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

## SUMMARY RECORD OF THE TWENTY- NINTH (29<sup>TH</sup>) MEETING OF EXPERT APPRAISAL COMMITTEE HELD DURING 12<sup>TH</sup>TO 14<sup>TH</sup>MARCH2018FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The Twenty-ninth meeting of the Expert Appraisal Committee (EAC) for Industry-I Sector as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held during **12<sup>th</sup>to 14<sup>th</sup>March2018** in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

29.1 After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

## **29.2** Confirmation of the minutes of the 28<sup>th</sup>Meeting

The minutes of  $28^{th}$  meeting held during  $5^{th}$  to  $7^{th}$  February 2018 as circulated were confirmed.

### DATE: 12<sup>th</sup>March, 2018

**29.3** Enhancement of production (Bulk Ferro Alloys) capacity from 1,45,000 TPA to 1,60,000 TPA in the existing facility of Ferro-Chrome Plant at Balgopalpur Industrial Estate, Balasore, Orissa by **M/s Balasore Alloys Limited**- Expansion under clause 7(ii) of EIA Notification 2006 [Online Proposal No. IA/OR/IND/72887/2018; MOEF&CC File No. J-11011/245/2008-IA-II(I)] – Environmental Clearance under Clause 7(ii) of EIA Notification.

1.0 M/s Balasore Alloys Limitedhas made online application vide proposal no. IA/OR/IND/72887/2018 dated 20<sup>th</sup> Feb 2018 along with the copies of Form 1, Addendum EIA/EMP report, certified monitoring report by the regional office of MoEFCCseeking Environmental Clearance under clause 7(ii) of EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of EIA Notification, 2006 and the proposal is appraised at Central level.

### Details of the project as per the submissions of project proponent:

2.0 The project is situated in Balagopalpur Industrial Estate, Balasore,Odisha, equipped with  $(3 \times 18 \& 2 \times 15 \text{ MVA})$  84 MVA Submerged Arch furnace for production capacity 1,45,000 TPA. The project has obtained Environmental Clearance vide F. No.J-11011/245/2008-IA-II(I) dated 25<sup>th</sup> August, 2008 for the 1,45,000 TPA, but the project could not be started within initial six-year period due to recession in market. Hence it was extended up to 24<sup>th</sup> August2018 vide No: J-11011/245/2008 –IA.II(I) dated 3<sup>rd</sup> March, 2016. The Consent to establish and Consent to operate has been obtained from State Pollution Control Board, Odisha and commenced the operation.

3.0 Now, it is proposed to increase the capacity from 1,45,000 TPA to 1,60,000 TPA in the existing facility of Ferro-Chrome Plant through process optimization and obtain the prior environmental clearance as per provision under clause 7(ii) of EIA Notification 2006 and amendment thereof.

4.0 Based on the site visit on 07.12.2017, Regional Office, MoEF & CC issued the certified monitoring report vide No 101-456/EPE dated 12.12.2017. The observations made by Regional officer were complied and status submitted to Regional office. As per essential document sought (EDS) by MoEF & CC on 13.12.2017, report of examination to closure of each non-compliance obtained from Regional Office, MoEF & CC vide Lr. No. 101-456/EPE/496 dated 20.02.2018.

5.0 In the detailed design engineering was undertaken after grant of environmental clearance. Due to effective furnace operation, consistency in feed raw material quality, monitoring of process parameters, preventive maintenance, zero breakdown & automation of furnace operation by adopting various efficiency measures like Six Sigma & TPM, thereby the production quantity can be increased without any change in the existing facility and pollution load upto 163887.19TPA of Ferro Alloys' production. Factors affecting Production Enhancement are given in table below:

Sl	Details	Unit	Present Production	Proposed Production
1	Installed Capacity	MVA	84	84
2	Power Factor		0.82	0.87
3	Load factor		0.90	0.92
4	Estimated Power available	MW	61.992	67.234
5	Operating Load Factor		0.95	0.96
6	Power Consumption Per day	MWH	61.992×24×0.95=1 413.418	67.234×24×0.9 6=1549.071
7	Specific Power	MWH	3.47	3.45
8	Production/ day, (Power Consumption / Specific Power)	MT	1413.418/3.47=407. 325	1549.071/3.45 =449.006
9	Production per annum, MT	MT	407.325×365= 148673.625	449.006×365= 163887.19

6.0 Based on calculation it is estimated that the production of ferro-chrome can be achieved 1,63,887 TPA, hence for amendment of EC is been requested for the quantity of 1,60,000 TPA.

7.0 In the process of expansion due to optimization of process along with adequate pollution control equipments, the specific uses of raw materials have decreased with enhancement of production capacity. Thereby the solid waste quantity is also reduced as per the material balance. The only factor in addition to existing resources is power to a tune of 5 MW, which shall be procured from the Grid with due agreement. In this process no additional

land, raw material and manpower is required. However, existing manpower will be skilled to handle the pollution control equipments on day to day operation and maintenance. Further this will reduce the gaseous emission quantity, flue dust with cleaner gas exhaust & solid waste as slag with optimum reuse. It is also estimated that the GLC values is further reduced in comparison to the earlier estimation with all Environment Management Plan in place.

8.0 EIA Consultant: Global Tech Enviro Experts Pvt. Ltd, Bhubaneswar,Odisha, NABET Sl No 75.

## **Observations of the committee**

9.0 After detailed deliberations, the committee observed the instatant proposal can not be considered under clause 7(ii) of EIA Notification due to the following:

- i. The PP has proposed enhancement of capacity from 145000 TPA to 160000 TPA by process optimisation and operation efficiency of the existing facilities. However, on detailed review of the EIA report, it is observed that furnace configuration is proposed to be changed by installing a new furnace and new transformer.
- ii. There is 60% increase in the generation of the waste slag.

The EIA report is incomplete with regard to material requirement for the proposed expansion, scope of facility modification, impact assessment and mitigation plan.

## **Recommendations of the Committee:**

10.0 In view of the above, the Committee suggested that a fresh application seeking ToRs should be submitted to the Ministry. Therefore, the application is returned in the present form.

29.4 Sponge Iron Plant (1,20,000 TPA), Induction furnace with CCM & LRF(1,35,000 TPA, Rolling Mill (90,000 TPA), Power Plant through WHRB of 8 MW (after Dropping 10 MW) capacity, Power Plant (8 MW) of M/s Vikas Metaliks & Energy Limited located at Village Bartori, Tehsil Tilda, District Raipur, Chhattisgarh [Online Proposal No. IA/CG/IND/60150/2016; MoEFCC File No. J-11011/80/2008-IA.II(I)] – Environmental Clearance.

1.0 M/s VikasMetaliks& Energy Limitedmade online application vide proposal no. IA/CG/IND/60150/2016 dated 27th February 2018 along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of EIA Notification, 2006 and the proposal is appraised at Central level.

### Details of the project as per the submissions of project proponent:

2.0 The proposed project of Steel Plantof M/s**Vikas Metaliks & Energy Limited**located atBartori Village, Tilda Tehsil, Raipur District, Chhattisgarh was initially received in the Ministry on 4<sup>th</sup>November 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised in13<sup>th</sup> EAC (Industry-1) meeting held on 23<sup>rd</sup> to 24<sup>th</sup> November 2016 for prescribing ToR to the proposed project for undertaking detailed EIA

study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on 7<sup>th</sup> February, 2017 vide Lr. No. J-11011/80/2008- IA II (I).

3.0 The project proponent had obtained environmental clearancevide letter no. J-11011 / 80 / 2008-IA.II(I) dated 9<sup>th</sup> June 2009 at the same location for Pelletizing Unit of 6,00,000 TPA; Blast Furnace of 1,65,000 TPA; Sponge Iron unit of 2,55,000 TPA; Induction furnace with CCM & LRF of 1,80,000 TPA; Rolling Mill of 90,000 TPA; Ferro Alloy plant (Si-Mn) of 15,000 TPA, Power Plant (WHRB : 1 8 MW& FBC : 15 MW). However, the Project Proponent could not implement any of the Units for which Environmental Clearance has been accorded, due to sluggish market conditions and non-availability of Funds. EC validity of 7 years has been expired on 8<sup>th</sup> June 2016 and could not submit the request letter to MoEFCC for Extension of validity of EC before the expiry of validity period. Fresh application has been made following the process of environmental clearance de-novo. Therefore, the certificate of compliance of earlier EC is not applicable.

4.0 The proposed Mini Integrated Steel Plant envisages manufacturing of the following products:

S.No.	Unit		Product	Plant	Production	
				Configuration	Capacity	
1.	DRI Kilns		Sponge Iron	4 x 100 TPD	1,20,000 TPA	
2.	Induction furnace with		MS Billets /	3 x 15 MT	1,35,000 TPA	
	CCM & LRF		Ingots			
3.	Rolling Mill		TMT bars /	1 x 300 TPD	90,000 TPA	
			Structural Steels			
4.	Power	WHRB	Electricity	4 x 2 MW	8 MW	
	Generation FBC Boiler		Electricity		8 MW	
		(40 TPH)				

5.0 The total land acquired for the proposed project will be 34.26 acres (13.86 Ha). The land is industrial. Entire land is in possession of management. No additional land is proposed. No forest land involved. It has been reported that no natural water body / stream exists in the plant area. And any modification / diversion in the existing natural drainage pattern at any stage has not been proposed.

6.0 The topography of the area is flat and reported to lies between  $21^{\circ}29'24.78''$  to  $21^{\circ}29'51.69''$  North Latitude and  $81^{\circ}48'27.46''$  to  $81^{\circ}49'00.16''$  East longitude in Survey of india Topo sheet no. 64G/10 at an elevation of 297 AMSL. The ground water table reported to ranges between 2.75 to 15 m bgl below the land surface during the pre-monsoon season and 0.56 to 7.86 mbgl below the land surface during the post-monsoon season.

7.0 There are no notified National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve/ migratory routes for Birds with in 10 Km. radius of the plant. There are no Schedule-I fauna exists in the study area. The list of flora and fauna during study period in the study area is enclosed as Annexure – 8of EIA.

8.0 The components involved in the proposal inter alia include DRI Kiln based Sponge Iron Plant; Induction Furnace; Steel Melting Shop; Rolling Mill; WHRB; and FBC Boiler. Detailed

process provided in the EIA report and list of raw material for the proposed project project is given below

0					
Raw Material Quantity		Quantity	Sources	Mode of Transport	
For DRI Kilns (Sponge Iron)					
Iron of	re	1,92,000	NMDC, Bailadila/	By rail & road	
			Bachheli& Open Market	(through covered trucks)	
Coal	Indian	1,56,000	SECL, Chhattisgarh /	By rail & road	
			MCL Odisha	(through covered trucks)	
	Imported	1,11,000	Indonesia / South Africa	Through sea route, rail route	
			/ Australia	& by road	
Dolon	nite	6,600	Local area	By road	
				(through covered trucks)	
Limes	tone	9,000	Local area	By road	
				(through covered trucks)	
		For Induction	on Furnace (MS Billets / In	gots)	
Spong	e Iron	1,20,000	In plant generation	By Road	
				(through covered trucks)	
Scrap		35,600	Local area	By road	
				(through covered trucks)	
Ferro 2	Alloys	1,350	Local area	By road	
				(through covered trucks)	
		For Rolling M	lill (TMT bars & Structura	l Steel)	
M.S. I	I.S. Ingots / 99,000		In plant generation	through conveyors	
Steel b	oillets				
Furnae	ce oil	4950	HPCL/IOCL depots	Tankers	
Coal		4,500	SECL, C.G. /	By rail & road	
			MCL Odisha	(through covered trucks)	
Produ	cer gas	8000 m <sup>3</sup> /hr	In plant generation		
		For FBC Bo	iler [Power Generation 10	MW]	
Doloc	har	36,000	In plant generation	through covered conveyors	
Coal	Indian	50,400	SECL C.G. /	By rail & road	
			MCL Odisha	(through covered trucks)	
	Imported	35,840	Indonesia / South Africa	Through sea route / rail route	
			/ Australia	/ by road	

9.0 The targeted production capacity of the plant is Sponge Iron of 0.12 million TPA, TMT bars / Structural Steels of 0.09 million TPA & Power Generation of 16 MW. Imported Coal for would be supplied by M/s. Indermani Mineral (India) Pvt. Ltd. Imported Coal transportation will be done through Ship from Vizag port and from there to Tilda Railway Station by Rail. The coal unloaded at Tilda Railway Station will be transported to the project site by road through covered trucks, which is at 12 Kms. from the plant. Iron Ore, Iron Ore fines will be transported from Odisha by rail upto the Tilda railway station there by by Road in Covered Trucks.

10.0 Water requirement for the proposed project will be 450 KLD, which will be sourced from Ground Water.Water drawl permission from CGWA is under process. Air cooled condensers will be provided in Captive Power Plant to conserve the Water.

11.0 Total power required for the proposed plant operations will be 18.6 MW which will be met from the captive power plants of 16 MW & the balance 2.6 MW will be sourced from Grid.

12.0 Baseline Environmental Studies were conducted during winter season i.e. from 1<sup>st</sup> March to 31<sup>st</sup> May 2017. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated:  $PM_{2.5}$  (16.4 to 33.4 mg/m<sup>3</sup>),  $PM_{10}(28.9 \text{ to } 58.5 \ \mu\text{g/m}^3)$ , SO<sub>2</sub> (7.2 to 14.5 mg/m<sup>3</sup>), NOx (7.0 to 18.9 mg/m<sup>3</sup>) & CO (354 to 758 mg/m<sup>3</sup>). The results of the modeling study indicates that the maximum increase of GLC due to the proposed unimplemented units & Vehicular emissions will be 3.2  $\mu$ g/m<sup>3</sup> with respect to the PM<sub>10</sub>, 18.2  $\mu$ g/m<sup>3</sup> with respect to the SO<sub>2</sub>, 11.1  $\mu$ g/m<sup>3</sup> with respect to the NOx & 2.3  $\mu$ g/m<sup>3</sup> with respect to the CO.

13.0 Ground water quality has been monitored in 8 locations in the study area are analysed and the data submitted indicated pH: 7.4 to 8.1, Total Hardness: 176 to 324 mg/l, Chlorides: 186 to 320 mg/l, Fluoride: 0.28 to 0.51 mg/l. Heavy metals are within the limits.Surface water samples were analysed from 2 locations in the study area and analysed and the data submitted indicated pH: 7.2 to 7.9 and DO: 4.5 to 5.5 mg/l.

14.0 Noise levels are in the range of 39.25 dB(A) to 59.10 dB(A) during  $1^{st}$  March to  $31^{st}$  May 2017.

15.0 It has been reported that there are no people are residing in the project site. No R&R is involved.

S.No	Waste / By product	Quantity	Method of disposal
		(TPA)	
1.	Ash from DRI	21,600	Will be used in own brick manufacturing
			unit and remaining quantity will be given to
			other brick manufacturers.
2.	DoloChar	36,000	Will be utilized in FBC boiler as fuel
3.	Wet scrapper sludge	54,540	Will be given to other brick manufacturers.
4.	Kiln Accretion Slag	12,720	Will be used in road construction
5.	Slag from SMS	13,500	Slag will be crushed and after recovery of
	_		iron, it will be used for road construction.
6.	Mill Scale from Rolling	4,500	Will be reused in SMS
	Mill		
7.	Ash from Power Plant	22,680	Will be given to Cement Plants & Brick
	(with Indian coal)		manufacturers.
8.	Ash from Power Plant	5,376	Will be given to Cement Plants & Brick
	(with Imported coal)		manufacturers.
9.	Ash from Power Plant	36,180	Will be given to Cement Plants & Brick
	(with Indian coal +		manufacturers.
	Dolochar)		
10.	Ash from Power Plant	25,056	Will be given to Cement Plants & Brick
	(with Imported coal +		manufacturers.
	Dolochar)		

16.0 It has been reported that the following Solid wastes will be generated due to the project which will stored in storage yard above the ground level. Fly ash will be stored in Silo.

17.0 It has been reported that few Brick manufacturing units have given Expression of Interest letters for utilize the Fly ash generated from the proposed project. It has been reported that an area of 4.6 Hectares (11.3 Acres) will be developed as green belt out of total plant area 13.86 Ha. (34.26 acres) toattenuate the noise levels and arrest the dust generated due to the project development activities.

18.0 It has been reported that the Consent to Establish is yet to be obtained after receiving Environment Clearance from the Ministry.

19.0 Public Hearing of the project was held on 27<sup>th</sup>November 2017at project site under thechairmanship of Shri. Q.A. Khan (Upper Collector, Raipur) for production of 0.12 million TPA of Sponge Iron, 0.09 million TPA of TMT bars / Structural Steels & Power Generation of 16 MW. The issues raised during public hearing are*inter alia*, include crop damage; control of air pollution; water pollution; plantation; employment; ESC/ CSR. The Statement of main issues raised by the public and response of the project proponent with action plan is as given below.

Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring
Raised the issue of crop damage. He said that 90% of crop is being damaged in theSiltara area. He Further said that an agreement should be made with the company that he will control the pollution	<ul> <li>In the proposed project following environment protection measures will be provided for duly complying with norms stipulated by MOEF&amp;CC / CECB:</li> <li>ESP will be provided to DRI Kilns to bring down the particulate emission to less than 50 mg/Nm<sup>3</sup>.</li> <li>ESP will be provided to Power plant to bring down the particulate emission to less than 30 mg/Nm<sup>3</sup>.</li> <li>Fume Extraction &amp; Cleaning system with bagfilterswill be provided to SMS and Reheating Furnace to bring down the particulate matter emission to less than 50 mg/Nm<sup>3</sup>.</li> <li>All conveyor will be covered with GI sheets to control the dust emission.</li> <li>Net resultant Ground level concentrations during operation of the plant after superimposing the incremental</li> </ul>	Implemented parallel with implementati on of the plant	Rs. 25 Crores will be earmarked for Environmental protection measures for project	Rs. 100 lacs / Annum

Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	<ul> <li>concentrations over the maximum baseline</li> <li>concentrations are well within the National Ambient Air Quality Standards.</li> <li>Zero liquid effluent discharge will be implemented in the proposed project.</li> <li>Greenbelt will be developed in 11.3 acres of land which will further mitigate the emissions.</li> <li>All these environmental protection systems will be installed and operated to comply with the norms.</li> <li>Hence there will not be any significant impact on crop yield</li> </ul>			
He raised the issue of employment, he said that localpeople should be given priority in employment.	Priority for employment will be given to the land- givers and local youth based on their qualification & experience and the requirement for a particular vacancy.			
He also said that today public hearing should be adjourned as no proper information has been given to people for public hearing.	Public Hearing notification was given by Chhattisgarh Environment Conservation Board (CECB) was published in "Dainik Bhaskar" and "Hindustan Times"on 25/10/2017.			
and for proper measures should be taken to control the pollution and Plantation should been done.	<ul> <li>In the proposed project following environment protection measures will be provided for duly complying with norms stipulated by MOEF&amp;CC / CECB:</li> <li>ESP will be provided to DRI Kilns to bring down the particulate emission to less than 50 mg/Nm<sup>3</sup>.</li> <li>ESP will be provided to Power plant to</li> </ul>	Implemented parallel with implementati on of the plant	Rs. 25 Crores will be earmarked for Environmental protection measures for project	Rs. 100 lacs / Annum

Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
Issue raised	<ul> <li>Management Response</li> <li>bring down the particulate emission to less than 30 mg/Nm<sup>3</sup>.</li> <li>Fume Extraction &amp; Cleaning system with bagfilterswill be provided to SMS and Reheating Furnace to bring down the particulate matter emission to less than 50 mg/Nm<sup>3</sup>.</li> <li>All conveyor will be covered with GI sheets to control the dust emission.</li> <li>Net resultant Ground level concentrations during operation of the plant after superimposing the incremental concentrations over the maximum baseline</li> </ul>	Time schedule	Budgetary allocation	Recurring cost
	<ul> <li>baseline</li> <li>concentrations are</li> <li>well within the</li> <li>National Ambient Air</li> <li>Quality Standards.</li> <li>Zero liquid effluent</li> <li>discharge will be</li> <li>implemented in the</li> <li>proposed project.</li> <li>Greenbelt will be</li> <li>developed in 11.3</li> <li>acres of land which</li> <li>will further mitigate</li> <li>the emissions.</li> <li>All these</li> <li>environmental</li> <li>protection systems</li> <li>will be installed and</li> <li>operated to comply</li> </ul>			
He said that the water pollution be controlled and the proper measures should be taken for this.	<ul> <li>with the norms.</li> <li>There will not be any effluent generation from the DRI plant, SMS &amp; Rolling Mill as closed-circuit cooling system will be followed.</li> <li>The effluent generated will be in the form of Cooling Tower blowdown.</li> </ul>	Implemented parallel with implementati on of the plant	Rs. 25 Crores will be earmarked for Environmental protection measures for project	Rs. 100 lacs / Annum

Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	<ul> <li>Boiler blow down, D.M. Plant regeneration water and sanitary water.</li> <li>Effluent from power plant will be treated and after ensuring compliance with SPCB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt development.</li> <li>Sanitary waste water will be treated in septic tank followed by sub-surface dispersion trench.</li> <li>Zero liquid discharge will be followed in the proposed project.</li> </ul>			
He also said that a school & hospital should be open in the village	Will be provided under the Enterprise Social Commitment (ESC) and budget for the same has been allocated.	7 Years	Rs. 3.2 Crores towards ESC	
He advised that 15 feet wide road should be provided closed to Rly. Lines in the industrial land of the Company for the villager's	• Management has agreed for the same and will be carried out under ESC program	7 Years	Rs. 3.2 Crores towards ESC	
He said that Priority willbe given to the land sellers in employment	• Priority for employment will be given to the land-givers and local youth based on their qualification & experience and the requirement for a particular vacancy.			
Further he said that the details of the Project Cost and works to be done by the company under CSR Head should be disclosed.	<ul> <li>Project cost for the proposed project is Rs.125 Crores</li> <li>Activities to be carried out under the ESC program are listed in Chapter 8 of EIA report.</li> </ul>	7 Years	Rs. 3.2 Crores towards ESC	

20.0 An amount of Rs.3.2 Crores (2.5 % of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

Sl.	Major Activity Heads	Years (Rs. In Crores)						Total	
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	Expend iture

									(Rs. In Crores)
1	Community & Infrastructure Development Programmes (construction toilets in villages which are not covered under swachh Bharat, laying of village road, construction of over- head tank.)	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.80
2	<ul> <li>A Community Centre will be established in the Bartori village which will consist of the following: <ol> <li>Full fledged medical centre with basic equipments</li> <li>Vocational Training Institute with latest tools, machinery &amp; softwares etc. for making them Industry ready.</li> </ol> </li> <li>Workshop centre with latest tailoring machines for training women (like tailoring, stitching etc.)</li> <li>Computer / IT Training Centre for improving computer knowledge and making Industry ready.</li> </ul>	0.3	0.3	0.3	0.3	0.3	0.2	0.2	1.90
3	Education and Scholarship Programmes (construction of class rooms in schools, providing computers in class rooms, development of library facility)	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.40
4	RWH in nearby villages			0.05		0.05			0.10
	Grand Tota	al - @ 2	.5% of	Total P	roject C	Cost			3.20

21.0 The capital cost of the project is Rs.125 Croresand the capital cost for environmental protection measures is proposed as Rs. 25 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 100 Lakhs /annum. The employment generation is 200 people during operation of the proposed project and 500 people during construction of the proposed units. The details of capital cost for environmental protection

measures and annual recurring cost towards the environmental protection measures is as follows:

S.No	Item	Capital Cost	Recurring Cost
		(Rs.in	/ Annum
		Crores)	(Rs.in Lacs)
1.	Air Emission Management	20.0	65.0
	• ESPs		
	• Fume extraction systems with Bag		
	filters		
	• Dust Extraction systems with Bag		
	filters		
	Chimneys		
	Water Sprinklers		
	Environment Monitoring		
2.	Wastewater Management	1.00	5.0
	• ETP		
	• Settling ponds		
	Garland drains		
	Monitoring		
3.	Solid waste Management	3.0	20.0
	Ash handling system		
	• Construction of Pucca Platform for		
	storage		
	• Hazardous & Municipal solid waste		
	storage		
4.	Greenbelt development, Land scaping Noise	0.50	4.0
	Management		
5.	Occupational Health & Safety	0.50	6.0
TOT	AL	25.0	100.0

22.0 Greenbelt will be developed in 4.6 Hectares (11.3 Acres) which is about 33% of the total acquired area. Greenbelt width varying from 5 to 45 m will be developed all around the plant 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. Total of 6,900 saplings will be planted and nurtured in 4.6 hectares with in 1 year after commencement of production.

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

24.0 EIA Consultant: Pioneer Enviro Laboratories & Consultants Pvt. Ltd., Hyderabad

# Recommendations of the committee: --

25.0 After detailed deliberations, the committee sought following information for further consideration of the proposal:

- i. The project land comprises non-agricultural land and agricultural land which is yet to be converted into Non-agricultural land. The total land area breakup into agricultural and non-agricultural along with their respective khasra numbers.
- ii. Stack heights to be revised for 1% sulphur content in the coal.
- iii. Budget allocation towards Environmental Monitoring should be revised along with the details of CEEMS, calibration frequencies.
- iv. Accidental release of pollutants shall be considered for preparation of DMP/ERP.
- v. ESC details to be furnished based on SIA and Public consultation. The time period of completion of ESC shall be inline with time schedule for project completion.
- vi. EIA report shall be revised as per the Annexure-III of EIA Notification, 2006.
- vii. The Corporate Environment Policy should clearly state the reporting mechanism to the board of directors immediately in case of any non-compliances/deviations/violations of Environmental Clearance conditions.
- viii. Ground water withdrawl permission for the proposed quantity
- 29.5 Expansion of Ductile Iron Pipe Plant (2,00,000 TPA To 5,50,000 TPA) by M/s Rashmi MetaliksLimited, located at Village Gokulpur, Post Office Shyamraipur, District PaschmiMednipur, West Bengal [Online proposal No. IA/WB/IND/60075/2016; MoEFCC File No. J-11011/237/2016-IA.II(I)] Further consideration based on ADS reply for Environmental Clearance.

1.0 M/s Rashmi Metaliks Limited madeonline application vide proposal no. IA/WB/IND/60075/2016, dated 11<sup>th</sup> January 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level as Category "A".

# Details of the project as per the submissions of the project proponent:

2.0 The proposed expansion of Ductile Iron Pipe Plant (2,00,000 TPA to 5,50,000 TPA) of **M/s Rashmi Metaliks Limited**, is located at Village Gokulpur, Post Office Shyamraipur, District Paschmi Mednipur, West Bengal was initially received in the Ministry on 31<sup>st</sup> October, 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 13<sup>th</sup>meeting held on 24<sup>th</sup> November, 2016 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 31<sup>st</sup> January, 2017 vide Ref. File No J-11011/237/2016-IA.II.(I).

3.0 The project of **M/s Rashmi Metaliks Limited**, is located at Village Gokulpur, Post Office Shyamraipur, District Paschim Mednipur, West Bengalis for expansion of its existing Ductile Iron Pipe Plant from 0.2 to 0.55 million tons per annum (million TPA). The existing

project was accorded environmental clearance vide Memo No. EN/2567/T-II-1/047/2009 dated 9-10-2009 from Department of Environment, West Bengal & Memo No.962/ EN/T-II-1/047/2009 from SEIAA, West Bengal dated 17.04.2015. The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneshwar vide Lr. No. 110-238/EPE/118 dated 11<sup>th</sup> January, 2018. The regional officer reported certain non-compliances such as irregular submission of six monthly reports; safety measures not up to the mark; storage of raw material in open space, poor housekeeping; non-paving of internal roads; no full-fledged ETP; non-submission of expenditure on CSR details; etc. The proposed expansion of Ductile Iron Pipe Plant and existing facilities are as given below:

Name of the	Existing	As per EC	Proposed Expansion		Total	
Units	_				(Existing +	
					Proposed)	
	Capacity	Production	Capacity	Production	Production	
Mini Blast	1x215 m <sup>3</sup>	1,80,000	-	-	1,80,000 TPA	
Furnace		TPA				
Sinter	$2x 25 m^2 +$	10,90,000	-	-	10,90,000 TPA	
Plant *	$1 x70 m^2$	TPA				
Pig Casting	600 TPD	600 TPD	-	-	600 TPD	
Machine						
SMS *	4 x 40 T	5,00,000	-	-	5,00,000 TPA	
	EAF / LRF	TPA				
Pellet Plant	9,00,000	9,00,000	-	-	9,00,000 TPA	
	TPA	TPA				
Ductile Iron	2,00,000	2,00,000	3,50,000	3,50,000	5,50,000 TPA	
Pipe Plant	TPA	TPA	TPA	TPA		
Oxygen	60 TPD	60 TPD	-	-	60 TPD	
Plant *						
Lime	1200 TPD	1200 TPD	-	-	1200 TPD	
Calcination						
Plant						
Rolling	3,65,200	3,65,200	-	-	3,65,200 TPA	
Mill *	TPA	TPA				
Coal Gasifier	6000	6000	-	-	6000 Nm <sup>3</sup> /hr	
(Stand By)	Nm <sup>3</sup> /hr	Nm <sup>3</sup> /hr				

4.0 The total land of M/s Rashmi Metaliks Limited is 58.27 Hectares (144 acres). The existing Ductile Iron Pipe Plant is located on 6.07 Hectares (15 acres) of land and expansion of DI Pipe Plant will take place within the RML premises for which 4.05 Hectares (10 acres) of land will be needed within the 58.27 Hectares of land. No additional land is required for the proposed expansion project. The land is industrial in nature. No forest land involved. The entire land has been acquired for the project. The river Kangsavati passes at a distance of 4.5 km from the project site. Modification / diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the area is flat and reported to lies between Latitude  $22^{\circ}21^{\circ}28.57$ "N to  $22^{\circ}22^{\circ}0.88$ "N &Longitude -  $87^{\circ}17^{\circ}12.15$ "E to  $87^{\circ}17^{\circ}55.48$ "E in Survey of India topo sheet No. 73 N/7 at an elevation of 33.5 m AMSL. The depth to water as measured in the open wells is between 11 and 12 feet below the land surface. The water occurring in deeper zones is under

pressure and is reported usually to rise to within 25 to 30 feet below the land surface. The total thickness of the aquifer in the study area varies from 3.1 to 17.1 m.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the Chapter-3.0, Section-3.12 reporting presence of flora and fauna in the study area.

7.0 Ductile Irons Pipes manufacturing process inter alia include Molten Hot Metal preparation and Chemistry correction; Magnesium treatment; Centrifugal Casting; Core Making; Mold Maintenance; Heat Treatment by Annealing Furnace; Zinc Coating; Hydraulic Pressure Testing; Cement Motor Lining; Bitumen Coating; and Finishing. A ductile iron pipe is produced with centrifugal casting method. The molten ductile iron is poured into a rapidly spinning water-cooled mould and centrifugal force results in an even spread of iron around the circumference.

Sr.	Name of the Raw	Source (TPA)	Mode of	Estimated	
No.	Materials		Transportation	Quantity	
			-	(TPA)	
1	Pig Iron/ Hot Metal	Rashmi Metaliks Ltd.,	Through Crane/	3,75,000	
		Kharagpur; Orissa	conveying		
		Metaliks Pvt. Ltd.,	System		
		Kharagpur			
2	Mold Powder	Local Market	Road	949	
3	Refractory (WH-	Local Market	Road	2065	
	A+K)				
4	Ferro Silicon	Rashmi Cement Limited,	Road	1050	
		Jhargram			
5	Inoculants	Local Market	Road	336	
6	Magnesium	Local Market	Road	595	
7	Slag Coagulant	Local Market	Road	485	
8	Zinc	Local Market	Road	662	
9	Runner Coat	Local Market	Road	1789	
10	Bitumen/ Epoxy	WRAS* Approved	Rail/ Road	1472 KL	
	Paint	Vendor			

8.0 The details of Raw materials required along with estimated quantity, sourced from and mode of transport is as given below:

9.0	The solid	waste	generated	along	with	existing	and	proposed	quantity	and	disposal
scheme	e as follows	s:									

Sl	Particulars	Existing	Proposed	Total	Disposal Scheme
		Quantity	Quantity	Quantity	
		in TPA	in TPA	in TPA	
1	Core Sand & Slag	5429	10500	15929	Used for land filling
2	Cement Slurry	572	7324	7896	Sold to Brick Manufacturer
3	From APC	83	117	200	Used in sinter plant
	Devices –Mg &				
	Zn Dust				

4	Scrap	Variable	-	-	Used in the process

10.0 The daily make up water requirement for the entire existing plant is 1065 m<sup>3</sup>/day and additional water requirement for the proposed expansion project is about 830 m<sup>3</sup>/day. Thus, the total water requirement will be 1895 m<sup>3</sup>/day. The raw water will be sourced from Kangsabati River and bore wells. The permission for drawl of groundwater / surface water is obtained from concerned authority.

11.0 The existing power requirement of the entire project is 30 MW and an additional power of 10 MW will be required for its DIP expansion project. Power will be sourced from WBSEDCL supply system & Captive Power Plant.

12.0 Baseline Environmental Studies were conducted during summer season i.e. from March, 2017 to May, 2017. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated: PM10 (70.8  $\mu$ g/m<sup>3</sup> to  $\mu$ g/m<sup>3</sup> to 82.8  $\mu$ g/m<sup>3</sup>  $\mu$ g/m<sup>3</sup>), PM<sub>2.5</sub> (29.8  $\mu$ g/m<sup>3</sup> to 32.2  $\mu$ g/m<sup>3</sup>), SO2 (7.5 to 14.6  $\mu$ g/m<sup>3</sup>) and NOx (16.4 to 27.0  $\mu$ g/m<sup>3</sup>). The results of the modeling study indicated that the maximum increase of GLC for the proposed project is 4.04  $\mu$ g/m<sup>3</sup> (NE direction) with respect to PM.

13.0 Ground water quality has been monitored in 9 locations in the study area and analyzed. pH: 6.9 to7.6, Total Hardness: 192 to 219 mg/l, Chlorides: 65 to 90 mg/l, Fluoride: 0.28 to 0.49 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 10 locations – 2 Kangsabati river water samples and 8 pond water samples. For Kangsabati River water, pH: 7.1 to 7.3; DO: 6.9 to 7.1 mg/l and BOD: 3 mg/l. For 8 pond water samples, pH: 6.9 to 7.8; DO: 5.9 to 6.6 mg/l and BOD: 4 to 8 mg/l.

14.0 Noise levels are in the range of 54.7 - 71.6 dB(A) for day time and 44.1 - 59.2 dB(A) for night time.

15.0 No R&R is involved.

16.0 It has been reported that a total of 17941 TPA of waste will be generated due to the project, out of which 10500 will be used for land filling, 7324 TPA will be sold to the brick manufacturar, 117 TPA will be used in Sinter Plant. The proposed DIP project shall be installed within the existing plant occupying total land area of 58.27 hectares. 27% of the total plant area is covered under Green Belt. Remaining 6% area will be covered with more plantation to attenuate the noise levels and trap the dust generated due to the project development activities.

17.0 Consent to establish is obtained from West Bengal State Pollution Control Board vide memo no. 56-2N-28/2009 (E) dated 19-01-2016 and Consent to operate is obtained from West Bengal State Pollution Control Board vide memo no. 5825-3888/WBPCB (HRO)-K/2014 (Unit-I) dated 16/03/2017 is valid up to 31-3-2022.

