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

Summary record of the thirty first (31st) meeting of Re-Constituted Expert Appraisal Committee (REAC) held on 25th-26th February, 2021 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The thirty first 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 **25th-26th February, 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	25/02/2021	26/02/2021
1.	Dr. ChhaviNath Pandey	Chairman	Present	Present
2.	Dr. M.K. Gupta, Director, CPPRI.	Member	Absent	Present
3.	Dr. Shivaker Mishra, Sc. E-II, CPPRI.	Member	Absent	Present
4.	Dr. Siddharth Singh, Scientist 'E' IMD.	Member	Present	Present
5.	Dr. Jagdish Kishwan	Member	Present	Present
6.	Dr. G.V. Subramanyam	Member	Present	Present
7.	Dr. Tejaswini Ananth Kumar	Member	Present	Absent
8.	Shri. Ashok Upadhyaya	Member	Present	Present
9.	Shri. Rajendra Prasad Sharma	Member	Present	Present
10.	Dr. Sanjay Deshmukh	Member	Absent	Absent
11.	Prof. S.K. Singh	Member	Present	Present
12.	Dr. R. Gopichandran	Member	Absent	Absent
13.	Shri Jagannadha Rao Avasarala	Member	Present	Present
14.	Shri. J.S.Kamyotra	Member	Present	Present
15.	Shri. Sundar Ramanathan	Member Secretary	Present	Present

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 30th meeting held during 10th – 11th February, 2021 were confirmed by the EAC as already uploaded on PARIVESH except the following:

30.6 Expansion of Clinker production capacity (5.35 MTPA to 8.0 MTPA) and WHRB (15 MW to 50 MW) by **M/s. JK Lakshmi Cement Ltd.,** located at Village Jaykaypuram, Tehsil Pindwara, **District Sirohi, Rajasthan**. [Online Proposal No. IA/RJ/IND/193010/2021; File No. J-11011/306/2013-IA.II(I)] – **Amendment in Environmental Clearance** – regarding.

Minutes uploaded on PARIVESH	To be read as
Observations of the Committee 30.6.8 The Committee noted the following: i. Request is to amend EC of 28.10.2016 to include pollution control devices (FGD and SNCR) in existing boilers. ii. No additional land is required. iii. **81 KLD** additional water would be required.	**Observations of the Committee** 30.6.8 The Committee noted the following: i. Request is to amend EC of 28.10.2016 to include pollution control devices (FGD and SNCR) in existing boilers. ii. No additional land is required. iii. **600 KLD (FGD - 540 KLD and SNCR - 60 KLD)** additional water would be required.

25th February, 2021

31.1 Installation of Cement Grinding Unit of 0.60 MTPA Capacity (Product Mix of OPC, PPC, PSC & PCC) in two Phases (1st Phase: 1000 TPD & 2nd Phase: 1000 TPD) of **M/s Mittal tech Steel & Cement Private Limited** located at village-kurari, Durgawati, **Kaimur district, Bihar** [Online Proposal No. IA/BR/IND/188922/2020; File No. J-11011/41/2020- IA.II(I)] – **Environment Clearance** – regarding**.**

31.1.1 M/s. Mittaltech Steel & Cement Private Limited has made an online application vide proposal no. IA/BR/IND/188922/2020 dated 04/02/2021 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) Cement plants under Category 'B'. Due to the applicability of general condition i.e., existence of Uttar Pradesh-Bihar interstate boundary within 5 km, the project is being appraised at Central Level as Category 'A'.

Details submitted by Project proponent

31.1.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
13/01/2020	16th meeting of EAC held on 25/02/2020	Terms of Reference	08/05/2020

31.1.3 The project of M/s. Mittaltech Steel & Cement Pvt. Ltd. located in Kurari Village, Durgawati Tehsil, Kaimur District, Bihar State is for setting up of Greenfield Project of Installation of Cement Grinding Unit for production of Cement (product mix of OPC, PPC, PSC & PCC) 0.60 Million Tons Per Annum (MTPA).

31.1.4 Environmental Site Settings

S.No.	Particulars	Details
i	Total land	1.651 ha (4.08 acres) Existing Land use: Non-agricultural (Plant area – 0.297 ha; Office building area – 0.007ha; Raw material storage area: 0.221 ha; Green belt: 0.550 ha and truck parking: 0.576 ha)
ii	Land acquisition details as per	Already acquired and is under possession of the

S.No.	Particulars	Details
	MoEF&CC O.M. dated 7/10/2014	proponent.
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: 25°12'37.5"N; Longitude: 83°26'43.2"E
v	Elevation of the project site	at an elevation of 75-76m AMSL
vi	Involvement of Forest land if any	Nil
vii	Water body exists within the project site as well as study area	**Project Site:** No water body exist within the project site. Water Bodies in the Study area are: 1. Karmanasha River (4 km) 2. Durgawati River (7.5 km)
viii	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil

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

S.No.	Name	Proposed Units	
		Configuration	Production MTPA
1	Cement Grinding Unit	Phase I: 1 x 1000 TPD	0.3
2		Phase II: 1 x 1000 TPD	0.3
Total			**0.6**

31.1.6 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 required Tons per annum	Source	Distance from site (Kms)	Mode of Transportation
1	Clinker	570000	Prism Cement, Madhya Pradesh J.P. Cement, Madhya Pradesh Shree Cement, Madhya Pradesh	350	By Road in covered/closed vehicles
2	Slag	330000	Durgapur Steel Plant,	450	By Road in

S. No.	Raw Material	Quantity required Tons per annum	Source	Distance from site (Kms)	Mode of Transportation
			Durgapur (W.B) Tata Steel Plant, Jamshedpur (Jharkhand)		covered vehicles
3	Fly ash	186000	NTPC, Renusagar, Uttar Pradesh	180	By Road in closed bulkers
4	Gypsum	30000	Bhutan & Rajasthan	700	By Road in covered vehicles
5	Coal	13500	Local / open markets near Varanasi	70	By Road in covered vehicles

31.1.7 The water requirement for the project is estimated as 6.5 m^3 /day, out of which 5 m^3/day of fresh water requirement will be obtained from the bore well and the remaining requirement of 1.5 m^3/day will be met from the treated waste water. As the company comes under Micro and small Enterprises category and has groundwater withdrawal of less than 10 cum/day, CGWA has exempted from seeking NOC vide Lr. No. 21-4/750/BR/IND/2020 dated 25/11/2020.

31.1.8 The power requirement for the project is estimated as 4 MW (2 MW for each phase) to be obtained by South Bihar Power Distribution Company Limited.

31.1.9 Baseline Environmental Studies:

Period	Winter season, December 2019 to February 2020
AAQ parameters at 8 locations	$PM_{2.5}$ = 49.1 to 54.4 μg/m^3 PM_{10} = 81.8 to 90.6 μg/m^3 SO_2 = 12.6 to 14.4 μg/m^3 NOx = 17.2 to 24.6 μg/m^3 CO = 0.48 to 1.8 mg/m^3
AAQ Modelling (Incremental GLC)	PM_{10} = 9.21 μg/m^3 SO_2 = 7.40 μg/m^3 NOx = 10.5 μg/m^3
Ground Water Quality at 8 locations	pH: 7.51 to 7.8, Total Hardness: 40 to 256 mg/l, Chlorides: 4.3 to 7.2 mg/l, Fluoride: <0.1 to 0.61 mg/l. Heavy metals are within the limits.
Surface water quality at 7 locations	pH: 7.32 to 8.7; DO: 6.22 to 7.9 mg/l and BOD: <1.8 to 2.8 mg/l. COD from 8.0 to 28.0 mg/l
Noise levels	38.3 to 70.7 dBA for the day time and 33.1 to 66.7 dBA for the Night time.
Traffic assessment study findings	Traffic load will increase on the roads, however there will be no change in LOS after implementation of proposed project. It will remain as fair or average. Total 1.424 acres of land has been earmarked in the premises for roads and separate trucks/vehicle parking.
Flora and fauna	The area does not report for any schedule I fauna or corridor for schedule I fauna

31.1.10 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.	Ash	generated from HAG	4050 TPA (approx.)	Will be reused for in-house cement production or supplied to fly ash brick/blocks manufacturers
2.	Used Oil	Equipment Lubrication	0.2 Kl/yr (approx.)	Will be stored in HDPE or steel drums, marked and supplied to registers recyclers as per prevailing Rules 2016.

31.1.11 Public Consultation:

Details of advertisement given	26/08/2020, in Newspapers – Hindustan, Aaj, Rastriya Sahara, Hindustan times & Times of India
Date of public consultation	29/09/2020
Venue	Auditorium of Durgawati, Block Office, Dist-kaimur, Bihar
Presiding Officer	Mr. Arvind Kumar, Additional Collector & Distt. Public Grievance Redressal Officer.
Major issues raised	i. Environment Protection & Health ii. Employment & Training iii. Local development

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

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
1.	Environment Protection & Health	• Installation of latest plant & Machinery – Rs. 30.88 Crores included in project cost. • Noise pollution control measures like – acoustic enclosure &	Under PH-CER (EMP) Budget: Rs. 47.25 lacs earmarked for construction of two room dispensary with basic equipment at village Kurari.	• 24 months for Dispensary/ Health Centre • 6 months, for plantation along road.

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
		Housing - Rs. 8 lacs for control of noise pollution in EMP. • 17 Nos. Bag filters & 1 cyclone for control of air pollution - Rs. 138 lacs are earmarked for air pollution control devices in EMP • Additional provision for dispensary near the plant for workers & villagers • Additional plantation along road connecting NH-2 to site.	Rs. 6.00 lacs earmarked for plantation along the road connecting the plant to NH.	
2	Employment & Training	• Employment will be provided to local skilled / unskilled workers. • Training will be provided for skill development. • Additional Training Centre at village Bheria for industrial (grinding unit operation) and social (sewing and knitting) skill development.	Under PH-CER (EMP) Budget: Rs. 31.90 Lacs envisaged for development of Training Centre at village Bheria for industrial (grinding unit operation) and social (sewing and knitting) skill development.	• 24 months
3	Local development	• Community Development on the basis of need. • Provision of drinking water	Under PH-CER (EMP) Budget: Rs. 6.00 lacs earmarked for development of drinking water and	• 6 months

S.NO	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs Lacs	Target date for implementation of action plan
			rain water harvesting facilities at village Kurari & Bheria.	
Total budget under EMP (CER) for PH compliance			**Rs. 91.15 Lakhs**	• **6-24 months**

31.1.12 The capital cost of the project is Rs 45.5673 Crores and the capital cost for environmental protection measures is proposed as Rs 2.25 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.24 Crores. The employment generation from the proposed project is 45 Nos. The details of cost for environmental protection measures is as follows:

S.No	Description of Item	Capital Cost in Rs. Lacs	Recurring cost in Rs. Lac/annum
i.	Air Pollution Control & Noise	146.0	6.2
ii.	Water Pollution Control	14.0	2.5
iii.	Environmental Monitoring and Management	14.0	2.0
iv.	Green Belt Development	14.0	2.0
v.	Housekeeping & Others	25.0	1.3
vi.	Occupational health & Safety	12.0	3.0
vii.	Addressal of Public Consultation concerns	91.15	-

31.1.13 Greenbelt will be developed in 0.55 ha (1.36 acres), which is about 33% 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. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1360 saplings will be planted and nurtured in 0.55 hectares (1.36 acres) in 5 years.

31.1.14 The proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

31.1.15 Name of the EIA consultant: M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar [S.No. 90, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021].

31.1.16 The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

31.1.17 The Committee noted the following:

i. Raw material requirement for 0.6 MTPA cement grinding unit is shown as 1.1 MTPA which is inconsistent from the point of view of material balance.
ii. Particulate Matter (PM) emissions taken in calculations for Air quality modelling is more than 63 mg/Nm^3, while the specified norm for PM emissions is less than 30 mg/Nm^3. In view of this, AAQ modelling needs to be redone.
iii. PP reported that Hot Air Generator (HAG) ash shall be used in cement making which is not appropriate.
iv. Emission levels of SO_2 and NOx from HAG as reported by PP are high and should be checked.
v. Justification for selecting location of AAQ stations needs to be furnished.
vi. Table 3.5 of EIA report depicts that PM_{10} levels are high in the study area. No explanation is provided for the same.
vii. Noise levels have been monitored 3.84 km away from plant where there is going to be no impact of the proposed plant.
viii. Action plan to check fugitive emission has not been furnished.
ix. Action plan with physical targets to address the issues raised during public hearing as per MoEF&CC O.M. dated 30/09/2020 needs to be furnished.
x. As per the surface water analysis report of SW1 and SW2 samples, the data indicates high coliform 33000 MPN/100ml, BOD - less than 2 mg/lit and DO is reported as 7.9 mg/lit. In view of this, fresh analysis of surface water samples needs to be carried out.
xi. Post project monitoring schedule needs to be revisited as the Performance monitoring of APCD is not included.
xii. Project benefits have not been quantified as required under Chapter 8 of the EIA report.
xiii. TOR point number 9 pertaining to Corporate Environment Policy has not been complied with.
xiv. EIA report prepared as well as presentation made by the EIA consultant is of poor quality and requires improvement. The consultant was warned to improve the quality of the EIA report as well as presentation.

Recommendations of the Committee

31.1.18 In view of the aforesaid observations, the Committee after deliberations, recommended to return the proposal in its present form for addressing the shortcomings as listed above.

31.2 Modernization-cum-expansion of Bokaro Steel plant by up-gradation of existing SMS-I (1.306 MTPA), Debottlenecking of SMS-II (3.35 MTPA) & existing CRM complex (1.66 MTPA), installation of new kiln of 450 TPD in Lime plant, a new Sinter Plant (3.7MTPA) and Oxygen plant (1250 TPD on BOO basis) without increasing the overall production capacity of 5.77 MTPA hot metal by **M/s SAIL Ltd.** located at Bokaro Steel City, Tehsil: Chas, **District Bokaro, Jharkhand** [Online Proposal No. IA/JH/IND/196242/2018; File No. J-11011/99/2007-IA.II(I)] – **Environment Clearance – regarding**.

31.2.1 M/s. SAIL-Bokaro has made an online application vide proposal no. IA/JH/IND/168412/2018 dated 04/02/2021 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 & nonferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

31.2.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
22/02/2018	29th meeting of EAC held on 12-14th March, 2018	Terms of Reference	10/04/2018
20/05/2020	20th meeting of Reconstituted EAC held on 25-26th June, 2020	Amendment in ToR	13/07/2020

31.2.3 The project of M/s SAIL-Bokaro located in Bokaro Steel City, Chas block, Bokaro District, Jharkhand State is for Expansion-cum-modernisation of Bokaro steel plant from 4.5 MTPA hot metal to 5.77 MTPA hot metal.

31.2.4 Environmental Site Settings

S. No.	Particulars	Details
i.	Total land	6973.68 ha [Govt: 6973.68 ha] Land use: Industrial
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	All of 6973.68 ha of land is under ownership of SAIL-Bokaro
iii.	Existence of habitation & involvement of R&R, if any.	All land is under possession of SAIL-Bokaro and no R&R is involved
iv.	Latitude and Longitude of the project site	Latitude: 23.6459° N – 23.7174°N Longitude: 86.0671°E – 86.1439° E
v.	Elevation of the project site	243 AMSL
vi.	Involvement of Forest land if any.	Nil
vii.	Water body exists within the project site as well as study area	**Project site:** No natural water body **Study area:** i) Damodar River (6.5 km) ii) Garga Nadi (4.0 km) iii)Garga Reservoir (4.5 km)
viii.	Existence of ESZ/ ESA/ national park / wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil

31.2.5 The existing project was accorded environmental clearance vide lr.no. J-11011/99/2007-IA II(I) dated 16-10-2008 and subsequently amended vide letters dated 28/11/2014 and

13/12/2017. Consent to Operate for the existing unit was accorded by Jharkhand State Pollution Control Board vide lr. no. JSPCB/HO/RNC/CTO-9092257/2021/80. The validity of CTO is up to 31/12/2024.

31.2.6 Implementation status of the existing EC:

Sl. No.	**Facilities/ Units**	**Capacity as per EC dated 16/10/2008 & amendments dated 28/11/2014 & 13/12/2017**	**Implementation Status as on date**
1.	Coke Oven Complex	3.442 MTPA	Completed
2.	Blast Furnace Complex	5.77 MTPA	Completed
3.	SMS Complex	SMS-1: 1.306 MTPA SMS-2 : 3.3 MTPA TOTAL: **4.606 MTPA**	• SMS-I up-gradation to 1.306 MTPA has not been completed. Convertor modification completed before the expiry of EC. • ~80% of Caster completed before the expiry of EC. • ~70% work completed for Construction of steel Refining Unit before the expiry of EC. • SMS-2 completed.
4.	Slabbing Mill	Universal Slabbing Mill with 7 no. soaking pit batteries to be phased out after SMS-1 up-gradation	As SMS-1 upgradation is still not complete, the facility is present.
5.	Sinter Plant Complex	Existing: 5.0 MTPA New plant: 3.7 MTPA TOTAL: **8.7 MTPA**	~40% Work for new Sinter Plant was completed before the expiry of EC.
6.	Lime-Dolo Kiln	Existing: 0.2449 MTPA New expansion unit: 0.2909 MTPA TOTAL: **0.5358 MTPA**	New Expansion unit deferred.
7.	Hot Strip Mill	4.5 MTPA	Completed
8.	CRM complex	2.4 MTPA	Completed
9.	Oxygen Plant	Captive: 1450 TPD BOO: 2 x 1250 TPD TOTAL: **3950 TPD**	• 2700 TPD (1450 TPD captive plant & 1x1250 TPD BOO plant) already installed. • Other 1250 TPD BOO plant not yet

Sl. No.	Facilities/ Units	Capacity as per EC dated 16/10/2008 & amendments dated 28/11/2014 & 13/12/2017	Implementation Status as on date
			installed.

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

Sn	Name of units/ products	Capacity of units (as per existing EC)	Proposed units	Total (Existing + Proposed)
1.	Coke Oven Complex	3.442 MTPA	0.77 MTPA	**4.212 MTPA**
2.	Blast Furnace Complex	5.77 MTPA	No change	5.77 MTPA
3.	Sinter Plant Complex	Existing: 5.0 MTPA New plant: 3.7 MTPA TOTAL: **8.7 MTPA**	No change **New Sinter Plant of 3.7 MTPA** Could not be installed within existing EC Validity period	Existing: 5.0 MTPA New plant: 3.7 MTPA TOTAL: **8.7 MTPA**
4.	SMS Complex	SMS-I: 1.306 MTPA SMS-II: 3.3 MTPA TOTAL: **4.606 MTPA**	No change in SMS-1. Stage-1 of SMS-I up-gradation to 1.306 MTPA Could not be completed within existing EC Validity period. Augmentation to 3.35 MTPA by debottlenecking	SMS-I: 1.306 MTPA SMS-II: 3.35 MTPA TOTAL: **4.656 MTPA**
5.	Slabbing Mill	Slabbing Mill with 7 no. soaking pits	No change	Slabbing Mill with 7 no. soaking pits
6.	Lime-Dolo Kiln	Existing: 0.2449 MTPA New unit: 0.2909 MTPA TOTAL: **0.5358 MTPA**	New kiln of 0.1642 MTPA envisaged in earlier EC along with proposed Sinter plant. Could not be completed within existing EC Validity period	Existing: 0.2449 MTPA New kiln: 0.1642 MTPA TOTAL: **0.4091 MTPA**
7.	Pellet Plant	-	2.0 MTPA	**2.0 MTPA**

Sn	Name of units/ products	Capacity of units (as per existing EC)	Proposed units	Total (Existing + Proposed)
8.	Hot Strip Mill	4.5 MTPA	No change	**4.5 MTPA**
9.	CRM complex	2.4 MTPA	Increase by **0.46 MTPA** by debottlenecking	**2.86 MTPA**
10.	Oxygen Plant	Captive: 1450 TPD BOO: 2 x 1250 TPD TOTAL: **3950 TPD**	No increase. Installation of New 1250 TPD Oxygen Plant (BOO).	Captive: 1450 TPD BOO: 2 x 1250 TPD TOTAL: **3950 TPD**

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

Sn	Raw Material	Quantity required per annum			Source	Mode of Transportation
		At 4.5 MTPA HM stage (TPA)	Additional at 5.77 MTPA HM stage (TPA)	Total at 5.77 MTPA HM stage (TPA)		
1	Lump Iron Ore	2196000	-1239700	956300	Captive mines of RMD SAIL (Bolani, Kiriburu, Meghahatuburu, Gua, Kalta, Manoharpur)	Rail
2	Iron Ore Fines	5450000	5335290	10785290	Captive mines of RMD SAIL (Bolani, Kiriburu, Meghahatuburu, Gua, Kalta, Manoharpur)	Rail
3	Manganese Ore	259000	-259000	0	Not required	-
4	Limestone	3301000	-2463740	837260	SAIL Captive mines at Khanabhanjari and purchased from Jaisalmer	Rail
5	Dolomite	169000	206000	375000	Captive mines at Tulsidamar/ purchased from Bhutan	Rail

Sn	Raw Material	Quantity required per annum			Source	Mode of Transportation
		At 4.5 MTPA HM stage (TPA)	Additional at 5.77 MTPA HM stage (TPA)	Total at 5.77 MTPA HM stage (TPA)		
6	Coking coal	4470500	112167	4582667	BCCL mines & imported from Australia, New Zealand	Sea/Rail
7	Coal (CDI)	238500	338500	577000	Imported	Sea/Rail
8	Bentonite	0	23760	23760	Purchased from Kuchch region	Road
TOTAL		**16084000**	***2053277***	**18137277**		***By rail – 99.87%*** ***By Road – 0.13%***

31.2.9 The water requirement for the project is estimated as 357600 m^3/day at 5.77 MTPA HM stage, of which 44400 m^3/day is the estimated water requirement for steel production, and all of which will be obtained from the Damodar River via Tenu canal/Alternate water pipeline. The permission for drawl of surface water is obtained from Water Resource Department (WRD), GoJ vide Agreement No. TDC/SAIL/RAGT-I/113/09-10 dated 23/03/2010.

