chemical constituents
b. Land Use	Study area	Based on secondary data and satellite imagery	Trend of land use change for different categories
E. Biological			
a. Aquatic	2 aquatic locations	Primary survey through field studies once during study period and supplemented with published data	Aquatic flora and fauna in the study area
b. Terrestrial	5 terrestrial locations		Terrestrial flora and fauna in the study area

Attributes	Sampling		Remarks
F. Socio Economic Parameters	Once during study period	Based on data published in district census handbooks and field study	Socio-economic characteristics

40.6.13 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

40.6.14 Name of the EIA consultant: M/s Ultra-Tech Environmental Consultancy and Laboratory [S.No. 83, Certificate No. NABET/EIA/2023/RA0194, Valid Till 09/03/2023 ; Rev. 12, July 09, 2021].

Observations of the Committee

40.6.15 The Committee noted the following:

i. Terms of Reference for undertaking EIA study for the existing and expansion of rolling mill from 77400 MTPA to 280000TPA. New 3x15 T LF, CCM and RM is being sought.
ii. Project proponent approached the Ministry in pursuance to the Order dated 12/02/2020 of Hon'ble NGT in Appeal No. 55 of 2019. However, PP could not approach the Ministry timely due to Covid-19 pandemic situation.
iii. NH31 is 6.05 km from site. Local roads shall be used for inbound and out bound traffic.
iv. Kashiram village is adjacent to site and surrounding area is all agriculture land.
v. Bangladesh boundary is 2.55 Km SE from site.
vi. Coal is proposed to be used in reheating furnace. Scrubber has been proposed to control emissions from stack of reheating furnace. Documents indicate generation of coal tar in the plant. Presumably, it is coming from coal gasifier for which details are not available.
vii. Existing Furnace is proposed to be run on coal. It is a highly polluting proposal. PP may consider installation of a gasifier.
viii. PM levels from both old and new stacks have not been defined.
ix. Hot charging is proposed for new but no mention is made about old rolling mills.
x. Sludge from scrubber is said to be sent to land fill.
xi. Engineering layout of the plant is not available.

Recommendations of the Committee

40.6.16 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present from to address the shortcomings enumerated above.

40.7 Expansion of Steel Plant – DRI Kilns (Sponge Iron from 2,25,000 TPA to 7,86,000 TPA), Induction Furnaces along with CCM & LRF (MS Ingots / Billets/ Hot Charging from 2,34,300 TPA to 6,95,800 TPA), Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars/Wire Rod - 2,90,000 TPA to 7,19,000 TPA), 2 x 9 MVA Ferro Alloys, 1 x 30 T Electric Arc Furnace, WHRB based Power Plant from 10 MW to 46 MW, FBC based Power Plant from 7 MW to 25 MW, New 1.2 MTPA of I/O Beneficiation plant, New 0.8 MTPA of I/O Pellet Plant] by **M/s. Shyam Steel Manufacturing Limited** located at Jemua Mouza, Mejia Block, **Bankura District, West Bengal [**Online Proposal No. IA/WB/IND/217638/2021; File no: J- 11011/724/2007-IA.II(I)] – **Amendment in Terms of Reference**– regarding

40.7.1 M/s. Shyam Steel Manufacturing Limited has made online application vide proposal no. IA/WB/IND/217638/2021 dated 01/07/2021 along with Form 3 and sought for amendment in the Terms of Reference accorded by the Ministry vide letter no. J-11011/724/2007-IA.II(I) 01/06/2021.

40.7.2 PP vide email dated 14/07/2021 expressed their inability to participate in the meeting due to unavoidable circumstances and requested to consider the same in the next hearing.

40.7.3 It was apprised to the EAC to consider the proposal in the absence of proponent and their EIA consultant based on the records made available by them as per the Ministry's O.M. dated 18/11/2020 pertaining to streamlining the process of grant of Environment Clearance. However, the EAC opined that proposal shall be considered in presence of proponent only as they have requested for deferment of the proposal.

40.7.4 In view of the foregoing and after detailed deliberations, the Committee recommended that Ministry may place the proposal in the forthcoming EAC meeting for consideration.

16th July, 2021

40.8 Proposed Integrated Cement Plant - Clinker (3.0 MTPA), Cement (2.0 MTPA), CPP (25 MW) & WHRS (15 MW) by **M/s. Marwar Cement Ltd.** located at Village: Ghorawat, Tehsil: Pipar City, **District: Jodhpur, Rajasthan** - [Online Proposal No. IA/RJ/IND/197854/2021; File No. J-11011/154/2009-IA-II(I)] **- Environment Clearance– regarding.**

40.8.1 M/s. Marwar Cement Limited has made an online application vide proposal no. IA/RJ/IND/197854/2021 dated 21/06/2021 along with copy of EIA/EMP Report and Form - 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central level.

Details submitted by Project proponent

40.8.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
11/02/2021	31st meeting of EAC held on 25th February, 2021	Terms of Reference	04/03/2021

40.8.3 The project of M/s. Marwar Cement Limited located at Village: Ghorawat, Tehsil: Pipar City, District: Jodhpur, Rajasthan is for Proposed Integrated Cement Plant - Clinker (3.0 MTPA), Cement (2.0 MTPA), CPP (25 MW) & WHRS (15 MW).

40.8.4 Environmental Site Settings:

S No	Particulars	Details	Remarks
i.	Total land	57.87 ha (already converted to industrial)	Land use: Industrial

S No	Particulars	Details	Remarks
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total land is completely under the possession of the company.	-
iii.	Existence of habitation & involvement of R&R, if any.	No habitation exists within the plant site and R & R is not applicable.	Total project area is under the possession of the company.
iv.	Latitude and Longitude of the project site	Latitude: 26°30'30.53"N to 26°30'54.28"N Longitude: 73°45'41.56"E to 73°46'26.38"E	--
v.	Elevation of the project site	288 m to 306 m above mean sea level	--
vi.	Involvement of Forest land if any.	No Forest Land is Involved in the project area.	--
vii.	Water body exists within the project site as well as study area	**Project site:** Nil **Study area:** • Ghorawat Dam: 2.0 km/SSW • Jojri Nadi: 1.8 km / NW • Gaya Bhala Nadi: 3.0 km/NNE • Badal Pond: 5.5 km/ ESE • Rediya Nada: 9.0 km/ SSW	--
viii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil.	-

40.8.5 The project was originally accorded environmental clearance *vide* letter no. J-11011/154/2009-IA II (I) dated 27/07/2010 in the name of M/s. Vedanta Industries Ltd. for Integrated Cement Project - Clinker (1.0 MTPA), Cement (1.371 MTPA), CPP (18 MW) & D.G. Set (5 MW). The name of the company was changed from Vedanta Industries Ltd. to Marwar Cement Limited and the company was given fresh incorporation certificate by Registrar of Companies, Maharashtra dated 12/03/2014. Transfer of EC from M/s. Vedanta Industries Ltd. to M/s. Marwar Cement Limited and Extension of validity of EC was obtained from MoEFCC, New Delhi *vide* letter no. J-11011/154/2009-IA II (I) dated 27/11/2017.

40.8.6 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC dated 27/07/2010	Implementation Status	Production as per CTO
1.	Clinker	MTPA	1.0	*Project not implemented yet	Project not implemented yet
2.	Cement	MTPA	1.371		
3.	CPP	MW	18		

4.	DG Set	MW	5		

***Note**

- Earlier, Environmental Clearance for Integrated Cement Project - Clinker (1.0 MTPA), Cement (1.371 MTPA), CPP (18 MW) & D.G. Set (5 MW) at Village - Ghorawat, Tehsil - Pipar City (Earlier Bhopalgarh), District - Jodhpur (Rajasthan) was obtained from MoEFCC, New Delhi *vide* letter no. J-11011/154/2009-IA II (I) dated 27th July, 2010 in the name of M/s. Vedanta Industries Ltd.
- The name of the company was changed from Vedanta Industries Ltd. to Marwar Cement Limited on 12th March, 2014.
- Transfer of EC from M/s. Vedanta Industries Ltd. to M/s. Marwar Cement Limited and Extension of validity of EC was obtained from MoEFCC, New Delhi *vide* letter no. J-11011/154/2009-IA II (I) dated 27th Nov., 2017.
- In the meantime, looking to the market scenario and viability of the project, company decided to install the plant of enhanced capacity; and therefore, proposes Enhancement in production capacity of Cement (1.37 to 2 MTPA), Clinker (1.0 to 3.0 MTPA), CPP (18 to 25 MW) & WHRB (15 MW) at the same project site; and obtained Terms of Reference from MoEFCC, New Delhi *vide* letter no. J-11011/154/2009-IA.II (I) dated 22nd July, 2015; validity extended *vide* letter dated 16th Aug., 2018.
- Public Hearing for the project was conducted on 27th August, 2018 and Final EIA/EMP Report uploaded on MoEFCC web portal on 21st May, 2019. Thereafter, an EDS has been generated on 18th June, 2019 (regarding Revalidation of Baseline data, CGWA NOC etc.), reply of which was submitted on 21st December, 2020 i.e. after the expiry of ToR Letter; thereafter, again an EDS has been generated stating to apply afresh for the project due to non-submission of earlier EDS reply within valid ToR period.
- Therefore, company is now proposing the same project afresh at same project site as "Integrated Cement Plant - Clinker (3.0 MTPA), Cement (2.0 MTPA), CPP (25 MW) & WHRS (15 MW) at Village: Ghorawat, Tehsil: Pipar City, District: Jodhpur (Rajasthan).

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

S No	Unit	Proposed Capacity
1.	Clinker	3.0 MTPA*
2.	Cement	2.0 MTPA
3.	CPP	25 MW
4.	WHRS	15 MW

**Note: Part of the clinker will be transported to proposed split Grinding Units of MCL at Neemrana (Rajasthan) and Bhatinda (Punjab).*

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

S No	Raw Material	Quantity (MTPA)	Source	Distance from site (kms)	Mode of Transportation
1.	Limestone	4.57*	Captive Mines	Adjacent	Covered Conveyor Belt
2.	Fly ash	0.66	Captive Power Plant and	300 km	By Road

S No	Raw Material	Quantity (MTPA)	Source	Distance from site (kms)	Mode of Transportation
			TPP located in nearby area		
3.	Gypsum	0.1	RSMM / Imported	300 km	By Road / Rail
4.	Silica Sand	0.06	Private Mine owner	10 km	By Road
5.	Red Ochre	0.05	Private Mine owner	100 km	By Road

**Limestone (216 TPD) will also be used for lime dosing to control the SO_2 emission in Captive Power Plant.*

40.8.9 The water requirement for the project is estimated at 1160 m^3 /day, out of which 850m^3/day of fresh water requirement will be obtained from the Groundwater and the remaining requirement of 310 m^3 /day will be met from the water reservoir developed in plant area and mine sump water. The permission for drawl of groundwater is obtained from CGWA *vide* Letter No.21-4 (386)/WR/CGWA/2009-747 dated 05th November, 2009. Offline application has been submitted for renewal of the same.

Status of Renewal: Renewal application (submitted offline) has been forwarded to CGWA from CGWB vide letter dated 02nd September, 2019. Now, offline Renewal Application has been converted to online Renewal Application. As the plant is proposed and no ground water abstraction has been made as on date with no construction of structures; therefore, Application for NOC Extension has been submitted to CGWA/CGWB dated 09th April 2021. Query related to NOC extension has been raised from CGWB; Jaipur dated 29th April, 2021. Reply of the same along with all the annexure has been submitted on 20th May, 2021. NOC extension is under process with CGWA/CGWB.

40.8.10 The power requirement for the project is estimated as 42 MW, which will be obtained from the Captive Power Plant, WHRB, State Grid and DG Set (in case of emergency).

40.8.11 Baseline Environmental Studies:

Period	Winter season (December 2019 to February 2020)
AAQ parameters at 08 locations	$PM_{2.5}$ = 25.0 to 46.8 µg/m^3 PM_{10} = 59.0 to 84.9 µg/m^3 SO_2 = 5.6 to 13.9 µg/m^3 NO_2 = 13.3 to 26.9 µg/m^3 CO = BDL to 0.81 mg/m^3
AAQ modeling (Incremental GLC)	PM_{10} = 1.74 µg/m^3 SO_2 = 3.22 µg/m^3 NO_x = 4.79 µg/m^3
Ground water quality at 08 locations	pH: 7.44 to 7.96 Total Hardness: 416.98 to 569.74 mg/l Chlorides: 423.56 to 874.12 mg/l Fluoride: 1.12 to 1.41 mg/l Heavy metals are within the limits
Surface water quality at 02 locations	pH: 7.63 to 7.85 DO: 5.7 to 6.0 mg/l BOD: 5.2 to 6.9 mg/l COD from 22 to 27 mg/l
Noise levels	49.8 to 53.9 for the day time and 39.0 to 44.2 for the night time.

Period	**Winter season (December 2019 to February 2020)**
Traffic assessment study findings	• Transportation of raw material, fuel & finished product will be done by road (SH-21) and rail. • Transportation will be done 100% by road during initial years of plant operation until the installation of railway siding. • There will be 52% reduction in number of trucks after installation of railway siding. • Company will construct approach road of approx. 3.0 km to the Plant site from Ghorawat village road which connects Plant site to SH-21.
Flora and fauna	Two Schedule- I Species i.e. Peafowl (*Pavo cristatus*) & Chinkara *(Gazella bennettii)* were recorded within 10 km radius of the study area. Wildlife Conservation Plan for both the species has been prepared & submitted to DFO, Jodhpur for authentication.

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

S. No.	**Type of Waste**	**Source**	**Quantity generated**	**Mode of Treatment / Disposal**
1.	Dust	Cement Plant	-	Dust collected from various APCEs will be totally recycled into the process.
2.	Fly ash	CPP	15 TPD	Used in manufacturing of PPC grade cement.
3.	STP Sludge	STP	8 kg/day	Used as manure for greenbelt development / plantation
4.	Used Oil (Cat. 5.1)	Plant maintenance	100 KL/annum	Will be sold to CPCB registered recycler

40.8.13 Public Consultation:

Details of advertisement given	22/07/2018 "Dainik Bhaskar" and "The Times of India"
Date of public consultation	27/08/2018
Venue	Dadhimati Mataji ka Mandir, Borunda, Tehsil - Pipar City, District- Jodhpur, (Rajasthan)
Presiding Officer	• Shri. Mahipal Kumar (ADM, Jodhpur) • Shri. Vijay Sharma (Regional Officer, RSPCB, Jodhpur)
Major issues raised	1. Training for youth & Employment to local people 2. Plantation programme in the area 3. Measures for Environment protection 4. Health facilities 5. Infrastructure development 6. Water arrangement for project

PH action plan as per MoEF&CC O.M. dated 30/09/2020

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (in Lacs)
			01st Year	02nd Year	03rd Year	
1.	Skill Development	Establishment of Skill development centre to empower the local unemployed youths for a self-sustaining career in Villages Khawaspura and Devasi	0	01 (Village Khawaspura)	01 (Village Devasi)	150
2.	Plantation	Plantation in Villages Ghorawat, Khawaspura at common land, govt. buildings, schools and village roads	500 (Village Khawaspura)	500 (Village Ghorawat)	250 (Village Khawaspura) 250 (Village Ghorawat)	60
		Distribution of local species saplings in nearby villages Khawaspura	500 (Village Khawaspura)	500 (Village Ghorawat)	0	
3.	Health	Development of Medical sub-center in Village Khawaspura	0	0	01 (Village Khawaspura)	200
		Free medical aid to local people to ensure appropriate treatment facilities available for the villagers in Village Khawaspura & Ghorawat	10 (Village Ghorawat)	05 (Village Khawaspura)	0	30
		Free medical check-up by organizing camps in Villages Khawaspura, Ghorawat and Devasi	01 (Village Ghorawat)	01 (Village Khawaspura)	01 (Village Devasi)	30
4.	Infrastructure Facilities	Development of secondary school at village Ghorawat	0	0	01 (Village Ghorawat)	350
		Development of small Gardens in Villages Khawaspura, Ghorawat and Borunda	02 (Village Ghorawat)	02 (Village Khawaspura)	02 (Village Borunda)	100
		Development of Gaushallas in Village Khawaspura	0	02 (Village Khawaspura)	0	
		Establishment of Community Centre (including toilet) in Village Khawaspura	0	0	01 (Village Khawaspura)	150
		Installation of Solar Street lighting at Village Khawaspura and Ghorawat.	20 (Village Ghorawat)	30 (Village Khawaspura)	0	25
		Installation of RO Plant at Village Khawaspura and Ghorawat.	01 (Village Ghorawat)	0	01 (Village Khawaspura)	50
5.	Water	Construction of rural rain water harvesting structures (Tanka) in the Villages Khawaspura,	05 (Village Ghorawat)	05 (Village Khawaspura)	05 (Village Devasi)	225

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement			Cost (in Lacs)
			01st Year	02nd Year	03rd Year	
		Ghorawat and Devasi				
		Provision of drinking water through Overhead Tank & Borewell in Villages Ghorawat, Khawaspura, and Pundlu	01 (Village Khawaspura)	01 (Village Ghorawat)	01 (Village Pundlu)	210
6.	Land related	Soil testing will be done to provide awareness for increasing the land productivity at Village Khawaspura and Ghorawat	01 (Village Khawaspura)	01 (Village Ghorawat)	0	20
Total cost allocated for the Socio-economic developmental activities						***1600***

**The above action plan will be implemented during project implementation phase. Zero date will start from the date of construction start for the proposed project.*

***The activities given in the above table are excluding the Pollution Control and mitigation measures which are included in EMP Cost [i.e. Capital Cost:* Rs. 30 Crores & *Annual Recurring Cost:* Rs 4.50 Crores/annum*]*

40.8.14 The capital cost of the project is Rs. 1600 Crores and the capital cost for environmental protection measures is proposed as Rs. 30Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 4.5Crores. The employment generation from the proposed project is 950 persons (regular and contractual) during operational phase and 1500 people during construction phase. The details of cost for environmental protection measures are as follows:

S No	Description of Item	Rs. In Crores	
		Capital Cost	Recurring Cost
i.	Air Pollution Control &Housekeeping measures	26	3.75
ii.	Water Pollution Control & Rainwater Harvesting Measures	0.5	0.10
iii.	Environmental Monitoring and Management	2.0	0.50
iv.	Green Belt Development	1.5	0.15
v.	**Sub Total**	**30**	**4.5**
vi.	Addressed to Public Consultation concerns	8.0	-
Grand Total (v + vi)		**38**	-

40.8.15 Greenbelt will be developed in 19.1 ha which is about 33% of the total project area. A 20 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 47750 saplings will be planted and nurtured in 19.1 Hectares in 3 years.