18.0 The Public hearing of the project was held on 29<sup>th</sup> August 2017 at Mahasakli Manasangha, Salkui, P.O. Malkalpur) near B.D.O. office), Kharagpur-1, Dist. Paschim Mednipur, West Bengal under the chairmanship of Mr. S.K Meena, I.A.S, Additional District Magistrate (G) & DLLRO, Paschim Medinipur for production of 0.55 million TPA of ductile iron pipes. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

Sl. No	Issues raised during PH	Response by project proponent (After PH)	Action Plan proposed	Budgetary provision as on 09-12-2017
1.	To give the Mouza detail of the proposed project.	M/s. RashmiMetaliks limited stated the audience that the project location is atKhidirpurMouza, Village- Gokulpur, Shyamraipur.	Not Applicable	Nil
2.	To develop nearby village, development of village/ local road & improve road nearby existing RashmiMetaliks plant, contribute to local infrastructure development by providing playing & health facilities. He also requested them to give priority to local people for employment in their proposed project. He requested the project proponent to give	RML stated that road nearby existing plant is being repaired periodically and in future more focus will be given to develop the local roads. RML in past given priority to the local people for employment opportunity based on their qualification for their existing plants / units.	Proper emphasis will be laid on the development of the local roads. The company will develop facilities for primary health in the surrounding villages.	Rs 160 lacs have been allocated for the construction of road and Rs. 20 lacs are allocated for developing primary health facilities in the surrounding villagesas perEnterprise Social Commitment, in connection with the proposed project.
	assurance/commitments regarding the same.		will be adopted. The company Will give preference to the local people for the employment in its proposed project, based on their qualification.	are earmarked against training to unemployed educated local youth for skill development.
3.	To develop nearby village, improve local road conditions & develop a service road along the NH- 6 Bombay Road. He also requested them to give priority to local people for employment in their proposed project as per their skill. Extensive greenery needed to be developed.	Already stated above regarding the development of the local village roads. However, it will be difficult for the company to construct new approach road nearby existing plant along with NH – 6, because the land belongs to NHAI and NHAI has proposal for increasing the lane of existing NH-6 Highway. Greenbelt development inside the plant premises is a regular activity.	Will give employment priority to the local people based on their academic qualification. Action has already been taken by management of RML for developing Green Belt by undertaking extensive plantation programme. Besides, the company has also planned for the development of parks and tree plantation in the nearby areas.	Rs 160 lacs have been allocated for the construction of roads in the villages as a part of ESC. Rs. 40 lacs have been allocated as CAPEX and Rs. 4 lacs as OPEX for the greenbelt development inside the plant area for environmental protection measures for the project. Besides, Rs. 20 lacs are allocated for the development of park and tree plantation in the nearby areas as per ESC.
4.	To give job to the land loser and develop nearby school	The proposed expansion will take placewithin the	The companyhas identified certain	ESC expenditure incurred for Rashmi

	& village under their corporate Social responsibility (CSR) Scheme.	existing plant premises, so no additional land is be required. The local people will be given employment opportunity based on their qualification. The company has been providing necessary help	areas, to be considered for imparting the CSR activities in the context of the local scenario of the area.	Group during 2016- 17 is Rs168 lacs. For the proposed project,2.5 % of the project cost i.e., Rupees 413lacsshall be utilized over a period of 5 years against Enterprise Social
		village through CSR program. The same will continue in future also.		21 lacs have been allocated for the financial support to the local school.
5.	To operate their pollution control device for the proposed project efficiently and continuously during process activities, emphasis on improvement of the local road condition. He however emphasized on the need to control pollution.	The company has already installed the necessary Pollution Control devicesin its existing operational plant. In the proposed project also, various control devices shall be installed for the control of pollutants, to be generated.	For the proposed plant, adequate control measures like installation of bag filters, dust suppression system& to keep the emission within the permissible limit. OCEMS (online Continuous Emission Monitoring System) will be installed and will be connected to CPCB server as per CPCB guideline to keep track of real time emission. The plant will be designed as zero liquid discharge plant	Adequate fundi.e., CAPEX (RS. 7 crores) and OPEX (Rs 70 Lacs) has been allocated for environmental mitigation measures, out of which 2.7 crores are earmarked as capital expense on air pollution control systems.
6.	Issues related to the regular working of existing air pollution control system, red water coming out of the existing operational plant, and also raised question on Public hearing announcement procedure. No proper publicity was done.	There is efficient operation of the respective Air Pollution Control devices in the existing plant, which contain the resultant emission levels of various pollutants within the permissible limit. The plant is designed as zero liquid discharge plant. However, during monsoon due to heavy rain, storm water is discharged outside the plant.	To control red water discharge, the company management engaged experts & technical persons and after detail study, it has been finalized that a storm water reservoir will be made where the excess water will be collected, which will be used for dust suppression and controlling fugitive emission.	Expenditure already incurred by management of RashmiMetaliks Limited in civil works for construction of storm water reservoir to arrest effluent discharge is rupees 5.6 Lacs

			1	
	To give the Moure detail of	Announcement for public hearing was made with mention of venue and date.The same has been captured through various photographs.	The initial step for construction of storm water reservoir has already been taken by the management.	Nil
7.	the proposed project. He also stated that within 10 Km area habitation is there, but project proponent is misguiding the local people by stating no habitation is there.	Imited stated to the audience that the project location is at KhidirpurMouza, Village- Gokulpur, P.O- Shyamraipur. The proposed expansion project will be installed within the existing plant premises. So, no additional land will be required.		
8.	Strongly objected to proposed project. Polluted water is being discharged from the existing unit creating pollution and damaging crops. Local people are being forced to give up their land. No CSR work is being done. The upcoming project will come within 500 m. of densely populated area. Green belt is being totally destroyed. The area is being devastated due to the operation of the industry. Deputation has placed before the administrative authorities. The Air pollution control device is not being operated. Effluent (red water) is discharged from the existing operational plant, dust Emission problem from the existing unit, frequent accidents problem nearby plant, land procuring procedure, C.S.R fund utilization, safety and welfare of the workers of the unit and not providing jobs to the local people. He also stated that within 10 Km area habitation is there, but project proponent is misguiding by stating no	The local land owners sell their land for industrialization after various discussions and proper negotiation only. The upcoming project will be set up within the existing premises so the local people will not be get affected. RML has beenundertaking various CSR activities since long and ensure the same will continue in future. The plantation is done on regular basis. The existing APC devices are efficiently operated to contain the pollutants' concentrations withinthe permissible levels, which is also cross checked by West Bengal Pollution Control Board. The water comes out from the plant due to over flooding of heavy rain water in monsoon season. The company management engaged experts to overcome this problem. Land is procured for Expansion of Industry to generate Employment, develop the socio economic of the area. The industry was	To control red water discharge, management engaged experts & technical persons and after detail study it has been finalized that a storm water reservoir will be made where the excess water will be collected, which will be used for dust suppression and controlling fugitive emission. The initial step for construction of storm water reservoir has already been taken by the management.	ESC expenditure incurred for Rashmi Group during 2016- 17 is 168 lacs.For the proposed project, rupees 413 lacs are earmarked, which will be utilized in 5 years. Besides, adequate fundi.e., CAPEX (RS. 7 crores) and OPEX (Rs 70 Lacs) has been allocated for environmental mitigation measures. Expenditure already incurred by management of RashmiMetaliks Limited in civil works for construction of storm water pond to arrest effluent discharge is rupees 5.6 Lacs.

	1	1	1	
	habitation is there near by	commissioned in the year		
	the plant area.	2007 at Gokulpur,		
	•	Shyamraipur, district		
		PaschimMednipur, After		
		setting up of the industry		
		the socio economic		
		the socio economic		
		condition of this area has		
		very much improved.		
9.	Happy with the past C.S.R	Stated the actual CSR	Not Applicable	Nil
	activities carried out by	activities and motive of		
	project proponent like	RML.		
	organizing Blood Donation			
	camps, Eye Checkup			
	Camps. providing			
	ambulance services to the			
	accident victims			
	supporting/funding nearby			
	school While addressing			
	the above said statement he			
	the above said statement he			
	said that he came to know			
	about this Public hearing			
	after getting leaflet that was			
	distributed by project			
	proponent. In addition to			
	this, he said that the huge			
	direct/indirect job			
	opportunities is being			
	created in the existing			
	operational plant and			
	mentioned that both direct			
	and indirect employment			
	will be generated due to the			
	proposed project			
	proposed project.			

19.0 The company proposes to invest on the Enterprise Social Commitment (ESC) activities. For this purpose, the company proposes to 4.13 Crores, which is 2.5% of the total project cost (Rs. 165 Crores). This fund shall be utilized over a period of 7 years. Company has identified certain areas, to be considered for implementing the ESC activities in the context of the local scenario of the area:

	INVESTMENT (IN LACS)							
PROPOSED ESC ACTIVITIES	Year	Year	Year	Year	Year	Year	Year	Total
	1	2	3	4	5	6	7	
Construction of W/C/Toilet (2) each for 6	7	7	7	7	7	7	-	42.0
schools. (@ Rs. 7.00 Lakhs per set of 2								
Toilets)								
Drinking Water Infrastructure (Tubewell in nearby villages – 10 nos. @ Rs. 1.5 Lakhs)	3	3	3	1.5	1.5	1.5	1.5	15.0
Construction of metal consolidation road	25	25	24	24	24	19	19	160.0
(10 km) in villages ( (@Rs. 16 Lakhs per								
km)								
Development of Community Hall – Total 4 nos. (@ Rs. 10 Lakhs per Hall)	7	7	7	5	5	4.5	4.5	40.0

Local Village Pond upgradation - 3 ponds (@ Rs. 5 Lakhs per Pond)	3	3	2	2	2	2	1	15.0
Street Lighting (solar) provision at suitable public places – 50 nos. (@ Rs. 0.5 Lakhs per Solar Light)	4	4	4	4	3	3	3	25.0
Financial Support to the Local School for extension of building / class room	4	4	4	3	2	2	2	21.0
Construction of charitable Dispensary	3	2	1	1	1	1	1	10.0
Primary health for the surrounding villages	4	3	3	3	3	2	2	20.0
Financial Support to Local Temple	6	6	4	4	4	3	3	30.0
Training to unemployed educated local youth for skill development.	3	2	2	2	2	2	2	15.0
Developments of parks, plantation of trees in the nearby area.	4	4	3	3	2	2	2	20.0
TOTAL								413

20.0 The capital cost of the project is Rs 165 Crores and the capital cost for environmental protection measures is proposed as Rs 700 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 70 Lakhs. The employment generation from the proposed project / expansion is 600 (regular), 500 (on contractual) basis. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S1.	Description	Capital cost,	Recurring cost per
No.		Rs. Lakhs	annum,
			Rs. Lakhs
1	Air Pollution Control Systems	270	27
2	Water conservation & Pollution Control	120	12
3	Solid Waste Management System	70	7
4	Green belt development	40	4
5	Noise Reduction Systems	80	8
6	Occupational Health Management	70	7
7	Risk Mitigation & Safety Plan	30	3
8	Environmental Management Department	20	2
TOTA	L	700	70

21.0 The proposed DIP project shall be installed within the existing plant occupying total land area of 58.27 hectares. 27% of the total plant area is covered under Green Belt.Remaining 6% area will be covered with more plantation.

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

23.0 EIA/EMP prepared by EIA Consultant: M/s Envirotech East Private Limited, Kolkata vide Accreditation No.: NABET/EIA/1011/010.

24.0 The proposal was considered in the  $28^{th}$  meeting of EAC held during  $5^{th} - 7^{th}$  February, 2018. After deliberations, the committee observed that non-compliances reported by Regional Officer was not closed; Transfer of hot metal from Orissa Metaliks Limited (Group Company of Rashmi Metaliks) is proposed which involve Environmental and safety Issues; several non-compliances of ToRs prescribed for EIA report.

25.0 Therefore, the Committee sought revised EIA report incorporating following:

- 1. Closure report of all non-compliances of earlier EC conditions reported by RO, MoEFCC
- 2. Revised table of issues raised during PH, commitment of PP, time bound action plan along with fund provision.
- 3. Revised ESC programme based on the issues emerged during PH and social impact assessment. The activity shall be for asset creation and capacity building in CAPEX mode.
- 4. Revised Corporate Environmental Policy addressing the standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions to the board of directors directly; hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions
- 5. EIA report shall be revised as per the generic structure given in EIA Notification 2006 and compliance to all the ToRs.
- 6. Detailed Hazard Identification and Risk Assessment (HIRA) and project specific/site specific HIRA;
- 7. Based on HIRA, the detailed DMP inter alia including EP&RP for proposed hot metal transport from the group company.
- 8. In EIA report, Criteria for selection of sampling location, interpretation of baseline data and revised socio-economic and ecology and biodiversity report shall be furnished.
- 9. Revised air quality modelling for normal, abnormal and emergency situations shall be carried out

25.0 The project proponent has submitted reply to ADS on 28<sup>th</sup> Febrauary 2018. The details inter alia include:

(i) Revised table of issues raised during PH, commitment of PP, time bound action plan along with fund provision:

S1.	Name	Issues raised during PH	Response by	Time Bound	Budgetary
No			project proponent	Action Plan	provision
			(After PH)	proposed	
1	SujitKarak	To give the Mouza detail	M/s. Rashmi	-	-
		of the proposed project.	Metaliks limited		
			stated the audience		

r					
2	BhaveshSena pati	• Develop nearby village, development of village/ local road & improve road nearby existing Rashmi Metaliks plant.	that the project location is at Khidirpur Mouza, Village- Gokulpur, Shyamraipur. RML stated that road nearby existing plant is being repaired periodically in consultation with Road Construction Department, Govt. of West Bengal and in future more focus will be given to develop the local roads under ESC Activities. RML has already made application with supporting	RML will coordinate with Road Constructio n Departmen t officials for repairing of road facility in the nearby area. New Service road is to	Company has allocated Rs 160 Lacs under Enterprises Social Commitme nt.
			with supporting document and processing fees to NHAI, PIU Kharagpur for making service road 2.6 km approx. from SahaChowk to our plant.	road is to be constructed after getting final approval from NHAI.	
				5 years (tentatively by 2023)	
		• Contribute to local infrastructure development by providing playing & health facilities.	RML stated that in past Financial Support is given to the Local School for extension of building class room, GYM centre. Free Medical Camps, Health check-up for surrounding villages is organised on regular	Financial Support under ESC for next five years will be given in following segment: • Local Schoo	Company has earmarked Rs. 148 lacs under Enterprises Social Commitme nt.
			basis. Rashmi Group has its own ambulance and 24 x7 Ambulance made available for all the villagers in case of emergency.	<ul> <li>l for extens ion of buildi ng class room</li> <li>Const ructio n of charit able</li> </ul>	

				Dispe	
				nsary	
				• Solar	
				Street	
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				ion at	
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				tion	
				Facili	
				ties	
				place	
				5	
				5 years	
				(tentatively by 2023)	
		Cive priority to local	RMI in past given	Top most	Rs 15 Lacs
		• Give priority to local	priority to the local	Priority will	RS. 15 Lacs
		employment in their	people for	be given to	
		proposed project	employment	the local	
		proposed project.	opportunity based on	people based	
			their academic	on their	
			qualification for	academic	
			their existing plants.	qualification	
				. (Up to	
				April 2023).	
				Necessary	
				fund under	
				ESC has	
				been	
				earmarked	
				by the	
				company for	
				next 5 years	
1	1			tor Skill	

				Davalonmon	
				t	
				ι.	
		• Give	RML believes in	-	-
		assurance/commitme	continual Professional		
		nts regarding the	development and will		
		same.	emphasis on upliftment		
			of socio-economic		
			background of local		
			area.		~
3	Harindarnath	• Develop nearby	RML stated that road	RML will	Company
	Maity	village, improve local	nearby existing plant	coordinate	has
		road conditions &	is being repaired	with Road	allocated
		develop a service road	periodically in	Construction	Ks 160 Lacs
		along the NH-6	Consultation with	Department	under Enternisee
		Bombay Road.	Road Construction	officials for	Enterprises
			West Bengal and in	road facility	Commitme
			future more focus will	in the nearby	nt
			be given to develop	area	ш.
			the local roads under	area.	
			ESC Activities	New Service	
			Loc Heavides.	road is to be	
			RML has already	constructed	
			made application with	after getting	
			supporting document	final	
			and processing fees to	approval	
			NHAI, PIU	from NHAI.	
			Kharagpur for		
			making service road	5 years	
			2.6 km approx. from	(tentativel	
			SahaChowk to our	y by 2023)	
			plant.		
		• Give priority to local	RML in past given	In the	-
		people for	priority to the local	expansion	
		employment in their	people for	project top	
		proposed project as	employment	IIIOSt Drigrity will	
		per their skill.	their academic	be given to	
			qualification for their	the local	
			existing plants	people based	
			or	on their	
				academic	
				qualification	
				•	
				(Up to	
				April	
				2023).	
		• Extensive greenery	Green belt	Full fledge	For Green
		needed to be	development has been	Green Belt	Belt
		developed.	made since inception	Developmen	developme
			or existing plant as	t for existing	nt already
			per moer guidennes.	piant 18 under	deployed in
			Positive Initiatives	nrocess	CAPEX
			has already been	process.	and OPFX
			taken by management	For	of existing
			of RML for	Developmen	project and

			developing Green Belt and has already engaged third party for extensive green belt development.	t of parks, plantation of trees in the nearby areas fund is earmarked in ESC. 4 years (tentatively by 2022)	is being utilized in a time bound manner. Additional Adequate funds from proposed project have been deployed in CAPEX (RS. 40 Lacs) and OPEX (Rs 4 Lacs) for Green Belt Developme nt and will not be diverted to other purpose. Apart from that Company has allocated Rs 20 Lacs under Enterprises Social Commitme
4	DebasishMait y	• Give job to the land looser.	RML stated that the proposed expansion will be done in the existing RML factory premises so no additional land will be require.	-	
		Develop nearby school & village under their corporate Social responsibility (CSR) Scheme.	Since inception of the company in Kharagpur, RML has committed for development and upliftment of socio economic status of entire JangalMahal Area. RML in past has developed and provided necessary help to the nearby school, NGO	Funds have been earmarked under Enterprises Social Commitmen t to be utilized over a period of 5 years tentatively by 2023. Financial support to	Company has earmarked Rs 413 Lacs under Enterprises Social Commitme nt. The detail break up are: Rs. 21 Lacs