31.2.10 The power requirement for the project at 5.77 MTPA HM stage is estimated as 416 MW which will be obtained from the existing captive power plant of BPSCL and balance will be imported from DVC.

31.2.11 Baseline Environmental Studies:

Period:	Summer 2018 (March, April, May)*	Summer 2020 (March, April, May)**
AAQ parameters at 08 locations	$PM_{2.5}$ = 27 to 59 µg/m^3 PM_{10} = 49 to 99 µg/m^3 SO_2 = 8 to 40 µg/m^3 NO_x = 23 to 63 µg/m^3	$PM_{2.5}$ = 21 to 47 µg/m^3 PM_{10} = 34 to 90 µg/m^3 SO_2 = 7 to 40 µg/m^3 NO_x = 6 to 54 µg/m^3
AAQ modelling	Incremental GLCs in study area for: PM_{10} = 0.3 to 1.2 µg/m^3 SO_2 = 1.6 to 3.8 µg/m^3 NOx = 0.8 to 2.2 µg/m^3	
**Monitored by MECON Ltd. in Summer'2018.* ***Furnished by SAIL-Bokaro*		

Period:	Summer 2018 (March, April, May)*
Ground water quality at 08 locations	pH: 6.5 to 7.5, Total Hardness: 108 to 464 mg/l, Chlorides: 39 to 202 mg/l, Fluoride: 0.26 to 1.37 mg/l. Heavy metals are within the limits.
Surface water quality at 09 locations	pH: 7.3 to 7.8; DO: 5.2 to 6.6 mg/l and BOD: 1 to 3 mg/l.

Noise levels	40.5 to 62.9 dB(A) for the day time and 40.3 to 43.4 dB(A) for Night time.
Traffic assessment study findings	• Carrying capacity of NH23/NH32 : 3600 PCUs/hr • Present traffic load on NH23/NH-32: 3061 PCUs/hr • Additional traffic load due to proposed project: 28 PCUs/hr (~7 trucks/day) • Total traffic load in future due to project: 3089 PCUs/hr (which is still within the Carrying capacity of NH23/32 of 3600 PCUs/hr)
Flora and fauna	No schedule-1 fauna exists in the study area.
**Monitored by MECON Ltd. in Summer'2018.*	

31.2.12 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 (TPA)	Mode of treatment/Disposal
SOLID WASTES				
1	BF Slag	Blast furnace	2192750	Will be 100% granulated in CHSGP and utilised in cement making
2	BF Flue Dust		64643	100% will be reused in sinter plant
3	BF Sludge		28850	Will be sold in secondary market
4	BOF slag	SMS complex	512159	~80% will be reused in sinter plant/SMS and used to make bricks by combining with Fly ash/road making and rest sold.
5	BOF Sludge		37248	Will be sold in secondary market
6	Mill Scale	Mills area	85645	100% will be reused in sinter plant
7	Waste Refractory	Coke ovens	8151	100% will be used for Refractory / mortar production
8	Coke Breeze		459784	100% will be reused in sinter plant
9	Ferric Oxide	Misc.	7557	100% sold as scrap
10	ESP (RMP) dust	RMP	18972	100% will be reused in sinter plant
HAZARDOUS WASTES				
11	Acidic Tar Sludge	By Product plant of Coke Ovens	1588	Will be disposed in captive secured land fill
12	Spent Vanadium Pentoxide		0.14	Will be disposed in captive secured land fill (SLF)
13	Sulphur Sludge		307	Will be disposed in captive SLF

S. No.	Type of waste	Source	Quantity generated (TPA)	Mode of treatment/Disposal
14	Decanter Tar Sludge		1339	Will be partly charged in Coke oven & partly disposed in SLF
15	Tar Muck with Sand etc.		309	Will be disposed in captive SLF
16	Oil & Grease Muck	Mills area	192	Will be Disposed in captive SLF. Also, will be used in proposed Waste-to-Energy plant (BOO).
17	Asbestos Rope	Coke oven area	13	Will be disposed in captive SLF
18	Transformer oil	DNW	43 KL	Will be sold to authorized buyer
19	Oil sludge from oil regeneration unit	Oil regeneration unit	1.2	Will be disposed in captive SLF. Also, will be used in proposed Waste-to-Energy plant (BOO).
20	Zinc dross	HDGC/CRM	1548	Will be sold to authorized buyer
21	Zinc ash		215	Will be sold to authorized buyer

31.2.13 Public Consultation:

Details of Advertisement given	03/11/2018
Date of Public Consultation	08/12/2018
Venue	Bokaro Steel City
Presiding Officer	Additional District Collector
Major Issues Raised	(i) Repair & maintenance of hand pumps (ii) Development of roads (iii) Plantation in villages (iv) Promotion of solar energy (v) Plastic Pollution control (vi) Action for Padlocked schools

Public Consultation Point-wise Action plan as per MoEF&CC O.M. dated 30/9/2020

Sn	Sector	Physical targets	Amount to be spent (in Rs. lakhs)
			Total in 05 years
(A) Based on Need based SIA			
1	**For education:**		
i	Provision of housing shelter & school under Gyan Jyoti Yojana-Adoption of 15 of Birhor Children	No. of shelters (Rs. In lakhs)	**05** (75)
ii	Repair & maintenance of BSL school buildings	No. of schools	**10**

Sn	Sector	Physical targets	Amount to be spent (in Rs. lakhs)
			Total in 05 years
	where more than 80% non- BSL students are studying	(Rs. In lakhs)	(75)
iii	Repair & maintenance of two Schools run by Mahila Samiti	Civil Quantity (m^3) (Rs. In lakhs)	**505** (42)
iv	Development of Infrastructure to provide education to girls/women (maintenance of existing facilities)	No. of facilities (Rs. In lakhs)	**3** (45)
2	**For Healthcare**		
i	Maintenance of Sarva Swasthya Kendra, Sector- V	Civil quantity(m^3) (Rs. In lakhs)	**200** (15)
ii	Maintenance of shelter for Low-cost Sanitary Napkin project	Civil quantity(m^3) (Rs. In lakhs)	**160** (12.5)
3	**For Livelihood Generation**		
i	Providing infrastructure and financial support to Bokaro Pvt ITI	Persons trained (Rs. In lakhs)	**300** (180)
ii	Establishment of sericulture infrastructure & other facilities for development of self help group of 30 to 35 women in peripheral villages	No. of rearing shelter for sericulture (Rs. In lakhs)	**05** (30)
iii	Development of additional infrastructure for providing employment to women (maintenance of existing facilities)	No. of facilities (Rs. In lakhs)	**03** (25)
iv	Facility for fruit-bearing tree plantation in peripheral villages	No. of plantations (Rs. In lakhs)	**5 lakhs** (50)
4	**For Sanitation**		
i	Maintenance of 105 toilets under SVA	Toilets maintained (Rs. In lakhs)	**105** (125)
5	**Rural Infrastructure Development**		
i	Miscellaneous civil work in peripheral villages and other sites	Vol. of civil work (m^3) (Rs. In lakhs)	**625** (50)
ii	Development of infrastructure for promoting sports and wellbeing in peripheral villages (maintenance of existing facilities)	No. of facilities maintained (Rs. In lakhs)	**05** (55)
	SUB-TOTAL OF EXPENDITURE in Rs. (A)		**779.5 lakhs**
(B) Based on Public consultation issues			
6	Annual repair & maint. of hand-pumps installed in peripheral villages, construction of toilets	*No. of Toilets*	***20***
		hand pumps repaired	***100***
		(Rs. In lakhs)	**(60)**
7	Repair of roads in nearby areas in Township	*Road repaired (km)* (Rs. In lakhs)	***30*** (400)
8	Infrastructural development as well as financial support to Bokaro Balika Kalyan Vidyalaya as well as Bokaro Steel Kalyan Vidyalaya.	*No. of schools provided with infrastructure*	***10*** (435)

Sn	Sector	Physical targets	Amount to be spent (in Rs. lakhs)
			Total in 05 years
	Additionally funding and operation of 8 different schools in township as well as peripheral areas.	(Rs. In lakhs)	
9	Repair & maintenance of roads in peripheral villages (both PCC & pre- mix types)	*Road repaired (km)* (Rs. In lakhs)	***40*** (15)
10	Greenbelt development in outside plant area (near Garga Basin)	*No. of plantations* (Rs. In lakhs)	***100000*** (25)
11	Greenbelt development in peripheral villages (including Satanpura village)	*No. of plantations* (Rs. In lakhs)	***50000*** (10)
	SUB-TOTAL OF EXPENDITURE in Rs. (B)		**945**
	GRAND TOTAL CER BUDGET (A+B)		**1724.5**
			17.245 Crores

31.2.14 The capital cost of the project is Rs 5219.1 Crores and the capital cost for environmental protection measures is proposed as Rs 365 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 91.4 Crores. The employment generation from the proposed project is 3285 (i.e. 785 nos. during operation & 2500 nos. during construction period). The details of cost for environmental protection measures is as follows:

Sn.	Description	Capital Cost (in Cr.)	Recur. Cost/annum (In Cr.)
1.	Air & Noise Pollution Control Systems	185	42.7
2.	Water Conservation & Pollution Control	38	12.8
3.	Solid/ Waste Management System/Noise control/rainwater harvesting	140	35.8
4.	Green belt development	2	0.1
	Sub-total Cost for Environmental Protection Measures	**365**	**91.4**
5.	Cost of addressing focus areas identified in Public consultation	9.45	

31.2.15 Greenbelt is already developed in 1923.99 ha which is about 27.59% of the total project area. Additional greenbelt will be developed in 390 ha which will increase total greenbelt area to 2313.99 ha which is about 33.18% of the total project area. A 25m-100 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 975000 saplings will be planted and nurtured in additional 390 ha in 05 years.

31.2.16 Summary of show cause related to the project under consideration is as below:

i. MoEF&CC issued Show cause notice to BSL vide letter J-11011/99/2007-IA.II(I)

dated 22/09/2020 regarding construction activities at the site after the expiry of the validity of the EC and non-compliance of EC conditions.

ii. BSL submitted its response against the show cause vide letter dated 5/10/2020 with reiterating its commitment to adhering to EC condition.

iii. RO, MoEF&CC visited SAIL/ Bokaro Steel plant on 30.10.2020 to verify the action taken report submitted by BSL and submitted its report to MoEF&CC on 17/11/2020.

iv. On the basis of RO's Inspection report & BSL's reply, MoEF&CC asked SAIL/BSL to submit undertaking on non-judicial stamp paper that "No construction activities were performed beyond the validity period of EC" and time bound action plan for partially complied conditions. BSL submitted time bound action plan on the partially complied EC conditions reported by the RO in its report dated 17/11/2020 along with the requisite undertaking from authorized representative stating that no construction activity was carried out after expiry of validity of EC.

v. Response submitted by BSL on 21/12/2020. The said response was examined by MoEF&CC. Subsequently, MoEF&CC vide letter dated 11/01/2021 withdrawn the SCN issued to M/s SAIL-Bokaro. Further, it was directed that the project proponent shall comply with all the conditions stipulated in the Environment Clearance issued for the existing project vide letter no. J-11011/99/2007-IA.II(I) dated 16/10/2008 and its subsequent amendments.

31.2.17 Name of the EIA consultant: M/s MECON Limited [S.No. 48, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021].

31.2.18 **Certified compliance report from Regional Office:**

The Status of compliance of earlier EC was obtained from Regional Office, Jharkhand vide letter no. 103-211/13/EPE/4362 dated 17/11/2020 in the name of M/s. SAIL-Bokaro Steel plant. The Action taken report regarding the partially complied condition was submitted to MoEF&CC vide letter no. ECD/EMS/01/2020-2212 dated 21/12/2020. MoEF&CC evaluated the same and has issued letter dated 11/01/2021. The details of the observations made by RO in the report dated 17/11/2020 along with its action plan for closure as submitted to MoEF&CC and furnished by SAIL-Bokaro is given as below:

Sn	**Non-compliances/ partial compliances details**	**Observation of RO (abridged)**	**Condition no.**			**Response by SAIL-Bokaro**
			EC date	**Specific**	**General**	
1	Partially complied	PP reported 30-50 m^3/hr of water from seepage drain of cooling pond flowing through storm water channel and no waste water is being discharged. As per the	16/10/2008	(v)	-	• No waste water is being discharged outside the Bokaro Steel Plant. 100% (Total quantity) of effluent generated i.e.3500 m^3/hr is being treated in two ETPs at OF-1 & OF-2 and recycled back in the system through cooling ponds. However, around 30-50 m^3/hr of

Sn	Non-compliances/ partial compliances details	Observation of RO (abridged)	Condition no.			Response by SAIL-Bokaro
			EC date	Specific	General	
		condition, entire quantity of water to be recycled.				water (Clean water) from seepage drain of cooling ponds is flowing through storm water channel. • BSL has delineated Action plan to recycle the balance quantity of seepage water by March 2022.
2	Partially complied	As per the condition Zero effluent discharge shall be strictly followed and no waste water shall be discharged outside the premises.	16/10/2008	(vi)	-	• - Same as above
3	Partially complied	As per the condition lndustrial waste water after conforming to the standards should be utilised for plantation purpose.	16/10/2008	-	(vi)	• No waste water is being discharged outside the Bokaro Steel PIant. • BSL has delineated Action plan to recycle the balance quantity of seepage water by March 2022. Action plan submitted & approved to MoEFCC vide MoEFCC's letter dated 11/01/2021 • Industrial waste water from Coke Oven-ByProduct Plant and CRM-lll is collected and treated in the respective Effluent Treatment Plants (ETPs). The effluent collected from all other

Sn	Non-compliances/ partial compliances details	Observation of RO (abridged)	Condition no.			Response by SAIL-Bokaro
			EC date	Specific	General	
						shops is treated through ETPs at the Outfall#1&2 before recycling. Relevant photographs submitted to MoEFCC. • Quality of treated water is being monitored on regular basis by the in-house laboratory and also through NABL accredited laboratory. The water quality conforms to the prescribed standard and the treated water from the Coke Oven-By Product Plant is utilised for coke quenching, the same from the CRM-Ill is recycled back as process water and the remaining treated water is consumed for plantation purpose.
4	Partially complied	RO reported safeguards recommended in EIA/EMP such as: • Replacement of battery cyclone by ESP in Sinter Plant has been partially complied • Gases generated during steel making in the converter has not been used as fuel	16/10/2008	-	(x)	• Point-wise action plan have been submitted to MoEFCC, as below: • Project for replacement of the existing Battery Cyclones with ESPs in the Sinter Plant is under execution. The time schedule for completion of the project as submitted to MoEFCC is by 2023. • Facility for recovery of converter gas and its usage as fuel has already been installed. Facility is scheduled to be put into operation by January, 2021 after compliance of all safety

Sn	Non-compliances/ partial compliances details	Observation of RO (abridged)	Condition no.			Response by SAIL-Bokaro
			EC date	Specific	General	
		in the Plant at present and expected completion date reported to be Jan.'21 which can be verified only after Jan.'21. • Township sewage water is yet to be recycled for use in the plant.				measures. • Tertiary treatment plant has been proposed to treat and recycle treated sewage water back to the plant. The timeline for installation, as submitted to MoEFCC is by December, 2022.

31.2.19 The project proponent had earlier applied online vide proposal no. IA/JH/IND/168412/2018 dated 17/08/2020. The proposal was apprised during 22nd meeting of the Re-constituted EAC (Industry-I) held during 26 – 28th August, 2020 wherein following deliberations were made:

Observations of the Committee (EAC during 26 – 28th August, 2020)

i. *The certified compliance report issued by RO-Ranchi on 17/03/2020 indicates that the construction activities at the site after the expiry of the validity of the EC. This has been substantiated by RO by photographs taken during the visit and comparative Google Earth satellite image dated 18/10/2018 & 10/01/2020.*
ii. *PP shall submit high resolution satellite imagery [atleast PAN 1m (cartostat-2) or equivalent] of the pre and post construction activity of the site specific to the observation made by RO in their report.*
iii. *ATR submitted on 11/08/2020 to RO is required to be validated and verified by RO Ranchi.*
iv. *TOR point # 9 has not been addressed adequately at right location in EIA report.*
v. *CEMS data are not integrated with process control. PP shall submit the SOP and mechanism for such integration for process control.*
vi. *Undertaking by PP stating that by wet quenching tower for new battery shall be of Modified Type with sampling facilities to monitor PM release from the tower.*
vii. *Undertaking by PP stating that the APC devices shall be designed /modified (Existing) to meet the PM emission of <30Mg/Nm^3.*
viii. *Sinter cooler waste heat recovery shall be planned for new 360 m2 Sinter Plant.*
ix. *Provision of industrial vacuum cleaner to clean roads, shop floors and recycle the collected dust to pellet plant shall be made.*
x. *BF Stove waste gas heat recovery shall be included.*

xi. *Secondary fume extraction facility shall be provided in both SMSs.*
xii. *Incinerator for oil scum and oily waste generated from CRM shall be provided.*
xiii. *Commitment for Specific water and Specific energy consumption shall be indicated. Also furnish the scheme to reduce water and energy consumption in the plant including the scheme for reduction in greenhouse gases.*
xiv. *Green belt area shall be calculated based on total plant area including water reservoir. Trees @ 2500 trees per Ha shall be planted. At present green belt has been developed only in 27 % area. Scheme to achieve 33 % GBD shall be furnished.*
xv. *DMP/Risk assessment shall be based on QRA for existing plant.*
xvi. *Chapter 11 of the EIA report is not as per the requirement of EIA Notification. Please furnish revised Chapter 11.*
xvii. *In Chapter 3 the data interpretation to assess the space available to pollute and the impact in qualitative term of the proposed project has not been done, please incorporate data interpretation in Chapter 3. Reason for higher level of PM10 in ambient air and reporting of BOD value of below BDL shall be explained.*
xviii. *Interpretation of social and biological data has also not been done and same need to be provided.*
xix. *EMP Matrix indicating; EMP details: Time line for implementation; Budgetary Provisions and Monitoring Schedule and monitoring methodology shall be furnished.*
xx. *Revised CER table indicating CERs in Project mode shall be furnished. CSR activities are not to be included in CER table.*
xxi. *RWH calculations for recharge more than 100 % of annual consumption not furnished.*

Recommendations of the Committee (EAC during 26 – 28th August, 2020)

In view of the foregoing and deliberations, the Committee recommended to return the proposal in present form. The Committee also recommended that Ministry shall take action against the M/s. SAIL–BSP for carrying out the construction activities beyond the expiry of the validity of the EC by issuing Show Cause Notice followed by letter to State Government of Jharkhand to initiate legal action against M/s. SAIL-BSP under section 15 read with section 19 of the Environment (Protection) Act, 1986.