40.8.16 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.8.17 Name of EIA Consultant: J.M. EnviroNet Pvt. Ltd., [S. No.– 42, Certificate no. NABET/EIA/2023/RA 0186 valid till 07/02/2023; Rev. 12, July 09, 2021].

Written submission made during the course of meeting

40.8.18 PP has submitted written clarifications on the following points during the course of meeting:

i. Revised action plan to address the issues raised during public hearing as per MoEF&CC O.M. dated 30/09/2020 as given at para no 40.8.13.

Observations of the Committee

40.8.19 The EAC noted the following:

i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures. The EAC also noted that the baseline data reported and incremental GLC due to the proposed project were within NAAQ standards.

ii. The EAC also deliberated on the public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.

iii. The EAC noted that the written submissions made by the project proponent during the course of meeting are addressing the concerns of the Committee.

Recommendations of the Committee

40.8.20 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to integrated cement plants based on project specific requirements:

A. Specific conditions

i. Stack emission from all the stacks shall not exceed 30 mg/Nm^3.
ii. Roads shall be paved and industrial vacuum cleaners shall be deployed for regular cleaning of roads.
iii. Project proponent shall obtain prior permission from concerned competent authority for withdrawal of 850 KLD of ground water.
iv. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office.
v. Petcoke feed shall be controlled automatically based on the SO_2 concentration received from Continuous Emission Monitoring System (CEMS) installed at the stack.
vi. Green belt development shall be taken up in 33% of the total project area with a tree density of 2500 per hectare. This shall include 30-meter-wide green belt development towards the Chorawat village adjacent to the plant site. In addition to this, PP shall plant additional trees in 12 ha land along 3 km road leading to plant from Highway.
vii. Limestone from the captive mines shall be transported to the plant by closed belt conveyor.
viii. Co-processing of wastes like tyres, paint sludge, agro waste, and municipal solid waste etc., shall be carried out to the extent of 2%. Provision for Municipal waste

collection from nearby villages and processing facilities for charging the same as Fuel in the kiln shall be provided. Converting MSW into kiln fuel shall be preferred over composting. During co-processing, monitoring of dioxin and furans shall be undertaken on yearly basis.

ix. Rain water harvesting shall be carried out as per the action plan submitted in the EIA report.

x. Performance evaluation of the pollution control devices shall be carried out once a year and report submitted to concerned Regional Office of the MoEF&CC.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as 3 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.

iii. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

iv. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;

v. The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;

vi. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement)and subsequent amendment dated 9th May, 2016 (Cement)and 10th May, 2016(in case of Co-processing Cement)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.

ii. The project proponent shall regularly monitor 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. 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

v. Water meters shall be provided at the inlet to all unit processes in the cement plant.

vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Waste heat recovery system shall be provided for kiln and cooler.

ii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.

iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.

iv. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

i. Used refractories shall be recycled as far as possible.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees in the plant premises.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. 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.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. 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.

iii. 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.

X. Miscellaneous

i. 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.

ii. 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.

iii. 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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.9 Enhancement in production of existing sponge iron Plant capacity from 60,000 TPA to 2,70,000 TPA, Production of 135000 TPA Steel Billets, 120,000 TPA TMT Bars, Production of 26 MW power through WHRB (16MW) and AFBC (10MW) Route and Production of 30 million Fly ash Bricks per annum by **M/s. Shree Hari Sponge Private Limited** located at Village- Kendrikela, Tehsil- Bonai, **District-Sundergarh, Odisha** [Online Proposal No. IA/OR/IND/103521/2019; File No. J-11011/186/2019-IA.II (I)] – **Environment Clearance** – regarding.

40.9.1 M/s. Shree Hari Sponge Private Limited has made an online application vide proposal no. IA/OR/IND/103521/2019 dated 02/07/2021 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at the central level.

Details submitted by Project proponent

40.9.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
21/05/2019	8th meeting of EAC held on 26th June 2019	Terms of Reference	18/07/2019

40.9.3 The project of M/s. Shree Hari Sponge Private Limited located in Village: Kendrikala, Tahasil: Banei, Sundargarh District, Odisha State is for Enhancement in production of existing sponge iron Plant capacity from 60,000 TPA to 2,70,000 TPA, Production of 135000 TPA Steel Billets, 120,000 TPA TMT Bars, Production of 26 MW power through WHRB (16MW) and AFBC (10MW) Route and Production of 30 million Fly ash Bricks per annum.

40.9.4 Environmental Site Settings:

S No	Particulars	Details	Remarks
i.	Total land	22.26 ha i.e. 55 Acres [Private land: 30.05 Acres, Govt. land: 24.95 Acres (under land bank scheme of IDCO), Agricultural land: Nil]	Existing Land – 30.05 Acres Industrial Land, Additional Land – 24.95 Acres (from

S No	Particulars	Details	Remarks
			IDCO) is under the process of acquisition
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Existing Land – 30.05 Acres Industrial Land, Additional Land – 24.95 Acres (from IDCO) is under the process of acquisition)	
iii.	Existence of habitation and involvement of R&R, if any.	No habitation within the plant premises	
iv.	Latitude and Longitude of the project site	**Site** / **Latitude** / **Longitude** Point A / 21°48'25.74"N / 84°55'33.11"E Point B / 21°48'24.91"N / 84°55'25.23"E Point C / 21°48'28.40"N / 84°55'20.77"E Point D / 21°48'35.62"N / 84°55'24.59"E Point E / 21°48'33.51"N / 84°55'30.22"E Point F / 21°48'31.46"N / 84°55'33.63"E Point G / 21°48'29.37"N / 84°55'34.38"E Point H / 21°48'25.74"N / 84°55'33.11"E	
v.	Elevation of the project site	85m AMSL	
vi.	Involvement of Forest land if any.	Nil	
vii.	Water body exists within the project site as well as study area	**Project site:** Nil **Study area** Brahmani River: 2Km, N	
viii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil	

40.9.5 The existing project was accorded Consent to Establish issued by Odisha State Pollution Control Board vide letter no 25558/IND-II-NOC-3286 dated 22/08/2005. Renewed Consent to Operate is accorded vide no. 3492/ IND-I-CON- 5279 dated 26/03/2018 and valid up to 31/03/2023. Since the CTE was accorded prior to 14/09/2006, EC is not required under the provisions of EIA Notification, 2006. Consent to Operate for the existing unit was accorded by Odisha State Pollution Control Board vide lr. no. 3492/IND-I-CON-5279 dated 26.03.2018. The validity of CTO is up to 31/03/2023.

40.9.6 Implementation status of the existing CTO:

S No	Facilities	Units	As per CTO dated 26/03/2018	Implementation Status as on 10.03.2021	Production as per CTO
1.	Sponge Iron (DRI) Kilns 2 x 100 TPD	TPA	60000	In operation	60000 TPA

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

S No	Name	Existing Units		Proposed Units		Total (Existing Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
1.	Sponge Iron (DRI) Kilns	2x100 TPD	60000	2 x 350 TPD	210,000 TPA	2x100 TPD 2 x 350 TPD	270000
2.	Induction Furnace(Steel Melting)	--	--	3 x 15 Ton	1,35,000 TPA	3 x 15 Ton	3 x 15 Ton /1,35,000 TPA
3.	Continuous Caster(for Billet making)	--	--	4m x 7m CCM		4m x 7m CCM	1,35,000 TPA
4.	Total Power	--	--				26.01 MW
5.	(steam from WHRB)	--	--	10 + 10 = 20ton 30 + 30 = 60ton	16 MW	10 + 10 = 20ton 30 + 30 = 60ton	16 MW
6.	(steam from CFBC)	--	--	50 Ton	10 MW	50 Ton	10 MW
7.	(including Solar Power)			10 kW	10 KW	10 kW	10kW
8.	Fly Ash Brick Making			30 million bricks/annum		30 million bricks/annum	30 million bricks/annum
9.	Rolling Mill (for TMT Bar Production)			400 TPD	120000	400 TPD	1,20,000 TPA

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

Sl No	Raw Material Requirement	Consumption per annum			Source	Mode of Transport
		Existing	Proposed	Total		
1	Iron ore, Ton	96000	336000	432000	Odisha Mining Corporation	By covered trucks from OMC
2	Domestic Coal, Ton	30000 0	105000 1980	136980	Mahanadi Coal Field, Talcher	By covered trucks from MCL
3	Imported Coal, Ton	30000 0	105000 23760	158760	South Africa. Indonesia etc.	By covered wagons & trucks
4	Dolomite, Ton	3600	12600	16200	Open Market	By covered trucks
5	Pig Iron/ Scrap, Ton	0	29420	29420	Open Market	By covered trucks
6	Ferro Manganese, Ton	0	675	675	Open Market	By covered trucks
7	Limestone, Ton	0	4500	4500	Open Market	By covered trucks
8	Anthracite Coal#,	0	2636	2636	Open Market	By covered trucks

	Ton					
9	Lime Sludge, Ton	0	8640	8640	Open Market	By covered trucks
10	Chemical Agent#, Ton	0	780	780	CFRI Dhanbad	By special tankers

40.9.9 The water requirement for the project is estimated as 1285 m^3/day, out of which 15 m^3/day of fresh water requirement will be obtained from the Bore well and the remaining requirement of 1270 m^3/day will be sourced from Brahmani River. In principle approval has been obtained for withdrawal of 0.745 cu. sec water from Brahmani River.

40.9.10 The power requirement for the project is estimated as 6088 MWh/ Annum (Existing); Expansion: 252814 MWh/ Annum, open access from Captive Power Plant of SHSPL and from WESCO.

40.9.11 Baseline Environmental Studies:

Period:	01/10/2019 to 31/12/2019 Additional one month baseline data was carried out from 20/05/2021 to 13/06/2021.
AAQ parameters at 08 locations	$PM_{2.5}$= 30.04 to 58.04 µg/m^3 PM_{10}=50.21 to 85.11 µg/m^3 SO_2= 4.05 to16.27 µg/m^3 NO_2 = 12.24 to 25.34 µg/m^3
AAQ modelling	<u>Incremental GLCs in study area:</u> PM_{10}= 0.54 µg/m^3 $PM_{2.5}$= 0.0 µg/m^3 SO_2= 2.23 µg/m^3 NO_X=3.6 µg/m^3
Ground water quality at 08 locations	pH: 6.5 to 7.1, Total Hardness:44 to 308 mg/l, Chlorides:11.2 to 91.8 mg/l, Fluoride: 0.05 to 0.08 mg/l. Heavy metals are within the limits.
Surface water quality at 08 locations	pH: 7.0 to7.8 DO: 7.1 to 7.9 mg/l BOD: 1.0 mg/l COD 5.0 mg/l
Noise levels	34 to 57 dB(A) for the day time and 39 to 69 dB(A) for Night time.
Traffic assessment study findings	Maximum trucks which would add to the existing traffic will be 47 trucks/ hour inward and 2 trucks/ hour outward for duration of 16 hours after the expansion of the plant.
Flora and fauna	There is no schedule I species exist in the study area.

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

Sl. No.	**Waste**	**Solid waste Total in TPA**			**Management**
		Existing	**Proposed**	**Total**	
1.	Dolochar	13800	48300	62100	Utilized in CFBC Boiler

Sl. No.	Waste	Solid waste Total in TPA			Management
		Existing	Proposed	Total	
					for Power generation
2.	ESP Dust	8400	29400	37800	Utilized for Brick manufacturing
3.	Wet Scrapper sludge	1200	4200	5400	Utilized for Brick manufacturing
4.	Bag filter dust	3600	12600	16200	Utilized for Brick manufacturing
5.	Acceration Dust	540	1890	2430	Utilized for Brick manufacturing
6.	IF Bag filter dust	Nil	8100	8100	Utilized for Brick manufacturing
7.	End Cut	Nil	3600	3600	Utilized in IF
8.	Fly ash/ bottom ash	Nil	55440	55440	Utilized for Brick manufacturing
9.	Non Magnetic slag	Nil	12960	12960	utilized for Brick
10.	Magnetic Slag	Nil	540	540	Utilized in IF

40.9.13 Public Consultation:

Details of Advertisement given	15/09/2020
Date of Public Consultation	16/10/2020
Venue	Madhupur Play Ground at Madhupur Kindrikela G. P. Tehsil Bonai, District Sundargarh.
Presiding Officer	Additional District Magistrate
Major Issues Raised	i. Air and Water Pollution ii. Solid waste and Waste water management iii. Permanent employment to local people iv. Development of the local area. v. Ground water abstraction and disturbed to natural drain. vi. Education and Health care facility vii. Plantation

Action plan as per MoEF&CC O.M. dated 30/9/2020

Sl. No.	Proposed social development activities	Monitorable Physical Targets				Total Budget proposed in Lakhs
		Year 1	Year 2	Year 3	Year 4	
1	Drinking water supply	Repair and maintenance of existing govt. Water supply system (6 nos) in Kendrikala, Madhupur and Barhamusa village (2 Lakhs)	Two nos of Solar pump (1 HP) over head water tank system (with Iron frame) height 5m with pipeline up to metering point of 20 Households in Kendrikala village covering total household of 300 no's (8 Lakhs)	One no of Solar pump (1 HP) over head water tank system (with Iron frame) height 5m with pipeline up to metering point of 20 Households in Madhupur village covering total household of 120 no's (4 Lakhs)	Two no's Solar pump (1 HP) over head water tank system (with Iron frame) height 5m with pipeline up to metering point of 20 Households in Barhamusa village covering total household of 230 nos. (6 lakhs)	20.0

Sl. No.	Proposed social development activities	Monitorable Physical Targets				Total Budget proposed in Lakhs
		Year 1	Year 2	Year 3	Year 4	
2	Rain Water Harvesting	Roof top rain water harvesting with recharge pits (20 Nos) and rain water collection tank in Kendrikala Primary School (7.0 Lakhs) Pipeline and drip irrigation for garden watering connecting to the rain water collection tank (1.5 Lakhs)	Maintenance of rain water harvesting structure (0.5 Lakhs)	Maintenance of rain water harvesting structure (0.5 Lakhs)	Maintenance of rain water harvesting structure (0.5 Lakhs)	10.0
3	Renovation of School Furniture for GP school	Repair and renovation of furniture, door, black board, storage almirah (10.0 Lakhs)	Maintenance of the furniture in GP school (3.0 Lakhs)	Maintenance of the furniture in GP school (2.0 Lakhs)	Maintenance of the furniture in GP school (2.0 Lakhs)	17.0
	Construction of boundary wall of GP school	--	--	--	Construction of boundary wall of gp school (6ft x 2000ft) 6 lakhs	6.0
4	Half yearly health camp for the nearby villages (Kendrikala, Madhupur and Barhamusa)	Health camp for 1500 people in three villages (5.0Lakhs)	Health camp for 1500 people in three villages (5.0Lakhs)	Health camp for 1500 people in three villages (5.0Lakhs)	Health camp for 1500 people in three villages (5.0Lakhs)	20.0
5	Construction and maintenance of the road connecting NH 23 to plant site and Kendrikala village (500m +500m Stretch)	Construction of the concrete road connecting NH 23 to plant site and Kendrikala village (500m +500m Stretch) (20 Lakhs)	Maintenance of the road (5.0 Lakhs)	Maintenance of the road (5.0 Lakhs)	Maintenance of the road (5.0 Lakhs)	35.0
6	Brick supply to the local villages for developmental work (Priority will be given to houses under Indira Awas Yojana) by discussion with village committee	Brick Supply to 10 beneficiary (5 Lakhs)	Brick Supply to 10 beneficiary (5 Lakhs)	Brick Supply to 10 beneficiary (5 Lakhs)	Brick Supply to 10 beneficiary (5 Lakhs)	20.0
7	Installation of solar street light along the village road of Kendrikala and road connecting plant site. (2 Km with 20 nos of solar lights)	10 Solar lights in the village road (5.0 Lakhs)	10 Solar lights in the village road (5.0 Lakhs)	--	--	10.0