			&village through	Local	
			CSR program and in	School for	
			future also will	extension of	
			continue the same	building	
			work	class room	
			WOIK.	Canatraatia	Da 10 Lana
				Constructio	KS. 10 Lacs
				n of	
				charitable	
				Dispensary	
				Solar Street	Rs. 25 Lacs
				Lighting	
				provision at	
				provision at	
				suitable	
				public	
				Local	Rs. 15 Lacs
				Village	
				pond up	
				gradation	
				Primary	Rs 20 Lacs
				Health	10120 2000
				Engilities	
				Pacifilies	D. 151
				Drinking	Rs. 15 Lacs
				water	
				infrastructur	
				e (Tube	
				well)	
				Sanitation	Rs. 42 Lacs
				Facility-	
				Constructio	
				n of Toffet	D 40 I
				Developmen	Rs. 40 Lacs
				t of	
				Community	
				Hall	
				Promotion	Rs. 30 Lacs
				of the Sports	10100 2000
				Constructio	<b>D</b> <sub>0</sub> 160
				Collstructio	KS. 100
				n of Road	Lacs
				Developmen	Rs. 20 Lacs
				t of park,	
				plantation of	
				tress in	
				nearby area	
				Skill	Rs. 15 Lacs
				developmen	1
				t	
5	Deenst Ragii	• Oporata mallution	Existing Plant is	Adequate	Adequate
5	Deepak Dagii	• Operate pollution	baying mill Comment	Aucquale	funda
		control device for the	naving vand Consent	capacity	iunds nave
		proposed project	to Operate from	APC devices	been
			WBPCB. Latest Stack	and OCEMS	deployed in
			Monitoring Report	(Online	CAPEX
			from WBPCB &	Continuous	(RS. 7
			NABL accredit lab	Emission	Crores) and
			also confirms the	Monitoring	OPEX (Rs
			compliance of the	System will	70 Lacs) for
			industry on	be installed	environmen
			anvironment	at relevant	tal
			environment	at relevant	iai
1	1	1	protection measures.	point in	protection

			Adequate control measures like Electrostatic Precipitators, bag filters, Venture Scrubber, Cyclone Separator, dust suppression system are already in place at relevant points in the existing operational units. All the major stacks are equipped with online continuous monitoring system to ensure the desired efficiency of the respective control systems. Similarly in the proposed project, bag filters of desired efficiency, dust suppression system shall be installed at relevant points.	parallel with implementat ion of the plant.	measures and will not be diverted to other purpose.
		• Improvement of the local road condition	RML stated that road nearby existing plant is being repaired periodically in consultation with Road Construction Department, Govt. of West Bengal and in future more focus will be given to develop the local roads under ESC Activities.	RML will coordinate with Road Construction Department officials for repairing of road facility in the nearby area. 5 years (tentativel y by 2023)	Company has allocated Rs 160 Lacs under Enterprises Social Commitme nt.
6	HirakMondal	• Issues related to the regular working of existing air pollution control system.	Existing Plant is having valid Consent to Operate from WBPCB. Latest Stack Monitoring Report from WBPCB & NABL accredit lab also confirms the compliance of the industry on environment protection measures.	Adequate capacity APC devices and OCEMS (Online Continuous Emission Monitoring System will be installed at relevant point in parallel with implementat	Adequate funds have been deployed in CAPEX (RS. 7 Crores) and OPEX (Rs 70 Lacs) for environment al protection measures and will not be diverted

Red water coming out of the existing operational plant	In the existing plant Adequate control measures like Electrostatic Precipitators, bag filters, Venture Scrubber, Cyclone Separator, dust suppression system are already in place at relevant points in the existing operational units. All the major stacks are equipped with online continuous monitoring system to ensure the desired efficiency of the respective control systems. The water comes out from the plant due to over flooding of heavy rain water in monsoon season, not from process water. The prompt action has already been taken to control red water discharge. A storm water reservoir is being constructed to collect the excess run off water which will be used for dust suppression. The current status is red water discharge outside plant premises is being stopped totally and any excess water left is being pumped to movable water tanker and is being used for dust suppression.	ion of the plant. The constructio n of storm water pond is already in progress and it will be completed by Dec'2018.	to other purpose. For Storm water pond construction fund deployed in CAPEX and OPEX of existing project is being utilized. Additional Adequate funds from proposed project have been deployed in CAPEX (RS. 120 Lacs) and OPEX (RS 12 Lacs) for Water Conservatio n and Pollution Control and will not be diverted to other purpose.

		<ul> <li>Raised question on Public hearing announcement procedure. No proper publicity was done.</li> </ul>	Announcement regarding public hearing for what, venue and date were happened properly in accordance to EIA Notification 2006. The evidence can be seen by the still photo.	-	-
7	NirmalMalik	• Give the Mouza detail of the proposed project.	M/s. Rashmi Metaliks limited stated the audience that the project location is at Khidirpur Mouza, Village- Gokulpur, P.O-Shyamraipur.	-	-
		• Within 10 Km area habitation is there, but project proponent is misguiding the local people by stating no habitation is there.	The proposed expansion will be done in the existing RML factory premises so no additional land will be required. Existing Environment protection measures will be continued even after expansion project. Hence no negative significant impact on local people in the area and on the health of the people due to the existing plant and proposed expansion.	-	-
8	ArupGhosh	<ul> <li>Strongly objected to proposed project. Polluted water is being discharged from the existing unit creating pollution and damaging crops.</li> <li>Effluent (red water) is discharged from the existing operational plant,</li> </ul>	Existing Plant is having valid Consent to Operate from WBPCB. Latest Stack Monitoring Report from WBPCB & water report from NABL accredit lab also confirms the compliance of the industry on environment protection measures.	Adequate capacity APC devices and OCEMS (Online Continuous Emission Monitoring System will be installed at relevant point in parallel with implementat	Adequate funds have been deployed in CAPEX (RS. 7 Crores) and OPEX (Rs 70 Lacs) for environmen tal protection measures and will not

<ul> <li>Arr pollution control generated. Dust we have a consolution of the be diverted to device is not of charge plant.</li> <li>But, sometime the mission problem mutual is a sometime the plant due to over flowing of heavy rain water reservoir is being constructed to collect the excess run off from process water. In order to solve the problem astorn water reservoir is being constructed to collect the excess run off water which will be used for dust suppression. As off red water discharge outside plant pression. So off red water discharge outside plant pression.</li> <li>In the existing plant adequate control measures fike Electrostatic Precipitators, bag filters, Venture Scruber, Cyclone Separator, dust suppression system are the value to add the discred efficiency of the respective control system.</li> <li>Local people are being forced to give up their land for up their land.</li> <li>Local people are being forced to give up their land for public land formation.</li> </ul>				1 1 1
Suppression system shall be installed at relevant points.     Local people are being forced to give up their land.     The local land owners sell their land for industrialization     The local land owners     -     -	<ul> <li>Air pollution control device is not being operated. Dust Emission problem from the existing unit.</li> </ul>	Plant is designed as zero discharge plant. But, sometime the water comes out from the plant due to over flooding of heavy rain water in monsoon season, not from process water. In order to solve the problem a storm water reservoir is being constructed to collect the excess run off water which will be used for dust suppression. As off red water discharge outside plant premises is being stopped totally and any excess water left is being pumped to movable water tanker and is being used for dust suppression. In the existing plant adequate control measures like Electrostatic Precipitators, bag filters, Venture Scrubber, Cyclone Separator, dust suppression system are already in place at relevant points. All the major stacks are equipped with online continuous monitoring system to ensure the desired efficiency of the respective control systems.	ion of the plant.	be diverted to other purpose.
/ and de anno anno anno anno anno anno anno ann	• Local people are being forced to give up their land.	efficiency, dust suppression system shall be installed at relevant points. The local land owners sell their land for industrialization	-	-

· · · · · · · · · · · · · · · · · · ·		1		
	• No CSR work is being done.	plant and also for recreational work, greenbelt development/ creation) after various discussion and proper negotiation only. The upcoming project will be set up within the existing premises so the local people will not effect Since inception of the company in Kharagpur, RML has committed for development and upliftment of socio economic status of entire JangalMahal Area. RML is been doing the CSR activities from long back and assure will continue it in future. ESC expenditure incurred	2.5 % of total project cost has been earmarked under Enterprises Social Commitme nt to be utilized over a period of 5 years tentatively by 2023.	Company has earmarked Rs 413 Lacs under Enterprises Social Commitmen t.
		during 2016-17 1.68		
		Crores.		
	<ul> <li>Green belt is being totally destroyed. The area is being devastated due to the operation of the industry.</li> </ul>	Greenbeltdevelopment has beenmade since inceptionof existing plant asper MOEF guidelines.At present 27% ofexisting plant area isbeing developed asgreengreenBelt.ThecertifiedCompliancereport issued by RO,MOEF&CCalsoconfirms the same.Positive Initiatives hasalready been taken bymanagement of RMLfor developing GreenBelt and has alreadyengaged third partyfor extensive greenbelt development. Inthe financial year2018-20198, 500plantationsisproposed inphase	Full fledge Green Belt Developmen t for existing plant is under process. For Developmen t of parks, plantation of trees in the nearby areas fund is earmarked in ESC. 4 years (tentatively by 2022)	For Green Belt development already fund was deployed in CAPEX and OPEX of existing project and is being utilized in a time bound manner. Additional Adequate funds from proposed project have been deployed in CAPEX (RS. 40 Lacs) and OPEX (Rs 4 Lacs) for Green Belt

	cutting work is already started on 10 acres of additional land nearby plant area.		Developmen t and will not be diverted to other purpose.
			Apart from that Company has allocated Rs 20 Lacs under Enterprises Social Commitment
• Not providing jobs to the local people.	RML in past given priority to the local people for employment opportunity based on their academic qualification for their existing plants. From the current operation unit of RML 3900 direct (regular + contractual) are getting	In the expansion project top most Priority will be given to the local people based on their academic qualification	
	from that 5000 indirect employment is being generated.	2023).	
<ul> <li>Frequent accidents problem nearby plant, Safety and welfare of the workers of the unit.</li> </ul>	PPEs are provided to the workers with strict imposition and mandatory practice for all the workers to use the PPEs. Proper operating condition is being maintained along with regular health check- up and rotational work policy is being used so that the same worker is not exposed beyond threshold limit. The certified Compliance report issued by RO, MOEF&CC also confirms the same.	Adequate fund CAPEX & OPEX is earmarked for Risk Mitigation & Safety Plan and it will be implemented in parallel with implementati on of the plant.	Adequate funds from proposed project have been deployed in CAPEX (RS. 30 Lacs) and OPEX (Rs 3 Lacs) for Risk Mitigation & Safety Plan and will not be diverted to other purpose.
• The upcoming project will come within 500 m. of densely populated area.	New Land is procured for setting up greenfield plant and also for recreational work & greenbelt	-	-

		• Within 10 Km area habitation is there, but project proponent is misguiding by stating no habitation is there near by the plant area.	development/creation. Expansion of Industry to generate. Industrialization will develop the socio economic of the area. The industry was commissioned in the year of 2007 at Gokulpur, Shyamraipur, district Paschim Mednipur. After setting up industry the socio economic of this area completely changed to the best economy as well as living style also changed to higher side. Apart from this the proposed expansion will be done in the existing RML factory premises so no additional land will be	-	-
9	Satadal Banerjee	<ul> <li>Happy with the past C.S.R activities carried out by project proponent like organizing Blood Donation camps, Eye Checkup Camps, providing ambulance services to the accident victims, supporting/funding nearby school.</li> <li>He came to know about this Public hearing after getting leaflet that was distributed by project proponent.</li> <li>Huge direct/indirect job opportunities is being created in the existing operational plant and mentioned that both direct and indirect employment will be generated due to the proposed project.</li> </ul>	Stated the actual Social activities and motive of RML.		-

(ii) Revised ESC activities in the context of the local scenario of the area:

Proposed ESC Activities		Investment (in lacs)			Total	
	Year 1	Year 2	Year 3	Year 4	Year 5	(in lacs)
Construction of 14 nos. Toilets at schools	9	9	9	9	6	42.0
& community places (@ Rs. 3.00 Lakhs						
& Gents)						
Drinking Water Infrastructure (Tube well						
in nearby villages – 10 nos. @ Rs. 1.5 Lakhs)	4.5	4.5	3.0	1.5	1.5	15.0
Construction of metal consolidation road	32	32	32	32	32	160.0
(10 km) in villages ( (@Rs. 16 Lakhs per						
Development of Community Hall – Total						
4 nos. (@ Rs. 10 Lakhs per Hall)	10	10	10	10	-	40.0
Local Village Pond up gradation - 3 ponds (@ Rs. 5 Lakhs per Pond)	5.0	5.0	5.0	-	-	15.0
Street Lighting (solar) provision at suitable public places – 50 nos. (@ Rs. 0.50 Lakhs per Solar Light)	5.0	5.0	5.0	5.0	5.0	25.0
Financial Support to the Local School for extension of building / class room	5	5	4	4	3	21.0
Construction of charitable Dispensary	3	3	2	1	1	10.0
Primary health for the surrounding villages	5	4	4	4	3	20.0
Promotion of Sports (Distribution of						2010
sports materials like Football, Volleyball,						
Cricket etc. among the villagers.)	8	7	6	5	4	30.0
Skill development to unemployed local						
youth through National Skill						
Scheme	4	3	3	3	2	15.0
Development of parks, plantation of trace		5	5	5		13.0
in the nearby areas	5	5	4	3	3	20.0
TOTAL			<u> </u>			412
1						413

# **Observations & Recommendations of the committee:**

26.0 After detailed deliberations, the committee observed that the response to the Additional Information Sought (ADS) in the 28<sup>th</sup> meeting is incomplete. The PP advised to re-submit the information including closure of non-compliances report from the RO.

29.6 Sponge Iron Plant (4x100 TPD Kilns), Induction Furnaces (3x20 T), 1,40,000 TPA capacity Rolling Mill along with 16 MW capacity Captive Power Plant (8 MW WHRB based & 8 MW AFBC based, utilizing waste heat &dolochar from the

proposed sponge plant) and 1,00,000 TPA Cement Grinding Unit at village Janardandih, Mouza Erekusum and Khoar, P.S Naturia, Dist Purulia, West Bengal by M/s BRG Sponge & Iron Pvt Ltd. [Online Proposal No. IA/WB/IND/72262/2018; MoEF&CC File No.IA-J-11011/65/2018-IA-II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. IA/WB/IND/72262/2018 dated 18<sup>th</sup> January 2018 along with the application in prescribed format (Form-I), copy of prefeasibility 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous); 3(b) Cement Plants; and 1(d) Thermal power Plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level

### **Details of the project as per the submissions of project proponent:**

2.0 M/s. BRGD Sponge and Iron Pvt. Ltd.proposes to install new manufacturing unitlike Sponge Iron Plant (4x100 TPD Kilns), Induction Furnaces (3x20 T), 1,40,000 TPA capacity Rolling Mill along with 16 MW capacity Captive Power Plant (8 MW WHRB based & 8 MW AFBC based, utilising waste heat &dolochar from the proposed sponge plant) and 1,00,000 TPA Cement Grinding Unit at village Janardandih, MouzaErekusum and Khoar, P.S Naturia, DistPurulia in West Bengal.The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 13-01-2018 vide Online Application No. IA/WB/IND/72262/2018.

3.0 As it is a green field project environmental clearance or Consent to Operateissue is not applicable.

4.0 The proposed unit will be located atvillage Janardandih, MouzaErekusum and Khoar, P.S Naturia, District Purulia in West Bengal

5.0 The land area acquired for the proposed plant is 14.16 hectares (35 acres). Noforestland involved. Proposed project land is already under the possession of the company. Of the total area,4.67 hectares (11.55 acres) (33%) of land will be used for green belt development.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project.

7.0 Total project cost is approx..150 Crore rupees. Proposed employment generation from proposed project will be 400 direct employment.

8.0 The targeted production capacity of the proposed project is 1,40,000 TPA TMT Bars, Strips and Structurals and 1,00,000 TPA cement (100% PPC or PSC). The proposed capacity for different products for new site area as below:

Name of unit	No. of units	Capacity of each Unit	<b>Production Capacity</b>
Sponge Iron Plant	4	100 TPD	1,20,000 TPA
Induction Furnaces with matching LRF & CCM	3	20 T	1,45,800 TPA
Rolling Mill	1	1,40,000 TPA	1,40,000 TPA
			TMT Bars, Strips
----------------------	---	----------------------------------	-------------------
			and Structurals
Cement Grinding Unit	1	1,00,000 TPA	1,00,000 TPA
		(100% PPC or PSC)	(100% PPC or PSC)
Captive Power Plant	1	16 MW	16 MW
		(8 MW WHRB based & 8 MW	
		AFBC based, utilising waste heat	
		&dolochar from the proposed	
		sponge Iron plant)	

9.0 The estimated power requirement of the proposed unit is around 29 MW. The power requirement will be met from proposed 16 MW captive power plant and from DVC.