Action taken by MoEF&CC

Based on the above recommendation of EAC following action was undertaken by MoEF&CC:

i. MoEF&CC issued Show cause notice to BSL vide letter J-11011/99/2007-IA.II(I) dated 22/09/2020 regarding construction activities at the site after the expiry of the validity of the EC and non-compliance of EC conditions.
ii. BSL submitted its response against the show cause vide letter dated 5/10/2020 with reiterating its commitment to adhering to EC condition.
iii. RO, MoEF&CC visited SAIL/ Bokaro Steel plant on 30.10.2020 to verify the action taken report submitted by BSL and submitted its report to MoEF&CC on 17/11/2020.
iv. On the basis of RO's Inspection report & BSL's reply, MoEF&CC asked SAIL/BSL to submit undertaking on non-judicial stamp paper that "No construction activities were performed beyond the validity period of EC" and time bound action plan for partially complied conditions. BSL submitted time bound action plan on the partially complied EC conditions reported by the RO in its report dated 17/11/2020 along with

the requisite undertaking from authorized representative stating that no construction activity was carried out after expiry of validity of EC.

v. Response submitted by BSL on 21/12/2020. The said response was examined by MoEF&CC. Subsequently, MoEF&CC vide letter dated 11/01/2021 withdrawn the SCN issued to M/s SAIL-Bokaro. Further, it was directed that the project proponent shall comply with all the conditions stipulated in the Environment Clearance issued for the existing project vide letter no. J-11011/99/2007-IA.II(I) dated 16/10/2008 and its subsequent amendments.

31.2.20 The project proponent resubmitted the proposal vide no. IA/JH/IND/196242/2018 dated 04/02/2021 after compliance of the queries raised by EAC in the aforesaid meeting. The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below.

Written submissions during the course of meeting

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

S.No.	Written submissions on	Commitment made
i.	Revised Public hearing action plan as per MoEF&CC O.M. dated 30/09/2020	Revised action plan submitted is given at 31.2.13.
ii.	Specific water consumption	The specific water consumption of SAIL-Bokaro Steel Plant will be reduced to $\leq$ 3 m^3/tcs by Dec 2025.
iii.	Specific energy consumption	The specific energy consumption of SAIL-Bokaro Steel Plant will be reduced to $\leq$ 6 Gcal/tcs by Dec 2025.
iv.	Reduction in CO2 emission level	The CO_2 emission of SAIL-Bokaro Steel Plant will be reduced to $\leq$ 2.1 T-CO_2/tcs by Dec 2025.
v.	Green belt development	With respect to green cover of 33.18%, the total area of the plant under consideration i.e. 6973.68 ha includes the water bodies.
vi.	Data flow from CEMS	CEMS (Continuous Emission Monitoring System) data of SAIL-Bokaro Steel Plant is being transferred to CPCB & JSPCB server as per the latest CPCB guidelines & protocol.
vii.	Replacement of existing stove arrangement in blast furnace	The replacement of existing stove arrangement in Blast furnaces with new stove arrangement along with WHRS (Waste Heat Recovery System) will be taken either during major shut-down for change in linings of Blast Furnace or as per committed schedule, whichever is earlier.

Observations of the Committee

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

iv. The EAC noted that the written submissions made by the project proponent during the course of meeting are addressing the concerns of the Committee and acceded to the same.

v. MoEF&CC vide letter dated 11/01/2021 withdrawn the SCN issued to M/s SAIL-Bokaro. Further, it was directed that the project proponent shall comply with all the conditions stipulated in the Environment Clearance issued for the existing project vide letter no. J-11011/99/2007-IA.II(I) dated 16/10/2008 and its subsequent amendments.

vi. The Committee requested the Ministry to issue consolidated EC in supersession of all the existing ECs accorded by the Industry 1 sector of MoEF&CC.

Recommendations of the Committee

31.2.23 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 in supersession of all the existing ECs for the said integrated steel plant 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 integrated steel plants based on project specific requirements:

A. Specific conditions

i. CDQ shall be installed in coke ovens. Modified wet quenching tower shall be used as standby quenching in coke ovens battery.

ii. Particulate matter emissions shall be less than 30 mg/Nm^3 in new units and in all old units it shall be achieved by Dec 2023 except for Coke oven chimneys which shall be less than 50 mg/Nm^3.

iii. New Blast Furnace shall be equipped with TRT, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

iv. New sinter plant shall be equipped with power generation facility from waste heat recovered from sinter cooler.

v. Dust collected by road sweepers shall be pelletised/briquetted and used in pellet plant.

vi. WHRS in BF stoves shall be installed in various BFs as per following schedule- BF3-FY 22-23; BF5 – FY- 24-25. and BF2- FY- 29-30; & BF4- FY- 31-32 or earlier during major shut down of the furnaces.

vii. Secondary fume extraction system in BOF 2 shall be provided by Dec 2023.

viii. Waste to energy system for using oily scum and sludge shall be installed by March, 2023.

ix. Project proponent shall undertake rain water harvesting and recharge to the tune of 152,44,521 m^3/year by end of 2025. Level monitoring indicators for online real time measurement of rain water harvesting shall be provided.

x. Green belt shall be developed in 33.18 % of total plant area of 6973.68 ha (including water reservoir) covering entire periphery of the plant. Native plant species shall be chosen and plantation density for green belt shall be 2500 trees per ha.

xi. Specific performance indicators after implementation of the proposal shall be as under;
   a. Specific Water Consumption- 3.00 Cum/tcs by 2025.
   b. Specific Energy Consumption as- 6.00 Gcal/tcs by 2025.
   c. CO_2 emission – 2.1 T-CO_2/tcs by 2025.

xii. PP shall prepare and implement an action plan giving annual improvement targets for resource conservation and environment improvement. This plan shall be monitored by the concerned Regional Office of the MoEF&CC.

xiii. The heat rate of coal based power plant as specified by Central Electricity Authority shall be maintained and monitored.

xiv. Energy efficient drives, VFD for auxiliary motors and slip power recovery system for motors above 1000 kw shall be provided.

xv. PTFE Membrane bags shall be used in filter bag house and designed for 150% of normal design air flow.

xvi. Shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system. Shall use Post combustion control system (SCR/SCNR process) with NH_3 monitoring when Ammonia is used.

xvii. Coke Oven Gas shall be desulfurized.

xviii. 100 percent solid waste generated shall be recycled, reused and/or sold. No dumping is permitted and storage for more than ninety days is not permitted.

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 04 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 laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. 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.

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

vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

vii. 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.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).

x. Land-based APC system shall be installed to control coke pushing emissions.

xi. Monitor CO, HC and O_2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

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

xiv. 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 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) 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 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.

iii. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;

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

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.

vi. Tyre washing facilities shall be provided at the entrance of the plant gates.

vii. Treated water from ETP of COBP shall not be used for coke quenching.

viii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

i. Noise pollution 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. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

ii. Restrict Gas flaring to < 1%.

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 LED lights in their offices and residential areas.

v. Ensure installation of regenerative type burners on all reheating furnaces.

VI. Waste management

i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.

ii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

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

iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.

v. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.

vi. 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 including carbon sequestration by trees.

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. Corporate Environment Responsibility

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.

31.3 1.2 MTPA Integrated Steel Plant with 225 MW CPP- Change in configuration, production capacity & product mix of the project- Reduction in Blast Furnace from 1.0 MTPA (2 x 550 m^3) to 0.6 MTPA (1 x 550 m^3), Sinter Plant from 1.0 MTPA (1 x175 m^2) to 0.6 MTPA(1 x 70 m^2), Ferro Alloy Plant from 0.12 MTPA (10 x 9 MVA) to 0.048 MTPA (4 x 9 MVA) & CFBC (Coal Dolochar based CPP)135 MW (3 x 45 MW) to 90 MW (2 x 45 MW) ; Expansion of DRI from 0.5 MTPA (2 x 500 + 2 x 350 TPD) to 0.744 MTPA (4 x 600 TPD) with DRI based WHRB from 54 MW to 68 MW making total capacity of CPP- 194 MW and change in product mix (production of DI fitting & accessories with DI Pipe) within EC approved capacity of Ductile Iron Pipe (0.2 MTPA), keeping steel melting shop with CCM and oxygen optimized furnace, rolling mill, coke oven plant, oxygen plant, lime & dolomite plant, iron ore beneficiation with 1 x 2.4 MTPA pellet plant & producer gas plant as it by **M/s. Rashmi Alloy Steel Private Limited** located at Village-Gokulpur, P.O-Shyamraipur, P.S.-Kharagpur (Local) **District – West Medinipur, West Bengal** [Online Proposal No. IA/WB/IND/196780/2021; File No. IA-J11011/169/2017-IA-II(I)] – **Environment Clearance under the provisions of para 7(ii) of EIA Notification 2006** – regarding.

31.3.1 M/s Rashmi Alloy Steel Private Limited has made an online application vide proposal no. IA/WB/IND/196780/2021 dated 05/02/2021 along with copy of addendum EIA/EMP report

and Form – 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project. 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

31.3.2 The project of M/s Rashmi Alloy Steel Private Limited located at Mouza- Nandarchalk (J.L. No.-124), Bargai (J.L. NO-197) & Kanjarichak (J.L. No-125), village – Gokulpur, P.O.- Shyamraipur, P.S. – Kharagpur (Local) District - West Medinipur, West Bengal is for 1.2 MTPA Integrated Steel Plant with 225 MW CPP- Change in configuration, production capacity & product mix of the project- Reduction in Blast Furnace from 1.0 MTPA (2 x 550 m^3) to 0.6 MTPA (1 x 550 m^3), Sinter Plant from 1.0 MTPA (1 x175 m^2) to 0.6 MTPA(1 x 70 m^2), Ferro Alloy Plant from 0.12 MTPA (10 x 9 MVA) to 0.048 MTPA (4 x 9 MVA) & CFBC (Coal Dolochar based CPP)135 MW (3 x 45 MW) to 90 MW (2 x 45 MW) ; Expansion of DRI from 0.5 MTPA (2 x 500 + 2 x 350 TPD) to 0.744 MTPA (4 x 600 TPD) with DRI based WHRB from 54 MW to 68 MW making total capacity of CPP- 194 MW and change in product mix (production of DI fitting & accessories with DI Pipe) within EC approved capacity of Ductile Iron Pipe (0.2 MTPA), keeping steel melting shop with CCM and oxygen optimized furnace, rolling mill, coke oven plant, oxygen plant, lime & dolomite plant, iron ore beneficiation with 1 x 2.4 MTPA pellet plant & producer gas plant as it.

31.3.3 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>The total land required for the project is 125.45 ha which is vacant land. No forest land involved.</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>100% land is in possession</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>No rehabilitation and resettlement is involved.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td><table><tr><th>Latitude</th><th>Longitude</th></tr><tr><td>22˚21’39.93”N</td><td>87˚17’57.63”E</td></tr><tr><td>22˚22’05.60”N</td><td>87˚17’48.71”E</td></tr><tr><td>22˚22’14.07”N</td><td>87˚18’11.67”E</td></tr><tr><td>22˚22’08.35”N</td><td>87˚18’29.62”E</td></tr><tr><td>22˚21’40.33”N</td><td>87˚18’29.19”E</td></tr><tr><td>22˚21’38.26”N</td><td>87˚18’12.82”E</td></tr></table></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>33.5 M AMSL</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land involved.</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td><u>Study Area</u>

Kangsabati River (4.5 Km North West)</td></tr>
<tr><td>viii.</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.</td></tr>
</table>

31.3.4 The existing project was accorded environmental clearance in favor of M/s Orissa Metaliks Private Limited (OMPL) vide File No. - J-11011/169/2017-IA-(II) dated 03/04/2019 which was transferred to M/s Rashmi Alloy Steel Private Limited (RASPL) vide File No. - J-11011/169/2017-IA-(II), dated 28/01/2020. Under Clause 7 (ii) b of EIA Notification, 2006 configuration of 2 x 1.2 MTPA pellet is changed to 1 x 2.4 MTPA and intimation made to MoEF&CC, New Delhi vide letter RASPL/EC-Amendment/Config./20-21/01 dated 28/11/2020. Consent to Operate for 02 x 9 MVA Ferro Alloy Plant accorded by WBPCB vide Co-No-128946 dated 29.05.2020. The validity of CTO is up to 31.07.2024.

31.3.5 Implementation status of the existing Environmental Clearances.

Sl. No.	**Units**	**As per EC dated 03.04.2019 & 28.01.2020 & intimation under clause 7(ii) b dated 28.11.2020**		**Implementation Status as on Dec 2020**	**Production as per CTO**
		Configuration	**Capacity**		
1	Blast Furnace	2x550 m^3	1.0 MTPA	Not Yet Implemented	**
2	Sinter	1x175 m^2	1.0 MTPA	Not Yet Implemented	**
3	DRI	2x500 TPD + 2x350 TPD	0.5 MTPA	2 x 500 TPD DRI Civil foundation completed and mounting of kiln, machineries going on. For 2 x 350 TPD DRI kiln civil foundation works going on.	**
4	SMS with LRF,CCM and oxygen optimized furnace	10 x 20 T EIF + 2 x 50 T EAF	1.0 MTPA	Not Yet Implemented	**
5	Ferro Alloy Plant	10 x 9 MVA	0.12 MTPA	2 x 9 MVA under operation	**24,000 TPA**
6	Fe-Cr Briquette Manufacturing plant	1x40 TPH	40 TPH	Not Yet Implemented	**
7	Non-recovery type Coke Oven Plant	2 x 0.25 MTPA	0.5 MTPA	Not Yet Implemented	**
8	Lime Dolomite Plant	1x200 TPD	200 TPD	Not Yet Implemented	**
9	Oxygen Plant	1x200 TPD	200 TPD	Not Yet Implemented	**
10	Hot Rolling Mill	**	0.6 MTPA	Not Yet Implemented	**
11	Cold Rolling Plant with Pickling Line & Continuous Galvanizing	***	0.35 MTPA	Not Yet Implemented	**

Sl. No.	Units	As per EC dated 03.04.2019 & 28.01.2020 & intimation under clause 7(ii) b dated 28.11.2020		Implementation Status as on Dec 2020	Production as per CTO
		Configuration	Capacity		
12	Ductile Iron Pipe Unit, Fitting & Accessories	**	0.2 MTPA	Under Construction	**
13	Captive Power Plant	WHRB Based 90 MW (54 MW from DRI Plant+ 34 MW from Coke Oven Plant + 2 MW from EAF + CFBC) Coal & Dolochar Mix based 3 x 45 MW	225 MW	WHRB (DRI) under Construction	**
14	Pellet Plant	1 x 2.4 MTPA	2.4 MTPA	Civil works and structure erection going on.	**
15	I/O Beneficiation Plant	2 x 1.2 MTPA	2.4 MTPA	Civil works going on.	**
16	Producer Gas Plant	20 x 7,500 Nm^3/hr	1,50,000	Not Yet Implemented	**

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

Sl. No.	Units	As per EC dt-3/04/2019 and 28/01/2020		Amendment under clause 7 (ii) b of EIA Notification	Proposed change		Total (Existing + Proposed)		
		Configuration	Production		Configuration	Production	Configuration	Production	Product
1	Blast Furnace	2 x 550 m^3	1.0 MTPA	**	Surrender 1 module of MBF	(-) 0.40 MTPA	1 x 550 m^3	0.60 MTPA	Hot Metal / Pig Iron
2	Sinter	1 x 175 m^2	1.0 MTPA	**	Scaling down the sinter capacity	(-) 0.40 MTPA	1 x 70 m^2	0.60 MTPA	Sinter
3	DRI	2 x 500 TPD + 2 x 350 TPD	0.5 MTPA	**	Changing configuration and raw material mix	(+) 0.244 MTPA	4 x 600 TPD	0.744 MTPA	Sponge Iron
4	SMS with LRF,CCM	10 x 20 T EIF	1.0 MTPA	**	No change		10 x 20 T EIF	1.0 MTPA	Billets

Sl. No.	Units	As per EC dt-3/04/2019 and 28/01/2020		Amendment under clause 7 (ii) b of EIA Notification	Proposed change		Total (Existing + Proposed)		
		Configuration	Production		Configuration	Production	Configuration	Production	Product
	and oxygen optimized furnace	+ 2 x 50 T EAF					+ 2 x 50 T EAF		
5	Ferro Alloy Plant	10 x 9 MVA	0.12 MTPA	**	Surrendering 6 no of SAF	(-) 0.072 MTPA	4 x 9 MVA	0.048 MTPA	Ferro Alloys
6	Cr Briquette Manufacturing plant	1 x 40 TPH	40 TPH	**	No change		1 x 40 TPH	40 TPH	Cr Briquette
7	Non-recovery type Coke Oven Plant	2 x 0.25 MTPA	0.5 MTPA	**	No change		2 x 0.25 MTPA	0.5 MTPA	Coke
8	Lime Dolomite Plant	1 x 200 TPD	200 TPD	**	No change		1 x 200 TPD	200 TPD	Lime & Dolomite
9	Oxygen Plant	1 x 200 TPD	200 TPD	**	No change		1 x 200 TPD	200 TPD	Oxygen
10	Hot Rolling Mill	**	0.6 MTPA	**	No change		**	0.6 MTPA	H.R. Coils, Plates (Checkered or Flat)/ TMT Bar, Wire Rod & Wire/ Structural long product like- Angel, Channel & Beam
11	Cold Rolling Plant with Pickling Line & Continuous Galvanizing	***	0.35 MTPA	**	No change		***	0.35 MTPA	Galvanized Sheet/ Plate / Coils, Flat Sheet/ Checkered Sheet, Strip & Nail
12	Ductile Iron Pipe Unit, Fitting & Accessories	**	0.2 MTPA	**	Change in Product Mix		**	0.2 MTPA	Ductile Iron Pipe, Fitting & Accessories
13	Captive Power Plant	WHRB Based 90 MW (54	225 MW	**	Increase in WHRB Based CPP	(+) 14 MW(from WHRB-	WHRB Based 104 MW (68	194 MW	Power

Sl. No.	Units	As per EC dt-3/04/2019 and 28/01/2020		Amendment under clause 7 (ii) b of EIA Notification	Proposed change		Total (Existing + Proposed)		
		Configuration	Production		Configuration	Production	Configuration	Production	Product
		MW from DRI Plant+ 34 MW from Coke Oven Plant + 2 MW from EAF + CFBC (Coal & Dolochar Mix based) 3 x 45 MW]			and surrendering 1 no CFBC (Coal & Dolochar Mix based)CPP	DRI), based CPP and (-) 45 MW CFBC based CPP	MW from DRI Plant) + 34 MW from Coke Oven Plant + 2 MW from EAF+ CFBC (Coal & Dolochar Mix based) 2 x 45 MW]		
14	Pellet Plant	2 x 1.2 MTPA	2.4 MTPA	1 x 2.4 MTPA (Change in configuration within EC approved capacity)	No change		1 x 2.40 MTPA	2.40 MTPA	Iron ore Pellet
15	I/O Beneficiation Plant	2 x 1.2 MTPA	2.4 MTPA	**	No change		2 x 1.2 MTPA	2.4 MTPA	Iron Ore Concentrate
16	Producer Gas Plant	20 x 7,500 Nm^3/hr	1,50,000	**	No change		20 x 7,500 Nm^3/hr	1,50,000	Producer Gas

31.3.7 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.	Raw Materials	Quantity Required (in TPA)			Source	Distance from Site (km)	Mode of Transportation
		As per EC	Proposed	Final			
1	Sized Iron Ore Lump and fines	38,55,000	(-) 1,02,466	37,52,534	Barbil-Joda, Orissa	201	Rail/Road
2	Non-coking Coal	1,721,125	(-) 1,17,025	14,71,300	CCL, MCL & Imported Coal. Captive Coal mines (Jagnnathpur-B,	--	Rail/Road

Sl. No.	Raw Materials	Quantity Required (in TPA)			Source	Distance from Site (km)	Mode of Transportation
		As per EC	Proposed	Final			
					Raniganj Coal Field, West Bengal)		
3	Coking Coal	6,70,000	No Change	6,70,000	Purchased from BCCL, Dhanbad Alternate source: Imported	177	Rail/Road
4	Dolomite	1,08,375	(-) 8,295	1,00,080	From Birmitrapur, Orissa/Bilaspur, CG	264/541	Rail/Road
5	Limestone	2,42,023	(-) 1,10,000	1,32,023	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP	264/541	Rail/Road
6	Bentonite	48,000	No Change	48,000	Rajasthan & Gujarat	>1000	Rail/Road
7	Manganese Ore	3,12,000	(-)1,88,000	1,24,000	From Balaghat, MP & Orissa	719	Rail/Road
8	Chromium Ore	2,64,000	(-)1,58,400	1,05,600	Jajpur, Orissa	202	Rail/Road
9	Quartzite	4,38,125	(-) 1,80,125	2,58,000	From Belpahar, Orissa/Bilaspur, Raipur, CG		Rail/Road
10	Inoculants	192	(-) 24	168	Local Market	<150	Road
11	Magnesium	340	(-) 40	300	Local Market	<150	Road
12	Runner Coat	1,022	(-) 122	900	Local Market	<150	Road
13	Slag Coagulant	277	(-) 13	264	Local Market	<150	Road
14	Zinc	378	(+) 30	408	Local Market	<150	Road
15	Bitumen/ Epoxy Solution	941 KL/Year	(+) 209	1,150 KL/Year	WRAS* Approved Vendor	<150	Rail/Road
16	Sand	Variable	No change	Variable	Local Market	<150	Road
TOTAL		**76,61,898**	**(-) 8,64,271**	**67,97,627**			

31.3.8 The revised water requirement for the project is estimated as 10,128 m^3 /day, out of which 10,128 m^3/day of freshwater requirement will be obtained from the Kansabati River and treated waste water. The permission for drawl of surface water & waste water has been obtained from the concerned authorities.