Sl. No.	Proposed social development activities	Monitorable Physical Targets				Total Budget proposed in Lakhs
		Year 1	Year 2	Year 3	Year 4	
8	Fruit orchard for colony sahi (200 trees has been planted). Proposal for further 4000 trees over an area of 2 ha.	Development of Fruit orchard (10 Lakhs)	Development and replacement of saplings required in Fruit orchard (5 Lakhs)	Maintenance (2.5 Lakhs)	Maintenance (2.5 Lakhs)	20.0
9	Plantation along the road side connecting NH 23 to plant site (500m)	Plantation along both side of the road (4.0 Lakhs)	Plantation along both side of the road (4.0 Lakhs)	Maintenance (1 Lakhs)	Maintenance (1 Lakhs)	10.0
10	Ambulance for the local villagers	--	Dedicated ambulance for villagers of Kendrikala and Madhupur (10.0 Lakhs)	Recurring cost for ambulance (3.0 Lakhs)	Recurring cost for ambulance (3.0 Lakhs)	16.0
11.	Renovation of clubs and anganwadi centre in Kendrikela village		Renovation of Club in Kendrikala village (3.0 Lakhs)	Renovation of Anganwadi center in Kendrikala village (2.0 Lakhs)		5.0
12.	Supply of Fertilizer to peasant farmers as suggested by the village committee		Supply of fertilizer to 20 nos of farmers @Rs.10000/- per farmers (2.0 Lakhs)	Supply of fertilizer to 20 nos of farmers @Rs.10000/- per farmers (2.0 Lakhs)	Supply of fertilizer to 20 nos of farmers @Rs.10000/- per farmers (2.0 Lakhs)	6.0
13.	Miscellaneous expenses	5.0	5.0	5.0	5.0	20.0
Total projected social development cost		**215.0**				

40.9.14 The capital cost of the expansion project is Rs 284 Crores and the capital cost for environmental protection measures is proposed as Rs 28.4 Crores (for expansion). The annual recurring cost towards the environmental protection measures is proposed as Rs 2.84 Crores (for expansion). The employment generation from the proposed expansion is 430. The details of cost for environmental protection measures is as follows:

Budgetary Provision of Environmental Management Plan (Capital Cost)

Item	**Cost (in Crore)**
Cost of Air Pollution Control Devices/ System	15.0
Cost of Water conservation & Pollution Control	6.0
Cost of Solid Waste Management System	2.0
Green belt development	0.5
Noise Reduction Systems	0.5
Occupational Health Management	0.5
Risk Mitigation & Safety Plan	1.4
Setting Environmental Management Cell	0.5
Implementation of Controlling measures to minimise impacts due to transportation and traffic	1.0
Setting/ Modification Environmental Laboratory	1.0
Total	**284**
Addressed to issues raised during Public hearing	**2.15**

Budgetary Provision of Environmental Management Plan (Recurring Cost)

Item	Cost (in Lacs)
Air Pollution Control Systems	50.0
Water conservation & Pollution Control	70.0
Solid Waste Management System	40.0
Green belt development	10.0
Online/ Manual Monitoring Surveillance System	20.0
Noise Reduction Systems	10.0
Occupational Health Management	10.0
Risk Mitigation & Safety Plan	20.0
Environmental Management Department	30.0
Controlling measures to minimize impacts due to transportation and traffic	20.0
GRAND TOTAL	**280 Lakhs**

40.9.15 Greenbelt will be developed in 7.36 ha which is about 33% of the total project area. A7.5 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 18500 saplings will be planted and nurtured in 7.36 hectares in 4 years.

40.9.16 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.9.17 Name of the EIA consultant: M/s. Kalyani Laboratories Private Limited [S. No. 92 vides accreditation Certificate No: NABET/EIA/1922/RA0154, valid up to 28/04/2022; Rev. 12, July 09, 2021].

Certified compliance report from Regional Office:

40.9.18 The Status of compliance of earlier CTO was obtained from Odisha State Pollution Control Board vide letter no 494/CTO-0683 (P-II) dated 03/03/2021. As per the report, the project proponent is complying with the existing CTO conditions.

40.9.19 M/s. Shree Hari Sponge Private Limited has earlier made an online application vide proposal no. IA/OR/IND/103521/2019 dated 04/03/2021. The proposal was considered earlier by the EAC (Industry 1) in its 32nd meeting of the Re-constituted EAC (Industry-I) held on 15-17th March, 2021. The observations and recommendations of EAC is given as below:

i. The project proponent vide email dated 15/03/2021 expressed their inability to participate in the meeting and requested to reschedule the proposal in upcoming EAC meeting.
ii. After deliberations, the Committee recommended that the proposal shall be listed for consideration in the forthcoming EAC meeting.

40.9.20 Accordingly, the proposal was considered by the EAC (Industry 1) in its 33rd meeting held on 30-31st March, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee held during 30–31st March, 2021

40.9.21 The Committee noted the following:

i. PH was held on 16.10.2020. As per the PH proceedings, local people had a general complaint that PP has not spent any money in past thirteen years on social welfare. The issues raised during the public hearing have not been adequately addressed in the final EIA report.

ii. No efforts have been made to explore availability of surface water to avoid ground water abstraction for the proposed expansion.

iii. Dolochar generated from existing DRI kiln is not used for power generation. Further, the dolochar and ESP bag house dust is being dumped in a 10-acre yard which is not a sound environment practice.

iv. Approach road to the plant from NH is katcha and internal plant roads are also not paved.

v. 20 KLD of domestic waste water is envisaged to be discharged into soak pits. No concrete plan is mentioned in EIA report for treatment of domestic wastewater.

vi. Garland drains have not been proposed around the raw material storage yard and no settling pit is provided to trap the run off material.

vii. Only 20 % of plant area is covered with green belt with a density of 2000 trees per hectare as against mandatory green belt requirement of 33% of the plant area.

viii. Total land requirement is 55 acres, out of which 30.05 acres is in possession of PP. balance 24.95 acres of land is yet to be acquired which is under process by IDCO.

ix. Plant layout is not an engineering drawing. No dimensions are given and NORTH is shown as WEST. Layout is not showing new kiln installations.

x. EIA Report has following deficiencies:

   a. Cover page does not indicate plant capacity and the month in which EIA has been finalized.
   b. Scope does not cover installation of 14000 TPA slag crusher and the same is also not covered in TOR.
   c. Section 6.10 and 6.11 do not cover the TOR point # 9 pertaining to Corporate Environment Policy as per requirement. Chapter 6 is not supposed to address TOR # 9.
   d. WHRB proposed is only 16 MW while it should be 20 MW for 2x100 TPD and 2X350 TPD kilns.
   e. Hot charging of billet has not been proposed. RHF using FO has been proposed.
   f. Layout plan submitted in section 2.13 of EIA and the one shown in Form 2 are different.
   g. Section 2.13 of Chapter 2 of EIA report is not presented as per the requirement of EIA Notification 2006.
   h. Criteria for selection of soil sampling stations in section 3.1.1 have not been given. Physical parameters tested and reported in table 3.6 are not complete. In view of this, fresh analysis of soil samples needs to be carried out.
   i. Out of 8 SW samples collected, 6 are from village ponds in rural Odisha. TDS in these samples varies from 76 to 140 ppm; BOD is less than 1.0 mg/L; COD is less than 5; DO is between 7.1 to 7.6 mg/L. BOD values correspond to coliform levels of 1600 MPN/100cc. No explanation is available in the report for the observed quality of SW. It is also not clear as to which method has been used to determine BOD in less than 1 ppm range. In view of this, fresh analysis of surface water samples needs to be carried out.

j. Criteria for selection of AAQ stations have not been defined.
k. Environment Baseline and Socio-economic data have not been interpreted. No quality check has been performed on the data collected.
l. Impacts and Mitigation measures suggested in Chapter 4 are generic and not quantified in specific terms applicable to the project.
m. EMP Chapter 10 does not give specific details in quantified terms of the Impacts that are supposed to be managed administratively in post project scenario as per the requirement of EIA notification 2006.
n. Action plan to address the issues raised during public hearing is not as per the requirement of MoEF&CC O.M. dated 30/09/2020.
o. PH issues have not been addressed to formulate EMPs for social welfare and infrastructural work.

xi. Incomplete information is provided in Form 2 (For instance in section 5, 13, 21, 29, 30 etc.,) which needs to be revisited.

Recommendation of the Committee held during 30–31st March, 2021

40.9.22 In view of the foregoing observations at para 40.9.21 and deliberations, the committee recommended to return the proposal in its present form to address the shortcomings mentioned above

40.9.23 It was apprised to the EAC that MoEF&CC has issued a Show Cause Notice to the EIA consultant - M/s. Kalyani Laboratories Private Limited (KLPL) on 22/04/2021 for this project as the consultant has submitted the EIA report with several technical deficiencies.

40.9.24 M/s. Shree Hari Sponge Private Limited has made again an online application vide proposal no. IA/OR/IND/103521/2019 dated 28/04/2021. The proposal was considered by the EAC (Industry 1) in its 36th meeting held on 18-19th May, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee held during 18-19th May, 2021

40.9.25 The Committee noted the following:

i. In the revised EIA report, the observations made by the EAC in its meeting held on 30-31st March, 2021 have not been addressed satisfactorily.
ii. Selection of AAQ stations has been carried out wrongly and in light of this revised AAQ modelling needs to be carried out.
iii. Revalidation of AAQ data by collecting one-month fresh AAQ data at appropriate locations needs to be carried out. Thereafter, fresh AAQ modelling shall be carried out.

Recommendations of the Committee held during 18-19th May, 2021

40.9.26 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present form to address the shortcomings as enumerated above

40.9.27 PP has made an online application vide proposal no IA/OR/IND/103521/2019 dated 02/07/2021. The Proposal was considered by the EAC (Industry 1) in its 40th meeting held 15-16th July, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

40.9.28 The Committee observed the following:

i. The Committee noted that the revised EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

ii. The Committee also deliberated on the compliance report of Odisha Pollution Control Board(OPCB), public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

Recommendations of the Committee

40.9.29 In view of the foregoing and after deliberations the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to sponge iron plants, induction furnace and rolling mills based on project specific requirements:

A. Specific conditions

i. Particulate matter emission from all the stacks shall not exceed 30 mg/Nm^3.

ii. Water supply from Brahmani river shall be used and no ground water shall be abstracted for the expansion project.

iii. Project proponent shall obtain prior permission from concerned competent authority for withdrawal of 1270 KLD water from Brahmani river before commencing the expansion project activity.

iv. Rain Water harvesting shall be implemented as per the action plan submitted in the EIA report.

v. 100% dolochar generated in the plant shall only be used either in the captive power plant (or) in the Thermal Power Plants meeting emission standards.

vi. Water spray systems shall be included to control fugitive dust from raw material Stockpiles.

vii. 85-90 % hot charging shall be practiced. Reheating furnace shall be used in emergency only and shall operate on Furnace Oil.

viii. Internal roads shall be paved and 500 m long road connecting NH 23 shall be widened and black topped.

ix. Stockpiles shall be constructed on impervious floors and Garland drains shall be constructed with traps around the plant and around the stock piles.

x. 18.2 ha land (33%) shall be brought under green belt with a tree density of 2500 trees per ha.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. 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.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. 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 briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); 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.

ii. 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.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. 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.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.
ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. 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
ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. 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.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
ii. 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.
iii. 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.

X. Miscellaneous

i. 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.

ii. 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.

iii. 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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.10 Expansion of Sponge Iron from 60,000 to 90,000 TPA, Production of 72,000 TPA Billet by addition of 2x12T Induction Furnace and 12 MW Captive Power Plant by **M/s Shri Ram Power & Steel Pvt. Ltd.** located at Village: AraSaruBera Road, PO-Kuju, **District-Ramgarh, Jharkhand** [Online Proposal No. IA/JH/IND/195539/2018, File No. J-11011/260/2009-IA.II(I)] –**Environment Clearance–** regarding.

40.10.1 M/s. Sri Ram Power & Steel Private Limited has made an online application vide proposal no. IA/JH/IND/195539/2018 dated 03/07/2021 along with copy of EIA/EMP report and Form-2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the projectmentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & nonferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

40.10.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
20/09/2018	36th meeting of EAC held on 09-10th October, 2018 and Reconsideration in the 04th meeting of EAC held on 20-22nd February, 2019	Terms of Reference	15/04/2019

40.10.3 The project of M/s. Sri Ram Power & Steel Private Limited located at Village: AraSaruBera Road, PO-Kuju, District- Ramgarh, Jharkhand is for Expansion of Sponge Iron from 60,000 to 90,000 TPA, Production of 72,000 TPA Billet by addition of 2x12T Induction Furnace and 12 MW Captive Power Plant.

40.10.4 Environmental Site Settings:

except	Particulars	Details
i.	Total land	Total: 4.96 ha
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Acquired: 4.96 ha
iii.	Existence of habitation & involvement of R&R, if any.	No habitation in the proposed site. No R&R is involved
iv.	Latitude and Longitude of the project site	Latitude 23˚43'24.3"N, Longitude 85˚31'28.7"E
v.	Elevation of the project site	370m AMSL
vi.	Involvement of Forest land if any.	No Forest Land is involved
vii.	Water body exists within the project site as well as study area	**Project Site:** Nil **Study area:** Damodar River: 8.7 Km, S Chotha Nadi: 3.13 Km, N Bokaro River: 4.85 km NNE
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. Following Forest are present in study area: Protected Forest: 3.77km, WSW Protected Forest: 7.2 km, NNW

40.10.5 The existing project was accorded Environmental Clearance vide lr. no. J-11011/260/2009–IA.II(I) dated 30/09/2010 for expansion of existing manufacturing unit of Sponge Iron plant

from 60,000 TPA to 90,000 TPA (3x100 TPD DRI Kiln), production of Steel Melting Shop of 60,000 TPA (2x12 Ton Induction furnace) and 8 MW Power plant (through WHRB & AFBC boiler). Under this EC, except 2x100 TPD DRI kiln other units were not installed within the validity period of EC. The Company applied for extension of the validity of the existing Environmental Clearance on 21/12/2017. However, the Ministry rejected the proposal vile letter dated 09/04/2018 for extension of EC validity in view of no progress made at site by PP in last 7 years. Consent to Operate renewal for the existing unit was accorded by Jharkhand State Pollution Control Board vide lr. no. JSPCB/HO/RNC/CTO-4471655/2019/1191, dated 24/06/2019. CTO is valid up to 31/03/2022.

40.10.6 Implementation status of the existing facility: -

S No	Facilities	Units	As per EC dated 30/09/2010	Implementation Status as on 03/07/2021	Productionas per CTO
1.	Sponge Iron Plant – 2x100 TPD	TPA	60,000	Operational	2x100 TPD (60,000 TPA)

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

S No	Units	Existing Units		Proposed Units		Final Capacity	
		Unit	Production TPA	Unit	Production TPA	Unit	Production TPA
1	**Sponge Iron Plant – 90,000 TPA**						
	DRI Kilns	2x100 TPD	60,000	1x100 TPD	30,000	3x100 TPD	90,000
2	**Steel Melting Shop – 72,000 MS Billets**						
	Induction Furnace	--	--	2x12 Ton	73,050	2x12 Ton	73,050
	Billet Caster	--	--	2x6/11 m radius	72,000	2x6/11 m radius	72,000
3	**Captive Power Plant – 12 MW**						
	WHRB	--	--	3	6 MW	3	6 MW
	AFBC Boiler	--	--	1	6 MW	1	6 MW

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

Item	Requirement(TPA)			Source
	Existing	Proposed	Total	
Iron Ore	96,000	48,000	1,44,000	Odisha, Jharkhand
Non-Coking coal	78,000	39,000	1,17,000	CCL, Open Market
Dolomite / Limestone	1,800	900	2,700	Chhattisgarh
Scrap	-	17,500	17,500	Open Market
Ferro Alloys	-	600	600	Ramgarh
Coal (Power Generation)	-	31,500	31,500	CCL, Open Market
Total	**1,75,800**	**1,37,500**	**3,13,300**	

40.10.9 The water requirement for the project is estimated as 1241 m^3/day (total after expansion), out of which 1241 m^3/day of freshwater requirement will be obtained from the Bokaro River (A tributary of Damodar River). The permission for withdrawal of 1245 KLD (0.274 MGD) has been applied and is under process.

40.10.10 The total power requirement for the project is estimated as 11.8 MW, the Power will be met from Captive Power Plant and DVC.