10.0 The major raw material, which will be handled consists of Pellet, Imported coal, Pig Iron, dolomite, Ferro Alloys etc. The annual requirement of major raw materials, which will be required additionally for the proposed project, is presented below,

SL. No.	RAW MATERIALS	Annual Requirement ( In Tpa )	SOURCE
DRIP	LANT (4x100 TPD)		1
1.	PELLET	2,00,000	MARKET
2.	IMPORTED COAL	1,36,000	SOUTH AFRICA
3.	DOLOMITE	6,900	MARKET
INDUC	TION FURNACES (3x20 T)		
1.	SPONGE IRON	1,20,000	IN HOUSE DRI PLANT
2.	SCRAPS	30,000	IN HOUSE PLANT / MARKET
3.	PIG IRON	30,000	MARKET
4.	FERRO ALLOYS	1550	MARKET
CAPTI	VE POWER PLANT (8.0 MW	BASED ON AFBC BO	ILER)
1.	IMPORTED COAL	20,000	SOUTH AFRICA
2.	DOLOCHAR	30,000	IN HOUSE DRI PLANT
Cemer	nt Grinding Unit (1,00,000	Tpa)	
I) 100	% Portland Pozzolana Cen	nent (Ppc)	
			Satna, Meghalaya (Star Cement),
1		C 05 00	Madhya Pradesh
1.	Clinker	6,25,00	(JP Cement, Prism Cement, Orient
			Cement)
			Bikaner/ Nagaur region, Rajasthan
2.	Gypsum	25,00	and Tata Chemicals, Paradeep
			(IFCO & PPL), Haldia
2	Else ach	2 50 00	In-house, Power Plant of DVC,
3.	Fiy ash	3,50,00	Andal
II) 100	)% PORTLAND SLAG C	EMENT (PSC)	

1.	Clinker	3,25,00	Satna, Meghalaya (Star Cement), Madhya Pradesh (JP Cement, Prism Cement, Orient Cement)
2.	Gypsum	25,00	Bikaner/ Nagaur region, Rajasthan and Tata Chemicals, Paradeep (IFCO & PPL), Haldia
3.	Slag (15% Moisture)	6,50,00	Durgapur Steel Plant, Neo Metallic, Durgapur, Tata Steel, Jamshedpur, Tata Metallic, Kharagpur and local steel plants

11.0 Water Consumption for the proposed project will be 414 cum/day which will be met from groundwater abstraction. Domestic waste water will be treated in septic tank soak-pit system and industrial waste water generated will be treated and reused totally.

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

13.0 Name of Environmental Consultant: Envirotech East Pvt. Ltd. Bengal Ambuja Commercial Complex,UN F13, 1050/1, Survey Park, Kolkata-700 075, Ph: (033) 2418 8127/8128/8601, e-mail: eeplkol@gmail.com, NABET certificate no. NABET/EIA/1011/010.

### **Recommendations of the Committee:**

- 14.0 After detailed deliberations, the committee recommended the ToRs alongwith the following specific ToRs for conducting EIA study:
  - i. Public Hearing to be conducted by the concerned State Pollution Control Board.
  - ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
  - iii. Detailed solid waste management plan
  - iv. Permission for water drawal and power
  - v. EIA report should also be including grazing area and livestock population and mitigation measures.
  - vi. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
  - vii. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP.

#### 29.7 Copper smelter of capacity 1200 TPD at SIPCOT Industrial Complex, ThekkuVeerapandia Puram village, Ottapidaram taluk, Thoothukudi Dist., Tamil

### Nadu by M/s Vedanta Limited[Online Proposal No. IA/TN/IND/72974/2018; MoEF&CC File No. J-11011/431/2008-IA-II(I)] – Terms of Reference.

1.0 M/s. Vedanta Ltd made online application vide proposal no. IA/TN/IND/ 72974/2018 dated 14<sup>th</sup>February 2018along with the application in prescribed format (Form-I), copy of prefeasibility 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification, 2006; the proposal is appraised at Central level.

### **Details of the project as per the submissions of project proponent:**

2.0 The existing project was accorded environmental clearance vide EC No. F.No. J-11011/431/2008 IA II (1) dated 01.01.2009. Consent to Establish was accorded by TamilnaduStatePollution Control Boardvide Consent Order No. 160115461915 under Water Act and Consent Order No. 160125461915 under Air actand validity of CTE is up to 31.03.2023.

3.0 The proposed unit will be located at SIPCOT Industrial Complex, Therkku Veerapandia Puram Village, Taluka: Ottapidaram, District: Thoothukudi, State: Tamilnadu.

4.0 The land area acquired for the proposed plant is 128.805 Ha out of which 0 ha is an agricultural land, 0 ha is grazing land and 128.805 ha is others (SIPCOT) (Government Land). No forestland involved. The entire land has been acquired for the project. Of the total area 29.35 ha (22.7%) land will be used for green belt development. The Green Belt break up is as given below.

S. No.	Particulars	Area (in Ha)
1	Total area of Copper Smelter Plant - I & II	233.6
2	Existing Green belt	43.0
3	Proposed Green belt	29.35
	After Copper Smelter Plant–II project execution, the total area of Green belt in and around the existing Copper Smelter Plant-I, Copper Smelter Plant-II and Tamira-I (Employees Quarters) and railway siding area will be	72.35*

\* Green belt area as mentioned in EC

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc., are reported to be located in the core and buffer zone of the project. Theareaalso does not report form corridor for Schedule-I fauna.

7.0 Total project cost is approx.2500 Crore rupees. Proposed employment generation from proposed project will be 5000direct employment and 20,000 indirect employment.

8.0 The targeted production capacity of the Copper Anode is 0.438 million TPA. The concentrate for theplant would be procured from mineslocated abroad. The concentrate transportation will be done through Road/Rail/Conveyors. The proposed capacity for different products for new site area as below:

Name of Unit	No. of units	Capacity of each Unit (TPD)	Production Capacity (TPD)
	Copper Anodes	1200	1200
	Copper Cathodes	1525	1525
	Continuous Copper Rod	800	800
	Phosphoric Acid	800	800
	Anode Slime	3.0	3.0
	Dore Anode	0.650	0.650
Vedanta Limited	Selenium	1.200	1.200
(Copper Smelter	Bismuth Bi Sulphate	1.800	1.800
Plant-II)	Copper Telluride	0.600	0.600
	Nickel Sludge	30	30
	Nickel	1.5	1.5
	Sulphuric Acid	4800	4800*
	Ferro Sand	3000	3000
	Gypsum	4200	4200
	Hydrofluro-silicic acid	80	80

\* - Sulphuric Acid Plant will be designed for 5900 TPD considering the extreme case scenario of sulphur content in the Copper Concentrate.

9.0 The electricity load of 75MW will be procured from Vedanta Limited-Thermal Power Division–  $2 \times 80$  MW.

100	<b>n</b> 1						
10.0	Proposed raw	material ar	nd fuel re	autrement	for project	are given	below
10.0	1 Toposed Tum	material al		quitement	for project		0010 %

Raw MaterialConsumable	Copper Smelter Plant –II in MT/Day
Smelter	
Copper concentrate (100% imported)	5061
Liquid oxygen	1084
Silica	789
Quartz	173
Limestone	197
Pet Coke	40
Refinery	
Hydrochloric acid	0.43
Thio-urea	2.55
Glue	2.55
Continuous Copper Rod	
Copper Cathode	800
Caustic Soda	0.01
ISO Propyl Alcohol	3.2
Emulsion	0.018
Wax	0.016
LPG/Propane	32
Sulphuric Acid Plant & ETP	
Lime	217
Ferric sulphate	30
Sodium sulphide	20

Raw MaterialConsumable	Copper Smelter Plant –II in MT/Day
Flocculent	0.03
Sodium Hydroxide	4
Phosphoric Acid Plant	
Suphuricacid(100%in-house)	2229
Rock phosphate (100% imported)	3270
Active silica	31
Defoamer	4
Castic lye solution	1
Selenium	
Decopperised slime	5.5
Oxygen	1.06
Sulphur dioxide	2.8
DORE Anode	
Decopperised, Desellurised slime	4.92
Soda	0.6
Anhydrous Borax	0.6
Cement	0.02
Carbon	0.1
Copper Telluride	
Electrolyte – CuSO4	142.8
Copper Shavings	1.02
Bismuth Bisulphate	
Electrolyte – CuSO4	142.8
Sulphuric Acid	5.88

S. No.	Fuel	Daily Consumption (TPD)
1	LPG	92
2	HSD	6
3	FO	100

11.0 The requirement would be fulfilled by mostly from local suppliers as well as interstate suppliers. Fuel consumption will be mainly for metal refining and furnace hot standby applications.

12.0 Water Consumption for the proposed project will be 8773  $m^3$ /day and waste water generation will be 4551  $m^3$ /day. Domestic waste water will be treated in STPand industrial waste water generated will be treated in ETP& ROand reused in operations.

13.0 The proponent has mentioned that there is no court case at present or violation under EIA Notification to the project or related activity. Application was also not being submitted under Notification No. S.O.804(E) dated 14.03.2017.

14.0 M/s Vimta Labs Limited, QCI Sl.No.150 (Certificate No. NABET/EIA/1619/RA 0043) commenced "Baseline study for EIA" in Feb'2018.

# **Observations of the committee:**

15.0 The committee noted that the proponent is unable to implement the facilities proposed in the earlier EC granted within the valid period. Therefore, PP made an application for fresh ToR. Further, the committee has also received a number of representations expressing concernes about environmental issues replated to the project.

### **Recommendations of the committee:**

16.0 After detailed deliberations, the committee recommended to constitute a sub-committee to assess the current status of implementation of Environmental Clearance dated 1<sup>st</sup> January 2009 and thereafter to consider the proposal for ToRs.

29.8 Zinc Smelter Plant of capacity 2,10,000 TPA (1,70,000 TPA+40,000 TPA debottlenecked) and Captive Power Plant (154 MW) project at village Putholi, Chittorgarh Dist., Rajasthan by M/s Hindustan Zinc Ltd. – Amendment for including Fumer Plant to eliminate generation of jarosite and for production clean slag [Proposal No. IA/RJ/IND/72454/2004; MoEF&CC File No. J-11011/158/2003-IA II(I)] – Amendment in Environmental Clearance.

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant

29.9 Integrated Steel Plant of capacity 0.524 MTPA with 84 MW Power Plant and 4 x 18 MVA Ferro Alloy plant by M/s Spintech Tubes Pvt Ltd. [Online Proposal No. IA/WB/IND/72504/2018; MoEF&CC File No. J-11011/63/2018-IA II(I)] – Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/72504/2018** dated **25<sup>th</sup> January 2018** along with the 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level

### Details of the project as per the submissions of the project proponent:

2.0 M/s Spintech Tubes Pvt. Ltd proposes to install a new manufacturing unit for 0.524 MTPA integrated Steel, 84 MW captive Power Plant& 4x18 MVA Ferro alloy Plant. It is proposed to set up the plant for production of TMT rods, coils, SS rods, plates & DI pipes based on DRI-MBF-EAF & IF technology. The project proponent submitted an application in the prescribed format along with Form-I and other reports to the ministry on line on 25<sup>th</sup> Jan 2018 vide online Application No IA/WB/IND/72504/2018.

3.0 The proposed project is a green field project

4.0 The proposed unit will be located at: Dhasal, Bahadurpur, Block-Jamuria, Dist-Burdwan(Paschim), WB.

5.0 The land area acquired for the proposed plant is 80.92 Ha which are Baid and Kanali. No forest land nor Govt. land involved. More than 50% land has been already acquired for the

project. Of the total land of 80.92 Ha about 27 Ha (33%) land will be used for green belt development.

6.0 No National Park/WL Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the proposed project area. The area also does not report to form corridor for Schedule-I fauna.

7.0 The total project cost is approximately 920 Crore rupees. Proposed employment generation from proposed project will be 600 direct employment and 1400 indirect employment.

8.0 The targeted production capacity of the proposed project is 0.256 MTPA TMT rods & Coils, 0.128 MTPA Ductile Iron Pipes and 0.140 MTPA SS rods & Plates.Iron Ore for the project will be procured from Barbil mines of Odisha through e-auction and coal from ECL/imported. Through rail/road. The proposed capacity for different products from the proposed project is as follows.

Name of unit	No. of units	Capacity of each unit	Production capacity
DRI Kiln	2	1,92,000 TPA	3,84,000 TPA Sponge Iron
Induction Furnace	6	64,000 TPA	3,84,000 TPA liquid steel
EAF	1	1,40,000 TPA	1,40,000 TPA liquid steel
MBF	2	1,47,000 TPA	2,94,000 TPA hot metal
Pallet Plant	2	4,80,000 TPA	9,60,000 TPA I/O pallet
Sinter Plant	1	4,28,000 TPA	4,28,000 TPA I/O Sinter
Ductile Iron Pipes	1	1,28,000 TPA	1,28,000 TPA Spun Pipes
Rolling Mill	2		2,56,000-TMT rods &
			Coils
			1,40,000-SS rods& Plates
Ferroalloy Plant	4	41,250 TPA	1,65,000 TPA All bulk
			ferroalloys taken together

9.0 The electricity load is about 132 MW and captive generation will be 84 MW, hence about 48 MW will be purchased from India Power Corporation Ltd. Agreement for supply of power is in progress for 50 MVA.

10.0 Proposed raw material and fuel requirement for the project are Iron Ore Fines 1.85 MTPA, Coal 0.4 MTPA. The requirement would be fulfilled by indigenous as well as imported source. Fuel consumption will be mainly in DRI Kilns and power Plant.

11.0 Water consumption for the proposed project will be 6000  $m^3/day$  and waste watergeneration will be 2,352  $m^3/day$ . Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reused in the process.

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

### **Observations of the committee:**

13.0 After detailed deliberations, the committee observed that the prefeasibility report is incomplete with respect to layout plan, detailed scope of the activities, solid waste management plan, the plan for water pipeline of 7.3 km and railway siding.

### **Recommendations of the committee:**

14.0 Accordingly, the committee suggested to submit the revised prefeasibility to the Ministry for further consideration.

29.10 Sindri Cement Works Cement grinding capacity from 2.5 MTPA to 4.5 MTPA for Manufacturing, Storage and Dispatch of Cement as per relevant Standard of BIS. Project Will be developed in two phases: 1) Phase -I: 2.5 to 3.0 MTPA (In existing line with optimization.) 2) Phase - II: 3.0 to 4.5 MTPA ha. at Sindri, Dhanbad, District of Jharkhand by M/s ACC Ltd. [Online Proposal No. IA/JH/IND/73204/2018; MoEFCC File No. IA-J-11011/73/2018-IA.II(I)] – Terms of Reference.

ACC 1.0 M/s. Limited has made online application vide proposal no. IA/JH/IND/73204/2018 dated 27<sup>th</sup>February 2018 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 Sl. No. 3(b) cement plants under Category "A" EIA Notification; 2006. The proposal of expansion is submitted and appraised at Central level due to presence of Inter State Boundary with West Bengal at 2.5 km.

### Details of the project as per the submissions of the project proponent:

2.0 **M/s. ACC Limited** proposes to expand Sindri Cement Works Cement production capacity from 2.5 MTPA to 4.5 MTPA. The proposed expansion will be developed in two phases i.e., (2.5 to 3.0 MTPA (In existing line with optimization) in 1<sup>st</sup> phase & 3.0 to 4.5 MTPA (Installation of new mill) in 2<sup>nd</sup> phase.). It is proposed to expand II<sup>nd</sup> phase, with the conventional Vertical Roller Mill Technology. Project area; 65.499 acres (26.50 Ha) and the expansion will come up within the existing available land. The project proponent submitted an application in the prescribed format along with Form-I, PFR and other reports to the Ministry online on 26.02.2018 vide Online Application No IA/JH/IND73204/2018. The project is category B project and due to presence of Inter State Boundary with West Bengal at 2.5 km, the proposal of expansion is submitted to MOEF & CC, New Delhi.

3.0 The existing project was accorded clearance from MoEF&CC vide MoEF&CC letter no. F.No.J.-11011/623/2009-IA-II(I) dated 13<sup>th</sup>May, 2011 for 1.0 to 2.5 MTPA Cement. Subsequently Amendment in EC for different product mix of PPC,PSC,OPC& GGBFS (at any ratio) as per requirement of market scenario obtained vide MoEF&CC letter no.F.No.J.-11011/623/2009-IA.II(I) dated 18<sup>th</sup>Dec,2015 without change in the cement production capacity of 2.5 MTPA and Consent to Operate was accorded by Jharkhand State pollution Control Board vide Ref No. JSPCB/HO/RNC/CTO-1697233/2017/1651 Dated 10.11.2017. Validity of CTO is up to 31.12.2018

4.0 The existing and proposed expansion unit is located at Village: Sindri, Taluka: Dhanbad, District: Dhanbad, State: Jharkand.

5.0 The proposed expansion will be carried within the existing plant area of 65.449 acres, which is owned by ACC. More than 33% i.e., 25 Acres was under green belt development in and around the plant boundary. Colony is spread in 100 acres of area.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx Rs 255 Crore. No additional manpower required for phase-I. Around 60 manpower would be required for Phase-II employment.

8.0 The targeted total production capacity of the cement production is 4.5 million TPA. in two phases. The Clinker transportation is being done by Rail /Road. The proposed capacity for different products is as below:

	Name of unit N		No. Capacity (MTPA)		Total
		of units	Existing	Expansion	Capacity
Phase – I	Unit – I(optimization)	1	2.5	0.50	3.0
Phase - II	Unit – II		3.0	1.5	4.5
	(expansion by				
	Installation of new mill)				
	Total	4.5			

9.0 The present power requirement is 19 MW and the additional power requirement would be about approx 10 MW. The total 29 MW is met from Grid.

Raw material	Existing requirement (Tonnes)	For Phase- I (Tonnes)	For Phase-II (Tonnes)	Source of Raw Materials	Mode of Transport
Clinker	16, 75,000	3,04,000	7,00,000	ACC's Jamul, Chaibasa, Bargarh& Kymore cement plants of ACC.	By Rail /Road
Gypsum	1,40,000	26,000	80,000	Imported from Bhutan, Oman and Thailand.	By rail / road
Slag / Ground Granulated Blast Furnace slag	13,50,000	2,69,000	8,00,000	Tata Steel- Jharkhand, Tata Kalinganagar, Orissa, Jindal Steel -Orissa, IISCO Burnpur, and Bhushan steel	By rail / Road
Fly Ash	715,000	1,70,000	65,000	Maithon, Bokaro and Santadi Power plants.	Road (bulker)
Coal	32,000	5,380	16,000	Eastern Coalfields and E auction.	By truck / Rail

10.0 Proposed raw material and fuel requirement for project are given below.

Above raw material requirement is maximum requirement for production of Cement (OPC, PPC, PSC, GGBFS, Composite cement etc) or any other Manufacturing, Storage and Dispatch of Cement products as per relevant Standard of BIS.

11.0 Existing Water requirement is around 250 m3/day after the proposed expansion will be enhanced to  $285m^3/day$ . No waste water generation from Expansion.