31.3.9 The revised power requirement of the project is estimated as 263 MW, out of which 194 MW will be obtained from proposed 194 MW Captive Power Plant and the remaining 69.0 MW power will be obtained from WBSEDCL/ open access.

31.3.10 Baseline Environmental Studies (post project monitoring):

Period	December, 2019
AAQ parameters at 08 locations	$PM_{2.5}$ = 13 to 42 µg/m^3 PM_{10} = 70.1 to 82.3 µg/m^3 SO_2 = 10 to 15 µg/m^3 NO_x= 19 to 27 µg/m^3
AAQ modelling	Maximum GLCs for PM_{10}, SO_2 and NO_x at the revised configuration have been reduced from 11.46 µg/m^3, 5.67 µg/m^3 and 4.3 µg/m^3 at EC configuration. The detail are as follows: PM_{10} = 7.94 µg/m^3 SO_2 = 4.12 µg/m^3 NO_x= 4.04 µg/m^3
Ground water quality at 08 locations	pH: 6.67 to 7.15, Total Hardness: 56 to 196 mg/l, Chlorides: 12.6 to 25.3 mg/l, Fluoride 0.11 to 0.35 mg/l. Heavy metals are within the limits.
Surface water quality at 10 locations	pH: 6.9 to 7.8; DO: 7 to 7.7 mg/l and BOD: from 3 to 6 mg/l
Noise levels	44.2 to 72.5 dB(A) for the day time and 37.3 to 64.7 dB(A) for the Night time.
Traffic assessment study findings	For the revised configuration there will be no increase in number of truck quantity, rather for 100 % material movement by road, truck quantity will be reduced by 4 trucks/hour inward and 4 trucks/hour outward from earlier estimated figure for which EC already obtained.
Flora and fauna	No Schedule I species was found in the core as well as buffer zone.

31.3.11 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 Generated (TPA)**			**Mode of Treatment / Disposal**
			As per EC	**Proposed**	**Total**	
1	Slag	MBF	673,000	(-) 4,30,000	2,43,000	To be used for Cement Making.
2	Dolo Char	DRI Plant	1,75,000	(+) 34,420	2,13,420	To be used in proposed 2 x 45 MW CFBC Boilers.
3	Slag/ Scale	SMS (IF & EAF)	1,09,083	No Change	1,09,083	To be used for Road construction/ Land filling purpose, Paver Block Making after recovering metal from Slag Crushing unit;
4	Slag	Ferro Alloys Plant	1,50,000	(-) 1,26,460	23,540	• Slag generated during Ferro Manganese production will be used as a raw material for Silico Manganese production. • Slag generated during Silico Manganese

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)			Mode of Treatment / Disposal
			As per EC	Proposed	Total	
						production will be used for road construction/land filling. • After maximum recovery of Chrome, Ferro chrome slag after undergoing TCPL Test will be used in green concreting.
5	Core Sand and Slag	DIP	5,429	(-) 652	4,777	To be used for Road construction/ Land filling purpose
6	Cement Slurry	DIP	572	(-) 72	500	To be used for Brick making and also in Captive Cement Plant
7	Bottom Ash	CPP	5,44,916	(-)1,87,416	3,57,500	To be used for Road construction/ Land filling purpose
8	Dust	APC Devices	2,86,220	(-) 97,670	1,88,550	Used in Sinter Plant and also APC dust from DRI ESP will be used for Brick Manufacturing
9	Kiln Accretion	DRI Plant	5,000	(+) 1,300	6,000	Road Construction
10	Tar Sludge	Producer gas plant	14,400	No Change	14,400	To be sold to WBPCB authorized vendor
11	Miss Roll/End Cuts	Rolling Mill	50,000	No Change	50,000	To be used in Proposed S.M.S Plant.
12	Fly Ash	CPP	3,01,860	(-) 1,12,860	1,98,000	To be used for Brick making and also in Captive Cement Plant
13	Sludge from Galvanizing & Pickling Line	Rolling Mill	3,328	No Change	3,328	Sent to (CHWTSDF)
14	Low Grade Fe	I/O Beneficiation plant	2,12,000	No Change	2,12,000	Use for Brick manufacturing/ Paver block making, aggregate in concrete, road construction
15	Iron oxide Powder from ARP	Rolling Mill	1,750	No Change	1,750	To be sold to Tape & Paint manufacture

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)			Mode of Treatment / Disposal
			As per EC	Proposed	Total	
16	Zinc Ash/ Dross	DIP & Rolling Mill	865	(-) 3	862	To be sold to WBPCB Authorized Vendors
17	Sludge	ETP	50	No change	50	Sent to (CHWTSDF)
18	Molding Line	DIP Fitting & Accessories Unit	---	(+) 5	5	To be used for Road construction/Land filling purpose
19	Shot Blasting		---	(+) 8	8	To be used for Road construction/Land filling purpose
20	Fettling & Grinding		---	(+) 2	2	To be used for Road construction/Land filling purpose
Total			**25,33,473**	**(-) 9,19,698**	**16,13,775**	

31.3.12 Public Consultation for the existing project was conducted on 28/03/2018. The company proposed to invest Rs. 23.0 crore on the CER activities over a period of 7 years. Till date, RASPL had spent 70.49 lakhs, details of which are given in below Table:

Sl. No.	Project or Activity Identified	Sector Covered	Location	Amount Spent, in (Rs.lakhs)	Method
1	Free dispensary (Visiting days Monday, Tuesday & Saturday, Timing 10:00 AM to 12:30 PM)	Health	Narayanpur Village, Kharagpur, WB	4,67,855	Direct
2	Free dispensary (Visiting days Wednesday, Thursday & Friday, Timing 10:00 AM to 12:30 PM	Health	Jagai Durga Utsav Committee, Kharagpur	4,67,855	Direct
3	Kabarsthan Boundary Wall (Total 360 Meter)	Rural Development	Narayanpur, Kharagpur, West Bengal	11,00,000	Direct
4	Village Boundary Wall (108 Meter)	Rural Development	Jagai, P.o-Shyamraipur, Kharagpur, Paschim Medinipur	3,70,980	Direct
5	Provide potable drinking water through deep bore well	Health & Drinking	Near Adibasi Para 3,Risha,Kharagpur,West Bengal	80,000	Direct
6	New Murum road construction (600 sqm)	Rural Development	Uttar NarayanPur, Kharagpur, West Bengal	20,000	Direct
7	New Murum road construction (300 sqm)	Rural Development	Jhatiban, Kharagpur, West Bengal	15,000	Direct
8	New Murum road construction (450 sqm)	Rural Development	Ali chowk, Kharagpur, West Bengal	20,000	Direct
9	Installation of 3 Solar Lights	Electrification	Narayanpur Village, Kharagpur, WB	75,000	Direct
10	Free Sapling distribution Programme.	Ecological Development	Krishna Nagar Junior High School, Vill.-Risha,	13,000	Direct

Sl. No.	Project or Activity Identified	Sector Covered	Location	Amount Spent, in (Rs.lakhs)	Method
			P.o.-Shyamraipur, Dist.-Paschim Medinipur		
11	A Free Health Check Up Camp (with free distribution of Spectacles & Medicines)	Health	Krishna Nagar ,Po-Shyamraipur, Dist.-Paschim Medinipur	60,964	Direct
12	A Mega voluntary Blood Donation Camp was organized by the Management of OMPL, Unit-1 with collaboration of Blood Bank, Kharagpur	Health	Factory Premises	82,775	Direct
13	Free "Clothes Distribution" Programme conducted on 4th Oct'19 at the Village of Jagai.	Livelihood	Jagai, Kharagpur	28,322	Direct
14	Donation on the festival of Durga Puja at surrounding villages	Spiritual	Amba, Gokulpur, Midnapore	14,430	Direct
15	Free Saree Distribution" Programme was conducted on 25th Oct'19 inside the Factory premises.	Livelihood	Factory Premises	13,570	Direct
16	Donation on the Eve of Kali Puja at surrounding villages	Spiritual	Maheshpur, Nimpura, Kalaikunda etc.	14,100	Direct
17	Inter IIT Sports event Sponsorship	Sport	IIT, Kharagpur	2,30,000	Direct
18	Blanket Distribution to the poor & needy people for the fight against cold weather.	Livelihood	Chandvilla, Kalaikunda G.P	15,000	Direct
19	Provide of potable drinking water through deep bore well	Health & Drinking	Basantpur, Kharagpur, West Bengal	80,000	Direct
20	Provide of potable drinking water through deep bore well	Health & Drinking	Basantpur Roy Para, Kharagpur, West Bengal	80,000	Direct
21	Harimandir Utsav	Spiritual	Bharatpur, Shyamraipur, Gokulpur	3,000	Direct
22	Sponsorship for cricket Tournament at village	Sport	Mahespur, Shyamraipur, Gokulpur	25,000	Direct
23	Contribution to West Bengal State Emergency Relief Fund for Prevention & Control of COVID-19	Emergency	West Bengal State Emergency Relief Fund	25,00,000	Direct
24	Relief to Ramkrishna Mission Ashram	Hunger Eradication	Ramkrisha Mission Ashram,Jhargram	70,49,381	Direct
25	Relief to surrounding villagers through honourable MLA	Hunger Eradication	Jogai, Amba, Krishna Nagar etc.	2,60,000	Direct
Total				**70,49,381**	

31.3.13 The capital cost of the project remains same i.e. Rs.1700 crore and the capital cost for environmental protection measures is same as stated in EC dated 03.04.2019 i.e. Rs. 105.2 Crores. The annual recurring cost towards the environmental protection measures is also same as stated in EC dated 03.04.2019 i.e. Rs 11.35 Crores. 5500 in-direct employment & 3000 persons will get direct Employment during operational phase. The details of cost for

environmental protection measures is as follows:

Item	Capital Cost (in Crores)	Recurring Cost (in Crores)
Cost of Air Pollution Control System	58.0	5.10
Cost of Water conservation & Pollution Control	5.0	0.50
Cost of Solid Waste Management System	6.0	0.60
Green belt development	9.0	0.50
Noise Reduction Systems	8.0	1.00
Occupational Health Management	4.5	0.45
Risk Mitigation & Safety Plan	6.5	0.60
Online Monitoring Surveillance System	3.8	1.40
Setting Environmental Management Cell and	3.0	0.70
Setting Environmental Laboratory	1.5	0.50
GRAND TOTAL	**105.2**	**11.35**

31.3.14 As per EC dated 03.04.2019, greenbelt will be developed in 41.40 ha which is about 33 % of the total plant area of 125.45 ha. A 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 1,03,500 saplings will be planted and nurtured in 40.1 hectares in 2 years. Till date 20% green belt is developed. To offset and compensate for the additional pollution load from stack emissions, additional 2% of the project area will be developed as green belt after implementation of the proposed proposal making all total 35% of the project area; i.e. about 43.91 ha.

31.3.15 It has been reported that following will be resource consumption after the proposed change:

Particulars	As per EC dated 03.04.2019 & 28.01.2020 & intimation under clause 7 (ii) b dated 28.11.2020		After proposed change under para 7(ii)	% increase
Land (ha.)	125.45		No change	No change
Greenbelt (ha.)	41.40		43.91	2.0 %
Water (m^3/day)	22,248		10,128 KLD	(-) 54.5 %
Power (MW)	334.8		263	(-) 21.4 %
Raw Materials (TPA)	76,61,898		67,97,627	(-) 11.3 %
Products	1.2 Million TPA integrated Steel plant with 225 MW CPP		No change in ultimate production capacity of steel	***
	Unit & Products	**Production**	**Production (Million TPA)**	
	Blast Furnace **(Hot Metal / Pig Iron)**	1.0 MTPA	0.60 MTPA	(-) 40.0 %
	Sinter Plant	1.0 MTPA	0.60 MTPA	(-) 40.0

Particulars	As per EC dated 03.04.2019 & 28.01.2020 & intimation under clause 7 (ii) b dated 28.11.2020		After proposed change under para 7(ii)	% increase
	(Sinter)			%
	DRI Plant **(Sponge Iron)**	0.50 MTPA	0.744 MTPA	48.80 %
	SMS with LRF,CCM and oxygen optimized furnace **(Billets)**	1.0 MTPA	1.0 MTPA	No change
	Ferro Alloy plant **(FeSi, SiMn, FeSi & FeCr)**	0.12 MTPA	0.048 MTPA	No change
	Cr Briquette Manufacturing plant	40 TPH	40 TPH	No change
	Coke Oven Plant **(Metallurgical Coke)**	0.5 MTPA	0.5 MTPA	No change
	Lime Dolomite Plant **(Lime & Dolomite)**	200 TPD	200 TPD	No change
	Oxygen Plant **(Oxygen)**	200 TPD	200 TPD	No change
	Hot Rolling Mill **(H.R. Coils, Plates (Checkered or Flat)/ TMT Bar, Wire Rod & Wire/ Structural long product like- Angel, Channel & Beam)**	0.60 MTPA	0.60 MTPA	No change
	Cold Rolling Plant with Pickling Line & Continuous Galvanizing **(Galvanized Sheet/ Plate / Coils, Flat Sheet/ Checkered Sheet, Strip & Nail)**	0.35 MTPA	0.35 MTPA	No change
	Ductile Iron Pipe Unit, Fitting & Accessories (**DI pipe, fitting & accessories)**	0.20 MTPA	0.20 MTPA	No change
	WHRB-CPP **(Power)**	90 MW	104 MW	15.5 %
	Coal & Dolochar Based – CPP **(Power)**	135 MW	90 MW	(-) 33.3 %
	Pellet Plant **(Iron ore Pellet)**	2.4 MTPA	2.4 MTPA	No change
	I/O Beneficiation Plant	2.4 MTPA	2.4 MTPA	No

Particulars	As per EC dated 03.04.2019 & 28.01.2020 & intimation under clause 7 (ii) b dated 28.11.2020		After proposed change under para 7(ii)	% increase
	(Iron Ore Concentrate)			change
	Producer Gas Plant **(Producer Gas)**	1,50,000 Nm^3/hr	1,50,000 Nm^3/hr	No change

31.3.16 Pollution load assessment

Sl. No.	Particulars	As per EC dated 03.04.2019 & 28.01.2020		After proposed change under para 7 (ii)	% increase	Remarks
1.	Air Emissions	PM-13.58 g/sec		PM-11.96 g/sec	(-)12.0 %	There is net decrease in pollution load for PM, SO_2 and NO_x.
		SO_2-19.10 g/sec		SO_2-16.11 g/sec	(-)15.7 %	
		NO_x-14.50 g/sec		NO_x-13.65 g/sec	(-) 5.9 %	
2.	Waste water generation	Industrial waste water - 56 m^3/hr		Industrial waste water – 40 m^3/hr	(-)28.6 %	There would be a decrease in waste water generation and the plant would continue to operate on Zero Effluent Discharge principle.
		Domestic Waste Water - 9 m^3/hr		Domestic Waste Water - 9 m^3/hr	***	
3.	Make up water requirement	22,248 KLD		10,128 KLD	(-) 54.5%	Water cooled system is changed to air cooled system. There is a net decrease in make-up water requirement
4.	Solid & Hazardous Waste generation	2,533,473 TPA		16,13,775 TPA	(-) 36.3 %	There is an overall decrease in solid waste generation
5.	Traffic Load (Total Numbers of Trucks per days)	Raw Materials	626	555	(-) 11.3 %	There will be decrease in traffic load. (Truck quantity will be reduced by 4 trucks/hour inward and 4 trucks/hour outward.)
		Finished Product	104	No Change	No Change	
		Solid Waste	207	136	(-) 34.3 %	

31.3.17 The project proponent reported that Show cause Notice (SCN) is issued to Orissa Metaliks Private Limited vide letter no. J-11011/604/2010-IA.II dated 21st September, 2020 addressing license/ environment clearance of Rashmi Alloy Steel Private Limited. Reply to SCN made and submitted to MoEF&CC, New Delhi vide even letter dated 29/10/2020. Subsequently based on submission personal hearing was conducted on 11/12/2020 chaired by Joint Secretary MoEF&CC, New Delhi and it was decided that PP may take requisite corrective action against the each of the non-compliances reported by the different statutory authorities and submit the action taken report (ATR) to the ministry, with a copy to

MoEF&CC Regional office, within a time frame of one month from 15/12/2020. Action taken report submitted to ministry on 14/01/2021. Integrated Regional Office of MOEFCC, Kolkata visited the site for verification of compliance status against the SCN dated 22/10/2020 and complaint dated 18/01/2021 and submitted point wise factual report to MoEF&CC, New Delhi vides File No-102/07/EPE-06; dated 05/02/2021.

31.3.18 EIA consultant - M/s. M. N. Dastur & Co (P) Ltd [S.No.165, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021].

Certified Compliance report from Regional Office

31.3.19 The Status of compliance of earlier EC was obtained from Regional Office, MoEF&CC, Bhubaneswar vide letter no. 102-616/18/EPE, dated 03/06/2020 in the name of M/s. Rashmi Alloy Steel Private Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhubaneswar vide letter no. RASPL/KGP/2020-2021/01 dated 16/06/2020. MoEF&CC (RO), Bhubaneswar evaluated the same and has issued letter No -102-616/18/EPE/956, dated 15/09/2020. Subsequently, Regional Office of the MoEFCC has revisited the project to re-verify the compliance status and has issued letter No -102-616/18/EPE, dated 25/11/2020. The details of the observations made by RO in the report dated 25/11/2020 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/ Respond by PP
			EC date	Specific	General	
1.	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. (VII. Green Belt and EMP- Condition No. i).	It has been observed that, PAs have planted fruit bearing plants in the project premises. It is required to follow CPCB guidelines for selection of species in green belt development programme	03.04.2019		**VII. Green Belt and EMP-** Condition No. i	It has been observed that the PAs are taking care of not planning fruit bearing plants inside the plant premises and selection of species for Green belt development and will be strictly as per CPCB guidelines.
2.	An amount of INR 2300 lakhs proposed towards Corporate Social Responsibility (CER) shall be utilized as capital expenditure in project mode as	It is required to implement the Corporate Environment Responsibility (CER) as per activities and time line mentioned in the Environmental	03.04.2019		**IX. Corporate environment Responsibility** Condition No. vii	It has been observed that the PAs are in process of implementing CER activities. As per report submitted, an amount of Rs. 70,49,381/- was spent till October, 2020 on various activities of CER viz., Health, Rural

Sl. No.	Non-Compliances Details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/ Respond by PP
			EC date	Specific	General	
	per the provisions of Office Memorandum vide F. No. 22-65/2017-IA.III dated 1st May 2018. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates (IX. Corporate environment Responsibility Condition No. vii).	Clearance. It requires immediate action.				Development, Health & Drinking, Electrification, Livelihood, Spiritual, Sports, Emergency, etc.
3.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986 (II. Air quality monitoring and preservation Condition No. ii).	It is recommended that the fugitive emission to be monitored at least once in two months by MoEF&CC / NABL accredited laboratory and the monitoring reports to be submitted along with six monthly compliance reports on regular basis.	03.04.2019		**II. Air quality monitoring and preservation Condition** No. ii.	It has been assured to monitor the fugitive emissions were monitored at three location viz., DRI / Pellet Plant Construction Area, Ferro Plant Area and Raw Materials Yard by third party monitoring agency M/s Envirocheck, Kolkata which is MoEF&CC/ NABL accredited laboratory.
4.	The project proponent shall install system to carry out Continuous Ambient Air Quality	It is required to install Continuous Ambient Air Quality monitoring for common/ criterion parameters	03.04.2019		**II. Air quality monitoring and preservation-** Condition No. iii	It has been observed that the PAs are in process of installing CAAQMS in the project premises. It has been stated that the PAs have consulted WBSPCB regarding

Sl. No.	Non-Compliances Details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/ Respond by PP
			EC date	Specific	General	
	monitoring for common/ criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at an angle of 120^{o} each), covering upwind and downwind directions.	relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at an angle of 120o each), covering upwind and downwind directions.				selection of site for installation of the same. **Respond by PP:** Continuous Ambient Air Quality Monitoring Station (USEPA/ MCERT approved) is installed as per CPCB norms after getting site approval from WBPCB.
5.	The project proponent shall install system to carry out Continuous Ambient Air Quality monitoring for common/ criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at an	It is recommended that the AAQ to be monitored at least once in two months by MoEF&CC/ NABL accredited laboratory and the monitoring reports to be submitted along with six monthly compliance reports on regular basis.	03.04.2019		**II. Air quality monitoring and preservation-** Condition No. iii	It has been observed that the AAQ is being monitored at four locations viz., Near Plant Main Gate, Truck Parking Area, Kalaikunda Village and Sahachowk by third party monitoring agency M/s Envirocheck, Kolkata which is MoEF&CC/ NABL accredited laboratory.