40.10.11 Baseline Environmental Studies:

Period	December 2018 to February 2019
AAQ parameters at 08 locations	$PM_{2.5}$ = 22.3 to 48.7 µg/m^3 PM_{10} = 55.2 to 86.0 µg/m^3 SO_2 = 7.6 to 24.5 µg/m^3 NOx = 10.3 to 33.2 µg/m^3 CO = 0.6 to 0.99 µg/m^3
AAQ Modelling	PM_{10} = 1.026 µg/m^3 $PM_{2.5}$ = 0.590 µg/m^3 SO_2 = 3.126 µg/m^3 NOx = 6.557 µg/m^3
Ground water quality at 08 locations	pH: 7.2 to 7.83, Total Hardness: 220.5 to 431.2 mg/l, Chlorides: 67.52 to 234.0 mg/l, Fluoride: 0.13 to 0.35 mg/l. Heavy metals are within the limits.
Surface water quality at 08 locations	pH: 7.20 to 7.53; DO: 4.53 to 7.30 mg/l, BOD: 7.0 mg/l to 14.50 mg/l and COD: 16.0 mg/l to 48.42 mg/l.
Noise levels at 08 locations	47.65 to 53.74 for the day time and 39.17 to 46.8 for the Night time.
Traffic assessment study findings	The number of Trucks to be engaged = 52 numbers. Total no. of truck passing to the road = 104 truck/day. Space provided for Parking area is15 truck. Total parking area required for 15 trucks is 540 sq m.
Flora and fauna	No schedule-1 fauna within the study area

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

S No	Plant Section	Nature	TPA	Utilization
1	DRI Process	Char	22500	Use as Fuel in AFBC Power Plant– in house
2	DRI APCS	Fines & Dust	6750	Reuse in Process & Low Land Filling
3	WHRB ESP	Fly ash	16500	Sale to fly ash bricks/blocks manufacturers –outside party
4	SMS (Induction Furnace)	Slag	15000	Sale to slag processing units for village & other road making after recovery & removal of iron content by outside parties
5	CPP (AFBC - ESP)	Bottom Ash	3825	Bottom Ash for Road Making
		Fly ash	15300	Fly Ash to Bricks Plant

40.10.13 Public Consultation:

Details of advertisement given	13/06/2019
Date of public consultation	18/07/2019
Venue	Panchayat Bhawan Morpa, Kujju Poorvi Panchayat, Naya More, Dist- Ramgarh, Jharkhand
Presiding Officer	Additional Collector Ramgarh
Major issues raised	• Local Employment • Pollution problem • Health Care Facility • Road construction and Mandap maintenance • Infrastructure Development • Water pollution problem • Plantation

Action plan as per MoEF&CC O.M. dated 30/9/2020

Sl.	**Activity requirement raised during public hearing**		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Total (INR)**
1	Health Care Facility	**Target**	Providing Ambulance facility to nearby village				
		Budget	12,50,000				12,50,000
2	Health Camp	**Target**	Free Health Camp for Six Villages	Free Health Camp for Six Villages	Free Health Camp for Six Villages	Free Health Camp for Six Villages	
		Budget	1,00,000	1,00,000	1,50,000	1,00,000	4,50,000
3	Infrastructure Development	**Target**	Development of road infrastructure, maintenance of the village road (Two villages)	Development of road infrastructure, maintenance of the village road (Two villages)	Maintenance of Village Road	-	
		Budget	3,10,000	2,50,000	1,00,000	-	6,60,000
4	Infrastructure Development	**Target**	Repairing of Village Mandap (Two Village)	Repairing of Village Mandap (Two Village)	Repairing of Village Mandap (One Village)	Repairing of Village Mandap (One Village)	
		Budget	2,30,000	2,60,000	2,10,000	2,20,000	9,20,000
5	Drinking Water Supply	**Target**	Provide bore wells and Water storage tanks in the nearby villages for drinking water facility (Three Village		Provide bore wells and Water storage tanks in the nearby villages for drinking water facility (Three Village		
		Budget	1,75,000		1,80,000		3,55,000
6	Development of Water Bodies	**Target**		Cleaning of Ponds etc (Three villages)		Cleaning of Ponds etc (Three villages)	
		Budget		2,65,000		2,95,000	5,60,000

Sl.	**Activity requirement raised during public hearing**		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Total (INR)**
7	Peripheral Development	**Target**	Green belt has been planted in periphery of existing plant and shall also be planted in proposed expansion (One Village)	Green belt has been planted in periphery of existing plant and shall also be planted in proposed expansion (Two Village)	Green belt has been planted in periphery of existing plant and shall also be planted in proposed expansion (Three Village)	Green belt has been planted in periphery of existing plant and shall also be planted in proposed expansion (One Village)	
		Budget	1,25,000	1,45,000	1,70,000	1,30,000	5,70,000
	Grand Total						**47,65,000**

40.10.14 The capital cost of the project is Rs 103.74 Crores and the capital cost for environmental protection measures is proposed as Rs 5.81 Crores. The annual recurring cost towards the environmental protection measures is Rs 0.60 Crores. The employment generation from the proposed project/ expansion is 243 Nos. The details of cost for environmental protection measures is as follows:

S. No.	**Environmental Protection Measures**	**Capital Cost Rs. In lakhs**	**Recurring Cost Rs. In lakhs/year**
1	Air Pollution Control Measures	450	40
2	Water Pollution Control Measures	50	7
3.	Noise Pollution Control Measures	4	1
4.	Rain Water Harvesting	10	2
5.	Greenbelt Development	10	2
5.	Fire Fighting and safety measures	10	3
6.	Periodic Checking and Maintenance of Control Equipment/Measures	--	5
Total		**534**	**60**
Budget allocated for addressed issued raised during Public Hearing		**47.65**	**-**
Total EMP Budget Including PH addressed		**581.65**	**60**

40.10.15 Greenbelt will be developed in 1.72 ha which is about 34.68% of the total project area. 500 trees have been planted in existing plant (EIA report page no C11-14). A 3-5m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted witha density of 2500 trees per hectare. Total no. of 3800 saplings will be planted and nurtured in 3 years.

40.10.16 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.10.17 Name of the EIA consultant: - M/s. Centre for Envotech & Management Consultancy Pvt. Ltd [S No 93, List of ACOs with their Certificate no. NABET/EIA/1821/SA 0126 valid up to 17/12/2021 Rev. 12, July 09, 2021].

Certified compliance report from Regional Office

40.10.18 The Status of compliance of earlier EC was obtained from Regional Office, Ranchi *vide* letter no. 103-299/PT/ROR-2020/4660 dated 02/06/2021 in the name of M/s. Sri Ram Power & Steel Pvt. Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Ranchi are as given below:

Section	S no	Points identified in RO certified report dated 02/06/2021 as still non-complied/ partially complied	Action taken by SRPSL
A	1.	Rain water recharge pit has been constructed. Surface water harvesting as per the general condition viii has not been constructed. In view of the above the condition may be treated as Partially Complied.	A Rain water harvesting pond is planned to be constructed over an area of 300 sq.m. near new staff quarter and behind coal circuit by 30.08.2020. In addition, based on the rainfall available in the area, and area of the plant we have calculated 08 Nos. of Rain Water Harvesting Pits, however 03 nos. of pit have already been constructed and rest 05 nos. of pits will be constructed within 6 Months after getting Environment Clearance from MoEF&CC.
A	2.	During visit dolochar and charcoal dump was observed. It was informed that "Char" generated from DRI units is being regularly sold to other power plants as per the agreement. Ministry may like to take an appropriate view on the submission regarding non installation of AFBC boiler Simultaneously.	Plant has been transferred to us i.e. new owner of SRPSL in 2016. Power plant has not been installed by the previous incumbent and we also could not install it within the validity of EC (expired on 29.09.2017). The dolochar is temporarily stored which keeps on getting cleared on sale. About 3940 tonnes of Dolochar is currently stored at site which will be sold by Dec, 2021. The power plant shall be installed after getting EC for proposed expansion (proposal is under process at MoEF&CC)
A	4	PP furnished the fitness certificate of workers. However, details on Periodical medical examination not furnished. Considering the above the condition may be treated as Partially Complied.	Details of periodic medical examination held on 05.03.2020, 23.09.2020 and 16.03.2021 has been furnished.
A	6	Details not furnished on advertisement regarding accord of Environment Clearance. The condition remains non complied. However, considering the submission of change in incumbent, Ministry may like to take an appropriate view on the issue.	Submitted the information of advertisement regarding granting of EC was not received from the previous owner while taking over the plant. Hence, this document is not available with us.
B	1.	On line monitoring for PM_{10} provided in ambient air in one location. Online stack monitoring provided to stack connected to kiln 1 and kiln 2 for PM and SO_2. The stack provided for two kiln of 1x100 TPD is a single stack without multi-flue facility. As per the manual monitoring data furnished for dated 09.02.2021 particulate matter reported to be 42mg/Nm^3. Carbon monoxide reported to be <0.2%. As per the online data furnished PM emission from the combined stack exceeds the norms of 50 mg/Nm^3 occasionally. Online monitoring to other stacks has not been provided. Considering the above the condition may be treated as partially complied.	The emissions are under control. However, due to sudden failure in main power supply and the time taken to transfer the power through generator set, this intervening period is where the emission tends to cross given parameters occasionally. For auto start of DG set, an AMF panel shall be installed by 31.08.2021.
	2.	Ambient air quality monitoring data of twelve parameter as per NAAQS 2009 for dated 09.02.2021 to 10.02.2021 has been furnished. However, Ambient Air quality monitoring data as per the frequency of NAAQS 2009 has not been furnished. The condition remains partially complied.	In line with the observation, we will carry out Ambient Air quality monitoring twice a week (as per the frequency of NAAQS 2009) henceforth for 1 week in every season. Since the monsoon season has already arrived, this shall be undertaken from September 2021 onwards.
	3.	Part of the transport road inside the premises was paved and partly unpaved. Raw materials were found to be kept in open. Unloading station yet to be constructed. Loading and unloading of waste are	We have already paved the portions of the roads that were pointed in the visit of January 2020. We will, however, further improve our housekeeping measures of the roads since the dust deposited on

Section	S no	Points identified in RO certified report dated 02/06/2021 as still non-complied/ partially complied	Action taken by SRPSL
		source of fugitive emission. Profuse emission was observed from the material transfer points, with the movement of vehicle, and along the wind. Stack emission monitoring of de-dusting unit has not been furnished. Fugitive emission monitoring data has been furnished for dated 10.02.21. Considering the above, the condition remains partially complied.	the roads is giving the impression that it is unpaved. During the visit of January 2020, this point that raw material is being kept in open was pointed out. For the same, shed for raw material is under construction and approval for same in plant layout has been obtained from Chief Inspector of Factory vide their letter dated 10.11.2020. The raw material will be stored in it in future and will be completely covered. The shed will be completed by 31.08.2021. The unloading station will be made concurrently to the raw material shed. Our safety team has inspected the various transfer points and wherever profuse emissions were observed, they have been suitably covered. Housekeeping measures will also be improved as committed earlier to reduce fugitive dust from roads. Stack emission monitoring of de-dusting units is carried out and submitted with every six monthly EC compliance report.
	4.	The condition remains partially complied. However, Ministry may like to take an appropriate view on the submission of PP regarding change of incumbent in the year 2016 and non installation of Waste heat recovery boiler.	The plant was transferred by previous owner to us in 2016 without the power plants (AFBC & WHRB). We will install the WHRB within next 2 years.
	5.	Approval for withdrawal of ground water yet to be obtained and it was informed that the same is under process at CGWB, Patna, Use of rain water harvesting source not observed. Runoff water collection and treatment arrangement from open raw material yard and waste dump has not been provided. Considering the above the conditions remains partially complied.	Permission for withdrawal of ground water is under process. Further, we have applied for allocation of surface water from the river Damodar. Availability of water has been assessed by the concerned department and feasibility report of the same has been forwarded to the Chief Engineer, Department of Water Resources Government of Jharkhand for further action. As mentioned earlier at point no. A. 1. that a rain water harvesting pond will be constructed over an area of 300 sqm. near new staff quarter and behind coal circuit by 30.06.2021. The same will be used for the project work. Storm water drains from the raw materials and solids waste handling areas will be constructed and routed through catch pits and eventually to rain water harvesting pits. It shall be completed by 30.08.2021.
	8.	Greenbelt as per CPCB guideline all along the boundary of the project has not been observed. PP reported total area of plantation is around 4.05 Acres. Considering the above the condition may be treated as partially complied.	As per EC letter dated 30.09.2010, total project area is 11.59 acres and 3.85 acres has been earmarked for greenbelt development. However, company has developed green belt over 4.05 acres i.e. 34.94% of the project area and total 4050 nos. of tree will be planted with density of 1000 trees per Acres. Presently company has planted 350 nos. of tree and rest 3700 nos. of tree will be planted within 3 years. Plantation shall be undertaken along the boundary in the missing portions during this monsoon season

Section	S no	Points identified in RO certified report dated 02/06/2021 as still non-complied/ partially complied	Action taken by SRPSL
			and completed by 30.08.2021.
	9.	It is regarding details of implementation status of commitment made during public hearing and budget allotment. No details furnished. The condition remains partially complied. Ministry may like to take an appropriate view on the submission of PP. However, PP reported an expenditure of Rs. 2485950.00 towards CSR related activities.	Status of implementation of commitment made during public hearing was not handed over to us by previous owner. We have sought to gather the information from JSPCB through RTI vide our letter dated 27.10.2020 and reminded vide letter date 03.04.2021, but we have not received the information till date. We have committed Rs. 47.65 Lakhs for welfare activities based on public hearing in these five heads based on new CSR Guidelines. 1. Health Care Facility 2. Infrastructure Development 3. Drinking Water & Development of Water Bodies 4. Peripheral Development
	10	PP furnished an expenditure of 2485950.00 (attached as annexure 1-a) as CSR expenditure instead of the amount stipulated in the condition. PP broadly indicated the area of CSR, however, time bound action plan has not been furnished. The condition remains partially complied. However, ministry may like to take an appropriate view on the submission regarding "2% of the average profit of the previous three years has to be spent on CSR" instead of the condition stipulated.	We wish to submit that the EC is dated 30.09.2010 while the Companies act was revised and promulgated in 2013. We have taken over the plant in 2016 from the previous owner. Our Company is not under ambit of applicability of CSR as per the Company act since we do not have net worth >Rs. 500 crore or Turn over > Rs. 1000 crore or Profit > Rs. 5 crore in preceding year. However, we will continue to do public welfare activities as part of our EMP in future also and keep MOEF&CC & JSPCB informed during the submission of six monthly compliance report. Details of expenditure made during last six months for carrying CSR activities has been submitted.
	11	As per the EC accorded by MoEF&CC on 30.09.2010 three DRI Kiln with a capacity of 100 TPD each was supposed to be setup. However, project authority could commission two Kiln only within the EC validity period and the third Kiln was reportedly established within the EC validity period. It was informed that since third kiln could not be commissioned within the validity period. PP obtained fresh TOR including the third Kiln. During visit the third Kiln was not in operation. An undertaking furnished "annexure-I-b" indicating that third Kiln is not in operation since its construction. Ministry may like to take an appropriate view on the submission of PP regarding inclusion of third Kiln in the ongoing EC application.	The third kiln has been constructed but not become operational within validity period was disclosed MOEF&CC at the time of obtaining ToR also. The fact that it is already constructed is recorded in point no 15 (iii) under existing and proposed configuration section of the TOR letter.
	12	Ministry may like to take appropriate view on the submission of PP.	Same as above
	14	Provision for collection of runoff water from raw material stock pile as well as waste stock pile not observed. Monitoring details of runoff water not furnished. Considering the above the condition remains partially complied.	Provision of arrangement for runoff water collection has been discussed in sl. B.5 earlier.
	15	It was submitted that ESP has been provided to the Kiln, five bag filter also have been provided, however, profuse fumes observed from different raw material transfer points as well as product house, which has not been channelized. Dust flow was also observed along with wind from the open stock yard. Runoff water collection and treatment arrangement, Rain water Reservoir for utilization,	The point have been addressed previously as follows: 1) Transfer house emissions - B.3 (Fugitive dust emission monitoring has been conducted at five location). 2) Fugitive dust from different locations - B.3 3) Runoff water collection arrangement -B.5 (The company has constructed 3 rain water harvesting

Section	S no	Points identified in RO certified report dated 02/06/2021 as still non-complied/ partially complied	Action taken by SRPSL
		greenbelt as per CPCB norms etc. yet to be implemented. Socio economic development activity reported at sr. No. 10. Considering the above the condition remains partially complied.	pits) 4) Rain water Reservoir-A.1 (The company has constructed 3 rain water harvesting pits) 5) Greenbelt improvement- B.8 (More Plants have been planted within the plant premises).
	20	Date of financial closure and final approval of the project by the concerned authorities has not been furnished. Considering the above the condition remains partially complied.	We wish to submit that company has not taken any loan for the plant. Thus, the financial closure and final approval of project is not applicable.
		Other observation	
	1.	The Google Image dated 13.06.2019 and 03.12.2020 of the project area indicates change in structure indicating construction activity after the validity of EC. During visit on 06.04.2021 incomplete structure observed in the premises. PP reported it as construction of Admin Building and labour quarter. (annexure I-d) (Photo 7 and 8). The validity period of 7 year of the EC got expired on 29.09.2017. MoEF&CC, New Delhi may like to take an appropriate view on the explanation furnished by the Project Authority.	The incomplete construction activity was for the structural work for the raw material shed. The layout of the same has been approved by the Chief Inspector of Factories vide their letter dated 10.11.2020. Admin Building and labour quarter are very small buildings over 600 sq.m. of 2 floors and essential for smooth operation of the existing unit. This does not involve any industrial activity.

Observations of the Committee

40.10.19 The Committee noted the following:

i. The EAC found that the EIA/EMP report is in order reflecting the present environmental concerns and the projected scenario for all the environmental components arising out of the proposed project with respective mitigation measures.

ii. The EAC also deliberated on the certified compliance report from RO, public hearing issues as well as action plan to address the issues raised during public hearing and found it satisfactory.

iii. The EAC also deliberated on the certified compliance report from RO as well as action taken report on the RO observations and found it satisfactory.

Recommendations of the Committee

40.10.20 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

A. Specific conditions

i. An affidavit shall be submitted to the Ministry stating that observations made in the inspection report of Regional Office dated 2/06/2021 has been complied within three months from date of issue of the Environment Clearance.

ii. Particulate matter emission from all the stacks shall not exceed 30 mg/Nm^3.

iii. Project proponent shall obtain prior permission from concerned competent authority for withdrawal of 1241 KLD water from Bokaro river before commencing the expansion project activity.

iv. Rain Water harvesting shall be implemented as per the action plan submitted in the EIA report.

v. 100% dolochar generated in the plant shall only be used either in the captive power plant (or) in the Thermal Power Plants meeting emission standards.
vi. Water spray systems shall be included to control fugitive dust from raw material Stockpiles.
vii. Stockpiles shall be constructed on impervious floors and Garland drains shall be constructed with traps around the plant and around the stock piles.
viii. 100 % solid waste shall be utilized. Maximum storage of solid waste in plant shall be 90 days of production.
ix. Parking area for 25 trucks shall be provided within the plant.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
v. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
vi. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
vii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

ii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iii. 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.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

i. Used refractories shall be recycled as far as possible.
ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces
iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same and also estimate carbon sequestration by the plantations.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. 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.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
ii. 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.
iii. 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.