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

13.0 Name of the Consultant: B.S.Envi Tech Pvt.Ltd.S.No – 17 NABET QCI List as on 16<sup>th</sup> October 2017, QCI, NABET Accreditation No: NABET/EIA/1316/RA002

### **Recommendations of the committee:**

19.0 After detailed 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 I read with additional ToRs at Annexure-2.

- i. Public Hearing to be conducted by the concerned State Pollution Control Board;
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP.
- v. Additional greenbelt to the extent of 6 acres within the plant area should be developed.
- vi. APCD shall be designed for particulate matter emission of 25 mg/m<sup>3</sup>
- 29.11 Expansion of cement plant with increase in production of clinker from 2.0 to 4.81 MTPA (instead of 2.0 to 4.5 MTPA) and cement from 2.35 to 5.0 MTPA and installation 2x18 MW coal based thermal power plant along with 15 MW Waste Heat Recovery based power plant at Mattampally village, Suryapet Dist., Telangana State by M/s Sagar Cements Ltd Amendment in production capacity [Proposal No. IA/TG/IND/67426/2017; MoEF&CC File No. J-11011/379/2006-IA II(I)].

**1.0** The proponent has made online application vide proposal no. **IA/TG/IND/67426/2017** dated 17<sup>th</sup> **February 2018** for seeking amendments in the ToRvide F.No.J-11011/379/2006-IA-II (I) dated 19<sup>th</sup>September, 2017.

2.0 ToR was prescribed for the following capacities:

Contract	Present			After expansion		
cement	Clinker	Cement	Power	Clinker	Cement	
plant	(M7	(PA)	(MW)	(MTPA)		Power (MW)
Unit –I	0.50	0.30		0.50	0.30	2x18MW Coal
Unit –II	1.50	2.05	7.0	1.50	2.05	based CPP
Unit –III	0.00	0.00	/.0	2.00	1.15	+12 MW
Total	2.00	2.35		4.00	3.50	WHRB

3.0 Requested for ammendent for following:

Cement	Present			After Expansion		
Plant	Clinker	Cement	Power	Clinker	Cement	Power (MW)
	(MT	TPA)	(MW)	(M)	ГРА)	
Unit –I	0.50	0.30		0.66	0.30	
Unit –II	1.50	2.05	7.00	2.15	3.00	58 MW (2x18MW Coal based CPP
Unit –III	-	-	7.00	2.00	1.70	+22 MW (WHRB)
Total	2.00	2.35		4.81	5.00	

4.0 ToR Amendment requested for production capacities vis a vis earlier ToR

Cement	ToR Granted			ToR Amendment Requested		
Plant	Clinker	Cement	Power (MW)	Clinker	Cement	Power (MW)
	(MT	PA)		(M7	TPA)	
Total	2.00 TO 4.00	2.35 TO 3.50	48 MW (2x18MW Coal based +12 MW WHRB)	2.00 TO 4.81	2.35 TO 5.00	58 MW (2X18 MW COAL BASED + 22 MW WHRB)

5.0 Name of the Consultant: B. S. Envi Tech Pvt. Ltd., S.No – 17 NABET QCI List as on 16<sup>th</sup> October 2017, QCI, NABET Accreditation No: NABET/EIA/1316/RA002

# **Recommendations of the committee:**

6.0 The after detailed deliberations, the committee recommended the following amendments in ToRs

- i. Increase in Cliker production from 2 MTPA to 4.0 MTPA; cement production from 2.35 MTPA to 5.0 MTPA.
- ii. Power generation from 2x15 MW to 2x18 MW from WHRB.

29.12 Expansion of cement plant (clinker-0.66 to 3.0 MTPA; Cement -0.95 to 2.50 MTPA) and installation of WHRB (15 MW) at village Gudipadu, P.O.Yadiki Mandal, Anantapur Dist., Andhra Pradesh by M/s Sagar Cements Ltd (Formerly BMM Cement Ltd) – Amendment for increase in capacity of cement from 0.95 to 4.0 MTPA regarding [Proposal No. IA/AP/IND/67502/2017; MoEF&CC File No. IA-J-11011/421/2017-IA II(I)].

**1.0** M/s Sagar Cements Ltd (Formerly BMM Cement Ltd) made online application vide proposal no IA/AP/IND/67502/2017 dated 17<sup>th</sup>February 2018 seeking amendment in ToR issued vide letter no. J-11011/421/2017-IA-II (I) dated 19.09.2017.

Cement Plant	Present		After expansion		
	Clinker	Cement	Clinker	Cement	
	(MTPA)		(MTPA)		
Unit –I	0.66	0.95	1.00	1.00	
Unit –II	-	-	2.00	1.50	
Total	0.66	0.95	3.00	2.50	
Power	25MW CPP		15MW WHR		
Total - 40 MW.					

2.0 ToR was prescribed for the following capacities:

3.0 Requested for ammendent for following:

Cement	Present (M	ГРА)	After expansion (MTPA)		
Plant	Clinker	Cement	Clinker	Cement	
Unit –I	0.66	0.95	1.00	1.35	
Unit –II	_	-	2.00	2.65	
Total	0.66	0.95	3.00	4.00	
Power	25MW CPP		15MW	WHR	
Total 40 MW.					

4.0 ToR Amendment requested for production capacities vis a vis earlier ToR

Cement Plant	TOR Granted		TOR Amendment Requested		
	Clinker Cement		Clinker	Cement	
Total	0.66 to 3.00 0.95 to 2.50		0.66 to 3.00	0.95 to 4.00	
	MTPA	MTPA	MTPA	MTPA	
Power	25MW	V CPP	15MW WHR		
Total 40 MW					

5.0 Name of the Consultant: B. S. Envi Tech Pvt. Ltd., S.No – 17 NABET QCI List as on 16<sup>th</sup> October 2017, QCI, NABET Accreditation No: NABET/EIA/1316/RA002

# **Recommendations of the committee:**

6.0 The after detailed deliberations, the committee recommended the following amendments in ToRs

i. Increase in Cliker production from 0.66 MTPA to 3.0 MTPA; cement production from 0.95 MTPA to 4.0 MTPA.

ii. Power generation 15 MW from WHRB.

# 29.13 Ferro alloys plant for production of FeMn, FeSi and SiMn of capacity 52765 TPA located at Mouza Chousal, P.S. Gangajalghati, in Bankura Dist., West Bengal by M/s DSR Industries Pvt Ltd. [Online Proposal No. IA/WB/IND/73175/2018; MoEF&CC File No. IA-J-11011/70/2018-IA II(I)] – Terms of Reference.

1.0 M/s DSR Industries Private Limitedmade online application vide proposal no. IA/WB/IND/73175/2018 dated 26<sup>th</sup>February 2018 along with the Form-1, copy of prefeasibility 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006.The proposal is submitted and appraised at Central level

### Details of the project as per the submissions of the project proponent:

2.0 M/s DSR Industries Private Limited proposed to install a new Ferro Alloy Plant comprising 3 x 9 MVA Submerged Arc Furnaces (SAF). It is proposed to set up the plant for manufacturing Ferro Manganese, Silico Manganese and Ferro Silicon based on SAF technology.

3.0 The proposed unit will be located at Mouza: Chausal, PS: Gangajalghati, District: Bankura, State: West Bengal.

4.0 The land area acquired for the proposed plant is 2.9 hectares (7.17 Acre) out of which 2.9 ha land is industrial category land (Initiallyentire land was single crop agricultural land which was got converted to industrial land). Noforestland is involved. The entire land has been acquired for the project. Of the total area 0.96 ha (33 %) land will be used for green belt development.

5.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve, etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form migratory corridor for Schedule-I fauna.

6.0 Total project cost is approx. Rs.68.38 Crores. Proposed employment generation from proposed project will be 203 direct employment and 147 indirect employment.

7.0 The targeted production capacity of the Ferro Alloy Plant is 52,765 TPA. The ore for the plant would be procured from Local Market, Private Mines of Odhisa and Balaghat (MP). The ore transportation will be done through Road. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Unit	Capacity of each	Production Capacity*			
		Unit				
Submerged Arc	3 Nos	9 MVA each	Ferro Manganese 52765 TPA			
Furnace			Silico Manganese			
			35180 TPA			
			Ferro Silicon			
			17380 TPA			
Production Capacity* The maximum production capacity of ferroalloys using the 3 x 9						
MVA SAF will not exceed 52765 Tons Per Annum (TPA)						

8.0 The electricity load of 28 MW will be procured from Damodar Valley CorporationCompany has also proposed to install 2x250 KVA DG Set for emergency use.

9.0 Proposed raw material and fuel requirement for project are manganese ore, coke, coal, quartz, dolomite and carbon paste. The requirement would be fulfilled by purchase from local market as well as from private mines located in Odhisa&MP. Diesel will be used for running the DG sets.

10.0 Water consumption for the proposed project will be 25 m<sup>3</sup>/day and waste water generation will be 12 m<sup>3</sup>/day. Domestic waste water (10 m<sup>3</sup>/day) will be treated in STP and thenreused for gardening. Cooling tower blowdown and softnerblowdown (2 m<sup>3</sup>/day) will be collected in settling tank and used for dust suppression.

11.0 There is no court case or violation under EIA Notification to the project or related activity.

12.0 Environment Consultant: Grass Roots Research & Creation India (P) Ltd. Noida, U.P. Accredited by QCI / NABET, Sl. No in NABET List: 78 (As on 5<sup>th</sup> March 2018).

### **Recommendations of the committee:**

13.0 After detailed 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 I read with additional ToRs at Annexure-2.

- i. The detailed plan for briquetting of dust collected from the bag filters for recycling. reuse.
- ii. Detailed plan for dry gas cleaning.
- iii. Public Hearing to be conducted by the concerned State Pollution Control Board;
- iv. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- v. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- 29.14 Expansion of ferro-alloys plant by adding additional 3x 12.5 MVA submerged arc furnace and new products i.e., Fe moly, Fe Titanium, Fe Vanadium, Fe Boron, McFeMn, LcFeMn, Fe Niobium, Cored Wire, FeSiZr, at Gollapuram village, Hindupur Mandal, Ananthapuram Dist., Andhra Pradesh by M/s Oswal Smelters (P) Ltd. [Online Proposal No. IA/AP/IND/72990/2018; MoEF&CC File No. J-11011/643/2008-IA II(I))] Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/72990/2018** dated **15<sup>th</sup> Feb 2018** along with the 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level

# Details of the project as per the submissions of the project proponent

2.0 M/s. Oswal Smelters (P) Ltd.proposes to install a expansion of existing manufacturing unit for to produceFerro Manganese, Silico Manganese, Ferro Silicon, Fe moly, Fe Titanium, Fe-Vanadium, Fe-Boron, Mc-Fe-Mn, Lc-Fe-Mn, Fe-Neobium, Cored wire and Fe-Si-Zr respectively It is proposed to set up the plant for Ferro alloys based on Submerged Electric Arc Furnace technology.

3.0 The existing project was accorded environmental clearance vide lr.no. J-11011/643/2008-IA II (I) dated 13<sup>th</sup> May 2018 Consent to Operate was accorded by AP State Pollution Control Board vide lr. no. APPCB/KNL/ATP/142/CFO/HO/2016 dated 26.04.2016 validity of CTO is up to 31<sup>st</sup> Dec.2020.

4.0 The proposed unit will be located atatlocated at Gollapuram, HindupurMandal, Ananthapuram Dist. in Andhra Pradesh State.

5.0 The land area acquired for the proposed plant is 35.47 Acres. 100% land is industrial land (land use conversion completed). No forestland involved. The entire land has been acquired for the project. Of the total area 12.2ha (34.4%) land will be used for green belt development.

Sr. No.	Particular	Existing	for Expansion	Total
		(Acres)	(Acres)	(Acres)
1	Plant and Machinery	4.6	6.0	10.6
2	Green Belt	12.2	-	12.2
3	Open/Future Expansion	18.9	-	12.9
	Total	35.7	6.0	35.7

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx. 55.0Crore rupees. Proposed employment generation from proposed project will be 300 direct employment and 1000 indirect employment.

8.0 The ore for the plant would be procured from open market. The ore transportation will be done through road. The proposed capacity for different products for new site area as below:

Sl. No.	Particular	Existing	Proposed	Total
		(TPA)	(TPA)	(TPA)
1	Ferro Manganese or	18500	43200	61700
2	Silico Manganese or	14000	36000	50000
3	Ferro Silicon	8000	25200	33200
4	Fe Moly	_	1200	1200

5	Fe Titanium	-	1200	1200
6	Fe Vanadium	-	1200	1200
7	Fe Boron	-	1200	1200
8	McFeMn	-	3000	3000
9	LcFeMn	-	3000	3000
10	Fe Neobium	-	1200	1200
11	Cored Wire	-	4000	4000
12	FeSiZr	-	1000	1000

9.0 The electricity load of 49.5MVA will be procured from Southern Power Distribution Company of Andhra Pradesh Limited.

Sr. No.	Particular	Existing (MVA)	Proposed (MVA)	Total (MVA)
1	Power Requirement	9.0	40.5	49.5

10.0 Proposed raw material and fuel requirement for project are Manganese Ore, Ferromanganese Slag (generated in Ferro - manganese process), Dolomite and Quartz, Coke, Lime stone mill scale and MS scraps. Therequirement would be fulfilled by open market

11.0 Water Consumption for the proposed project will be 254 KLD and waste water generation will be zero. Domestic waste water will be treated Septic Tank followed by soak pit and industrial waste water generated will be recycled for cooling.

Item	Water Requirement	Water Requirement	Total Water
	in KLD	in KLD	Requirement
	(Existing)	(Proposed)	(KLD)
Cooling Purpose	84	150	234
Domestic Purpose	10	10	20
Dust Suppression			
Greenbelt			
Total	94	160	254

12.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or relatedactivity.

### Observations and recommendations of the committee:

13.0 After detailed 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 I read with additional ToRs at Annexure-2.

- i. Public Hearing to be conducted by the concerned State Pollution Control Board;
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Water procurement and management plan shall be furnished in the EIA/EMP as the area is arid.
- v. The PP shall explore the possibility of Forth hole extraction system for all the furnaces.
- vi. Waste heat recovery system shall be provided to generate power or for pre-heating of charge.
- vii. The PP shall submit plan for achieving the ZLD
- viii. Comprehensive Solid waste management plan shall be furnished in the EIA/EMP
- ix. Dedicated encvironmental cell with qualified persons and corporate environmental policy to report non-compliances.
- x. In view of scarcity of the water in the region, the deatiled DMP shall include dry quenching / extinguishing system in emergency response plan in case of fire.

# 13<sup>th</sup>March 2018

29.15 Proposed Integrated Steel Plant of 0.7 MTPA capacity at Village- Kanakapur, Taluka & District- Koppal, Karnataka by M/s. Mukund Ltd. [Online Proposal No. IA/KA/IND/51427/2016; MoEF&CC File No. J-11011/105/2016-IA-II(I)] – Environmental Clearance.

1.0 The proponent has made online application vide proposal no. IA/KA/IND/51427/2016 dated 25<sup>th</sup>February2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level as Category "A".

2.0 M/s Mukand Limited proposed to set up Integrated Steel Plant of 0.7 MTPA capacity of located in Village **Kanakapur** Tehsil & District **Koppal** State **Karnataka** was initially received in the Ministry on 10<sup>th</sup> March, 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 4<sup>th</sup> meeting held on 30<sup>th</sup> – 31<sup>st</sup> March, 2016 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 19<sup>th</sup> March 2016 vide Lr. No. J-11011/105/2016-IA.II(I).

3.0 Further, M/s. **Mukand Alloy Steels Private Ltd (MASPL)** has submitted revised Form-1 with additional documents to MoEF & CC for transfer the ToR Letter from M/s. Mukand Limited to M/s. Mukand Alloy Steels Private Ltd (MASPL) vide proposal no.

IA/KA/IND/51427/2016 on dated 26<sup>th</sup>September, 2017. Proposal was considered in the **24th Meeting of the EAC** on dated 13th November, 201.*As per the MOM of* **24th Meeting of the EAC** on dated 13th November, 2017, "the EAC committee opined that the change in the name and phasing of the components are administrative in nature. The EAC committee opined that no amendment is required and may be applied to the ministry directly for change in the name of the company with requisite documents as envisaged in the clause 11 of EIA Notification, 2006"

4.0 The total land required for the project is **121.4 ha (300 Acre).** No forest land is involved. The entire land has been acquired/ not acquired for the project. There isno River passes through the project area (p./c). It has been reported that no water bodyexist within the project site and no modification/diversion in the existing natural drainage pattern at any stage has not been proposed. The water bodies include Tungabhadra dam is about 5 km in SE away from project site.

5.0 The topography of the area is **flat** and reported to lies between 15°20'07.79" to15°19'24.96" N Latitude and 76°15'22.23" to 76°15'47.86" E Longitude in Survey of India topo sheet No.57 A/3, at an elevation of 510 m AMSL. The ground water table reported to ranges between 0.82 m to 13.55 m below the land surface during the post-monsoon season and 1.82 m to 12.26 m below the land surface during the pre-monsoon season. Based on the hydrogeological study, it has been reported that the radius of influence of pumped out water will be 5,733 ha m. Further, the stage of groundwater development is reported to be 68 % (Koppal taluka) and and thereby these are designated as safe/critically exploited areas.

6.0 The National Park/WL etc are located at a distance of **30.06 Km (Daroji Sloth Bear Sanctuary)** from the site. **No**National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Presently Mukand Limitedpurchasing Iron ore from E-auctions and coal/coke from Imported and domestic markets. Looking into present Alloy Steel market and the current economy, M/s. MASPL has decided to setup the 0.7 MTPA Rolling mill in phase I and remaining elements of the integrated steel plant in phase II wherein MASPL shall be purchasing Iron ore from E-Auctions and coal and coke form imported and domestic markets.

8.0 The targetted production capacity of the 0.7 million TPA. The ore for the plant would be procured from E-auctions and coal/coke from Imported and domestic markets. The ore transportation will be done through Road.