Sl. No.	Non-Compliances Details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/ Respond by PP
			EC date	Specific	General	
	angle of 120^{o} each), covering upwind and downwind directions.					
6.	The ambient noise levels should conform to the standards prescribed under E(P)A rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time. (IV. Noise monitoring and prevention-Condition No. i).	As per monitoring reports submitted, Noise levels were monitored in the month of December, 2019 and the noise levels were exceeded the day time prescribed limits. It is required to take precautionary measures to controls the noise levels during day time operations.	03.04.2019		**IV. Noise monitoring and prevention-** Condition No. i	It has been observed that the noise levels are being monitored at five locations viz., Near Plant Main Gate, Truck Parking Area, DRI Plant Construction Area, Ferro plant Area and CPP Area by third party monitoring agency M/s Envirocheck, Kolkata which is MoEF&CC/ NABL accredited laboratory.
7.	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. Green Belt and EMP-Condition No. vii).	It is required to prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation. It requires immediate action.	03.04.2019		**VII. Green Belt and EMP-** Condition No. vi	As per the ATR submitted, it has been observed that the copy of GHG emissions inventory for the plant has been submitted
8.	Emergency preparedness plan based on the Hazard identification and	It is required to submit the copies of Emergency preparedness plan, Hazard	03.04.2019		**VIII. Public hearing and Human health issues-** Condition No.	As per the ATR submitted, it has been observed that the copy of Emergency preparedness plan, Hazard

Sl. No.	Non-Compliances Details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/ Respond by PP
			EC date	Specific	General	
	Risk Assessment (HIRA) and Disaster Management Plan shall be implemented (VIII. Public hearing and Human health issues-Condition No. i).	identification and Risk Assessment (HIRA) report and Disaster Management Plan to Regional office, Bhubaneswar.			i).	identification and Risk Assessment (HIRA) report and Disaster Management Plan has submitted.
9.	The commitment made by the project proponent to the issues raised during Public Hearing shall be implemented by the proponent (VIII. Public hearing and Human health issues- Condition No. vi).	It is required to implement the issues raised during Public Hearing as per activities and time line mentioned in the Environmental Clearance. It requires immediate action.	03.04.2019		**VIII. Public hearing and Human health issues**-Condition No. i).	It has been observed that the PAs are in process of complying the issue raised during Public Hearing is as per the status mentioned above.
10.	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	It is required to display the emission levels of pollutants at a convenient location for disclosure to the public and put on the website of the company. It is required immediate action.	03.04.2019		**X. Miscellaneous**-Condition No. iv.	As per the ATR submitted, it has been observed that the recent six monthly compliance report for period (October 2019 to March 2020) is uploaded on company website and is available on URL http://orissametaliks.com/data/Compliance_June-2020-RASPL.pdf.

Sl. No.	Non-Compliances Details	Observation of RO (abridged)	Condition No.			Re-assessment by RO/ Respond by PP
			EC date	Specific	General	
	company (X. Miscellaneous-Condition No. iv).					
	Conclusion: The PAs have complied or are in process of complying the conditions stipulated by the Ministry, accordingly the Action Taken Report may be considered for further necessary action.					

31.3.20 The project proponent had earlier applied online vide proposal no. IA/WB/IND/166364/2020 dated 22/12/2020. The proposal was apprised during 28th meeting of the Re-constituted EAC (Industry-I) held during 18-19th January, 2021 wherein following deliberations were made:

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

i. EAC taken cognizance of the SCN issued by MoEF&CC vide letter dated 21/09/2020 to M/s. Rashmi Group companies located at P.O – Shyamraipur, P.S – Kharagpur (L), District Paschim Medinipur, West Bengal, response of PP to SCN, personal hearing by joint secretary and ATR submitted by the PP for further action by the Ministry.

ii. Committee noted that representation from Climate Action Group dated 18/01/2021 wherein it is stated that PP has already installed higher configuration of DRI kiln at the site without obtaining prior Environment Clearance for which instant proposal is under consideration.

iii. Presently, the response submitted by the proponent as well as public representation of Climate Action Group have been forwarded to RO for ascertaining the factual status and the same is awaited.

iv. The Committee was of the considered view that RO site verification report is essential in order to take appropriate view on the proposal under consideration.

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

In view of the foregoing and after detailed deliberations, the committee recommended to return the proposal in present form and requested to submit the same along with RO site verification report.

31.3.21 The project proponent now submitted the proposal vide no. IA/WB/IND/196780/2021 dated 05/02/2021 along with the site inspection report of RO. The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

31.3.22 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 Committee also deliberated upon the certified compliance report as well as site inspection report dated 05/02/2021 of RO and found satisfied with the action taken report submitted by the proponent. With respect to the installation of higher configuration of kiln, the Committee inferred from RO report that till date, for 2 x 500 TPD DRI kiln, erection work along with raw material feeding arrangement system is in progress and for 2 x 350 TPD DRI kilns, civil foundation work going on. No other activity is observed at the site.

iii. The EAC has carried out requisite due diligence of the instant proposal and considered the same under para 7(ii) (a) of the EIA Notification, 2006 and dispense with the requirement of conducting fresh public consultation in light of the reduction in pollution load as reported by the project proponent at paragraph no. 31.3.16 through addendum EIA and EMP.

Recommendations of the Committee

31.3.23 In view of the foregoing and after detailed deliberations, the committee recommended the instant proposal for grant of Environment Clearance under the provisions of para 7(ii) 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 integrated steel plants based on project specific requirements:

A. Specific conditions

i. Use of ground water for industrial purpose shall not be allowed after 31st December, 2023.
ii. Iron ore slimes shall be dewatered and disposed dry. The recovered water shall be reused in the process. Ponding of tailings shall not be permitted. Maximum storage for tailings in the plant shall not exceed 90 days.
iii. Effluent from coal gasifier shall be burnt in DRI and tar sludge shall be recycled to gasifier after mixing with coal.
iv. 100 % solid waste generated in the plant shall be reused/recycled/sold. No dumping is permitted. Storage area for the solid waste inside the plant premises shall be secured and impervious with garland drains and catch pits around. The storage shall not exceed 90 days.
v. Plant drains shall terminate in large catch pits to trap and recover oil/tar and reuse it.
vi. Display boards at the entry of plant premises shall be of 6ft x6 ft size.
vii. 550 m^3 Blast Furnace shall have Top Recovery Turbine.
viii. Parking area of 15 acres has been earmarked in RUPL premises and no parking on road side outside the plant shall be permitted.
ix. Green belt shall be developed in an area of 43.91 ha by 31st December, 2021. The greenbelt shall inter alia cover the entire periphery of the plant with a width of 20 m and density of 2500 trees per hectare.
x. Raw materials shall be stored under closed sheds on impervious floors. Garland drains and catch pits shall be provided to trap run off materials.
xi. Railway siding shall be completed by June 2022.
xii. PP shall prepare and implement an action plan giving annual improvement targets for resource conservation and environment improvement. This plan shall be monitored by the concerned Regional Office of the MoEF&CC.

xiii. The heat rate of coal based power plant as specified by Central Electricity Authority shall be maintained and monitored.

xiv. Energy efficient drives, VFD for auxiliary motors and slip power recovery system for motors above 1000 kw shall be provided.

xv. PTFE Membrane bags shall be used in filter bag house and designed for 150% of normal design air flow.

xvi. Shall use ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system. Shall use Post combustion control system (SCR/SCNR process) with NH_3 monitoring when Ammonia is used.

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 04 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 laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. 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.

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

vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

vii. 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.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).

x. Land-based APC system shall be installed to control coke pushing emissions.

xi. Monitor CO, HC and O_2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

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

xiii. 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 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) 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 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.

iii. The project proponent shall provide the ETP to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time.

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

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.

vi. Tyre washing facilities shall be provided at the entrance of the plant gates.

vii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

IV. Noise monitoring and prevention

i. Noise pollution 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. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

ii. Restrict Gas flaring to < 1%.

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 LED lights in their offices and residential areas.

v. Ensure installation of regenerative type burners on all reheating furnaces.

VI. Waste management

i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.

ii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

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

iv. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.

v. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.

vi. 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 including carbon sequestration by trees.

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. Corporate Environment Responsibility

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.

31.4 Expansion of existing 6.0 MTPA to 12.0 MTPA Iron Ore Pellet Plant by **M/s ArcelorMittal Nippon Steel India Ltd. (Formerly Essar Steel India Ltd.)** located at Udayabata, Post-Paradeep, **Dist-Jagatsinghpur, Odisha**. [Online Proposal No. IA/OR/IND/197064/2021; File No J-11011/129/2007-IA.II(I)] – **Prescribing of Terms of Reference**– regarding.

The project proponent vide email dated 23/02/2021 expressed their inability to attend the meeting and requested to withdraw their proposal. In view of this, the Committee recommended for accepting the withdrawal of the instant proposal.

31.5 Proposed Integrated Cement Plant - Clinker (3.0 MTPA), Cement (2.0 MTPA), CPP (25 MW) & WHRS (15 MW) by **M/s. Marwar Cement Limited** 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)] – **Prescribing of Terms of Reference** – regarding

31.5.1 M/s. Marwar Cement Limited has made an application online vide proposal no IA/RJ/IND/197854/2021 dated 11/02/2021 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 schedule 3 (b) Cement Plants under Category "A" of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

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

31.5.3 Environmental site settings

S No.	Particulars	Details	Remarks
i.	Total land	Total project area is 57.87 ha, which has already been converted to industrial.	Land Use - Industrial Land
ii.	Existence of habitation & involvement of R&R, if any.	No habitation exist within the project site and R&R is not applicable	Total project area is under the possession of the company.
iii.	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	--
iv.	Elevation of the project site	288 m to 306 m above mean sea level	--
v.	Involvement of Forest land if any.	No Forest land is involved in the project area	

S No.	Particulars	Details	Remarks
vi.	Water body exists within the project site as well as study area	No water body exist within the project site. The following seasonal Water Body falls within 10 km radius - o Ghorawat Dam (2.0 km in SSW direction) o Jojri Nadi (1.8 km in NW direction) o Gaya Bhala Nadi (3.0 km in NNE direction) o Badal Pond (5.5 km in ESE direction) o Rediya Nada (9.0 km in SSW direction)	--
vii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil	--

31.5.4 The existing project was accorded environmental clearance *vide* letter no. vide letter no. J-11011/154/2009-IA II (I) dated 27th July, 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 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.

31.5.5 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC dated 27th July, 2010 and validity extended on 27th Nov., 2017	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 till 21/07/2019.
- *Public Hearing for the project was conducted on 27th Aug., 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 Dec., 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).*

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

S. No.	Particulars	Proposed Capacity
1.	Clinker (MTPA)	3.0*
2.	Cement (MTPA)	2.0
3.	CPP (MW)	25
4.	WHRS (MW)	15
**Note: Part of the clinker will be transported to split Grinding Units.*		

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

S. No.	Raw Material	Quantity required (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 TPP located in nearby area	300 km	Road
3.	Gypsum	0.1	RSMM / Imported	300 km	Road / Rail
4.	Silica Sand	0.06	Private Mine owner	10 km	Road

5.	Red Ochre	0.05	Private Mine owner	100 km	By Road

31.5.8 The water requirement for the project is estimated as 1160 KLD, out of which 850 KLD will be obtained from ground water and remaining water requirement of 310 KLD which will be met from water reservoir developed in plant area and mine sump water. The permission for drawl of groundwater has been obtained from CGWA for 850 KLD *vide* letter no. 21-4 (386)/WR/CGWA/2009-747 dated 5th Nov., 2009 and renewal of the same is under process with CGWA.

31.5.9 The power requirement for the project is estimated as 42 MW, which will be obtained from the Proposed CPP, WHRS and State Grid.

31.5.10 The capital cost of the project is Rs 1600 Crores and the capital cost for environmental protection measures is proposed as Rs 30 Crores and recurring cost as Rs. 4.5 Crores/annum. The employment generation from the proposed project is 950 Persons.

31.5.11 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

31.5.12 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [S.No. 40, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021]

31.5.13 Proposed Terms of Reference [Baseline data collection period: ***Winter Season (Dec., 2019 to Feb., 2020)***].

S. No.	**Attributes**	**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	o1 (Project site)
3.	Air	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO and PAHs	twice a week (24 hourly)	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 IS 10500 - 2012	Once in a season	02
b.	Ground Water		Once in a season	08
7.	Soil	Parameters As per IS 2720/USDA	Once in a season	08
8.	Biological Environment	Flora and fauna	Once in a season	Study area

S. No.	Attributes	Primary data		
		Parameters	**Frequency**	**Monitoring / Sampling Locations**
9.	Socio-Economic Environment	Economic Demography	Once in a season	Study area

31.5.14 The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25-26th February, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

31.5.15 The Committee noted the following:

i. Terms of Reference for the project was obtained from MoEF&CC, New Delhi vide letter no. J-11011/154/2009-IA.II (I) dated 22/07/2015. Public Hearing for the project was conducted on 27/08/2018. However, final EIA/EMP report could not be submitted within the EC validity period. Hence, the project proponent started the process denovo.

ii. With respect to the ToR dated 22/07/2015, baseline data was collected during March – May, 2016 and revalidated during December, 2019 to February, 2020. The baseline data collected during the said period have been compared and given as below:

Station Code	Sampling Location	PM_{10}		$PM_{2.5}$		SO_2		NO_2	
		Summer Season (March to May, 2016)	**Winter Season (Dec., 2019 to Feb., 2020)**	**Summer Season (March to May, 2016)**	**Winter Season (Dec., 2019 to Feb., 2020)**	**Summer Season (March to May, 2016)**	**Winter Season (Dec., 2019 to Feb., 2020)**	**Summer Season (March to May, 2016)**	**Winter Season (Dec., 2019 to Feb., 2020)**
S1	Project Site	73.2	68.8	35.6	33.7	9.5	10.2	22.1	20.9
S2	Sampling Station at 1.0 km in SW of Project Site	-	70.4	-	34.2	-	9.9	-	20.1
S3	Mine Site (ML Area 137.9993 ha)	74.2	72.6	36.1	36.4	8.8	10.4	21.5	22.3
S4	Village Ghorawat	67.2	80.3	31.2	39.2	7.8	12.3	18.4	23.8
S5	Village Choukari Khurd	66.5	77.2	31.5	40.1	8.0	12.0	17.8	23.9
S6	Village Pundlu	72.2	83.2	34.1	41.1	8.5	12.5	21.2	25.9
S7	Village Borunda	76.2	84.9	36.5	46.8	9.4	13.6	22.4	26.4
S8	Village Dhanapa	75.8	78.9	35.2	42.1	9.2	13.9	22.0	26.9
NAAQS*		**100**		**60**		**80**		**80**	

It is inferred from the table above that there is no significant change in the baseline condition of the area.

iii. It is noted that nearest SH is 4.5 Km from project site and nearest railway station is 13 Km from site. The entire in and out bound traffic shall be handled by roads only.

iv. Water requirement of 1160 KLD shall be met from GW and RWH in the mine pits. GW abstraction permission was obtained for abstraction of 850KLD water on

5.11.2009. Renewal status of permission is not given.

v. Limestone shall be sourced from captive LS mines (4 Nos) for which ECs have been obtained and transported to plant from mines by closed belt conveyor.
vi. 120 KLD STP has been proposed.
vii. PP informed that Pyritic sulphur in the limestone used shall be less than 0.25%.

Recommendations of the Committee

31.5.16 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 particulate matter from stacks emissions less than 30 mg/Nm^3 shall be furnished.
ii. PP will provide detailed action plan for green belt development in 33% of the total project area with a tree density of 2500 per hectare. In addition to this, the PP will submit separate action plan for green belt development along the roads outside the plant.
iii. Thirty-meter-wide green belt shall be developed towards the village adjacent to the plant site.
iv. Action plan for 100 % solid waste utilization shall be furnished.
v. Action plan for transportation of limestone from the captive mines by closed belt conveyor shall be submitted.
vi. Action plan for co-processing of wastes like tyres, paint sludge, agro waste MSW etc., in the cement kiln shall be chalked out and submitted.
vii. Control measures for fugitive emission from raw material storage, packaging section, transfer points, movement of trucks, loading and unloading shall be submitted.
viii. Proposed control measures for fugitive emission and run-off from stockyards shall be submitted.
ix. Action plan for rain water harvesting shall be furnished to the extent of 200 % of annual water consumption.
x. Action plan to control the NOx and SO_2 emissions from Kiln and power plant below the permissible levels shall be furnished.
xi. Approach road to the plant from State Highway shall be provided.
xii. Traffic assessment study shall be carried out in detail.
xiii. Baseline data collected from Dec 2019 to Feb 2020 can be used to prepare EIA report and the final EIA report should be submitted on (or) before 30/07/2021 failing which fresh public hearing has to be conducted.
xiv. Cumulative Impact assessment shall be carried out to include pollution from all four mines (Traffic and Mining activity).

31.6 Proposed Expansion of existing Pellet Plant (1.2 MTPA to 6.0 MTPA) keeping Iron Ore Beneficiation plant 1.5 MTPA, Producer Gas plant (75000 N.Cu.M/hr to 200000 N.Cu.M/hr) with addition of new Wet Grinding unit (4.5 MTPA), Sponge Iron plant (1.8 MTPA), Ferro Alloys Plant (0.036 MTPA) with Chrome briquette & Zigging plant , Steel Melting Shop (1.4 MTPA) with slag crushing unit, Rolling mill with pickling and Galvanizing line (3.5 MTPA), Wire Rod & Wire Drawing mill (1.0 MTPA) and CPP 245 MW (120 MW coal and Dolochar

Mix Based and 125 MW WHRB based)" by **M/s. Rashmi Udyog Private Limited** located at Village- Baghmundi, P.O-Garhsalboni, P.S- Jhargram, **District- Jhargram, West Bengal**. [Online Proposal No. IA/WB/IND/151940/2020; File No J- 11011/180/2012-IA(II)] – **Prescribing of Terms of Reference**– regarding.