X. Miscellaneous

i. 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.

ii. 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.

iii. 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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.11 Expansion of Steel Plant –DRI Kilns (Sponge Iron from 1,80,000 TPA to 6,75,000 TPA), Induction Furnace with matching LRF & CCM (MS Billets / Ingots from 1,20,000 TPA to 5,16,000 TPA), Rolling Mill (Rolled Products from 1,05,000 TPA to 4,35,000 TPA, with 2 x 10,000 NM3 /Hr Coal Gasifier), Mini Rolling Mill with Coal Gasifier (33,000 TPA with 1 x 2000 NM3/Hr.), New Ferro Alloy Unit 2 x 9 MVA (FeMn 45,000 TPA/SiMn 30,000 TPA / FeSi 15,000 TPA / FeCr 30,000 TPA), WHRB based Power Plant from 18 MW to 48 MW, FBC based Power Plant 4 MW to 34 MW, New Fly Ash brick manufacturing unit (80,000 Bricks/day) & Slag Crusher & Beneficiation Unit (66,000 TPA)] by **M/s. B.S. Sponge Private Limited** located at Khasra no. 1/2, 1/4 K & 3/9 in Taraimal Village, Tamnar Tehsil, **Raigarh District, Chhattisgarh.** [Online Proposal No. IA/CG/IND/218138/2007, File No. J-11011/313/2008 -IA II (I)] –**Environment Clearance–** regarding.

40.11.1 M/s. B.S. Sponge Private Limited has made has made an online application vide proposal no. IA/CG/IND/218138/2007 dated 06/07/2021 along with copy of EIA/EMP report and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

40.11.2 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord
24/06/2020	Standard TOR issued	Terms of Reference	16/07/2020

40.11.3 The project of M/s. B.S. Sponge Private Limited located at Taraimal Village, Tamnar Tehsil, Raigarh District, Chhattisgarh is for Expansion of Steel Plant –DRI Kilns (Sponge Iron from 1,80,000 TPA to 6,75,000 TPA), Induction Furnace with matching LRF & CCM (MS Billets / Ingots from 1,20,000 TPA to 5,16,000 TPA), Rolling Mill (Rolled Products from 1,05,000 TPA to 4,35,000 TPA, with 2 x 10,000 NM3 /Hr Coal Gasifier), Mini Rolling Mill with Coal Gasifier (33,000 TPA with 1 x 2000 NM3/Hr.), New Ferro Alloy Unit 2 x 9 MVA (FeMn 45,000 TPA/SiMn 30,000 TPA / FeSi 15,000 TPA / FeCr 30,000 TPA), WHRB based Power Plant from 18 MW to 48 MW, FBC based Power Plant 4 MW to 34 MW, New Fly Ash brick manufacturing unit (80,000 Bricks/day) & Slag Crusher & Beneficiation Unit (66,000 TPA)].

40.11.4 Environmental Site Settings:

SNo	Particulars	Details	Remarks
i.	Total land	43.73 ha. (108.06 acres). Entire land is registered & in possession of the Management.	Land Use: Industrial
ii.	Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014	Total land acquired	--
iii.	Existence of habitation	No habitation exists in the plant	--

SNo	Particulars	Details	Remarks
	& involvement of R&R, if any.	site	
iv.	Latitude and Longitude of the project site	Latitude 22^0 02' 5.69" N to 22^0 02' 27.22"N Longitude 83^0 20' 55.88" E to 83^0 21' 45.5" E	--
v.	Elevation of the project site	310 - 315 m AMSL	--
vi.	Involvement of Forest Land, if any	Nil	--
vii.	Water body exists within the project site as well as study area	**Project Site**: Nil **Study area:** Kelo river- 3.2 Km/ (E), Kurket River- 9.2 Km/ (W) Dewanmunda Nallah - 1.2 Km/ (W) Few seasonal nalas, ponds exist within study area. Few ponds exists in the study area	--
viii.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Nil However, movement of Elephants is observed within 10 Km radius of the plant, as per the secondary source. Conservation plan is prepared.	Conservation plan is approved by PCCF with budget of Rs.57.5 Lakhs to be spent over a period of 5 years.

40.11.5 The existing project was accorded environmental clearance vide lr.no. J-11011/313/2008 -IA II (I) dated 01/01/2009 for expansion of existing Sponge Iron plant from 60,000 TPA (2x100 TPD DRI Kiln to 1,20,000 TPA (4x100 TPD DRI Kiln) with new unit of MS Billets of 1,62,000 TPA (IF: 2x15 T + 2x12 T), Re-rolled products of 1,05,000 TPA, Ferro Alloys of 25,000 TPA (SAF: 1x7.5 MVA + 1x9 MVA), Power generation through WHRB: 12 MW and AFBC: 36 MW. Validity extension for this EC is obtained dated 12/08/2016. Consent to Operate for the existing unit was accorded by Chhattisgarh Environment Conservation Board (CECB) lr. no. 4478/TS/CECB/2019 dated 28/08/2019 for remaining units, which is valid up to 31/08/2022.

40.11.6 Implementation status of the existing project as per EC dated 01/01/2009:-

Facilities Envisaged	Production capacity	Consent Status	Remarks
DRI Kilns (Sponge Iron)	1,80,000 TPA	1,80,000 TPA (in Operation)	**Recently** CTE **has been issued by** CECB **for** up gradation of WHRB **power plant from** 12

Facilities Envisaged		**Production capacity**	**Consent Status**	**Remarks**
Induction Furnace (MS Billets / Ingots)		1,62,000 TPA	1,20,000 TPA (in Operation)	MW to 18 MW & Establishment of 4.0 MW FBC **based Power plant vide order no.10876 / TS / CECB / 2020, Naya Raipur dated 05-03-2020 which is exempted under EIA notification.** Up-gradation of WHRB capacity from 12 MW to 18 MW (6 x 10 TPH to 6 x 12 TPH) (CTO applied vide Application no. 7743623) AFBC – 4 MW (CTO applied vide Application no. 7743623)
Rolling Mill (Rolled Products)		1,05,000 TPA	1,05,000 TPA (in Operation)	
Ferro Alloys		25,000	Not Implemented	
Power Plant	WHRB	12 MW	12 MW (in Operation)	
	AFBC / CFBC	36 MW	Not Implemented	

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

SNo	**Units (Product)**	**Existing Operating Plant**	**CTE Obtained from CECB dated 05-03-2020**	**Proposed Expansion Project**	**After Expansion Project**
1.	DRI Kilns (Sponge Iron)	1,80,000 TPA (6 x 100 TPD)	---	4,95,000 TPA (6 x 250 TPD)	6,75,000 TPA (6 x 100 TPD & 6 x 250 TPD)
2.	Induction Furnace (MS Billets / Ingots)	1,20,000 TPA (2 x 8 T & 2 x 12 T)	---	3,96,000 TPA (8 x 15 T) [with matching LRF & CCM]	5,16,000 TPA (2 x 8 T, 2 x 12 T & 8 x 15 T)
3.	Rolling Mill with 85% Hot Charging + 15% Conventional (Rolled Products)	1,05,000 TPA (1 x 350 TPD)	---	3,30,000 TPA (2 x 500 TPD) with 2 x 10,000 NM^3/Hr Coal Gasifier for both rolling mills	4,35,000 TPA (1 x 350 TPD & 2 x 500 TPD)
4.	Mini Rolling Mill with Coal Gasifier	---	---	33,000 TPA (1 x 100 TPD) with 1 x 2000 NM^3/Hr Coal Gasifier	33,000 TPA (1 x 100 TPD) with 1x2000 NM^3/Hr Coal Gasifier
5.	Ferro Alloys	---	---	2 x 9 MVA (FeMn 45,000 TPA / SiMn 30,000 TPA / FeCr – 30,000 TPA / FeSi – 15,000 TPA)	2 x 9 MVA (FeMn 45,000 TPA / SiMn 30,000 TPA / FeCr – 30,000 TPA / FeSi –

						15,000 TPA)
6.	Power Plant	WHRB	12 MW (6 x 10 TPH)	Up-gradation from 12 MW to 18 MW* (6 x 10 TPH to 6 x 12 TPH) **(CTO applied)**	30 MW (6 x 25 TPH)	48 MW (6 x 12 TPH & 6 x 25 TPH)
		AFBC / CFBC	---	4.0 MW* AFBC **(CTO applied)**	2 x 15 MW (2 x 75 TPH) CFBC	34 MW
7.	Fly Ash brick manufacturing unit		---	---	80,000 Bricks / Day	80,000 Bricks / Day
8.	Slag crusher & Beneficiation Unit		---	---	66,000 TPA (1 x 200 TPD)	66,000 TPA (1 x 200 TPD)
Note: * **Recently** CTE **has been issued by** CECB **for** up gradation of WHRB **power plant from** 12 MW to 18 MW & 4.0 MW FBC **based Power plant vide order no.10876 / TS / CECB / 2020, Naya Raipur dated 05-03-2020 which is exempted under Environment Clearance notification.**						

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

S No	Raw Material		Quantity (TPA)	Sources	Distance (in Km)	Mode of Transport
1.	**For DRI Kilns (Sponge Iron) – 4,95,000 TPA**					
a)	Pellets (100 %)		6,93,000	Odisha & Chhattisgarh	~ 300	By rail & road (through covered trucks)
	or					
b)	Iron ore (100%)		7,92,000	Biladila Mines, NMDC, OMC, Odisha	~600	By rail & road (through covered trucks)
c)	Coal	Indian	6,43,500	SECL Chhattisgarh	~150	By rail & road (through covered trucks)
		Imported	4,11,840	South Africa	~650	Through sea route, rail route & by road
d)	Dolomite		24,750	Chhattisgarh	~ 300	By road (through covered trucks)
2.	**For Steel Melting Shop (MS Billets/ Ingots) – 3,96,000 TPA**					
a)	Sponge Iron		4,00,000	Own generation	---	----
b)	MS Scrap / Pig Iron		59,000	Chhattisgarh	~ 50	By road (through covered trucks)
c)	Ferro alloys		20,000	Own generation	---	By road (through covered trucks)
3.	**For Rolling Mill through Hot charging (Rolled Products) – 3,60,000 TPA**					
a)	Hot Billets / MS Billets / Ingots		3,53,100	Own generation	---	----

S No	Raw Material		Quantity (TPA)	Sources	Distance (in Km)	Mode of Transport
b)	Coal for Gasifiers (2 x 10000 NM^3/Hr)	Indian Coal	60,000	SECL Chhattisgarh	~150	By rail & road (through covered trucks)
		Imported	38,000	South Africa	~650	Through sea route, rail route & by road
	OR	LDO / LSHS	10,800 KL	Chhattisgarh	~100	By road (through Tankers)
4.	**For Rolling Mill (Rolled Products) – 33,000 TPA**					
a)	Hot Billets / MS Billets /miss rolls and unrolled billets		35,300	Own generation	---	----
b)	Coal for Gasifiers (2000 NM^3/Hr)	Indian	6,000	SECL Chhattisgarh	~150	By rail & road (through covered trucks)
		Imported	3,800	South Africa	~650	Through sea route, rail route & by road
	OR	LDO / LSHS	1060 KL	Chhattisgarh	~100	By road (through Tankers)
5.	**For CFBC Boiler [Power Generation 2 x 15 MW]**					
a)	Indian Coal (100 %)		2,22,750	SECL Chhattisgarh	~150	By rail & road (through covered trucks)
	OR					
b)	Imported Coal (100 %)		1,40,000	South Africa	~650	Through sea route, rail route & by road
	OR					
c)	Dolochar + Indian Coal	Dolochar	1,48,500	In plant generation	---	through covered conveyors
		Indian Coal	1,48,500	SECL Chhattisgarh	~150	By rail & road (through covered trucks)
	OR					
d)	Dolochar + Imported Coal	Dolochar	1,48,500	In plant generation	---	through covered conveyors
		Imported Coal	95,040	South Africa	~650	Through sea route, rail route & by road
6.	**For Ferro Alloys (2 x 9 MVA)**					
6 (i)	*For Ferro Silicon – 15,000 TPA*					
a)	Quartz		24300	Chhattisgarh / Andhra Pradesh	< 650	By road (through covered trucks)
b)	LAM coke		18900	Andhra Pradesh	~650	By road (through covered trucks)
c)	MS Scrap / Mill scales		4230	In-house Generation	---	By road (through covered trucks)
d)	Electrode paste		360	Maharashtra / West Bengal	~600	By road (through covered trucks)
6 (ii)	*For Ferro Manganese – 45,000 TPA*					
a)	Manganese Ore		68400	MOIL / OMC	~450	By Rail & Road (through covered trucks)
b)	LAM coke		19800	Andhra Pradesh	~650	By road (through covered

S No	Raw Material	Quantity (TPA)	Sources	Distance (in Km)	Mode of Transport
					trucks)
c)	Dolomite	8100	Chhattisgarh / Andhra Pradesh	< 650	By road (through covered trucks)
d)	MS Scrap / Mill scales	7200	In-house Generation	---	By road (through covered trucks)
e)	Electrode Paste	630	Maharashtra / West Bengal	~600	By road (through covered trucks)
6 (iii)	*For Silico Manganese – 30,000 TPA*				
a)	Manganese Ore	48600	MOIL / OMC	~450	By Rail & Road (through covered trucks)
b)	LAM Coke	16200	Andhra Pradesh	~650	By road (through covered trucks)
c)	FeMn. Slag	30294	In house generation		----
d)	Dolomite	7380	Chhattisgarh / Andhra Pradesh	< 650	By road (through covered trucks)
e)	Electrode paste	630	Maharashtra / West Bengal	~600	By road (through covered trucks)
f)	Quartz	7740	Chhattisgarh / Andhra Pradesh	< 650	By road (through covered trucks)
6 (iv)	*For Ferro Chrome – 30,000 TPA*				
a)	Chrome Ore	56700	Sukinda, Odisha Import, South Africa	~390 ~650	By road (through covered trucks) From Port By Road (through covered Trucks)
b)	LAM Coke	19800	Andhra Pradesh	~650	By road (through covered trucks)
c)	Quartz	8100	Chhattisgarh / Andhra Pradesh	< 650	By road (through covered trucks)
d)	MS Scrap / Mill Scale	2700	In-house Generation	---	By road (through covered trucks)
e)	Magnetite / Bauxite	5400	Chhattisgarh / Maharashtra	~600	By road (through covered trucks)
f)	Electrode Paste	540	Maharashtra / West Bengal	~600	By road (through covered trucks)

40.11.9 The water requirement for the proposed expansion project is estimated as 1650 KLD, and same will be sourced from Dewanmunda Nallah. Recommendation for allocation of 0.826 MCM per Annum from Dewanmunda Nallah has been issued by Water Resources

Department, Govt. of Chhattisgarh vide letter no. 3451456 / AUJPRA / CG / 2021 /2156 dated 01-03-2021.

40.11.10 Power required for the present proposal is estimated **93 MW**, which will be sourced from **82 MW** Captive Power Plant **&** the remaining 11 MW power will be sourced from the State Electricity Grid.

40.11.11 Baseline Environmental Studies:

Period	1st December 2019 to 29th February 2020
AAQ parameters at 8 locations	$PM_{2.5}$ = 22.2 to 49.8 µg/m^3 PM_{10} = 37.6 to 85.8 µg/m^3 SO_2 = 6.8 to 24.9 µg/m^3 NO_2 = 6.6 to 33.6 µg/m^3 CO = 354 to 1571µg/m^3
AAQ modelling	PM_{10} = 1.43 µg/m^3 SO_2 = 14.3 µg/m^3 NO_x = 9.17 µg/m^3 CO = 2.6 µg/m^3
Ground water quality at 8 locations	pH **:** 7.2 to 8.0 mg/L ; Total hardness **:** 229 to 288 mg/L Chlorides **:** 126 to 198 mg/L ; Flouride**:** 0.41 to 0.59 mg/L Heavy metals **:** 0.018 to 0.034 mg/L
Surface water quality at 6 locations	pH =7.5 to 8.0 µg/m^3 DO = 4.2 to 6.7 µg/m^3 BOD = 2.0 to 3.0 µg/m^3 COD = 8.2 to 12.4 µg/m^3
Noise levels	40 to 67 dBA for day time; 35 to 58 dBA for night time
Traffic assessment study findings	Traffic load (Baseline): 15038 PCU/day Additional Traffic load during operation of the Expansion project: 919 PCU/day Total Traffic load during operation of expansion project load : 15957 PCU/day Traffic Capacity as per the IRC 73: 1980 for Highways 20000 PCU/day. Hence existing road can cater to this additional traffic due to the proposed project.
Flora and fauna	In buffer zone following schedule -I fauna are present 1. Indian monitor lizard (Varanus benglensis) 2. Indian peafowl (Pavo cristatus) 3. Sloth bear (Melursus ursinus) 4. Pangolin (Manis crassicaudata) 5. Elephant (Elephas maximus) (as per the secondary source Elephant movement was observed in the study area). Conservation Plan has been prepared & it is approved by PCCF, Raipur and allotted budget of Rs. 57.5 Lakhs to be spent over a period of 5 years.