9.0 The water requirement of the project is estimated as  $18000 \text{ m}^3/\text{day}$ , out of which  $18000 \text{ m}^3/\text{day}$  of fresh water requirement will be obtained from the downstream of Tungabhadrareservoir. The permission for drawl of groundwater / surface water is obtained from Government of Karnataka's letter no. WRD.15/MTP/2013 dated 22 December 2015.

10.0 The power requirement of the project is estimated as 69.00 MW, out of which 39 MW will be obtained from the KTPCL/GESCOM and 30 MW shall be met by captive power generation from waste gases of Blast Furnaces and Coke Ovens.

11.0 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from April'16 to June'16, 2016. Ambient air quality monitoring has been carried out at 8 locations

during April'16 to June'16 and the data submitted indicated:  $PM_{10}$  (71.7 µg/m<sup>3</sup> to 89 µg/m<sup>3</sup>),  $PM_{2.5}$  (34.41 to 45.48 µg/m<sup>3</sup>),  $SO_2$  (7.89 to 9.9 µg/m<sup>3</sup>) and NOx (24.38 to 32.99 µg/m<sup>3</sup>). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 0.18 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>.

12.0 Ground water quality has been monitored in six locations in the study area and analysed. pH: 6.96 to 7.35, Total Hardness: 212 to 690 mg/l, Chlorides: 32 to 136 mg/l, Fluoride: 0.61 to 0.84 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 3 locations. pH: 7.38 to 8.02; BOD: 6 to 8 mg/l. COD from 20 to 32 mg/l.

13.0 Noise levels are in the range of 42 to 61.3 dB(A) for daytime and 41 to 52.64 dB(A) for nighttime.

14.0 It has been reported that there are no people in the core zone of the project. No R&R is involved.

15.0 It has been reported that a total of  $50,000 \text{ m}^3$  of waste will be generated due to the project; total will be used in low laying area. It has been envisaged that an area of 47.3 ha (117 acre) will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.0 The Public hearing of the project was held on 30.01.2018 under the chairmanship of Smt. Kanagavalli M, Deputy Commissioner, Koppal for proposed to establish a new integrated steel plant of capacity 0.7 MTPA. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

S1.	Question/ Issue/	Response by project	Time Bound	Budgetary
No.	Suggestion	proponent (after PH)	Action Plan	provision
			proposed	
1.	Job opportunities to the local people.	During operation phase 730 plush people will be employed as permanent staff as well contract staff. The local villagers of the nearest villages from the plant shall be given preference for employment based on their abilities.	Phase manner Across the project execution.	-
2.	Job opportunities to the land losers.	Job for 47 land losers in the upcoming factory	By end of project execution.	-
3.	Environmental awareness & more plantation	Awareness training programme will be organized periodically for the villagers.	Planningtohaveownnursery&distributionofsaplingsfortreePlantationin rural areas.	10 lakh

4.	Ground water quality & availability	Planning for rain harvesting at huge level to improve ground water level.	By Dec'18	100 lakh
5.	Air quality monitoring system has to be installed covering Kanakapura village, Thanda & Ginigera.	Online Monitoring system for Ambient Air will be installed and will be displayed in the Main gate of the premises.	Before hot commissioning	100 lakh
6.	Health of the local people was affected due to pollution from the existing industries located nearby.	Special Health awareness camp and medical camps for primary check up will be arranged at least once in a year in nearby villages for health check-ups.	yearly	10 lakh
7.	M/s. Mukand Ltd. and M/s. Kalyani steels has jointly taken steps for providing drinking water supply to the Ginegera village at a cost of Rs. 120 Lakhs from T.B. River. In a similar manner the funding for water supply scheme shall be extended to Hosakanakapura, Halekankapura, Hosakankapura villages by the company.	Agreed and will be complied.	Ву 2020.	200 lakh

17.0 An amount of **51 Lakhs** (0.02 % of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

Sl.	Enterprise Social Commitment	Year 1	Year 2	Year	Year	Year 5	Total
No.	Activities			3	4		
1.	Community Health Improvement	6 Lakhs					
	• Periodically medical checkup,						
	blood donation camps to be						
	organized near project site						51
	• Eye checkup camps						Lakhs
	• Health awareness camps for						
	child and mother car, health						
	and hygiene practices.						

•		10				
2.	Community Education Facilities	10				
	• Augmentation of furniture,	Lakhs				
	blackboard, etc in village					
	schools					
	• Award scholarship to					
	meritorious students.					
	• Distribution of educational					
	books, stationary, uniforms					
	and aids etc.					
3.	Community Welfare activities		5			
	• Worship places development		Lakh			
	& beautician		S			
	• Distribution of seeds &					
	saplings					
	• Promotion & support to					
	various Govt. Schemes					
4.	Afforestation Programs			10		
	• Plantation of trees in village			Lakh		
	road side			S		
	• Development of nursery					
5.	Community Capacity Building				20	
	Impairing vocational training for				Lakhs	
	technical skills, self employment					
	training for women as stitching,					
	embroidery, tailoring, handicrafts					

18.0 The capital cost of the project is Rs. 3192 Crores and the capital cost for environmental protection measures is proposed as Rs 528.5 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 25 Crores. The employment generation from the proposed project / expansion is 730 plus persons. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S.	Description	Capital Cost in Rs.	Recurring cost in Rs.					
No.		(Crore)	(Crore)					
	Operation Phase							
1	Rain Water Harvesting	1.0	0.04					
2	Pollution Control System	288	14.45					
3	Environment Monitoring	0.65	0.04					
	(Monitoring charges for air,							
	water, waste water, soil, DG							
	stack, noise etc.)							
4	Noise Pollution Control	0.07	0.01					
5	WTP & STP	207	10.35					
6	Solid Waste Management	0.37	0.01					

7	Occupational Health includes cost of Training, medical checkup, PPE & first aid kit cost	1.00	0.05
	of PPE, first aid facility, safe		
	measures)		
8	Green Belt development	0.35	0.03
	(includes cost of labours,		
	plantation management,		
	landscaping)		
9	Others (CSR Activity)	0.36	0.02
	TOTAL	528.5	25

19.0 Greenbelt will be developed in 47.7 Ha (117 Acres) which is about 39 % of the total acquired area. A 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 50,000 saplings will be planted and nurtured in 47.7 hectares in first years.

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

21.0 EIA Consultant: M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. (Court case: C/ST/5331/2016) & Green Circle, Inc.,

# **Observations of the committee:**

22.0 The committee observed that there are several non-compliance of the prescribed ToRs and PP did not change the name of the ownership also as advised in the 24th Meeting of the EAC on dated 13<sup>th</sup>November, 2017.

### **Recommendations of the committee:**

23.0 After detailed deliberations, the committee returned the proposal due to non-compliance of the prescribed ToRs.

# 29.16 Expansion of the existing (24,000 TPA pig iron, 45000 TPA sponge iron and 100000 TPA iron briquetting plant) unit located in the village Borpali, post Kesramal, Tehsil Rajgangpur, Dist. Sundargarh, Orissa by M/s Suraj Product Ltd., [Online Proposal No. IA/OR/IND/26728/2015; MoEF&CC File No. J-11011/226/2007-IA-II(I)] – Environmental Clearance.

1.0 M/s Suraj Product Ltd has made online application vide proposal no. IA/OR/IND/26728/2015 dated 21<sup>st</sup>February 2018 along with the copies of EIA/EMP, certified monitoring report by the regional office MoEFCC Bhubaneswar, Odisha, EC compliance report, seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 1(d) 2 (a), 2 (b) and3(a) under Category "A" EIA Notification, 2006 and the proposal is appraised at the Central Level

# **Details of the project as per the submissions of the project proponent:**

2.0 Expansion of the existing (24000 TPA Pig Iron, 45000 TPA Sponge Iron and 100000 TPA Ore Briquetting plant) unit of M/s Suraj Products Limited located in Village Barpali, Tehsil - Rajgangpur, District- Sundargarh, State-Odisha was initially received in the Ministry on24<sup>th</sup>Feb 2015 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during 37<sup>th</sup> reconstituted expert appraisal committee (Industry) meeting held on 30<sup>th</sup>April, 2015 and prescribedToR to the project on 24<sup>th</sup> June, 2015 vide Lr. No. J-11011/226/2007-IA-II (I).Further, Project Proponent applied for reduction in the proposed capacity of expansion on dtd. 04.10.2016, the Ministry considered the request in its 13<sup>th</sup> Expert Committee meeting held on 23 & 24 November 2016 and Amendment in ToR was granted on 28<sup>th</sup>July 2017.

3.0 Based on the ToRsprescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 20<sup>th</sup> Dec.2017 vide NoIA/OR/IND/26728/2015 (EDS generated on 22<sup>nd</sup> Dec. 2017 and response submitted by project proponent on 21<sup>st</sup> Feb. 2018).

4.0 The project of M/s. Suraj Products Ltd. located inVillage Barpali, Tehsil - Rajgangpur, District- Sundargarh, State - Odisha is an expansion project. The project is for enhancement of production capacity as per details of existing capacity and expanded capacity as given below:

Sl.	Facilities	Existing	Proposed	Total
1.	Sponge Iron	45000		45000 TPA
	(DRI Kilns 50 TPD X 3 Nos.)	TPA		
2.	Pig Iron (Mini Blast Furnace)	24000	36000	60000 TPA
		TPA	TPA	
3.	Iron Ore/ Mineral Ore Briquettes	100000	5600 TPA	105600 TPA
	[Mineral Briquetting Plant] (Cold	TPA		
	Briquetting Plant)			
4.	DG Set (Backup Power) 500	1820	-	1820 KVA
	KVA X 3 Nos. + 320 KVA X 1 =	KVA		
	1820 KVA			
5.	Iron Ore and Other Mineral Ore	-	105600	105600 TPA (20
	(Like Manganese; Chrome;		TPA (20	TPH)
	Nickel Ore; etc)		TPH)	
	Beneficiation Plant input basis			
	(throughput)			
6.	Coal Washery	-	96000	96000 TPA
			TPA(20	(20 TPH)
			TPH)	
7.	Reduced Metal Powder from	-	40000	40000 TPA
	metallic mineral ores such as Iron		TPA	(60 TPD each kiln X
	Powder and chrome ore,		(60 TPD	2 nos kiln):
	manganese ore etc. (through		each kiln X	
	Tunnel Kiln process)		2 nos kiln):	
8.	Ferro Alloys / Pig Iron from	-	Ferro	Ferro Alloy- 20000
	Submerged Arc Furnace		Alloy-	TPA
			20000 TPA	

Sl.	Facilities	Existing	Proposed	Total
			Or Pig Iron	Or Pig Iron –
			_	40000TPA
			40000TPA	
9.	Semi-Finished Steel (Through	-	110000	110000 TPA
	Induction Furnace; LRF/GOR;		TPA	
	Converter; and Continuous			
	Caster)]			
10.	Rerolled Steel [Rolling Mill	-	100000	100000 TPA
	(Structure / Rolled product)]		TPA	
11.	Captive Power generation (AFBC	-	6 MW	6 MW
	Boiler(with 15 TPH steam based			
	on washery reject + WHRB Boiler			
	with 13 TPH steam)			
12.	Bricks (Brick making from waste)	-	66000	66000 TPA
			TPA	
13.	Producer Gas plants two numbers	-	Each 600	Each 600 kg/hr or
	for firing these Kilns		kg/hr or	3600 TPA coal
			3600 TPA	gasification
			coal	Capacity or 2100
			gasification	$Nm^3/hr$ i.e. 14
			Capacity or	Million m <sup>3</sup> /Yr.
			$2100 \text{ Nm}^3$	producer gas.
			/hr i.e. 14	
			Million m <sup>3</sup>	
			/ Yr.	
			producer	
			gas.	

5.0 In the existing 45000 TPA sponge iron project as expansion to produce Pig Iron from of Blast was accorded environmental clearance vide lr.no. J-11011/226/2007-IA II (I) dated 27<sup>th</sup> June 2007. The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneshwar vide Regional Office File No. 101-305, Date of site visit 12.01.2018. There is non-compliance observed by the Regional officer, which is not so seroius. The corrective action against the same has been taken by project proponent and submitted the compliance done with reference to RO-BBS, MoEFCC, Odisha and submitted on 20<sup>th</sup> Feb. 2018 to Regional officer.

6.0 Total plant area is 45.26 acres (i.e. 18.32 Ha.) in the Kasra No.s: 2482/3528, 2497/3529, 2509/3530, 2510/3531, 2496, 2482, 2494, 2481/3080, 376 (P), 2456, 2459, 2451, 2479, 2480, 368, 2524(P), 2493, 2454(P), 374, 2491, 2492, 2500, 2457, 2470, 2460, 375, 394, 395, 2484, 2485, 2486, 2489, 2490, 2501, 2488, 2487, 2523(P), 2483, 2458, out of which 11.41 Acre is dedicated to existing industrial land and proposed expansion area will be 33.85 Acres (i.e. 13.70 Ha.). The land is already acquired by company in past. The greenbelt shall be developed within 14.93 Acre (6.04 Ha.). No River passes through the project area. It has been reported that no natural water body exist around the project area:

Sr. No.	Land Use Statement	Area (Sq. Mtr.)	Acre
1.	Green Belt	60400	14.92

2.	Road	5400	1.33
3.	Storage Area	9100	2.25
4.	Open Area	9100	2.25
5.	Factory Shed	82300	20.34
6.	Residential	0	0
7.	Parking	3600	0.90
8.	Water Storage	10000	2.47
9.	Admin building and Laboratory, Workshop etc.	3200	0.80
	Total Area	183100	45.26

7.0 The topography is undulatedand lies of the area reported to between22°08'19.08"Nto22°19'34.59"NLatitude 84°31'21.17"E and to 84°43'17.83"E Longitudein Survey of India topo sheet No 73 B/11 and 73 B/12 at an elevation of 229m AMSL. The ground water table reported to ranges between 3-4 m below the land surface during the post-monsoon season and 8-10m below the land surface during the pre-monsoon season. Based on the hydro-geological study and as per CGWB, SER Bhubaneshwar, the Sundargarh Districts in Odisha fall in safe category of groundwater development with observed groundwater development of only 13.50% in core and buffer zone respectively.

8.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The authenticated list of flora and fauna in the study area is incorporated in EIA (Given in Chapter - 3 in EIA report).

9.0 The process of project showing the basic raw material used in the various processes involved toproduce the final output, waste generated in process are listed in Table below.

Sl.	Facilities	Process	Basic Raw	<b>Process Flow</b>	Waste
			Material Used		Generated
1.	Sponge Iron	Primary	*Sized Iron ore	Rotary Kiln	Char/
	(DRI Kilns 50	Metallurgica	*Washed Coal		Dolochar,
	TPD X 3 Nos.)	1 Process	*Dolomite		Flue Dust
					(ESP),
					KilnAccreti
					on
2.	Pig Iron (Mini	Primary	Beneficiated Iron	Manufacturin	Granulated
	Blast Furnace)	Metallurgica	Ore, Iron Ore;	g of Pig Iron	Blast
		1 Process	Iron	through Mini	Furnace
			OreBriquettes,	Blast Furnace	Slag
			Coke, Dolomite&		Flue Dust
			Quartz		(Bag Filter)
3.	Iron Ore/		Iron Ore Fines,	Briquetting	
	Mineral Ore		Binder	Machine	
	Briquettes				
	[Mineral				
	Briquetting				
	Plant] (Cold				
	Briquetting				
	Plant)				

SI.	Facilities	Process	Basic Raw Material Used	<b>Process Flow</b>	Waste Generated
4.	DG Set (Backup Power) 500 KVA X 3 Nos. + 320 KVA X 1 = 1820 KVA		Diesel is used as Fuel		
5.	Iron Ore and Other Mineral Ore (Like Manganese; Chrome; Nickel Ore; etc) Beneficiation Plant input basis (throughput)	Beneficiatio n	Iron Ore and Other Mineral Ore (Like Manganese; Chrome; Nickel Ore; etc)	Beneficiated Ore&Low Grade Ore	Low grade mineral residues
6.	Coal Washery	Coal Washery	Un-washed Lumpy Coal	Crushing and Washing of Coal	Coal middling Washery rejects, shale & sand stone
7.	Reduced Metal Powder from metallic mineral ores such as Iron Powder and chrome ore, manganese ore etc. (through Tunnel Kiln process)	Reduction through saggered Tunnel Kiln	Beneficiated Iron Ore, Silicon Carbide Saggers, Washed Coal for Producer Gas and Lime	Tunnel kiln with Producer Gas Fired thermal energy	Charry Coal Broken saggers Ash from Producer Gas
8.	Ferro Alloys / Pig Iron from Submerged Arc Furnace	Submerged Arc reduction Process	Mn Ore, Manganese Slag, Coke, Washed Coal, Dolomite	Submerged Arc Furnace operated on Electricty	Slag Generated due to ferro Alloys.
9.	Semi-Finished Steel (Through Induction Furnace; LRF/GOR; Converter; and Continuous Caster)]	Induction Furnaces; LRF, GOR.	Iron Powder, CI / Pig Iron, Scrap, Ferro Alloys, Coke	Feeding of RM >Melting in IF; Refining as oer need in LRF; (adding alloys as perrequiremen t)>Metal in Liquid form>casting	Slag and Flue Dust

Sl.	Facilities	Process	Basic Raw Material Used	<b>Process Flow</b>	Waste Generated
				>cooling>Bill ets.	Generateu
10.	Rerolled Steel [Rolling Mill (Structure / Rolled product)]	Re Rolling Mills	Hot Metal (Billets)	Feeding of hot billets>roughi ng strands >rolling >cutting & bundle >TMT Bar>dispatch	Mill Scale and Defective Billets, Miss Rolls
11.	Captive Power generation (AFBC	Waste Heat Recovery Boilers	Industrial waste heat gases	Steam from WHRB+AFB C (char used	
	Boiler(with 15 TPH steam based on washery reject + WHRB Boiler with 13 TPH steam)	AFBC Boiler	Char Dolochar Charry Coal Washery reject Coal Middling Coal, Dolomite	along with coal as fuel)>Power generation	Fly ash, Bottom Ash
12.	Bricks (Brick making from waste)	Brick pressing machines	Fly Ash with Cement, or Lime with Gypsum Sand & Water	Fly Ash with Cement, Sand & Water>pourin g> Drying>Curin g>Bricks	
13.	Producer Gas plants two numbers for firing these Kilns	PG Plants	Coal	Combustion and Reduction of Coal	Coal ash and Nominal amount of Tar

10.0 The targeted production capacity of each facilities are Sponge Iron - 45000TPA, Pig Iron 60000 TPA, Cold Briquetting Plant 105600 TPA, Beneficiation plant of Iron Ore and other minerals - 105600 TPA, Coal washery 96000 TPA, Reduced Metal Powder 40000 TPA, Ferro Alloys 20000 TPA or Pig Iron 40000 TPA. Semi-Finished steel 110000 TPA, Rerolled Steel 100000 TPA, CPP - 6 MW, Brick making from waste 66000 TPA, Producer Gas - 600 Kg/Hr, DG Set (Backup Power) - 1820 KVA.Mode of transportation for raw material transportation through rail/roadboth. Majority of inputs will be transported by Road.