31.6.1 M/s Rashmi Udyog Private Limited has made an application online vide proposal no IA/WB/IND/151940/2020 dated 17/02/2021 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 & nonferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

31.6.2 The project of M/s Rashmi Udyog Private Limited located in Village - Jitusole & Baghmuri, P.O-Garhsalboni, P.S- Jhargram, District- Jhargram, State- West Bengal for expansion of existing Pellet Plant (1.2 MTPA to 6.0 MTPA) keeping Iron Ore Beneficiation plant 1.5 MTPA, Producer Gas plant (75000 N.Cu.M/hr to 200000 N.Cu.M/hr) with addition of new Wet Grinding unit (4.5 MTPA), Sponge Iron plant (1.8 MTPA), Ferro Alloys Plant (0.036 MTPA) with Chrome briquette & Zigging plant , Steel Melting Shop (1.4 MTPA) with slag crushing unit, Rolling mill with pickling and Galvanizing line (3.5 MTPA), Wire Rod & Wire Drawing mill (1.0 MTPA) and CPP 245 MW (120 MW coal and Dolochar Mix Based and 125 MW WHRB based). It is proposed to manufacture steel from Pellet plant-Sponge Iron-SMS route.

31.6.3 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>56.653 ha [Private: 54.60 ha; Agriculture: 2.053 ha;]</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>No rehabilitation and resettlement is involved for the subject project.</td><td></td></tr>
<tr><td>iii.</td><td>Latitude and
Longitude of the project site</td><td>Latitude: $22^0$20'57.84" N to $22^0$21'50.10" N
Longitude: $7^0$01'02.80" E to $87^0$01'04.20" E</td><td></td></tr>
<tr><td>iv.</td><td>Elevation of the
project site</td><td>81 m AMSL</td><td></td></tr>
<tr><td>v.</td><td>Involvement of
Forest land if any.</td><td>No forest land involved.</td><td></td></tr>
<tr><td>vi.</td><td>Water body exists within the project site as well as study area</td><td>Project site: Nil
Study area
<table>
<tr><td>Water body</td><td>Distance</td></tr>
<tr><td>Subarnarekha river</td><td>~15.0 Km in SW</td></tr>
<tr><td>Kangsabati River</td><td>14.0 Km in NE</td></tr>
</table></td><td></td></tr>
<tr><td>vii.</td><td>Existence of ESZ / ESA /</td><td>Nil</td><td></td></tr>
</table>

S.No.	Particulars	Details	Remarks
	national park / wildlife sanctuary/biosphere reserve / tiger reserve / elephant reserve etc. if any within the study area		

31.6.4 The existing project was accorded environmental clearance vide F No. J-11011/180/2012-IA II (I) dated-22/06/2015 as amended on 04/10/2019 & 28/01/2020. Obtained Consent to Establish from West Bengal Pollution Control Board for 1.20 MTPA (2 X 0.6 MTPA) Pellet Plant, 1.5 MTPA I/O Beneficiation Plant & Producer Gas Plant -75000 N.Cu.M/hr vide NOC No-159435 dated 17/01/2020, 27/02/2020 & 16/10/2020. Consent to Operate for the unit was accorded by West Bengal Pollution Control Board vide CO NO- 131911 dated 20/01/2021. The validity of CTO is up to 30/11/2025.

31.6.5 Implementation status of the existing EC:

Sl. No.	Facilities	Production Capacity	As per EC dated	Implementation status as on 20/02/2021	Production as per CTO
1	I/O Beneficiation Plant	15,00,000 TPA	EC No- J-11011/180/2012-IA II(I), dated 22nd June , 2015, as amended on 4th – Oct 2019 & 28th Jan 2020.	CTO Obtained	15,00,000 TPA
2	Pellet Plant	12,00,000 TPA (2 x 6,00,000 TPA)			12,00,000 TPA (2 x 6,00,000 TPA)
3	Producer Gas Plant	75,000 Nm^3/hr (10 X 7,500 Nm^3/hr)			75,000 Nm^3/hr (10 X 7,500 Nm^3/hr)

31.6.6 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.	DRI	**	**	900 x 5 TPD	1.8 Million T.P.A	900 x 5 TPD	1.8 Million T.P.A
2.	Steel Making Facilities with matching LRF, CCM and oxygen optimized furnace	**	**	(30 T X 8 + 40 T X 2) IF + EAF (1 X 60 T)	1.8 Million T.P.A	(30 T X 8 + 40 T X 2) IF + EAF(1 X 60 T)	1.8 Million T.P.A
3.	Slag Crusher	**	**	4 x 25 TPH	100 TPH	4 x 25 TPH	100 TPH
4.	Oxygen Plant	**	**	2 x 200 TPD	400 TPD	2 x 200 TPD	400 TPD
5.	Ferro Alloy	**	**	3 x 9 MVA	36,000 TPA	3 x 9 MVA	36,000 TPA

Sl. No	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
6.	Jigging Plant	**	**	3 x 30 TPD	90 TPD	3 x 30 TPD	90 TPD
7.	Chrome Briquette Plant	**	**	1 x 20 TPH	20 TPH	1 x 20 TPH	20 TPH
8.	Rolling Mill with Pickling Line & Continuous Galvanising Line	**	**	**	0.35 Million T.P.A	**	0.35 Million T.P.A
9.	Wire Rod Mill and Wire drawing	**	**	**	1.4 Million TPA	**	1.4 Million TPA
10.	Pellet Plant	2 x 0.6 Million TPA	1.2 Million T.P.A	2 x 2.0 Million T.P.A	4.0 Million T.P.A	(2 x 1.0 + 2 x 2.0) Million TPA	6.0 Million TPA
	Enhancement of pellet plant capacity			2 x 0.6 Million TPA to 2 x 1.0 Million TPA	2.0 Million TPA		
11.	I/O Beneficiation	1 x 1.5 Million TPA	1.5 Million TPA	**	***	1 x 1.5 Million TPA	1.5 Million TPA
12.	Wet Grinding Unit	**	**	2 x 2.25 Million TPA	4.5 Million TPA	2 x 2.25 Million TPA	4.5 Million TPA
13.	Producer Gas Plant	10 x 7,500 Nm^3/hr	75,000 Nm^3/hr	10 x 12,500 Nm^3/hr	1,25,000 Nm^3/hr	(10 x 7,500 + 10 x 12,500) Nm^3/hr	2,00,000 Nm^3/hr
14.	Captive Power Plant	**	**	WHRB Based 125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW	245 MW	WHRB Based 125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW	245 MW

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

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for Expansion unit	Total		First Unloading Point (Km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
1	Iron Ore Fines	15,00,000	49,92,000	51,42,000	Applied for captive iron ore mines	270-300	---	Train up to Jhargram	10.5 KM	By Road SH-5

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for Expansion unit	Total		First Unloading Point (Km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
					Alternate source: Purchased from Barbil - Joda, Orissa			Public Siding		
2	Iron ore Lumps	---	1,00,000	1,00,000				Train up to PFT RML Siding or Nimpura Public Siding	22-30 KM	By Road NH-6
3	High graded Iron Ore	---	3,45,810	3,45,810						
4	Pig Iron	---	2,75,100	2,75,100	From other unit of group company	---	30-200	----	---	By Road NH-6
5	Non-coking coal	1,44,000	26,26,800	27,70,800	CCL, MCL & Imported Coal. Also, applied for captive Coal mines (Jagnnathpur-B, (Raniganj Coal field West Bengal), vesting order from MOC, Govt. India obtained.	300-500	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Jhargram Public Siding	10.5 KM	By Road SH-5
								By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by Train up to PFT RML Siding	30 KM	By Road NH-6
6	Coke	---	23,400	23,400	Imported, E-Auction	300	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Jhargram Public Siding	10.5 KM	By Road SH-5
								By vessel up to nearest	30 KM	By Road NH-6

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for Expansion unit	Total		First Unloading Point (Km)	Project site		Distance from first unloading point (Approx.)	(Mode of Transportation)
								port (Haldia / Paradeep / Vizag) and followed by Train up to PFT RML Siding		
7	Dolomite	---	1,23,130	1,23,130	From Birmitrapur, Orissa / Bilaspur, CG	270-350	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
8	Bentonite	40,000	80,000	1,20,000	From Gujarat, Rajasthan	1000	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
9	Limestone	26,000	2,09,060	2,35,060	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP	270-350	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
10	Manganese ore	---	93,600	93,600	From Balaghat, MP & Orissa	1000	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
11	Chromium Ore	---	79,200	79,200	Orissa, Jharkhand etc.	300	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5
12	Quartzite	---	9,000	9,000	From Belpahar Orissa / Bilaspur, Raipur CG	500		Train up to PFT RML Siding	30 KM	By Road NH-6
Total (TPA)		**93,17,100**								

31.6.8 The water requirement for the project is estimated as 7680 m^3 /day, out of which 5,000 m^3/day of fresh water requirement will be obtained from the Jhargram Municipality / Subernarekha River and the remaining requirement of 960 m^3/day will be met from the ground water & 1720 m^3/day from rain water harvesting reservoir. The permission for drawl of groundwater is obtained from State Water Investigation Directorate (SWID), West Bengal from bore well vide Permit no-007366, 007367, 007368, 007369, 007370 & 007371 dated: 13/03/2014.

31.6.9 The power requirement for the project is estimated as 320 MW, out of which 245 MW will be obtained from proposed 245 MW captive power plant and the remaining 245 MW power

will be obtained from WBSEDCL / open access. Further the management will have 10 x 720 KVA DG sets to meet the emergency power requirement.

31.6.10 The capital cost of the project is Rs 1,500 Crores and the capital cost for environmental protection measures is proposed as Rs 162.43 Crores (12.43 Crores for EC awarded & 150 Crores for proposed project). The employment generation from the proposed project / expansion is 1000 direct employment and 2000 indirect employment.

31.6.11 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

31.6.12 Name of the EIA consultant: M/s Kalyani Laboratories Pvt. Ltd. [S.No. 88, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021].

31.6.13 Proposed Terms of Reference (Baseline data collection period: **PRE-MONSOON (March to May -2021**).

Attributes		**Sampling**		**Remarks**
A. Air		No. of stations	Frequency	
a. Meteorological Data	Wind speed and direction, Rainfall, Relative humidity, Temperature, Humidity, Rainfall, Winds)	01	Hourly micro-meteorology data for three months	Nearest Regional Micrometeorological Centre Jhargram
b. AAQ Parameters	PM_{10} µg/m^3, $PM_{2.5}$ µg/m^3, Sulphur Dioxide (SO2) µg/m^3 Nitrogen Dioxide (NOx) µg/m^3 Carbon Monoxide mg/m^3, Lead (Pb) µg/m^3 Arsenic (As) ng/m^3 Nickel (Ni) ng/m^3 Ammonia (NH_3) µg/m^3 Benzo amino Pyrene Ozone	8 Locations Primary data/ Secondary data	Twice a week	• Will be setup based on 5 years data and wind rose of IMD. • Existing CAAQMS station data will be also included in the EIA report.
B. Noise	Noise Level (dB Leq)	8 Locations/ Primary data	hourly basis for a continuous period of 24	N1 – Plant Site N2 – Jitusole N3 – Shalboni N4 – Lodhasuli N5 – Labkush N6 – Nauria N7 – Dalkati N8 - Bagmuri
C. Water				
Surface water / Ground water quality parameters	As per IS 2296: 1982 / As per IS 10500: 2012	8 Locations/ Primary data / Secondary data	Once	SW1 – Plant Site SW2 – Jitusole SW3 – Labkush SW4 - Shalboni SW5 – Lodhasuli SW6 – Nauria SW7 – Ghritakham SW8 - Bagmuri
D. Land				
a. Soil Quality b. Land use		6 Locations/ Primary data/ Secondary data 10 Km Buffer Zone Secondary data	Once	S1 – Plant Site S2 – Jitusole S3 – Shalboni S4 – Lodhasuli S5 – Labkush S6 – Nauria S7 – Dalkati S8 - Bagmuri

Attributes		Sampling		Remarks
E. Biological a. Aquatic b. Terrestrial		Core and Buffer Zone Primary data / Secondary data	Once	1 – Plant Site 2- Jitusole 3 – Jhargram 4 – Lodhasuli 5- Labkush 6 – Chota Jamun 7 – Kundasol 8 - Jarul
F. Socio-economic parameters	Demographic structure Infrastructure resource base. Economic resource base. Cultural and aesthetic attributes, Health Education.	Core and Buffer Zone Primary data / Secondary data	Once	1 – Salboni 2 – Labhkush 3 – Nauria 4- Dalkati 5- Ladhasuli 6 – Bagmuri 7 - Jitusole

31.6.14 The proposal was earlier considered in 21st, 25th and 26th meeting of the Re-constituted EAC (Industry-I) as follows

Proposal No.	IA/WB/IND/151940/2020
Date of 1st consideration by EAC	30th July – 1st August, 2020
Date of site visit by Sub-committee	20/10/2020
Date of 2nd consideration by EAC	26-27th November, 2020 – PP did not attend the meeting
Date of 3rd consideration by EAC	16-17th December, 2020 – PP did not attend the meeting.

A. <u>EAC (Industry-I) held during 21st meeting of the Re-constituted EAC (Industry-I) held during 30th July – 1st August, 2020:</u>

Observations of the Committee (EAC held during 30th July – 1st August, 2020)

The Committee noted the following:

i. Plant layout is highly congested. The layout should include facilities around the boundary of the plant including entry and exit gates and also to engineering scale.

ii. Out of 180 acres of land that is required for the project, only 80 acres of land is in their possession and balance is yet to be acquired.

iii. 7665 KLD water would be sourced from municipality whereas the water can be drawn from Subarnarekha River.

iv. Besides, MoEF&CC and SEIAA has accorded following ECs to the Rashmi group companies in the vicinity of the proposed expansion project site.

v. There are 4 Industries of Rashmi Group within the vicinity of the proposed expansion project site manufacturing Steel and Cement. Instant expansion proposal does not consider integrating them for cumulative EIA study.

vi. There is no provision of railway siding. The group companies and this proposal would result in minimum 3000 to 5000 TPD material and product movement by road.

vii. Details regarding mode of inter-transfer movement of material between the group companies exists at the site has not been furnished.

viii. The Committee also taken cognizance of the following issues stated in the pubic representations dated 26/05/2020, 29/05/2020 and 6/6/2020 of Shri. Bijaya Kumar Mishra, Advocate:

- M/s. Rashmi Udyog Private Limited has commenced the construction of 2x0.6 MTPA pellet plant prior to grant of EC and CTE.
- M/s. Rashmi Udyog Private Limited has installed 1 MTPA pellet plant in place of 0.6 MTPA pellet plant without obtaining prior approvals.
- The group companies of M/s. Rashmi Group at District Jhargram are extracting 960 KLD of ground water without prior permission.
- Land records possessed by the companies may be called for as multiple ECs have been given by MoEF&CC for the same land (or) adjoining land.
- Project proponent has concealed the information regarding commencement of construction of pellet plant at the time of obtaining EC from MoEF&CC.

Recommendations of the Committee (EAC held during 30th July – 1st August, 2020)

In view of the foregoing and after deliberations, the Committee recommended for a site visit by a subcommittee to ascertain the factual status at the site before considering the instant expansion proposal for grant of ToR.

B. <u>EAC (Industry-I) held during 25th meeting of the Re-constituted EAC (Industry-I) held during 25-27th November, 2020.</u>

Observations of the Committee (EAC held during 25-27th November, 2020)

The Committee noted the following:

i. The committee accepted the recommendations of site visit report of the sub-committee.

ii. The committee decided to consider the proposal in the presence of PP.

Recommendations of the Committee (EAC held during 25-27th November, 2020)

After deliberations, the Committee recommended the following:

A. Proposal may be listed for consideration in the next EAC meeting for taking appropriate view on the instant proposal as requested by the proponent vide email dated 24/11/2020. Meanwhile, MoEF&CC may seek written response of project proponent on the recommendations of sub-committee with respect to M/s. Rashmi Udyog Private Limited.

B. The recommendations of sub-committee with respect to M/s. Rashmi Cement Limited may be forwarded to IA-Monitoring Cell for taking appropriate action as it pertains to the post project monitoring i.e., non-compliance of prescribed EC conditions.

C. <u>EAC (Industry-I) held during 26th meeting of the Re-constituted EAC (Industry-I) held during 16-17th December, 2020.</u>

Observations & Recommendations of the Committee (EAC held during 16-17th December, 2020)

The Committee felt that it would be better if the site inspection report is discussed in the presence of the PP and the consultant. Therefore, after deliberation, the Committee recommended to return the proposal in its present form in order to facilitate the PP to respond to various issues raised in the report of the sub-committee.

31.6.15 M/s Rashmi Udyog Private Limited has made an application online vide proposal no IA/WB/IND/151940/2020 dated 17/02/2021 along with the action taken report to the observations listed out in the site visit report of sub-committee.

31.6.16 The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below:

Written submissions during the course of meeting

31.6.17 PP has submitted written clarifications with respect to the unit configuration and capacity of existing and proposed project is given as below considering 350 annual working days:

Sl. No	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
1.	DRI	**	**	900 x 5 TPD	2.0 Million T.P.A	900 x 5 TPD	2.0 Million T.P.A
2.	Steel Making Facilities with matching LRF, CCM and oxygen optimized furnace	**	**	(30 T X 8 + 40 T X 2) IF + EAF (1 X 60 T)	1.8 Million T.P.A	(30 T X 8 + 40 T X 2) IF + EAF(1 X 60 T)	1.8 Million T.P.A
3.	Slag Crusher	**	**	4 x 25 TPH	100 TPH	4 x 25 TPH	100 TPH
4.	Oxygen Plant	**	**	2 x 200 TPD	400 TPD	2 x 200 TPD	400 TPD
5.	Ferro Alloy	**	**	3 x 9 MVA	36,000 TPA	3 x 9 MVA	36,000 TPA
6.	Jigging Plant	**	**	3 x 30 TPD	90 TPD	3 x 30 TPD	90 TPD
7.	Chrome Briquette Plant	**	**	1 x 20 TPH	20 TPH	1 x 20 TPH	20 TPH
8.	Rolling Mill with Pickling Line & Continuous Galvanising Line	**	**	**	0.35 Million T.P.A	**	0.35 Million T.P.A
9.	Wire Rod Mill and Wire drawing	**	**	**	1.4 Million TPA	**	1.4 Million TPA

Sl. No	Name	Existing Units		Proposed Units		Total (Existing + Proposed)	
		Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
10.	Pellet Plant	2 x 0.6 Million TPA	1.2 Million T.P.A	2 x 2.2Million T.P.A	4.4 Million T.P.A	(2 x 1.0 + 2 x 2.2) Million TPA	6.4 Million TPA
	Enhancement of pellet plant capacity			2 x 0.6 Million TPA to 2 x 1.0 Million TPA	2.0 Million TPA		
11.	Matching I/O Beneficiation	1 x 1.5 Million TPA	1.5 Million TPA	2 x 2.45 Million TPA	4.9 Million TPA	1x 1.5 + 2 x 2.45 Million TPA	6.4 Million TPA
12.	Producer Gas Plant	10 x 7,500 Nm^3/hr	75,000 Nm^3/hr	10 x 12,500 Nm^3/hr	1,25,000 Nm^3/hr	(10 x 7,500 + 10 x 12,500) Nm^3/hr	2,00,000 Nm^3/hr
13.	Captive Power Plant	**	**	WHRB Based 125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW	245 MW	WHRB Based 125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW	246 MW

Observations of the Committee

31.6.18 The Committee noted the following:

i. The action taken report submitted by the PP with respect to observations made during sub-committee site visit report have been deliberated upon and the committee satisfied with the same.

ii. Water requirement for the project is 7680 KLD of which 5000 KLD shall be obtained from Jhargram Municipality, 960 KLD from Ground water and remaining 1720 KLD from Rain water harvesting Reservoir of the PP. Permission from GW abstraction has been obtained in March 2014.

iii. Under the instant proposal two more CAAQMS shall be included and all these stations shall now be located as under-

a. Station 1- N
b. Station-2- SE
c. Station 3- SSW
d. Station 4- SW
e. Station 5- NE

iv. Plant drains shall terminate in large catch pits to trap and recover oil/tar and reuse it.