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

SNo	Waste	Quantity (TPD)			Method of disposal
		Existing	Proposed	Total	
1	Ash from DRI	108	270	378	Utilization in captive Brick manufacturing unit.
2	Dolochar	180	450	630	utilised in the FBC power plant
3	Kiln Accretion Slag	5.4	13.5	18.9	Utilization in captive Brick manufacturing unit.
4	Wet Scraper Sludge	27.6	69.0	96.6	Utilization in captive Brick manufacturing unit.
5	SMS Slag	40	120	160	Utilization in captive Brick manufacturing unit after crushing followed by Iron recovery.
6	Mill scales from Rolling Mill	7	22	29	Utilization in proposed ferro alloy plant.
7	End cutting from Rolling Mill	10.5	33	43.5	Utilization in Induction Furnace
8	SiMn Slag	--	94.0	94.0	Given to Road contractor for road laying
	FeMn slag	--	92.0	92.0	used in manufacture of SiMn
	FeSi Slag	--	3.0	3.0	Given to cast iron foundries
	FeCr Slag	--	85.0	85.0	Further processed in Jigging plant for Chrome recovery & the non-chrome contents will be sent for land filling. If chrome content is more will be sent to TSDF.
9	Ash from Gasifier	--	20	20	Utilization in captive Brick manufacturing unit.
10	Tar from Gasifiers	--	8	8	given to coal tar recyclers approved by CECB
11	Ash from Power Plant	--	473	473	Utilization in captive Brick manufacturing unit.

40.11.13 Public Consultation:

Details of advertisement given	05/02/2021
Date of Public Consultation	10/03/2021
Venue	at Banjari Temple premises, Taraimal Village, Tamnar Tehsil & District, Chhattisgarh
Presiding Officer	Chairmanship of Additional District Magistrate
Major issues raised	The issues raised during Public Hearing are: • Drinking water facility • Health facility • Women empowerment • Widening the public road used by company • Pollution generation.

	• Several diseases due to pollution • Covid Rules not followed • Wide Publicity not given • Elephant movement in the area • Land details • Employment • Air, Water Emission control measures • Impact on Health • River water pollution • Social & infrastructural development activities

Action plan as per MoEF&CC O.M. dated 30/9/2020

S. No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on Need Based & SIA Study						
1	**Community & Infrastructure Development**					
	i) Construction of public toilets	**Physical Nos. & village**	2 nos. in Taraimal (V) 2 nos. Gerwani (V)	2 nos. in Samaruma (V) 2 nos. in Shivpuri (V)	2 nos. in Saraipali (V) 2 nos. in Delari (V)	12
		Budget in Lakhs	4	4	4	
	ii) Providing LED Street lighting with solar panels	**Physical Nos. & village**	5 nos. in Taraimal (V) 5 nos. Gerwani (V)	5 nos. in Samaruma (V) 5 nos. in Shivpuri (V)	5 nos. in Saraipali (V) 5 nos. in Delari (V)	6
		Budget in Lakhs	2	2	2	
	iii) For relaying of Roads	**Physical Nos. & village**	700 m in Taraimal (V)	600 m in Gerwani (V)	600 m in Punjipathra (V)	32
		Budget in Lakhs	12	10	10	
					Total	**50**
2	**Education**					
	i). Construction of toilets in surrounding schools & its maintenance	**Physical Nos. & village**	2 nos. in Taraimal Village 2 nos. Gerwani Village	2 nos. in Samaruma Village 2 nos. in Shivpuri Village	2 nos. in Saraipali Village 2 nos. in Delari Village	12.0
		Budget in Lakhs	4.0	4.0	4.0	
	ii) Sports kits for schools	**Physical Nos. & village**	in Taraimal Village in Gerwani Village	in Samaruma Village in Shivpuri Village	in Saraipali Village in Delari Village	6.0
		Budget in Lakhs	2.0	2.0	2.0	
					Total	**18.0**
3	**Distribution of tricycles for handicapped**	**Physical Nos. & village**	5 nos. of tricycles in Taraimal Village 5 nos. of tricycles in Gerwani Village	5 nos. of tricycles in Samaruma Village 5 nos. of tricycles in Shivpuri Village	5 nos. of tricycles in Saraipali Village 5 nos. of tricycles in Delari Village	**3.0**

S. No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
		Budget in Lakhs	1.0	1.0	1.0	
4	**RWH pits in the surrounding villages & De-siltation of ponds**	**Physical Nos. & village**	1 no. in Government Primary School in Taraimal Village 1 no. in Government Primary School in Jhingolpara Village 2 nos. in Pre-Secondary school in Amlidih village 1 no. at Anganwadi Kendra of Amlidih village	Increase of 1.0 m depth in storage due to De-siltation of pond in Taraimal Village (22° 1'50.89"N, 83°22'36.82"E) & Increase of 1.0 m depth in storage due to De-siltation of pond in Banjari Temple (22° 2'17.40"N, 83°21'52.35"E)	Increase of 1.0 m depth in storage due to De-siltation of pond in Samaruma Village (22° 4'52.53"N, 83°20'44.38"E) & Increase of 1.0 m depth in storage due to De-siltation of pond in Gerwani Village (21°59'40.49" N, 83°22'38.16"E)	**43**
		Budget in Lakhs	3	20	20	
5	**Provision of drinking water facility**	**Physical Nos. & village**	Drinking water facility in Taraimal & Gerwani Villages	Drinking water facility in Saraipali & Delari Villages	Drinking water facility in Shivpuri & Punjipathra Villages	**36**
		Budget in Lakhs	12	12	12	
					TOTAL (A)	**150**
B). Based on Public Consultation/Hearing						
1	**Impart training to the local villagers for skill development.** a) DISHA Centre" along with necessary infrastructure for various vocational training program for employment generation in association with *National Skill Development Mission* (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	**Physical Nos. & village**	Vocational training to unemployed youth 25 nos. from Taraimal Village 25 nos. from Gerwani Village 25 nos. from Saraipali Village 25 nos. from Delari Village	Vocational training to unemployed youth 25 nos. from Taraimal Village 25 nos. from Gerwani Village 25 nos. from Saraipali Village 25 nos. from Delari Village	Vocational training to unemployed youth 25 nos. from Taraimal Village 25 nos. from Gerwani Village 25 nos. from Saraipali Village 25 nos. from Delari Village	**75**
		Budget in Lakhs	25	25	25	

S. No.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
2	**Education and sports**	**Physical Nos. & village**	Renovation of Schools 2 additional class rooms in Government Primary School of Taraimal Village Government Middle School, Gerwani Village	Renovation of Schools 2 additional class rooms in Pre- Secondary school, Amlidih village Government Primary School, Jhingolpara Village	Mini Library facility & 4 nos. Computers in schools Taraimal Village Gerwani Village Amlidih Village Jhingolpara Village	48
		Budget in Lakhs	20	20	8	
3	Primary Health Centre with Ambulance	**Physical Nos. & village**	---	Primary Health Centre with Ambulance facility in Taraimal Village	Primary Health Centre with Ambulance facility in Amlidih Village	96
		Budget in Lakhs	---	48	48	
4	Financial assistance to Self Help Groups (SHG) of women and providing training in sewing, making incense sticks, embroidery	**Physical Nos. & village**	Women SHG -10 groups in Taraimal & Gerwani Villages	Women SHG - 10 groups in Saraipali & Delari Villages	Women SHG -10 groups in Shivpuri & Punjipathra Villages	15
		Budget in Lakhs	5	5	5	
					Total (B)	**234**
					Grand Total (A+B)	**384**

40.11.14 The capital cost of the expansion project is Rs.384 Crores and the capital cost for environmental protection measures is proposed as Rs.46.915 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.4.3 Crores. The employment generation from the proposed expansion project is 750. The details of cost for environmental protection measures is as follows:

SNo	Particulars	Capital Cost (Rs. in Crores)			Recurring Cost / Annum (Rs.in Crores)
		2022-24	2024-26	2026-28	
1	Air Emission Management	18.1	12.1	---	2.5
2	Wastewater Management	0.65	0.1	---	0.35
3	Solid waste Management	1.6	0.55	---	0.5
4	Greenbelt development	0.2	0.1	---	0.2
5	RWH in Plant & outside the plant premises	0.5	1.9	---	0.2
6	Fire Safety Systems	2.5	1.0	---	0.1
7	Environmental Monitoring	1.1	1.2	---	0.25

8	Occupational Health & Safety	0.95	0.05	---	0.2
	Subtotal (A)	**25.6**	**16.9**	---	**4.3**
9	Budget for Social & Infrastructure Development Activities	2.43	1.41	---	---
10	Budget for Conservation plan	0.40	0.16	0.015	---
	Subtotal (B)	**2.83**	**1.57**	**0.015**	**---**
	Total (A+B)	**28.43**	**18.47**	**0.015**	**0.0**
	GRAND TOTAL	**46.915**			**4.3**

40.11.15 Total Greenbelt (inclusive of existing) will be 36 Acres (14.57 Ha.) which is 33.3% of the total project area. 10 m to 124 m wide greenbelt, consisting of 3 tier plantation will be maintained. Local and native species will be planted with a density of 2500 trees per hectare. 33,000 no. of plants are existing till date (survival rate 85%). Another 5,000 saplings will be planted and nurtured within 1 year from the date of receipt of EC.

40.11.16 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.11.17 Name of the EIA consultant: - M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd [S No 94, List of ACOs with their Certificate no. NABET/EIA/1922/RA0149 valid up to 22/03/2022; Rev. 12, July 09, 2021].

Certified compliance report from Regional Office

40.11.18 The Status of compliance of earlier EC was obtained from Regional Office, Nagpur *vide* letter no. 5-90/2009 (ENV) / 7209 dated 18-09-2020 in the name of M/s. B.S. Sponge Pvt. Ltd. The Action taken report (ATR) regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, IRO, Raipur vide letter dated 09-04-2021. MoEF&CC (IRO), Raipur has issued the letter dated 24-05-2021 after receiving ATR. The present status as furnished by the PP is given as below:

Non-Compliances Reported if any	**Corrective Action Taken**	**Present Status**
1. Specific Condition No. i During the visit it was observed that there is a need to control fugitive emission from all the vulnerable sources like spillage / raw materials / coal handling area etc. PP was advised accordingly.	All the conveyers are fully covered and no dust is coming out from the conveyance system. Water Sprinkling System - All nozzles are checked thoroughly and replaced wherever required. Now working properly.	Complied
2. Specific Condition No. iv Need to further increase number of dust extractor and arrangement for water sprinklers during vehicle movement. Inside the plant, inward and outward display board for movement of trucks is not proper.	We would like to inform that, we have purchased dust sweeping machine. 4 nos. of water sprinklers to control dust emissions around raw material / coal handling area. We have provided display board	Complied

Non-Compliances Reported if any	**Corrective Action Taken**	**Present Status**
	showing inward and outward movement of trucks.	
3. Specific Condition No. v Housekeeping inside the plant was poor. Lighting / ventilation / evacuation facility inside the furnace area, Rolling Mill sheds, SMS plant need improvement. More lights / exhaust fans / coolers, and clear passage for evacuation / exit of workers in case of emergency should be made available.	Good housekeeping practices in the entire plant premises by as providing dust cleaning system and very frequent cleaning of dust in the entire plant by appointing 8 – 10 people exclusive for Housekeeping. Provided proper lighting/ ventilation/ evacuation facility inside the furnace area, rolling mill sheds, SMS plant. Extra lights, exhaust fans, coolers and clear passage for evacuation/ exit of workers in case of emergency has been provided.	8 people have been appointed to maintain good house keeping.
4. Specific Condition No. x AFBC project got delayed due to equipment manufactures issues. AFBC project started and civil works are in progress. AFBC will be completed by June 2021.	AFBC Project is in the Final stage of completion, will get commissioned by June-2021.	Now construction is completed & applied for CTO
5. Specific Condition No. xv Density of the plantation is poor inside the plant area. Therefore, it is suggested to increase the density of the plantation / water supply.	In the existing plant, 30 acres of land is earmarked for Greenbelt out of total 90 acres. 33000 no. of trees have been planted till date; out of which 27000 nos. of trees have survived. To increase the density of plant, additional 6000 nos. of plants have been planted in October & November 2020.	Now in the existing plant, about 33,000 nos. of plants exist over an extent of 30 acres.

Non-Compliances Reported if any	Corrective Action Taken	Present Status
6. Specific Condition No. xvii PP informed that letter has been submitted to State Forest Department for likely impact of proposed expansion on Taraimal Forest. Copy of the same has not been submitted.	A copy of request letter has been submitted to State Forest Department for likely impact of proposed expansion on Taraimal Forest. Subsequently State Forest Department has been forwarded the letter to PCCF, Raipur. Accordingly PCCF, Raipur has issued letter recommending the Budget for Wildlife Conservation.	Complied
7. General Condition No. iv During the visit, it was observed that there is a need to control fugitive emission from all the vulnerable sources like spillage / raw materials / coal handling area etc.	All the conveyers are fully covered and no dust is coming out from the conveyance system. Water Sprinkling System - All nozzles are checked thoroughly and replaced wherever required. Now working properly.	Complied
8. General Condition No. vii During the site visit, it was observed that the noise levels were high. PP was advised to take adequate measures in addition to abate the existing noise levels.	Provided acoustic enclosure, silencers in the Noise Prone areas. Noise Monitoring has been carried out. Suitable instruction / signage have been displayed in the noise prone areas for utilization PPEs (like ear plugs etc.) while working there.	Complied
9. General Condition No. xiii PP informed that they have published in local and national newspaper. However, fail to produce paper cuttings.	Newspaper clipping has been submitted	Complied

40.11.19 During the course of meeting, PP submitted written submissions on the following points:

i. PP admitted that he will be complied the noncompliance/ partial compliance of EC conditions within 3 months.
ii. Slip road will be provided by the PP at point on project approach road connecting to the main road.
iii. Parking for 150 vehicles shall be provided by PP in plant site.

Observations of the Committee

40.11.20 The Committee observed the following:

i. The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

ii. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

iii. The EAC also deliberated on the certified compliance report from RO as well as action taken report on the RO observations and found it satisfactory.

Recommendations of the Committee

40.11.21 In view of the foregoing and after deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. Specific conditions

i. An affidavit shall be submitted to the Ministry stating that observations made in the inspection report of Regional Office dated 24/05/2021 has been complied within three months from date of issue of the Environment Clearance.

ii. Particulate matter emission from all the stacks shall not exceed 30 mg/Nm^3.

iii. Rain Water harvesting shall be implemented as per the action plan submitted in the EIA report.

iv. Green belt shall be developed in 33% of the total area all along the entire periphery of the plant with a density of 2500 trees per ha. This shall include development of green belt with a width of 30 m towards Taraimal RF along the boundary of the plant and Banjari Mata Temple located adjacent to the plant boundary.

v. 100 % solid waste generated in the facility shall be utilized.

vi. AFBC boiler shall be commissioned by Sept 2021 to utilize the dolochar.

vii. 1650 KLD water shall be drawn from Devanmunda Nallah. No ground water shall be abstracted.

viii. Fourth hole extraction system shall be provided in SAFs.

ix. Coal Tar and sludge generated from coal gasifiers shall be sent to registered processors and Phenolic water shall be incinerated in After Burning Chamber of DRI kilns.

x. 85-90 % hot charging shall be done and balance rolling shall be done through RHF operating on coal gas.

xi. Air cooled condensers shall be used in the Captive Power Plant.

xii. Chrome slag shall be subjected to TCLP test to decide whether to use it for construction or send it to TSDF.

xiii. SMS slag after metal recovery shall be used for road construction and also for cement making/ brick making.

xiv. All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

xv. Slip roads shall be provided at the gates and along crossings on main roads to avoid traffic congestion.

xvi. Truck parking for 150 trucks shall be provided. All vehicles entering the plant including heavy earth moving machines shall have valid PUC.

xvii. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest

Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

I. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

v. 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 briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

II. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); 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.

ii. 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.

iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. 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.

v. 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.

III. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

IV. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

V. Waste management

i. Used refractories shall be recycled as far as possible.

ii. Kitchen waste shall be composted or converted to biogas for further use.

VI. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VII. Emergency preparedness

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. 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.

iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

VIII. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

ii. 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.

iii. 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.

IX. Miscellaneous

i. 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.

ii. 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.

iii. 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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, 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.

v. 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.

vi. 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.

vii. 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.

viii. 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.

ix. 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).

x. 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.

xi. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiii. 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.

xiv. 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.

40.12 Manufacturing of proposed Ferro silicon (raw material for manufacturing Magnesium ingots) - 26,400 TPA, Magnesium ingots - 16,500 TPA and Micro silicon Powder (by product) - 6,600 TPA with a total manufacturing capacity of 49,500 TPA by **M/s. Tremag Alloys Pvt. Ltd.** located at Kopparthy Village, Chintakomma Dinne Mandal, **YSR Kadapa District, Andhra Pradesh State** [Online Proposal No. IA/AP/IND/217894/2021, File No. IA-J-11011/193/2021-IA-II(I)] – **Prescribing for Terms of Reference–** regarding.

40.12.1 M/s. Tremag Alloys Private Limited has made an application online vide proposal no. IA/AP/IND/217894/2021 dated 03/07/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a)- Primary Metallurgical Processing Industry under Category "A" of the schedule of the EIA Notification, 2006 and does not attract general condition.

Details submitted by Project proponent

40.12.2 The project of M/s. Tremag Alloys Private Limited located at Kopparthy Village, Chintakomma Dinne Mandal, YSR Kadapa District, Andhra Pradesh is for Manufacturing of proposed Ferro silicon (raw material for manufacturing Magnesium ingots) - 26,400 TPA, Magnesium ingots - 16,500 TPA and Micro silicon Powder (by product) - 6,600 TPA with a total manufacturing capacity of 49,500 TPA.