Recommendations of the Committee

31.6.19 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. Physical demarcation between M/s Rashmi Cement Limited and M/s Rashmi Udyog Private Limited shall be completed by 31st March 2021.

ii. Action plan for Green belt development covering 33 % of total plant area all along periphery of the plant with a density of 2500 trees per hectare shall be submitted.

iii. PP shall submit details of energy and water footprint details for the proposed configuration of Plant.

iv. Scheme to meet the total water requirement of the plant from Jhargram Municipality (River Subarnarekha) shall be furnished. Further, PP shall submit commitment regarding no usage of ground water for industrial purposes.

v. PP shall submit a detailed plan for construction of dedicated road corridor from the National Highway to the plant site for transportation of materials with respect to their existing and proposed plant.

vi. Cumulative impact assessment of existing as well as proposed units of Rashmi Cement Limited and Rashmi Udyog Private Limited shall be carried out.

vii. The action taken by the project proponent on each of the observations of sub-committee shall be verified by concerned Regional Office of MoEF&CC and report shall be submitted along with the certified compliance report.

viii. Credible document indicating change of land Use pattern of the additional land required for expansion from agricultural to industrial use from the Competent Authority shall be submitted.

ix. The gasifier should be equipped with closed loop circuit design, proper collection and treatment system shall be in place before commencement of production for tar and phenolic waste generated if any.

x. Action plan for 100 % solid waste utilization shall be furnished.

xi. Control measures for fugitive emission from raw material storage, packaging section, transfer points, movement of trucks, loading and unloading shall be submitted.

xii. Proposed control measures for fugitive emission and run-off from stockyards shall be submitted.

xiii. Action plan for rain water harvesting shall be furnished to the extent of 100 % of annual water consumption.

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. Under the instant proposal two more CAAQMS shall be included and all these stations shall now be located as under-

a. Station 1- N Direction
b. Station-2- SE Direction
c. Station 3- SSW Direction
d. Station 4- SW Direction
e. Station 5- NE Direction

31.7 Installation of 2 X 7 MTPA Greenfield Iron Ore Pellet Plant by **M/s. Essar Minmet Limited** located at Paradip, **Jagatsinghpur District, Odisha** [Online Proposal No. IA/OR/IND/198977/2021; File No. J-11011/38/2021-IA.II(I)] – **Prescribing of Terms of Reference** – regarding.

31.7.1 M/s. Essar Minmet Limited has made an application online vide proposal no IA/OR/IND/198977/2021 dated 19/02/2021 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) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

31.7.2 The project of M/s. Essar Minmet Limited located in Paradip, Kujanga Tehsil, Jagatsinghpur District, Odisha State is for setting up of a new iron ore Pellet Plant for production of 14 Million Tons Per Annum (MTPA).

31.7.3 Environmental site settings

S.No.	Particulars	Details
i)	Total land	40.49 ha – Industrial land of Paradip [Port Trust Govt. : 40.49 ha] Land use – Industrial land
ii)	Existence of habitation & involvement of R&R, if any	No habitation and hence no R&R
iii)	Latitude and Longitude of the project site	Lat : 20°17'01" N to 20°17'25" N Long: 86°37'54"E to 86°38'45"E
iv)	Elevation of the project site	1 to 2 m above MSL
v)	Involvement of Forest land if any	Nil
vi)	Water body exists within the project site as well as study area	Project site: No water body within the project site. Study area : Mahanadi river - 4.7 km in N Bay of Bengal – 5.0 km in S
vii)	Existence of ESZ/ESA/ national park/wildlife sanctuary/biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area	Nil

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

SN.	Name	Proposed Units	
		Configuration	Production, MTPA
1	Pellet Plant (Module-I and Module-II)	2 x 7 MTPA	14
2	Proportioning and mixing, green balling, induration drying, pre-heating,	-	Matching Capacity

SN.	Name	Proposed Units	
		Configuration	**Production, MTPA**
	firing, after firing and cooling and product screening		
3	Terminal facilities (slurry receiving, thickening and filtration) for iron ore slurry	-	Matching Capacity
4	Iron ore fines wet grinding	-	5

31.7.5 The details of the raw material requirement for the 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
1	Iron ore concentrate	14,294,000	Proposed captive beneficiation plant at Keonjhar district, Odisha, through slurry pipe line.	350	Slurry Pipeline
2	Bentonite	80,000	Procured from Gujarat	2000	Sea
3	Limestone	320,000	Imported from Middle East Countries (UAE, Oman)	3500	Sea
4	Dolomite	156,000			
5	Anthracite coal	202,000	Imported (Russia /Vietnam/ Indonesia/ Australia)	9000	Sea

31.7.6 The water requirement for the project is estimated as 385 m^3/hr which will be met by the recovered water after dewatering/filtration of iron ore concentrate slurry at pellet plant area, when beneficiation plant will be operational. 214 m^3/hr of fresh water requirement will be sourced from Taldanda Canal/Mahanadi River in the initial stage during standalone operation of single module of pellet plant for 7 MTPA capacity. The permission for drawl of surface water is obtained from Industrial Department, Govt. of Odisha vide Lr. No.162 dated 21/01/2021.

31.7.7 The power requirement for the project is estimated as 69 MW (avg) and 87 MW (max) which will be obtained from the State grid/ private power producer.

31.7.8 The capital cost of the project is Rs. 3347 crores and the capital cost for environmental protection measures is proposed as Rs. 105 crores. The employment generation from the proposed project is 1,349.

31.7.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

31.7.10 Name of the EIA consultant: M/s M. N. Dastur & Co (P) Limited [S.No. 165, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021]

31.7.11 Proposed Terms of Reference (Baseline data collection period: March to May 2021**)**.

Attributes	**Parameters**	**Sampling**		**Remarks**
		No. of stations	**Frequency**	
A. Air				
a. Meteorological parameters	temperature, relative humidity, cloud cover, rainfall, wind speed, wind direction	1	Continuous hourly recording for 90 days	-
b. AAQ parameters	PM_{10}, $PM_{2.5}$, SO_2, NOx, CO, O_3, NH_3, C_6H_6, BaP, Pb, As, and Ni	8	twice a week on 24 hrs basis for a total duration of 12 weeks	-
B. Noise	Leq for day time and night time	8	Once in a season	-
C. Water				
Surface water	Physico-chemical and biological covering 28/30 parameters	8	Once in a season	-
Ground water quality parameters	parameters as per IS: 10500	8	Once in a season	-
D. Land				
a. Soil quality	physicochemical, nutrients level and micro-biological characteristics	3	Once in a season	-
b. Land use	Based on recent times satellite imageries, Survey of India's OSM and ground validation	Study area of 10 km aerial coverage	Once in a season	-
E. Biological				
a. Aquatic	-	Study area of 10 km aerial coverage	Once in a season	-
b. Terrestrial	-			-
F. Socio-economic parameters	-	Study area of 10 km aerial coverage	Once in a season	-

31.7.12 The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

31.7.13 The Committee noted the following:

i. TOR for a green field 14 MTPA pellet plant at Paradeep Odisha. The project cost is 3583 Cr.
ii. 100 Acre land is allotted by Paradeep Port Trust in their Industrial Park.
iii. 385 m^3 /Hr water is required and the same shall be sourced from Taldanda Canal / Mahanadi River.
iv. A 4.5 km long conveyor is planned to carry pellet from the plant to the port for shipment. Conveyor belt is not included in the application for EC.
v. LDO/FO/LSHS shall be used as fuel for pellet plant.
vi. Iron Ore slurry shall be sourced through pipe line from Keonjhar area.
vii. Plant layout has been changed as discussed on 10th Feb, 2021 and the distance between polluting unit and the habitation is now around 200 m.

Recommendations of the Committee

31.7.14 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 achieve particulate matter from stacks emissions less than 30 mg/Nm^3 shall be furnished.
ii. PP will provide detailed action plan for green belt development in 33% of the total project area with a tree density of 2500 per hectare.
iii. Plan for use of LDO/LSHS as fuel for pellet plant shall be submitted. Producer Gas Plant is not permitted.
iv. Plan for use of water from iron ore slurry dewatering plant and Talanda Canal shall be furnished. No ground water shall be used for industrial purpose.
v. Action plan for 100 % solid waste utilization shall be furnished.
vi. Control measures for fugitive emission from raw material storage, packaging section, transfer points, movement of trucks, loading and unloading shall be submitted.
vii. Proposed control measures for fugitive emission and run-off from stockyards shall be submitted.
viii. Since the plant is located near to the coast, the air quality modeling shall include both the scenarios i.e., of water and air boundary shall be considered.

26th February, 2021

31.8 Expansion in Kraft Paper production capacity from 200 TPD (40 TPD agro residue pulp + 160 TPD waste paper) to 450 TPD (150 TPD agro residue pulp + 300 TPD waste paper) and cogeneration power plant (4.2 MW to 20 MW) within existing plant premises by **M/s Sainsons Paper Industries Ltd.** located at Plot no. 5, Village Bakhli, Tehsil Pehowa, **District Kurukshetra (Haryana)** [Online Proposal No. IA/HR/IND/186256/1999; File No. J-11011/64/2018-IA.II(I)] – **Environment Clearance**– regarding.

31.8.1 M/s. Sainsons Paper Industries Pvt. Ltd has made an online application vide proposal no. IA/HR/IND/186256/1999 dated 13th February, 2021 along with copy of EIA/EMP report and

Form-2 seeking Environment Clearance (EC) under provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 5(i) Pulp & paper industry excluding manufacturing of paper from waste under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

31.8.2 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
19/01/2018	28th meeting of EAC held on 12-14th March, 2018	Terms of Reference	27/03/2018

31.8.3 The project of M/s. Sainsons Paper Industries Pvt. Ltd located at Plot No. 5, Village Bakhli, Tehsil Pehowa, District Kurukshetra (Haryana) is for Expansion in Kraft Paper Production Capacity from 200 TPD (40 TPD Agro Residue Pulp + 160 TPD Waste Paper) to 450 TPD (150 TPD Agro Residue Pulp + 300 TPD Waste Paper) and Co-generation Power Plant (4.2 MW to 20 MW) within Existing Plant Premises.

31.8.4 Environmental Site Settings

S. No.	Particulars	Details	Remarks
i.	Total land	Total plant area is 16.2 ha which is industrial land.	Land use of the existing plant area is under industrial category.
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Total plant area is 16.2 ha which is totally under the possession of the company.	No additional land will be acquired
iii.	Existence of habitation & involvement of R&R, if any.	As this is expansion project and will be done within the existing premises; there is no existence of habitation & involvement of R&R	--
iv.	Latitude and Longitude of the project site.	Latitude: $29^0$59'50.71'' to $30^0$0'15.95'' N Longitude: $76^0$31'40.64'' to $76^0$32'3.20'' E	--
v.	Elevation of the project site	Elevation of the plant site is from 244 m to 248 m	--
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:** No natural water body is present within the plant site. **Study area:** There are 8 water bodies present within the study area. Name and its distance from the plant site is as follow:	--

S. No.	Particulars	Details	Remarks
		○ Bakhli minor (Adjacent in North) ○ Markanda Distributary (2.5 km in North Direction) ○ Saraswati Drain (2.5 km in SSE Direction) ○ Paharpur Minor (3.0 km in NW direction) ○ Saraswati River (6 km in SW Direction) ○ Saraswati Distributory (6.0 Km in South) ○ Markanda River (7 km in NW Direction) ○ Dangri Nadi (8.0 km in NNW Direction) Many agricultural minors are present in 10 km radius	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil	Bakhli RF (0.9 km in SSW), Saraswati Conservation Reserve (0.9 km in SW), Bir Barasuan RF (3.0 km in SSW), Helwa PF (3.5 km in SW) & Saraswati PF (4.0 km in WSW)

31.8.5 The existing project was accorded Consent to Establish (NOC) obtained from time to time from Haryana State Pollution Control Board (HSPCB). Consolidated Consent to Operate vide HSPCB vide letter no. HSPCB/Consent/: 313095820KURCTO3491733 dated 30.09.2020 for existing plant was accorded by Haryana State Pollution Control Board. The validity of CTO is from 01/10/2020 to 30/09/2021.

Reason for Not obtaining EC under the provisions of EIA Notification under the provisions of EIA Notification, 1994 and 2006:

The plant started its operations in 1993 on the basis of NOC before EIA notification, 1994 came into existence. In 1999, the company expanded its capacity from 25 to 80 TPD but at that time investment cost was only Rs. 2.2 crores. The cost for the project was less than Rs. 50 Crores thus, as per EIA notification, 1994; EC was not required for the project. Out of 80 TPD paper production 40 TPD was agro based and 40 TPD was waste paper/ ready pulp without bleaching. Thereafter, all the expansions done were in the waste paper/ ready pulp without bleaching only. And as per EIA notification dated 14th Sep., 2006, Activity 5(i) paper manufacturing from waste paper and ready pulp without bleaching does not require Environment Clearance from MoEF&CC, New Delhi. Since our project did not involve any bleaching thus, EC was not required for any expansions done for our project from 1993 to

2012. After obtaining NOC in the year 1999 for 80 TPD (40 TPD agro based & 40 TPD waste paper/ ready pulp without bleaching), no expansion has been done in the agro based paper manufacturing unit. All the expansions done from 25 to 200 TPD have been authorized by HSPCB and Consent to Establish as well as Consent to Operate has been obtained regularly.

31.8.6 Implementation status of the existing NOC:

S. No.	Facilities		Units	As per NOC dated 06th March, 2012	Implementation Status as on date	Production as per CTO
1.	Kraft Paper Machine		TPD	200	200	200
2.	Pulp Production	Agro residue pulp	TPD	40	40	40
		Waste paper based recycled pulp	TPD	160	160	160

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

S. No.	Particulars		Existing Capacity	Additional Capacity	Total Capacity after Expansion
1.	Kraft Paper (TPD)		200	250	450
2.	Pulp Production (TPD)	Agro residue pulp	40	110	150
		Waste paper based recycled pulp	160	140	300
3.	Co-generation Power plant (MW)		4.2	15.8	20

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

S. No.	Raw Material	Quantity Required			Source & Mode of Transportation	Distance from plant site
		Existing	Expansion	Total		
1.	**Raw Material (Metric Tons Per Day – MT/Day)**					
	Agro residues (Wheat Straw)	44	180	224	Nearby agriculture land, transported through Tractor /Trolley/ by road	70 km
	Paddy Straw	42	60	102	Nearby agriculture land, transported through Tractor/Trolley/ by road	25 km
	Waste paper	174	152	326	Through Trucks by Waste paper suppliers/ by road	50 km
2.	**Chemicals (MT per day)**					

S. No.	Raw Material	Quantity Required			Source & Mode of Transportation	Distance from plant site
		Existing	Expansion	Total		
	Caustic Soda	6.5	22.5	29	Nearby chemical suppliers by road	Up to 400 km
	Rosin	0.6	0.70	1.3		Up to 200 km
	Alum	16	18	34		70 km
3.	**Fuel (MT per day)**					
	Biomass (Paddy Straw)	240	400	640	Nearby agricultural land, transported through Tractor/Trolley / by road	25 km

31.8.9 After expansion water requirement for the project is estimated as 19000 m^3/day, out of which 2050 m^3/day of fresh water requirement will be obtained from the groundwater and the remaining requirement of 16950 m^3/day will be met from the recycled water. Application for permission of withdrawal of ground water (2050 KLPD) has already been submitted to CGWB vide application no. 21-4/1630/HR/IND/2018 dated 09th April, 2019. It has been recommended by CGWB and forwarded to CGWA, New Delhi for further clearance.

31.8.10 The power requirement for the project is estimated as 13.15 MW (Existing – 4.15 MW and additional – 9.00 MW), which will be meet from co-generation power plant (20 MW). Surplus will be sold to state power grid.

31.8.11 Baseline Environmental Studies:

Period	Summer Season (March to May, 2018)
AAQ parameters at 12 locations	PM2.5 - 24.8 to 52.4 μg/m^3 PM_{10} - 56.8 to 92.3 μg/m^3 SO_2 - 5.6 to 15.6 μg/m^3 NOx - 12.5 to 27.4 μg/m^3 CO - 0.52 to 0.94 mg/m^3
AAQ modelling (Incremental GLC)	PM_{10} – 0.60 μg/m^3 SO_2 - 1.04 μg/m^3 NOx - 2.20 μg/m^3
Ground water quality at 8 locations	pH: 7.5 to 8.11, Total Hardness: 140.02 to 305.45 mg/l, Chlorides: 19.85 to 72.54 mg/l, Fluoride: 0.46 to 0.72 mg/l. Heavy metals are within the limits.
Surface water quality at 3 locations	pH: 7.61 to 8.09; DO: 4.2 to 5.8 mg/l and BOD: 5.2 to 146.0 mg/l, COD from 16.5 to 571.2 mg/l
Noise levels	51.7 Leq dB (A) to 69.1 Leq dB (A) for day time and 40.6 Leq dB (A) to 60.9 Leq dB (A) for Night time
Traffic assessment study findings	Transportation of raw materials and finished is being / will be done by SH-6 and its road network is very good to bear the increased traffic load.
Flora and fauna	There are 4 Schedule - I fauna fall in the study area and Conservation Plan for Schedule - I species has been prepared and submitted for

	authentication by State Forest Department.

31.8.12 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 (TPA)	Mode of treatment / Disposal
Non-Hazardous Solid waste				
1.	ETP Sludge	ETP	2970	Burnt in boiler.
2.	Boiler Ash	Boiler	17160	Used as manure
3.	Soda ash	Chemical Recovery Plant	1500	Sold to sodium silicate & glass Industry
Hazardous Solid waste				
1	Used Oil	Plant maintenance	0.5 KL/Annum	Sold to CPCB Authorized recycler

31.8.13 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspaper "Punjab Kesari", Chandigarh edition dated 19th November, 2019
Date of Public Consultation	20th December, 2019
Venue	Plant site, Plot No. 5, Village Bakhli, Tehsil Pehowa, District Kurukshetra (Haryana)
Presiding Officer	• Dr. S.S. Phulia, I.A.S., Deputy Commissioner, Kurukshetra • Mr. Virendra Singh Punia (Regional Officer, HSPCB, Panchkula) • Mr. Nitin Mehta (Regional Officer, HSPCB, Ambala)
Major issues raised	Employment, Local village development, Power supply, Effluent treatment method, Health camps frequency to be increase, Road Safety measures

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

S. No.	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs. Lacs	Target date for implementation of action plan (Yr.)
1.	Activities to be done at Village Siana Saidan			
	Proper facilities for drinking water & Infrastructure	Upgrading medical lab equipment & Machinery and Ambulance in PHC	23	2023

S. No.	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs. Lacs	Target date for implementation of action plan (Yr.)
	facilities, Health Check-up, Greenbelt	Construction of toilets	4	2022
		Installation of Solar Lights	1	2021
		Distribution of saplings and tree guard in the village Hospital and schools	1	2021
		Road Safety - Barricades for road safety & Safety signs on the roads to prevent mishaps	1	2021
2	Activities to be done at Village Bakhali Khurd			
	Proper facilities for drinking water & Infrastructure facilities, Skill Development, Greenbelt	Repairing of Internal roads in Village	10	2022
		Skill development training of Youth	2	2022
		Construction of Drainage system	2	2022
		Construction of Community centre	6	2023
		Construction of toilets	4	2022
		Construction of Bore Well & water Tank	2	2022
		Installation of Solar Lights	1	2021
		Road Safety - Barricades for road safety & Safety signs on the roads to prevent mishaps	1	2021
3.	Activities to be done at Village Bakhali			
	Proper facilities for drinking water & Infrastructure facilities, Skill Development, Greenbelt	Installation of Solar Lights	1	2021
		Construction of Roof top rainwater harvesting system in School & Panchayat	3	2023
		Construction of Bore Well & water Tank	2	2022
		Distribution of furniture in the school (Table & Chair)	1	2022
		Construction of toilets	5	2022
		Distribution of saplings and tree guard in the village Hospital and schools	1	2021
		Construction of Drainage system	3	2023
		Road Safety - Barricades for road safety & Safety signs on the roads to prevent mishaps	1	2021

S. No.	Concerns raised during the Public Hearing	Physical activity and action plan	Tentative Budget, Rs. Lacs	Target date for implementation of action plan (Yr.)
4.	Activities to be done at Village Seonsar			
	Proper facilities for Drainage & Infrastructure facilities & Greenbelt	Construction of Drainage system	2	2022
		Installation of Solar Lights	1	2021
		Construction of toilets	1.5	2022
		Distribution of saplings and tree guard in the village Hospital and schools	0.5	2021
	Total		**80**	

31.8.14 The capital cost of the project is Rs. 80 Crores and the capital cost for environmental protection measures is proposed as Rs. 10.80 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 6.0 Crores. The employment generation from the expansion project is 50. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item		Capital Cost (in Crores)	Recurring Cost / annum (in Crores)
1	Air Pollution Control	ESP and stack	1.11	2.5
		Fugitive emission handling and management	0.25	0.5
2	Water Pollution Control	Up gradation of ETP	4.64	2.35
		Water conservation management	0.8	-
3	Solid waste management	Handling of fly ash	0.4	0.15
		Handling of ETP sludge	0.3	0.15
4	Environmental Monitoring and Management	Lab instrument	0.72	0.1
		Online monitoring of air and water	0.4	0.02
		Third party investment for monitoring	0.25	0.02
5	Greenbelt development	Plantation of trees to develop greenbelt within plant premises	0.10	0.01
6	Rainwater harvesting	Construction of rainwater harvesting	0.8	0.05

S. No.	Description of Item		Capital Cost (in Crores)	Recurring Cost / annum (in Crores)
		structures		
		Pond maintenance and recharge	0.23	0.15
7.	Addressal of Public Consultation concerns		0.80	--
Total			10.80	6.0

31.8.15 Greenbelt is being /will be developed in 5.35 ha which is about 33% of the total project area. A 5 to 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. Local and native species will be planted with a density of 2500 trees per hectare. At present, about 9150 saplings have been planted. With the proposed expansion the company will make the greenbelt denser and will plant more 4225 trees to achieve 2500 trees/ ha.

31.8.16 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

31.8.17 Name of the EIA consultant: M/s J.M. EnviroNet Pvt. Ltd. [S.No. 40, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021].

Certified compliance report from Regional Office:

31.8.18 The Status of compliance of CTO was obtained from Haryana State Pollution control board Regional Office, Ambala Region vide letter no HSPCB/AMB/2021/1985 dated 06.01.2021. According to the certified report, the unit is presently complying with the conditions in the granted CTO.

31.8.19 The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below.

Observations of the Committee

31.8.20 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. 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 Committee also deliberated upon the certified CTO compliance report of RO of HPCB and found it satisfactory.

Recommendations of the Committee

31.8.21 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 pertaining to pulp and paper industry based on project specific requirements.

A. Specific conditions

i. Particulate matter emissions from the stacks shall be less than 50 mg/Nm^3.
ii. 5.34 ha land shall be under green belt development and density of plantation in Green Belt shall be 2500 trees per ha. The greenbelt shall *inter alia* cover the entire periphery of the plant and completed in a time frame of one year from the date of issue of the environment clearance.
iii. Fresh water consumption shall be 2050 KLD. No additional water requirement shall be drawn for expansion project.
iv. Domestic waste water shall be treated in STP. Treated water shall be used for plantation upkeep.
v. Industrial waste water shall be treated and used in ferti-irrigation.
vi. Fly ash generated in the plant which is rich in potash shall be used as soil conditioner.
vii. Water consumption after expansion shall not exceed 4.6 KL per ton of paper.
viii. PP shall continue the current rain water harvesting program (220 % of water consumed).
ix. The project proponent shall implement the Site-Specific Conservation Plan & Wildlife Management Plan duly approved by the Chief Wildlife Warden. The implementation report shall be furnished along with the six-monthly compliance report to the Regional Office.
x. Prior statutory clearance if any required under the provisions of Wildlife (Protection) Act, 1972, with reference to Sarasvati Conservation Reserve shall be obtained from the concerned competent authority as it is located 0.9km from the project site.
xi. All plant roads shall be paved and Regular cleaning of roads using Industrial vacuum cleaner shall be done.

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 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. 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. Emissions shall be controlled from chemical recovery section through primary and secondary venturi scrubbers.

v. Pollution control system in the pulp and paper plant shall be provided as per the CREP Guidelines of CPCB.

vi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

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

viii. In case of treatment process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7thDecember 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 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.

iii. The project proponent shall provide the ETP to meet the standards prescribed in vide G.S.R. No. 546 (E) dated 30th August 2008 as amended from time to time and S.O. 3305 (E) dated 7thDecember 2015 (Thermal Power Plants) as amended from time to time.

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

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.

vi. Tyre washing facilities shall be provided at the entrance of the plant gate(s).

vii. Ensure that there is no black liquor spillage in the area of pulp mill.

viii. Water meters shall be provided at the inlet to all unit processes.

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. 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;
ii. Provide LED lights in their offices and residential areas.

VI. Waste management

i. Black Liquor shall be separately processed for recovery of energy and chemical in a Chemical Recovery Process.
ii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
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 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. Corporate Environment Responsibility

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.

31.9 Proposed change in configuration of 450 TPD paper plant by agro pulp (from 165 to 200 TPD), hard wood pulp (200 to 180 TPD), conventional chemical recovery plant (580 Tons black liquor solids per day to 730 Tons black liquor solids per day) and co-generation power

plant (from 28 MW to 38 MW) by **M/s. Kuantum Papers Limited** located at village Saila Khurd, Tehsil Garhshanker, **District Hoshiarpur, Punjab**. [Online Proposal No. IA/PB/IND/182645/2020; File No. J-11011/344/2008- IA. II(I)] **– Reconsideration for grant of Environment Clearance under section 7 (ii) of EIA Notification, 2006 – regarding**.

The project proponent vide email dated 25/02/2021 expressed their inability to participate in the meeting due to current state of Covid pandemic in Punjab and requested to defer their proposal.

In view of the foregoing, the Committee was of the considered view that presence of PP in the instant proposal is essential in order to take appropriate view on the proposal under consideration. After deliberations, the Committee recommended to return the proposal in present form and decided to consider the same as and when requested by the project proponent.

31.10 Proposed Greenfield project for Production of Iron Ore Beneficiation Plant - 15,00,000 TPA, Iron ore Pelletisation Plant – 12,00,000 TPA, Sponge Iron – 3,46,500 TPA, Billet – 4,30,000 TPA, Rolling Mill – 4,17,100 TPA, CPP – 75 MW, Producer Gas Plant – 30,000 Nm^3/hr by **M/s KAI International Private Limited** located at village - Kapanda, Tehsil – Lahunipara, **district Sundergarh, Odisha**. [Online Proposal No. IA/OR/IND/198770/2021; File No J-11011/59/2021-IA.II(I)] – **Prescribing of Terms of Reference**– regarding.

31.10.1 M/s. K A I International Private Limited has made an application online vide proposal no IA/OR/IND/198770/2021 dated 17th February 2021 along with the application in the prescribed format (Form-I), copy of the 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) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by Project proponent

31.10.2 The project of M/s KAI International Private Limited located in Kapanda Village, Lahunipara Tehsil, Sundergarh District, Odisha State is for setting up of a new proposed project for the production of Iron ore Beneficiation Plant - 15,00,000 TPA, Iron ore Pelletisation Plant – 12,00,000 TPA, Sponge Iron – 3,46,500 TPA, Billet – 4,30,000 TPA, Rolling Mill – 4,17,100 TPA, CPP – 75 MW, Producer Gas Plant – 30,000 Nm^3/hr.

31.10.3 Environmental site settings

S.No.	Particulars	Details
i.	Total land	47.3482 ha [Govt 47.3482ha]
ii.	Existence habitation & involvement of R&R, if any.	NA
iii.	Latitude and Longitude of the project site	21°53'19.79"N 84°52'25.68"E

iv.	Elevation of the the project site	218 m to 225 m from MSL
v.	Involvement of Forest land if any.	Nil
vi.	Waterbody exists within the project site as well as the study area	Study area **Waterbody** | **Distance** Brahmani River | 1.90 km West
vii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil

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

Sl. No	**Plant Facilities**	**Proposed Configuration**	**Capacity (TPA)**
1	**Iron Ore Beneficiation Plant**		
	Beneficiation	(1x1.5 MTPA)	**15,00,000 TPA**
2	**Iron Ore Pelletisation Plant**		
	Pellet	(2x0.6 MTPA)	**12,00,000 TPA**
3	**Direct Reduced Iron (DRI)**		
	DRI Kilns	(3x350 TPD)	**Sponge Iron 3,46,500 TPA**
4	**Steel Melting Shop (SMS)**		
	Induction Furnace	4 x 10 T 6 x 15 T	**Billets (Mild & Alloy Steel) 4,30,000 TPA**
5	**Rolling Mills**		
	TMT	2,33,000 TPA	**Roll Products 4,17,100 TPA**
	Structural	1,00,000 TPA	
	Flat Mill	84,100 TPA	
6	**Captive Power Plant (CPP)**		
	(WHRB)	24 MW (3x8 MW)	**Power 75 MW**
	(AFBC)	51 MW (1x20 MW, 1x10 MW, 1x21 MW)	
7	**Producer Gas Plant**	12x2500 Nm^3/hr	**30,000 Nm^3/hr**
8	**SMS Slag Crushing Unit**	60,150 TPA	**60,150 TPA**

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

Raw Material Required	Quantity in Tons per Annum	Source	Distance from site (Kms)	Mode of Transportation
Iron Ore Fines	15,00,000	Barbil, Koida mine, Joda mine	55 km, 12 km, 58 km	Road/ Rail
Domestic Coal	67,567	Talcher, Jharsuguda	106 km, 93 km	Road/ Rail
Imported Coal	1,61,858	Paradip	247 km	Road/ Rail
Char/ dolchar	1,55,000	Domestic	-	-
Bentonite	8970	Rourkela	46 km	Road
Lime Stone	13800	Khatkurbahal limestone mine	64 km	Road/ Rail
Ferro Alloys	4300	Local Market	40 km	Road
Dolomite	10,048	Sargipalli Mines	105 km	Road
Scrap	18,920	Domestic	-	-
Pig Iron	81,700	Local Market	45 km	Road
Sponge Iron (Purchase)	62,000	Rourkela	46 km	Road

31.10.6 The water requirement for the project is estimated as 43,968 m^3 /day, the water requirement will be obtained from the Brahmani river. Permission for drawl of surface water has been taken from The Industrial Promotion & Investment Corporation of Odisha Limited (IPICOL) & going to apply for permission for drawl of Groundwater drinking and sanitation.

31.10.7 The power requirement for the project is estimated as 75 MW, out of which 75 MW will be obtained from the plant.

31.10.8 The capital cost of the project is Rs 349 Crores and the capital cost for environmental protection measures is proposed as Rs 17.45 Crores. The employment generation from the proposed project is 1500.

31.10.9 The project proponent has reported that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

31.10.10 Name of the EIA consultant: M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar [S.No. 90, List of ACOs with their Certificate / Extension Letter no. Rev. 07, Feb. 10, 2021]

31.10.11 Proposed Terms of Reference (Baseline data collection period: **December, 2020–February, 2021)**.

Attributes	Parameter	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temperature, Humidity, Rainfall, Wind Speed, Wind Direction, Cloud Cover	1	Daily For Three Months	
b. AAQ parameters	Particulate Matter as PM10, Particulate Matter as PM2.5,	8	Twice in a Week for	

Attributes	Parameter	Sampling		Remarks
		No. of stations	Frequency	
	Sulphur dioxide as SO2, Oxide of Nitrogen as NOx, Carbon Monoxide as CO, Lead as Pb, Free Silica, Aluminium, Calcium, Sodium, Potassium, Magnesium, Lead, Vanadium, Iron, Manganese, Boron, Cadmium, Copper, Chromium, Hexavalent, Chromium, Nickel, Cobalt, Mercury, Arsenic, Sulfur, Phosphorus, Chloride		three Months	
B. Noise	Leq Day Time, Leq Night Time	8	Once in an Every Month (Day & Night) For Three Month	
C. **Water**				
Surface water/Groundwater quality parameters	**Ground Water:** Color, Odour, Taste, Turbidity, pH, Total Hardness (as CaCO3), Iron (as Fe), Chloride (as Cl), Residual Free Chlorine, Total Dissolved Solids as TDS, Calcium as Ca, Magnesium as Mg, Copper as Cu, Manganese as Mn, Sulphate as SO4, Nitrate as NO3, Fluoride as F, Phenolic Compounds as C6H5OH, Mercury as Hg, Cadmium as Cd, Selenium as Se, Arsenic as As, Cyanide as CN, Lead as Pb, Zinc as Zn, Total Chromium as Cr, Mineral Oil, Alkalinity, Aluminium as Al, Boron, Total Coliform as TC **Surface Water:** Color, pH, Dissolved Oxygen (min), Turbidity, Chloride (max), Total Dissolved Solids, Oil & Grease (max), BOD (3) days at 27°C (max), Chemical Oxygen Demand (COD), Arsenic as As, Lead as Pb, Cadmium as Cd (max), Hexa Chromium as Cr+6, Copper as Cu (max), Zinc as Zn(max), Selenium as Se (max), Cyanide as CN (max), Fluoride as F (max), Sulphates (SO4) (max), Phenolic Compounds as C6H5OH (max), Iron as Fe (max), Nitrate as NO3 (max), Anionic Detergents (max), Total Coliform	8	Once in a Three Month	

Attributes	Parameter	Sampling		Remarks
		No. of stations	Frequency	
D. **Land**				
a. Soil quality b. Land use	Conductivity, pH, Texture, Sand, Silt, Clay, Bulk, Density, Exchangeable Calcium, Exchangeable Sodium, Exchangeable Magnesium, Available Potassium, Available Phosphorus, Available Nitrogen, Organic Matter, Organic Carbon, Water Soluble Chloride, Water Soluble Sulphate, Sodium Absorption Residue, Aluminium, Iron, Manganese, Boron, Zinc, Chromium, Hexavalent Chromium, Nickel, Copper, Cadmium	8 10 km radius	Once in a Three Month	
E. **Biological**				
a. Aquatic b Terrestrial				Biological study including study of flora and fauna within 10km radius area have been conducted.
F. **Socio-economic parameters**				Need based survey and socio-economic survey(selected samples) have been carried out.

31.10.12 The proposal was considered by the EAC (Industry 1) in its 31st meeting of the Re-constituted EAC (Industry-I) held on 25th -26th February, 2021. The observations and recommendations of EAC is given as below:

Observations of the Committee

31.10.13 The Committee noted the following:

i. Form I is not complete as most of the details sought in the Form I are not provided.
ii. Pre-feasibility report found to be incomplete as the details relating to environment settings for the proposed site has not been furnished.
iii. As per the records submitted, no alternate site details were furnished whereas PP during presentation referred three alternative sites for the proposed unit without any review by established methods of site selection.
iv. There are lots of trees in the proposed site that would be cut as observed from KML file and site photographs submitted during the presentation.

v. Management of phenolic water and tar recovered from PGP has not been described.
vi. Kukia RF is only 400 m from plant.
vii. 10 Nos of IFs are proposed (4x10 and 6x 15T capacity) to produce 0.43 MTPA steel which are having high pollution potential. PP should explore feasibility of installation of higher configuration of Induction Furnace.

Recommendations of the Committee

31.10.14 In view of the aforesaid observations, the Committee after deliberations, recommended to return the proposal in its present form for addressing the shortcomings as listed above.

31.11 Proposed increase in production of Asbestos Sheets (from 1,08,000 to 1,44,000 TPA) of **M/s. U.P Asbestos Ltd** at village Mau, Taluka Mohanlalganj, **Dist. Lucknow, Uttar Pradesh** – [Proposal No.IA/UP/IND/142986/2020; File No. J-11011/567/2011-IAII(I)] - **Amendment in Environmental Clearance** – regarding.

31.11.1 M/s U.P Asbestos Ltd has made an online application vide proposal no. IA/UP/IND/142986/2020 dated 16/02/2021 in prescribed Form – 4 along with other documents to seek corrigendum in the Environmental Clearance (EC) amendment letter dated 14/07/2020.

31.11.2 The proposal cited above was originally considered in the EAC meeting held on 24-25th February, 2020 and the proceedings of the meeting is given as below:

I. The existing plant of M/s UP Asbestos Ltd was accorded EC vide letter F.No. J-11011/567/2011-IAII(I) dated 12.06.2015 for production of 144,000 TPA of Asbestos sheets.

II. Thereafter, the project proponent has proposed to expand the plant capacity for which ToR was prescribed to undertake detailed EIA study vide letter F.No. J-11011/567/2011-IAII(I) dated 11.02.2019.

III. Total area of the plant site is 46.687 acres. Now, the project proponent desires to lease out the unutilized land, admeasuring 86686 sqm (21.420 acres) within the plant site for warehousing. In this regard, application for EC amendment was made to amend the existing EC with respect to land use. It is to mention that the existing greenbelt area 38.9 % of total area, i.e 25.06 acres shall be remained unchanged.

Observations of the Committee

IV. The project proponent has proposed to lease out 20.65 acres of land, which is shown in three parts. The committee opined that a part of area measuring 3111 sqm of the proposed area to be leased out, located in between the plant premises, may interfere with plant operations, if given out on lease. Therefore, the committee asked the Project Proponent to revise the layout plan deleting the afore- mentioned area (3111 sqm) from the proposal.

V. The Project Proponent has submitted the revised layout plan demarcating the area of 83575 sqm (20.65 acres) on the western side of the existing plant without including the part measuring 3111 sqm earlier included in the leasing proposal.

VI. Warehousing project in the area of 20.65 acres require EC from SEIAA.

Recommendations of the Committee

VII. In view of the foregoing, the committee recommended the proposal for amendment in EC for change in land use, i.e., 20.65 acres of land is deleted from the total land of plant premises with the following conditions.

i. Project Proponent shall obtain Environmental Clearance for warehousing project in 20.65 acres from SEIAA, Uttar Pradesh.

ii. The existing Greenbelt area of 25.06 acres shall remain unchanged.

31.11.3 Based on the EAC recommendations, MoEF&CC issued a letter to EC amendment letter to the proponent on 14/07/2020. The instant proposal is for seeking factual corrections in the EC amendment letter as detailed below:

S.No.	Committee decision on 25/02/2020	As per letter dated 14.07.2020 of MoEF&CC	Amendment sought (To be read as)
1.	Total plant area is 46.687 acres. Out of 46.687 acres, 20.65 acres of area is earmarked for warehousing construction.	S.No. 11 i. Project Proponent shall obtain Environmental Clearance for warehousing project in 5.2019 ha (12.8539 acres) acres from SEIAA, Uttar Pradesh.	S.No. 11 i. Project Proponent shall obtain Environmental Clearance for warehousing project in 20.65 acres from SEIAA, Uttar Pradesh.
2.	Plant area – as per earlier EC of 2015.	S.No. 10 1. Mentioned as 0.966 acres	S.No. 10 1. Mentioned as 5.31 acres
3.	Separated area of 20.65 acres is on Western side of the existing plant	S.No. 7 Separated area of 20.65 acres is on Western side of the existing plant	S.No.7 Separated area of 20.65 acres is actually on the NE side of the existing plant

Observations of the Committee

31.11.4 The Committee noted that the corrections sought by the project proponent is of factual in nature.

Recommendations of the Committee

31.11.5 In view of the foregoing and after deliberations, the Committee recommended for the issuance of corrigendum to the EC amendment letter dated 14/07/2020 as per the table given at paragraph 31.11.3.

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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**

Re: DRAFT MOM OF THE 31 EAC HELD ON 25-26 FEB 2021

From : cnpandey@iitgn.ac.in Fri, Feb 26, 2021 08:43 PM

Subject : Re: DRAFT MOM OF THE 31 EAC HELD ON 25-26 FEB 2021 1 attachment

To : Sundar Ramanathan <r.sundar@nic.in>, sundarr2003@gmail.com, Sujit Kumar Bajpayee <sujit.baju@gov.in>

Dear Mr. Sundar,
Thank you very much for sending the MoM (31st EAC held on 25th and 26th February, 2021) so timely. It is indeed a great achievement to finalise the MoM on the day of the meeting itself. The efforts and hard work put in by you is highly appreciated.
I also appreciate the efforts put in by other committee members in finalising the minutes so timely.
I am enclosing herewith the approved MoM as the attached file. You are requested to take further necessary action regarding putting it on the website of the MoEFCC..
Thanking you once again,
With best wishes,
C. N. Pandey.
Chairman,
EAC, Industry I, MoEFCC, Govt of India.

On Fri, Feb 26, 2021 at 7:57 PM Sundar Ramanathan <r.sundar@nic.in> wrote:

> Sir,
>
> Reference is invited to the 31st EAC meting of Industry 1 sector held on 25-26th Feb, 2021.
>
> In this regard, draft minutes of the meeting have been prepared after incorporating the comments and suggestions of the EAC today and the same is enclosed herewith.
>
> Submitted for kind perusal, consideration and approval for uploading on PARIVESH please.
>
> With regards,
> Sundar Ramanathan
> Scientist 'E'

Final MOM 31 EAC 25 TO 26 FEB 2021.docx
287 KB