40.12.3 Environmental site settings:

<table>
<tr><th>SNo</th><th>Particular</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total Land area</td><td>40.4686 ha (100 acres) (Entire land has been allotted by Industries and Commerce department, Government of Andhra Pradesh vide G.O No:127 Dt:14.09.2017).</td><td>Land use: As per the land allotment G.O M.S.No. 127 Dated: 14-09-2017 the land is undeveloped land. As per Bhuvans 2015-16, the land is classified as Agricultural crop land.</td></tr>
<tr><td>ii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Not Applicable</td><td>Entire land has been allotted by Industries and Commerce department, Government of Andhra Pradesh vide G.O No :127 Dt:14.09.2017</td></tr>
<tr><td>iii.</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>SNo</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1</td><td>14°29'20.62"N</td><td>78°44'9.94"E</td></tr><tr><td>2</td><td>14°29'6.46"N</td><td>78°44'8.15"E</td></tr><tr><td>3</td><td>14°29'27.19"N</td><td>8°43'36.36"E</td></tr><tr><td>4</td><td>14°29'37.35"N</td><td>78°43'44.14"E</td></tr></table></td><td></td></tr>
<tr><td>iv.</td><td>Elevation of the project site</td><td>142-151 m (AMSL)</td><td></td></tr>
</table>

<table>
<tr><th>SNo</th><th>Particular</th><th>Details</th><th>Remarks</th></tr>
<tr><td>v.</td><td>Involvement of Forestry land if any</td><td>Nil</td><td>Entire land has been allotted by Industries and Commerce department, Government of Andhra Pradesh vide G.O No :127 Dt:14.09.2017</td></tr>
<tr><td>vi.</td><td>Water body exists within the project site as well as study area</td><td>Project site:
Three minor streams (rain fed) are existing and will be maintained and the water course will not be altered.

Study Area:
<table>
<tr><th>Water bodies</th><th>≈Distance</th><th>Direction</th></tr>
<tr><td>Kopparti Cheruvu</td><td>0.28km</td><td>E</td></tr>
<tr><td>Erramasupalle Vanka</td><td>1.24km</td><td>S</td></tr>
<tr><td>PirchipaduVanka</td><td>2.50km</td><td>NW</td></tr>
<tr><td>RallaVanka</td><td>4.18km</td><td>SE</td></tr>
<tr><td>Kurnool Cuddapah Canal</td><td>5.18km</td><td>E</td></tr>
<tr><td>NirukonaVanka</td><td>6.17km</td><td>S</td></tr>
<tr><td>Utukuru Cheruvu</td><td>7.05km</td><td>ESE</td></tr>
<tr><td>Bugga Vanka</td><td>7.62km</td><td>E</td></tr>
<tr><td>Chintakommadinne Cheruvu</td><td>8.37km</td><td>SE</td></tr>
<tr><td>PataCuddapah Cheruvu</td><td>8.74km</td><td>E</td></tr>
<tr><td>Chinnagadi Vanka</td><td>9.20km</td><td>SE</td></tr>
<tr><td>Papagni River</td><td>9.43km</td><td>NW</td></tr>
<tr><td>Penneru River</td><td>10.36km</td><td>NNE</td></tr>
</table></td><td>The water bodies within the site and outside upto ≈ 8 km are monsoon fed and non-perennial. HFL level will be submitted during the EIA study and the hydrological impacts if any will be addressed with mitigation measures.</td></tr>
<tr><td>vii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve elephant reserve etc. if any within the study area</td><td>Nil
Ganganapalle RF: 7.45 km/ South</td><td></td></tr>
</table>

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

S No	Name	Production (TPA)
Products		
1	Ferro Silicon (Raw material for manufacturing Magnesium ingots)	26,400
2.	Magnesium ingots	16,500
By-Product		
3.	Micro silicon powder (by product)	6,600

S No	Name	Production (TPA)
	TOTAL	**49,500**

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

Sl. No	Raw materials	Proposed Quantity (MT/Month)	Source	Distance from site	Mode of Transport
Ferro Silicon					
1	Quartz	4480	Local	~6.72 km (E)	By road
2	Iron Scrap	640	Import quality material to be procured from Local traders	~6.72 km (E)	By road
3	Semi Coke	2453	Imported from China	≈144.35 km (E)	By road from Krishnapatnam Port
4	Electrode Paste	117	Local	~6.72 km (E)	By road
Magnesium Ingots					
5	Dolomite	14600	Local	~6.72 km (E)	By road
6	Coal	6400	Imported from south Africa or Indonesia	≈144.35 km (E)	By road from Krishnapatnam Port
7	Ferro Silicon	1450	Will be used from ferro-silicon plant.	Nil	Captive use
8	Fluorite (CaF_2)	240	Local	~6.72 km (E)	By road
9	Protection Agent (Nitrogen Gas) /Novec 612	14,112 m^3 (gas)	Local	~6.72 km (E)	By road
10	$MgCl_2$ + 2# ($MgCl_2$ >35%, $NaCl_2$>30%, KCl>25%, $CaCl_2$ <2%, insoluble matter <4%)	270	Local	~6.72 km (E)	By road

40.12.6 The water requirement for the project is estimated as 688 m^3/day out of which, fresh water requirement will be obtained from APIIC through Somasila Reservoir which is 590.3 m^3/day and remaining 97.7 m^3/day will be met from recycling of treated wastewater. The permission of drawl of water is obtained from APIIC through Somasila Reservoir vide GO.M S No. 79

dated 11/11/2019**.** Note: Initially 2600 KL of fresh water is required for process, which will be circulated.

40.12.7 The power requirement for the project is estimated as 25 MW, which will be obtained from APSPDCL substation. DG sets (2 x 1 MW) (1 working +1 standby) will act as backup power.

40.12.8 The capital cost of the project is INR. 279.93 Crores and the Capital cost for Environmental protection measures is 6.88Crores. The employment generation from the proposed project is 60 during construction phase and 394 during operational phase.

40.12.9 Proposed Terms of Reference (Baseline data collection period: **October 2021 to December 2021 (Post monsoon season)**):

Attributes	**Parameters**	**Sampling**		**Remarks**
		No. of stations	**Frequency**	
A. Air				MoEF&CC/ CPCB Guidelines
a) Meteorological parameters	Wind speed, wind direction, relative humidity, rainfall and Atmospheric Temperature	One within the site	Hourly for three months	
b) Ambient Air Quality parameters	PM_{10}, $PM_{2.5}$, SO_2, NOx, CO, Pb, O_3, NH_3, Benzene, Benzopyrene, As, Ni. as per the Standard ToR issued for 3(a) – TSPM, Mercury & Fluoride	8 locations (Including project site)	24 hourly-twice in a week for Three Months (one complete non monsoon season)	
B. Noise	Day equivalent & night equivalent Noise levels in dB(A)	8 locations (Including project site)	Hourly -once during study period	MoEF&CC/ CPCB Guidelines
C. Water				
Surface water	physico-chemical and biological characteristics	8 locations	Once during study period	MoEF&CC/ CPCB Guidelines
Ground water	physico-chemical and biological characteristics	8 locations	Once during study period	
D. Land				
a) Soil Quality	physico-chemical characteristics	8 locations (Including project site)	Once during study period	
b) Land use	Land use of the district and study area	-	-	Using GIS
E. Biological				
a) Aquatic	A list of flora and fauna of study area with details of Endangered species if any through field observations and secondary sources like Forest Department.	Within study area	Once during study period	
b) Terrestrial				

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
F. Socio Economic parameters	Demographic structure covering total households, total population, population density, sex ratio, schedule caste and schedule tribe, literacy and employment. Health Status Cultural and aesthetic attributes in study area including places of historical and archaeological importance Inventory of places of historical, cultural and religious importance in the study area	Within study area	Once during study period	

40.12.10 It has been reported by PP that, security office, Site office, material storage shed, compound wall with entry gates have been constructed. Site leveling work has been carried out.

40.12.11 Name of the EIA Consultant: M/s. Eco Chem Sales & Services, Surat [S. No. 24, Certificate No. NABET/EIA/2023/RA 0181, Valid Up to 03/02/2023; Rev. 12, July 09, 2021].

40.12.12 M/s. Tremag Alloys Private Limited has earlier made an application online vide proposal no. IA/AP/IND/197043/2021 dated 05/05/2021. The proposal was considered by the EAC (Industry 1) in its 36th meeting held on 18-19th May, 2021. The observations and recommendations of EAC are given as below:

Observations of the Committee held during 18-19th May, 2021

40.12.13 The EAC noted the following:

i. HF pollution and SF6 pollution are major environmental issues of Mg ingot production. This has not been addressed in Pre-feasibility report. SF6 pollution is equal to the amount of SF6 consumed. Plant shall consume 4 TPA SF6 which would release 91200 T of CO2 annually. Alsonearly 34.4 kg of HF gas shall be released for every tonne of Mg metal produced.
ii. PP has not proposed substitutes to SF6, like HFC-134a and FK-5-1-12 (Novec-612).
iii. PP has not proposed measures to control HF pollution.
iv. Details of SAF to be used in FeSi plant are not available.
v. GW abstraction is proposed during construction phase. This should be discouraged.
vi. Noise monitoring is proposed at 8.34 Km from site.
vii. AAQ monitoring stations are not as per wind Rose.

Recommendations of the Committee held during 18-19th May, 2021

40.12.14 In view of the foregoing and after deliberations, the Committee recommended to return the proposal in its present form to address the shortcomings as enumerate above.

40.12.15 The PP has again made an application online vide proposal no. IA/AP/IND/217894/2021 dated 03/07/2021. The proposal was considered by the Re-EAC (Industry 1) in its 40th meeting held on 15-16th July, 2021. The observations and recommendations of EAC are given as below:

Observations of the Committee

40.12.16 The EAC noted the following:

i. SAF shall be fourth hole extraction close type.
ii. Fluoride and HF shall be done manual monitoring quarterly.
iii. Two stage alkali scrubber shall be used to control HF pollution.
iv. SF6 shall not be used in the plant. In place of HF6, an environment friendly substitute Novec 612 shall be used.
v. 590 KLD water shall be taken from Somsila Reservoir. No GW shall be abstracted even during construction.

Recommendations of the Committee

40.12.17 After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Action plan to achieve zero liquid discharge shall be submitted.
ii. Action plan to limit the particulate matter emission from the stacks below 30 mg/Nm^3 shall be furnished.
iii. Action plan for fugitive emission control in the plant premises shall be provided.
iv. Action plan for green belt development covering 33% of the plant area shall be submitted.
v. Action plan for rain water harvesting shall be submitted.
vi. Action plan for 100% slag utilization shall be submitted.
vii. Traffic study shall be carried out and furnished in the EIA report.
viii. Stock piles shall be on impervious floor, with garland drains and catch pits to trap run off material.

40.13 Greenfield Project for Sponge Iron Production of 1,65,000 TPA and WHRB Based Captive Power Plant (12 MW), MS Billets Production (1, 65,000 TPA) by Installing 2 x 25 Ton Induction Furnace by **M/s. Manbhum Ispat Pvt Ltd.** Located at Village- Mithapur, Mauza-Mondalpur, Jamuria Ranisayer Road, **District Paschim Bardhaman, West Bengal** [Online Proposal No. IA/WB/IND/212840/2021; File No. IA-J-11011/271/2021-IA-II(I)] - **Prescribing for Terms of Reference**– regarding.

40.13.1 M/s. Manbhum Ispat Private Limited has made an application online vide proposal no. IA/WB/IND/212840/2021 dated 04/07/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3 (a), Metallurgical industries (ferrous & Non-ferrous) &1 (d) Thermal Power Plants Under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

Details submitted by Project proponent

40.13.2 The project of M/s. Manbhum Ispat Private Limited located at Village- Mithapur, Mauza-Mondalpur, Jamuria Ranisayer Road, District Paschim Bardhaman, West Bengal is for Greenfield Project for Sponge Iron Production of 1,65,000 TPA and WHRB Based Captive Power Plant (12 MW), MS Billets Production (1, 65,000 TPA) by Installing 2 x 25 Ton Induction Furnace.

40.13.3 Environmental site settings:

SNo	Particulars	Details	Remarks
1	Total land	Total Land –9.34 ha ➢ Built up area-1.80 ha ➢ Open area-1.91 ha ➢ Sheds & Yards-1.36 ha ➢ Green Belt-3.24 ha ➢ Area under Roads-1.07 ha	Land use is agricultural and will be diverted for industrial purpose.
2	Existence of habitation & involvement of R&R, if any.	No R & R involved in the project	
3	Latitude and Longitude of the project site	Latitude - 23°40'30.92"N Longitude - 87°05'57.41"E	
4	Elevation of the project site	117 m AMSL	
5	Involvement of Forest land if any.	Nil	
6	Water body exists within the project site as well as study area	**Project site**: Nil **Study Area:-** Damodar River: ~ 8.5 km, SW. Ajay River: ~ 9.5 km, NE Suko Lake: ~ 14.5 km, ESE. Tarapur Jhil: ~ 12.5 km, South.	
7	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/biosphere reserve/ tiger Reserve / elephant reserve etc. if any within the study area	Nil. Following forest are within study area: Gangajalghati PF:~ 12.5 km, SSE. Protected Forest:~14.5 km, NW.	

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

S No	Unit	Configuration	Capacity (TPA)
1	Sponge Iron Plant	Rotary Kiln: 1 x500 TPD	1,65,000 TPA
2	MS Billets	Induction Furnace: 2x25 T	1,65,000 TPA
3	Captive Power Plant	WHRB: 1x12 MW	12 MW

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

Raw Material Details for Sponge Iron (1,65,000 TPA)

Sl. No	Raw materials	Quantity (TPA)	Source	Distance from site	Mode of Transport
1	Iron ore lumps	2,64,000	Captive mines, purchase from NMDC/ OMDC /other mines	Between 300 to 350 KMs	Through Rail /Road
2	Coal Indian	2,14,500	Purchase from CIL	Between 20 – 250 KMs.	Rail route / by road
3	Coal Imported	1,38,600	Indonesia / South Africa / Australia	Between 250-300 KMs.	Through sea route/Haldia Port
4	Dolomite	8,250	Local purchase	Between 20 – 40 KMs	Road through covered trucks

Raw Material for MS-Billets (1,65,000 TPA)

Sl. No	Raw materials	Quantity (TPA)	Source	Distance from site	Mode of Transport
1	Sponge Iron	1,66,650	In house and Local Market	Between 5-10 KMs	Through covered conveyers and Road through covered trucks
2	Pig Iron/Scrap	24,998	Local Purchase	Between 20 – 40 KMs	Road through covered trucks
3	Ferro Alloys	8,333	Local Purchase	Road through covered trucks	Between 20 – 40 KMs

40.13.6 The water requirement for the project is estimated as 815 KL/day. Source of the water will be Asansol Municipal Corporation (AMC) supply and permission will be obtained.

40.13.7 Power Requirement for the project is estimated that about 24.5MW. 12 MW will be sourced from in-house CPP and remaining from DVC/IPCL.

40.13.8 The capital cost of the project is Rs.165.75 Crores and the capital cost for environmental protection measures is proposed as Rs.3.5Crores. The employment generation from the proposed project 300 persons.

40.13.9 Proposed Terms of Reference (Baseline data collection period: **October 2021 to December 2021 (Post monsoon season)**):

S. No.	Environmental Component	Primary data		
		Parameters	**Frequency**	**Monitoring/ Sampling Locations**
1.	Land	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	Once in a Study period Season	10 km radius Buffer from Project site (Core zone)
2.	Meteorology	Temperature, Relative Humidity, Wind Speed, Wind Direction, Rainfall	Hourly	Project site
3.	Air	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO and other applicable parameters as per ToR	Twice a week(24hourly)	08
4.	Noise	Equivalent noise levels in Leq in dB(A)	Once in a season (day & night time)	08
5.	Water			
a.	Surface Water	Parameters as per IS10500-2012	Once in a season	08
b.	Ground Water		Once in a season	08
6.	Soil	Parameters As per IS 2720/USDA	Once in a season	05
7.	Biological Environment	Flora and fauna	Once in a season	Stud yarea
8.	Socio-Economic Environment	Economic Demography	Once in a season	Stud yarea

40.13.10 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.13.11 Name of the EIA Consultant: M/s Grass Roots Research and Creation India (P) Ltd [S. No. 158, Certificate No. QCI/NABET/EIA/ACO/21/1728, Valid Up to 09/08/2021; Rev. 12, July 09, 2021].

40.13.12 The proposal was considered by the Re-EAC (Industry 1) in its 40th meeting held on 15-16th July, 2021. The observations and recommendations of EAC are given as below:

Observations of the Committee

40.13.13 The EAC noted the following:

i. TOR is required for undertaking EIA study for a green field project to manufacture DRI from 1x500 TPD kiln , billets through 2x25 T IF & CC and a 12MW WHRB.
ii. Land area available is 9.34 ha. 3.24 ha (34.68%) land shall be used for green belt development.

iii. 815 KLD water shall be drawn from Asansol Municipal Corporation through pipeline.
iv. Damodar River is 8.5 km from site.
v. NH2 is 2.8 km SW; NH60 is 3 Km ESE and Ikrah Railway station is 2.2 km
vi. All traffic shall be by road only.
vii. A primary health Centre located 5.5 km and Kali mandir are located 1000 m from the plant site. Village Belanpur is only 400 m away in East.

Recommendations of the Committee

40.13.14 After deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Action plan to limit the particulate matter emission from the stacks below 30 mg/Nm^3 shall be furnished.
ii. Action plan for fugitive emission control in the plant premises shall be provided.
iii. Action plan for green belt development covering 33% of the plant area shall be submitted including green belt development towards Belanpur Village which is located at a distance 400 m from the plant boundary.
iv. Action plan for rain water harvesting shall be submitted.
v. Action plan for 100% slag utilization shall be submitted.
vi. Traffic study shall be carried out and furnished in the EIA report.
vii. Stock piles shall be on impervious floor, with garland drains and catch pits to trap run off material.

40.14 Greenfield Project for Installation of Iron Ore Pellet Plant (0.6 MTPA), DRI Plant (0.42 MTPA), SMS with Caster (0.6 MTPA), Rolling Mill (0.20 MTPA), RHF unit (0.36 MTPA), Blast Furnace (0.26 MTPA), Sinter Plant (0.40 MTPA), DIP Plant (0.24 MTPA), Coal Washery Unit (0.98 MTPA) with Captive Power Plant (97 MW) for producing TMT bar, wire rods, steel bar coils and decoiled bars and Ductile Iron Pipes by **M/s. Swadesh Metallics Private Limited** located at Village-Kesda, Tehsil-Simga, **District- Balodabazar-Bhatapara, Chhattisgarh**. [Online Proposal No. IA/CG/IND/218065/2021; File No. IA-J-11011/46/2021-IA-II(I)] - **Prescribing for Terms of Reference**– regarding.

40.14.1 M/s. Swadesh Metallics Private Limited has made an application online vide proposal no. IA/CG/IND/218065/2021 dated 05/07/2021 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3 (a), Metallurgical industries (ferrous& Non-ferrous), Power Plant 1(d)& 2 (a) Coal Washeries Under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

Details submitted by Project proponent

40.14.2 The project of M/s. Swadesh Metallics Private Limited located at Village-Kesda, Tehsil-Simga, District- Balodabazar- Bhatapara, Chhattisgarh is for Greenfield Project for Installation of Iron Ore Pellet Plant (0.6 MTPA), DRI Plant (0.42 MTPA), SMS with Caster (0.6 MTPA), Rolling Mill (0.20 MTPA), RHF unit (0.36 MTPA), Blast Furnace (0.26 MTPA), Sinter Plant (0.40 MTPA), DIP Plant (0.24 MTPA), Coal Washery Unit (0.98 MTPA) with Captive Power Plant (97 MW) for producing TMT bar, wire rods, steel bar coils and decoiled bars and Ductile Iron Pipes.

40.14.3 Environmental site settings:

SNo	Particulars	Details	Remarks
1	Total land	**Total Land - 84.98 ha** (Agriculture – 84.98 ha)	land use is agricultural and will be diverted for industrial purpose.
2	Existence of habitation & involvement of R&R, if any.	No R & R involved in the project	
3	Latitude and Longitude of the project site	Latitude - 21°36'21.02"N Longitude - 81°49'31.39"E	
4	Elevation of the project site	281 meter above MSL	
5	Involvement of Forest land if any.	No Forest land involved	
6	Water body exists within the project site as well as study area	**Project site**: Nil **Study Area:-** Jamuniya Nala– 1.2 km, East Ghughua Pond– 5.20 km, West Manpur Dam – 7 km, SE	
7	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger Reserve/ elephant reserve etc. if any within the study area	Nil Following forest are in study area: Bilari Ghughua RF– 3.6 km, West Bilari RF – 7.5 km, WSW	

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

S No	Facility	Configuration	Capacity (MTPA)
1.	Iron Ore Pelletization Plant (With Grinding Unit)	1 x 0.6 MTPA	0.6
2.	DRI Plant (Sponge Iron)	4 x 350 TPD Kiln	0.42
3.	SMS with Caster (With Caster 6 x 11, 3 strands)	IF -12 x15 tonnes	0.6
4.	Rolling Mill	600 TPD	0.20
5.	RHF unit	2 x 600 TPD	0.36
6.	Blast Furnace	250 m3	0.26
7.	Sinter Plant	45 m2	0.40
8.	DIP Plant	2 x 400 TPD	0.24
9.	Coal Washery	--	0.98
10.	Captive Power Plant	52 MW-WHRB 3 x 15 MW- CFBC	97 MW
11.	Producer Gas	8000 Nm3/hr	

40.14.5 Total water requirement for the project is 5,648 KL/day. Source of the water will be ground water/surface water and permission will be obtained from the competent authority.

40.14.6 It is estimated that about 118 MW of electricity will be required for operation of proposed plant; 97 MW power will be sourced from CPP and remaining will be sourced from State Electricity Board.

40.14.7 The capital cost of the project is Rs 1480.50 Crores and the capital cost for environmental protection measures is proposed as Rs 25 Crores. The employment generation from the proposed project is Admin Staff – 100 and Production Staff – 1800.

40.14.8 Proposed Terms of Reference (**Baseline data Collection period: Dec-2020 to Feb-2021**):

Attributes		**Sampling**		**Remarks**
A. Air		**No of Stations**	**Frequency**	
a. Meteorological parameters	Rainfall, Temperature, Relative humidity, wind speed	Project Site	Daily.	
b. AAQ Parameters	$PM_{2.5}$,PM_{10}, SO_2, NO_x & CO	10	Twice in a week	
B. Noise	Leq, dB(A)-Day Leq, dB(A)-Night	08	Once in study a period	
C. Water				
a. Surface water	Total Parameters -32	08	Once in a month	
b. Ground water quality parameters	Total Parameters -32	08	Once in a month	
D. Land				
a. Soil Quality b. Land Use	Total Parameters -20 10 KM Buffer Area	05	Once in a Study Period	
E. Biological a. Aquatic b. Terrestrial	10 KM Buffer Area	NA	Once in a Study Period	
F. Socio-economic parameters	10 KM buffer Area	NA	Once in a Study Period	

40.14.9 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

40.14.10 Name of the EIA Consultant: M/s Grass Roots Research and Creation India (P) Ltd [S. No. 158, Certificate No. QCI/NABET/EIA/ACO/21/1728, Valid Up to 09/08/2021; Rev. 12, July 09, 2021].

40.14.11 M/s. Swadesh Metallics Private Limited has earlier made an application online vide proposal no. IA/CG/IND/195913/2021 dated 1/02/2021. The proposal was considered by the EAC

(Industry 1) in its 30th meeting held on 10-11th February, 2021. The observations and recommendations of EAC are given as below:

Observations of the Committee held during 10-11th February, 2021

40.14.12 The Committee noted the following:

i. Most of details sought in Form I have not been filled in properly.
ii. 210 acres of prime agriculture land is being diverted for industry.
iii. The PFR is incomplete, information related to processes given is not correct and there are several gaps in PFR like;
   a. Fuel for Pellet plant is not clear PCI or PGP.
   b. Detail of iron ore beneficiation plant is not given.
   c. Kiln configuration for pellet manufacture not clear.
   d. Details of RHF for DRI production not furnished.
   e. DI plant details are not available.
   f. Tailing and slag are projected to be generated from pellet plant and RHF which is incorrect.
   g. It is mentioned that DI plant generates no solid waste, which is wrong.

Recommendations of the Committee held during 10-11th February, 2021

40.14.13 In view of the foregoing observations and after deliberations, the Committee recommended to return the proposal in present form.

40.14.14 The PP has again made an application online vide proposal no. IA/CG/IND/218065/2021 dated 05/07/2021. The proposal was considered by the Re-EAC (Industry 1) in its 40th meeting held on 15-16th July, 2021. The observations and recommendations of EAC are given as below:

Observations of the Committee

40.14.15 The EAC noted the following:

i. There is a contradictory statement on Kesda site. In PFR at page 14 and 15 the land is shown as barren and also as agriculture.
ii. DIP solid wastes have been categorized. However there is no mention of sand and cement slurry generated in DIP.
iii. Surface water availability is shown as very good and River Jamunia is only 1.2 km from site. Yet the PP is approaching CGWA for permission to draw Ground water. 5680 KLD water shall be drawn from Ground and application to CGWA has been submitted.
iv. PGP of 8000 Nm^3/hr. has been proposed. Tar recovered from PGP shall be sold to authorized processors and Phenolic water shall be incinerated inside the PGP complex.
v. Kesda village is 650 m from site. Mahamaya Temple is also 600 m away from site.
vi. WHRB power from four kilns of 350 TPD has been shown as 52 MW. It should have been 32 MW. It is not clear, from which other sources PP is recovering 20 MW Waste Heat power. If it is from RHF, the details have not been furnished.
vii. IF Capacity proposed in DIP is not mentioned.
viii. A separate Coal gasifier is proposed for annealing in DIP. Reason not explained.
ix. Coal washery tailing management is not clear.

Recommendations of the Committee

40.14.16 In view of the foregoing and after deliberations, the Committee recommended the proposal to be returned in its present form to address the technical deficiencies enumerated above.

40.15 Greenfield Project of Iron Ore Beneficiation Plant (1.2 MTPA) by **M/s Vedanta Washery & Logistics Solutions Pvt. Ltd** located at Village Kunkuni (Near ROB Railway Station), Tehsil Kharsia, **District Raigarh, Chhattisgarh**. **[**Online Proposal No. IA/CG/IND/218029/2021; File no: IA-J-11011/164/2019-IA-II(I)] – **Amendment in Terms of Reference**– regarding.

40.15.1 M/s. Vedanta Washery & Logistics Solutions Private Limited has made an online application vide proposal no. IA/CG/IND/218029/2021 dated 04/07/2021 along with Form 3 and sought for amendment in the Terms of Reference accorded by the Ministry vide letter no. J-11011/164/2019-IA.11(I) dated 08/10/2020. The proposed project activity is listed at 2(b) Mineral beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and the proposal is appraised at central level.

Details submitted by the project proponent

40.15.2 The ToR was issued for Iron Ore Beneficiation (1.2 MTPA) to M/s. Vedanta Washery & Logistics Solutions Private Limited on 20/05/2019. Further, PP has obtained amended ToR for Iron Ore Beneficiation (1.2 MTPA) with addition facility of Pellet Plant (0.9 MTPA) dated 08/10/2020. Now, PP is requested to drop out the facility of Pellet plant (0.9 MTPA) which is obtained in amendment ToR and want to obtained ToR with proposed facility of Iron Ore Beneficiation (1.2 MTPA) only.

40.15.3 The configuration & capacity of units granted in TOR vis-à-vis the proposed modification is given below:

Details as Per ToR Granted on 08/10/2020	**Proposed**	**Final configuration after amendment**
Iron Ore Beneficiation (1.2 MTPA) and Pellet Plant (0.9 MTPA)	Removing Pelletization Plant (0.9 MTPA)	Iron Ore Beneficiation (1.2 MTPA)

40.15.4 Other changes, details as per the granted ToR and proposed changes:

Plant Equipment /Facility	**Existing Configuration As Per Amended ToR**	**Proposed Configuration**	**Final Configuration after Amendment**	**Remarks, if any**
Water Requirement	1318	-868	450	Less water Required
Pellet Plant	0.9 MTPA	Nil	Removing Facility	Removing Facility
Manpower Required	85	-25	60	Decreasing Manpower
Iron Ore Beneficiation	1.2 MTPA	No Change	1.2 MTPA	No Change
Power	6 MW	-4 MW	2 MW	From State

Plant Equipment /Facility	Existing Configuration As Per Amended ToR	Proposed Configuration	Final Configuration after Amendment	Remarks, if any
Requirement				Electricity Board
Land Area	14.11 Ha	-8.98 Ha	5.13 Ha	Land under possession
Project Cost	125 Cr	-55 Cr	70 Cr	Project Cost decreased
Green Area	33% of 14.11Ha	33% of 5.13Ha	1.69 HA	33% of plot area

40.15.5 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or related activity.

40.15.6 Name of the EIA Consultant: M/s Grass Roots Research and Creation India (P) Ltd [S. No. 158, Certificate No. QCI/NABET/EIA/ACO/21/1728, Valid Up to 09/08/2021; Rev. 12, July 09, 2021].

40.15.7 The proposal was considered by the Re-EAC (Industry 1) in its 40th meeting held on 15-16th July, 2021. The observations and recommendations of EAC are given as below:

Observations of the Committee

40.15.8 The Committee noted the following:

i. TOR was issued on 8.10.2020 for a greenfield 1.2 MTPA iron ore washing plant and a 0.9 MTPA Pellet plant at Kharsia in Raipur, Chhattisgarh.

ii. Project proponent now request to remove 0.9 MTPA pellet plant from the scope along with associated facilities for Pellet plant and go for 1.2 MTPA Iron Ore Washing plant only.

iii. The land requirement is reduced from 14.11 ha to 5.13 ha and water requirement shall also come down from 1318 KLD to 450 KLD.

iv. Power demand shall also come down.

Recommendations of the Committee

40.15.9 In view of the foregoing and after deliberations, the Committee recommended for amendment in the ToR dated 8/10/2020 as mentioned at para 40.15.3 above.

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ANNEXURE –1

GENERIC TERMS OF REFERENCE (ToR) IN RESPECT OF INDUSTRY SECTOR

1. **Executive Summary**
2. **Introduction**
   - i. Details of the EIA Consultant including NABET accreditation
   - ii. Information about the project proponent
   - iii. Importance and benefits of the project
3. **Project Description**
   - i. Cost of project and time of completion.
   - ii. Products with capacities for the proposed project.
   - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   - iv. List of raw materials required and their source along with mode of transportation.
   - v. Other chemicals and materials required with quantities and storage capacities
   - vi. Details of Emission, effluents, hazardous waste generation and their management.
   - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
   - ix. Process description along with major equipment and machineries, process flow sheet (Quantitative) from raw material to products to be provided
   - x. Hazard identification and details of proposed safety systems.
   - xi. Expansion/modernization proposals:
     - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
     - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. **Site Details**
   - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Co-ordinates (lat-long) of all four corners of the site.
iv. Google map-Earth downloaded of the project site.
v. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vi. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
vii. Landuse break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
viii. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
ix. Geological features and Geo-hydrological status of the study area shall be included.
x. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
xii. R&R details in respect of land in line with state Government policy.

5. **Forest and wildlife related issues (if applicable):**

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable).
ii. Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha).*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon.
v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area.
vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. **Environmental Status**

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

ii. AAQ data (except monsoon) at 8 locations for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.

vi. Ground water monitoring at minimum at 8 locations shall be included.

vii. Noise levels monitoring at 8 locations within the study area.

viii. Soil Characteristic as per CPCB guidelines.

ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

xi. Socio-economic status of the study area.

7. **Impact Assessment and Environment Management Plan**

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. **Occupational health**

i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

iii. Annual report of health status of workers with special reference to Occupational Health and Safety.

iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

9. **Corporate Environment Policy**

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. To address the Public Hearing issues, provisions contained under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 30/09/2020 shall be complied.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. A tabular chart with index for point wise compliance of above ToRs.
14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

<u>The following general points shall be noted:</u>

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation

details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarized in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material especially slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.

ADDITIONAL ToRs FOR PELLET PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. PM(PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
5. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
6. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
7. Plan for slag utilization
8. Plan for utilization of energy in off gases (coke oven, blast furnace)
9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

ADDITIONAL ToRs FOR CEMENT INDUSTRY

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Trace metals in waste material especially slag.

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

i. A note on pulp washing system capable of handling wood pulp shall be included.
ii. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
iii. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for *Eucalyptus/Casuarina* to produce low kappa (bleachable) grade of pulp.
iv. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
v. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.

ADDITIONAL ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, *etc.).*
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, *etc.*, along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.

ADDITIONAL ToRs FOR COKE OVEN PLANT

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area,*etc* within the plant.
3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.
5. Scheme for coke oven effluent treatment plant details including scheme for meeting cyanide standard.

ADDITIONAL ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS

1. Type of the project – new/expansion/modernization
2. Type of fibres used (Asbestos and others) and preference of selection from techno-environmental angle should be furnished
3. As asbestos is used in several products and as the level of precautions differ from milling to usage in cement products, friction products gasketing, textiles and also differ with the process used, it is necessary to give process description and reasons for the choice for selection of process
4. Technology adopted, flow chart, process description and layout marking areas of potential environmental impacts
5. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
6. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environmental status.
7. In case of expansion project asbestos fibre to be measured at slack emission and work zone area, besides base line air quality.
8. In case of green field project asbestos fibre to be measured at ambient air.

ADDITIONAL ToRs FOR METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)

1. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs & outputs (material and energy balance).
2. Emission from sulphuric acid plant and sulphur muck management.
3. Details on installation of Continuous Emission Monitoring System with recording with proper calibration system
4. Details on toxic metals including fluoride emissions
5. Details on stack height.
6. Details on ash disposal and management
7. Complete process flow diagram describing process of lead/zinc/copper/ aluminium, *etc.*
8. Details on smelting, thermal refining, melting, slag fuming, and Waelz kiln operation
9. Details on Holding and de-gassing of molten metal from primary and secondary aluminium, materials pre-treatment, and from melting and smelting of secondary aluminium
10. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
11. Trace metals in waste material especially slag.
12. Plan for trace metal recovery
13. Trace metals in water

Executive Summary

Executive summary of the report in about 8-10 pages incorporating the following:

i. Project name and location (Village, Dist, State, Industrial Estate (if applicable)
ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
vi. Capital cost of the project, estimated time of completion
vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2-3 km.) water body, population, with in 10km other industries, forest, eco-sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio-economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora-fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan

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Email **Sundar Ramanathan**

Fwd: DRAFT MOM OF 40 EAC HELD ON 15-16TH JULY 2021

From : cnpandey@iitgn.ac.in Tue, Jul 27, 2021 05:59 PM
Subject : Fwd: DRAFT MOM OF 40 EAC HELD ON 15-16TH JULY 2021 1 attachment
To : Sundar Ramanathan <r.sundar@nic.in>

---------- Forwarded message ---------
From: **Chhavi Nath Pandey** <cnpandey@iitgn.ac.in>
Date: Tue, Jul 27, 2021 at 5:52 PM
Subject: Re: DRAFT MOM OF 40 EAC HELD ON 15-16TH JULY 2021
To: Sundar Ramanathan <r.sundar@nic.in>

Dear Mr. Sundar,
The MoM for the 40th EAC meeting is approved herewith and the approved draft is attached. Please take further action regarding uploading this on Parivesh.
With best wishes,
C. N. Pandey.
Chairman,
EAC (IndustryI), MoEFC, GoI.