11.0 The daily makeup water requirement in peak situation at 100% Capacity utilization is estimated to be580 KL/day out of which 16 KL is estimated for human consumption. The permission for drawl ofgroundwater water is obtained from CGWA, New Delhi vide File No.: 21-4/942/OR/IND/2016-370 (NOC No: CGWA/NOC/IND/ORIG/2017/2428) dated 16<sup>th</sup> Feb 2017

12.0 The total power required for the project will be around 29.48 MW out of which 6 MWpowerrequirements will be meet through proposed captive power plant and the balance power requirementwill be fulfilled from electricity board (WESCO).

13.0 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from March 2016 to May 2016. Ambient air quality monitoring has been carried out at 8 locations during March 2016 to May 2016 and the data submitted indicated:  $PM_{10}$  (34.8 µg/m<sup>3</sup> to 83.6 µg/m<sup>3</sup>),  $PM_{2.5}(10.5 µg/m^3 \text{ to } 43.4µg/m^3)$ ,  $SO_2$  (5.1 µg/m<sup>3</sup> to 19.1µg/m<sup>3</sup>) and NOx (5.5 µg/m<sup>3</sup> to 20.0 µg/m<sup>3</sup>). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 1.9 µg/m<sup>3</sup> with respect to the  $PM_{10}$ , 22.0 µg/m<sup>3</sup> with respect to the SO<sub>2</sub> and 8.5 µg/m<sup>3</sup> with respect to the NOx.

14.0 Ground water quality has been monitored in 12 locations in the study area and analysed. pH: 6.51 to 8.51, Total Hardness: 35.28 to 330 mg/l, Chlorides: 10.68 to 84.50 mg/l, Fluoride:< 0.1 to 0.28 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 4 locations. pH: 8.07 to 8.43; DO: 5.6 to 6.6 mg/l and BOD: < 3 to 10.87 mg/l. CODFrom<5 to 34.8 mg/l.

14.0 Noise levels are in the range of 46 to 54 dBA for daytime and 37 to 44 dB(A) for nighttime.

15.0 It has been reported that there are no oustees or project affected persons or home oustees, thus R & R plan is not required for this project.

16.0 It has been reported that, 100% of 112207 TPA. Solid waste likely to be generatedwill be utilised or disposed in scientific manner. The AFBC generated bottom ash will be given to the cement plant for iron oxide supplementation, solid waste like Shale & sand stone generated from coal washery will be will be disposed for road making or land fill, broken saggers will be sold in the open market, low grade ore will be given to nearby cement plant like OCL, Generated fly ash will be used in manufacturing of bricks. Granulated Blast Furnace Slag is given to cement plant or brick plants, Slag generated due to ferro alloys and non-granulated induction furnace slag will be used metal recovery plants and land filling. Miscellaneous dust generated from ESP will be given to cement plant. The hazardous materials like used oil and spent oil will be 10 KL/ year along with marginal quantity of lead acid battery or dry battery will be sent to authorized recycler having authorization from competent authority like OPCB. The company has already planted about 17730 treeson 8.23 Acres. Green belt will be developed in 33% i.e. 14.93 Acres.

17.0 It has been reported that, Consent to Operate under Air act and Water act from the Odisha State Pollution Control Board (OPCB) obtained vide Lr. 3063/ IND-I-CON-2880 dtd. 19<sup>th</sup>Feb. 2016 and consent is valid upto31<sup>st</sup> March 2018

18.0 The Public hearing of the project was held on 22.09.2017 at 10:00 AM at Khajurdihi Football Ground (Near EMRS, Laing), Tehsil – Rajgangpur of Sundargarh District under thechairmanship of Shri. Bhaskar Chandra Turuk Additional District Magistrate, Sundargarh for Expansionof the existing project. The issues raised during public hearing are inter alia, related to Local employment; no further land acquisition; environmental protection; developing health care facilities along with provision of Ambulance in case of emergency; peripheral development; poor public relation; additional greenbelt development; Land acquisition;

educational facilities; unavailability of water; Infrastructural facility;etc. The Statement of main issues raised by the public and response of the project proponent with action plan is

S	Question/Issue/	<b>Reply from project proponent</b>	Time frame	Budgetary
1.	Suggestion			provision
1.	No additional	The expansion will be carried out at	Zero-time	No funds
	land should be	existing operational unit having 45.26	frame.	required
	acquired for	Acre which is already acquired land		
	proposed	part of which is obtained under lease		
	expansion.	from IDCOL no additional land will		
		be required		
2.	Employment	Local people have already given	About 100	The workers
	generation for	priority at the existing plant. About	people will	will be paid
	the local people.	90% workers are from surrounding	get	as per
		areas. The company will also give	during the	prevailing
		based on their skill and knowledge for	construction	minimum wages act or
		the proposed expansion project	stage	as per
		the proposed expansion project.	thereafter	demand
			regular	supply
			employment	whichever is
			to additional	higher.
			293 people	8
			are likely to	
			beemployed	
			:	
			Existing 348	
			+ Proposed	
			293 = Total	
			641)	
3.	Air Pollution	• The company is having adequate	The entire	The capital
	generation and	Air Pollution Control equipment's	pollution	cost
	control	like ESP, Bag Filters with Central	control	estimated is
		Dust Collection System.	system	550 Lakins
		• In the proposed expansion also all	the	for direct
		the pollution control equipment	expansion	control
		to be installed	project shall	equipment
		• Evoltive dust emission are being	he	and Rs 260
		• Fugilive dust emission are being	implemente	Lakhs for
		Sprinkling System in pucce	d along with	Environmen
		internal roads	implementat	t
		internariouus,	ion and	Managemen
			construction	t Plan as
				capital cost
				and Rs.128
				Lakhs as
				annual
				recurring
				cost.

S	Question/Issue/	Reply from project proponent	Time frame	Budgetary
<b>4</b> .	Village road will	The material will be transported	No time	No cost
	not be used for	through dedicated company owned	frame	involved
	transportation	connecting to Rourkela Sambalpur Highway The village road are not	involved.	
		being used		
5.	Water pollution	The company is maintaining Zero discharge all the time and in proposed expansion this will be continue.	All the waste water treatment system and rain water recharged structures will be constructed along with the implementat ion of the project.	The cost has been included in civil cost of project activity as an integral part. water regime capital cost budgeted in Rs.15.00 Lacs recurring cost of Rs.5.00
6.	Noise	<ul> <li>In the existing operation noise level are being kept within standards all the time.</li> <li>Noise control measure are as following steps:</li> <li>1. The acoustic enclosure will be provided to turbine</li> <li>2. Green Belt at industry premises.</li> <li>3. Sufficient height of boundary wall will be provided Design and layout of building to minimize the transmission of noise,</li> </ul>	All the Noise control systems will be constructed along with the implementat ion of the project.	Lacs/annum. The cost has been included in cost of project activity as an integral part. Noise control capital cost budgeted in Rs.25.00 Lacs and recurring cost of Rs.2.00 Lacs/annum.
7.	Health Care Facility	<ul> <li>The company is regularly doing Occupational Health of workers.</li> <li>Health checkup facility thrice in month is being carried out in surrounding villages, in which</li> </ul>	The company is already undertaking CSR activities as	The enterprise social commitment @2.5% of Also under

S	Question/Issue/	on/Issue/ Reply from project proponent '		Budgetary		
l.	Suggestion			provision		
		free medicine for common disease	per its	EMP total		
		were being given to people.	regular plan.	Rs25.00		
			It will be	Lacs under		
			continued	Capital cost		
			after the	and Rs.2.5		
			project	lacs under		
			expansion	annual		
			also	recurring		
			throughout	cost is		
			its lifetime	considered		
			as per the	for		
			CSR policy	Occupations		
			under	bealth and		
			Companies	Safety		
			A of and as	Salety.		
			Act and as			
			MOEFACC			
0			guidelines	T		
8.	Drinking Water	The company already has been	The .	The		
		providing drinking water facility to	company 1s	enterprise		
		nearby villages.	already	social		
		In this regards company has already	providing	commitment		
		constructed about 45 borewells.	required	cost has		
		In Future, as per requirement,	support for	been		
		company will add to this as per	drinking	considered		
		suggestions of local people.	water, it will	under which		
			continue its	drinking		
			support in	water		
			future also	facilities		
			as per need	will also be		
			based	covered.		
			requirement.	<b>D</b>		
9.	Plantation	The company has already planted	The entire	Rs.20.00		
		about 17/30 trees in 8.23 Acres.	green belt	Lakhs		
		Green belt will be developed in 33%	will be	towards		
		1.e. 14.93 Acres of total 45.26 Acres	planted	green belt		
		of project area.	along with	development		
			implementat	(capital		
			10n of the	cost) and		
			project	Rs.5.00		
			activity.	Lacs per		
			within next	year		
			36 months	asmaintenan		
L			time.	ce cost.		
10.	Village Road	The company is ready spent on the	the company	The		
		village road development in	will seek	enterprise		
			opinion	social		

S	Question/Issue/	Time frame	Budgetary		
1	Suggestion	Kepty from project proponent	I mit ii amt	provision	
1.	Buggestion	accordance to direction of District authorities under CSR funds.	from district administrati on and as per appropriate need it will be decided to support the developmen t of village roads.	commitment covers, strengthenin g/maintenan ce of village roads facilities is also covered.	
11.	No increase in existing Sponge Iron Unit	The company has not proposed to increase production capacity of existing sponge iron plant.	No time frame required	Not involved.	
12.	Why this Public Hearing is conducted at Khajurdih and why not in Barpali Village.	The Public Consultation site selection is based on the suggestion by Block Development Officer to Additional District Collector In addition to this, the project site falls under Laing Panchayat (the land panchayat consist of Khajurdih, Barpali, Ghogar and Laing Village).	No time frame required	No fund involved	
13.	Skill development support to be provided.	The company provided on job trainings to the graduate engineers as per apprenticeship act and in addition also provided on job training to the youths as per eligibility of youth and availability of working space in the plant.	It is an ongoing process and it will be continued after expansion also.	Under enterprise social commitment vocational training to local youth is also covered.	
14.	Health survey	The company is already providing Doctor's consultation services with free medicine, as per which no significant impact on health due to operation of the plant is reported by consulting doctors.	It is an ongoing process and it will be continued in future also.	The enterprise social commitment covers Health & medical facilities to locals.	

19.0 An amount of Rs 261 Lakhs (2.5 % of Project cost) has been earmarked forEnterprise SocialCommitment based on public hearing issues. The details of ESC proposed are as follows:

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Economic Development activities	2.0	2.0	11.0	6.0	5.0	26.0

Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Education facilities	6.0	5.5	8.0	8.0	7.0	34.5
Health & Medical facilities	8.0	8.0	8.0	8.0	5	37
Drainage and sanitation facilities	3.0	4.0	4.0	4.0	4.0	19.0
Drinking water facilities	9.0	8.5	8.0	11.0	8.0	44.5
Infrastructure development	3.0	6.0	6.0	5.5	5.0	25.5
Women empowerment	6.0	7.5	8.0	7.0	14	42.5
Agriculture Improvement Program	5.0	7.0	7.0	7.0	6.0	32
Total						261.0

20.0 The capital cost of the project is estimated to Rs. 10438 Lakhs and the capital cost for environmental protection measures is proposed as Rs 260 lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 128 lakhs. The employment generation from the proposed project / expansion is (Employment: Existing 348 + Proposed 293 = Total 641). The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sr.	Activities	Capital Cost,	Recurring cost,
No.		(Rs. in Lakhs)	(Rs. in Lakhs.)
1.	Pollution Control during Construction Stage	25	0.5
2.	Air Pollution Control Measures ESPs, Bag	-	30
	filters, dust extraction systems, stacks etc.		
3.	Wastewater Management and Effluent	15	5
	Treatment Plant		
4.	Environmental Monitoring Instruments and	100	2
	Laboratory		
5.	Solid waste Management	25	3
6.	Noise Reduction Systems	25	2.0
7.	Occupational Health & Safety (Provision of	25	2.0
	PPE, Medical Examination)		
8.	Greenbelt Development (Plantation and	20	5
	maintenance)		
9.	Environmental Monitoring Program	-	25
10.	Socio-economic Welfare Measures	-	53
11.	Miscellaneous	25	0.5
Total		260	128

Note:

• Air Pollution Control Measures ESPs, Bag filters, dust extraction systems, stacks etc. cost included in project cost (Capital Cost – Rs. 350 Lakhs.)

• The budget may increase as per actual requirement during plant operations in the subsequent years.

21.0 Total plant area is 45.26 Acre (18.32 Ha.).Greenbelt will be carried out within 6.04 Ha.which is about 33% of total plot area @ of 2000 trees/ha. Development of 3 -tier green belt by plantation has already been done within the campus of the factory as per CPCB/MoEF&CC,

New Delhi guidelines. Local and native Species will be planted with a density of 2000 trees per hectare. The details of green belt developed as under:

Total Area	In Acre	Particulars	Area (Acre)
Existing Industrial	11.41	<b>Existing Plantation</b>	8.23 (3.33 Ha.)
Land			
Proposed Industrial	33.85	Proposed plantation	6.70 (2.71 Ha.)
Land			
Total	45.26 Acre (18.32	Total	14.93 (6.04 Ha.)
	Ha.)		i.e. 33% of total
			plot area

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

23.0 EIA Consultant: Anacon Laboratories Pvt. Ltd., Nagpur accreditated by QCI/NABET

### **Observations and recommendations of the committee:**

24.0 After detailed deliberations, the committee recommended the proposal for Environmental Clearance with the following modification in the ESC activities and its budget for implementation and other conditions.

i. Revised ESC budget to Rs.262.0 lakhs which will be spent only on creation of capital such as sanitation; Drinking water supply; Health, Rural Road, Women Empowerment. All these fundsshall be spent during five years parallel to the implementation of proposed project as capital expenditure only.

Particulrs	Year	Year	Year	Year	Year	Total		
	1	2	3	4	5			
	(Rs. In Lakhs)							
Drinking Water Facilities – (Rs. 75 Lakhs)								
Construction of borewell/hand	7	7	7	7	7	35		
pumps in nearby villages								
Construction of rainwater harvesting	4	4	4	4	4	20		
structures								
Deepening of village ponds for	4	4	4	4	4	20		
improving water storage and								
availability								
Sanitation System (Rs. 30 Lakhs)	-	-	_			-		
Construction of Public Toilets	5	5	5	0	0	15		
Construction of Drainage gacilities	3	3	3	3	3	15		
in nearby villages								
Health & Medical facilities (Rs. 35 I	Lakhs)							
Provision of necessary equipment	3	3	3	3	3	15		
such as nursing bed, ECG								
Equipment's, Diabetic monitoring								
system etc for PHC								
Ambulance to nearby panchyats	10	0	0	10	0	20		
Infrastructure development (Rs. 48	Lakhs)							

Strengthening/maintenance of	3	3	3	3	3	15
village roads						
Provision of solar street lights	5	5	5	5	5	25
Provision of waiting shelters at	0	4	0	0	4	8
busstop						
Women empowerment (Rs. 34 Lakh	ls)					
Construction of Mahila Vikas	0	5	0	0	5	10
Kendra						
Computer and other equipment's for	0	3	2	2	5	12
MVK						
Assistance to woman SHGs (	1	2	2	2	5	12
stitching machinery)						
<b>Education facilities (Rs. 15 Lakhs)</b>						
Provision of computers, books,	3	3	3	3	3	15
furniture to village schools						
Agriculture Improvement Program	(Rs. 25 I	Lakhs)				
Financial assistance for Irrigation	5	5	5	5	5	25
facilities for installation of solar						
water pumps						
Total	53	56	46	51	56	262

- ii. Greenbelt shall be implemented during the coming monsoon in this year only, i.e., 2018.
- iii. Separate budget provisions for Environmental protection and mitigation measures.
- 29.17 Expansion of mini integrated steel plant at village Taraimal, P.O.Gerwani, Tehsil Gharghoda, District Raigarh, Chhattisgarh by M/s Singhal Enterprises Pvt. Ltd.-[Online Proposal No. IA/CG/IND/53125/2016; MoEF File No. J-11011/195/2007-IA-II(I)- Environmental Clearance

**1.0** M/s Singhal Enterprises Pvt. Ltd has made online application vide proposal no. IA/CG/IND/53125/2016 dated 24<sup>th</sup> November 2017 along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous &non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at the Central Level

# Details of the project as per the submissions of the project proponent:

2.0 The proposed expansion of Steel Plantof M/s.Singhal Enterprises Pvt. Ltd.located atTaraimal Village, Tamnar Tehsil (Formerly Gharghoda), Raigarh District, Chhattisgarh was initially received in the Ministry on 23-04-2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraisedin7<sup>th</sup> EAC (Industry-1) meeting held on  $30^{th}$ May –  $1^{st}$ June 2016 for prescribing ToR to the expansion project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on  $2^{nd}$ August 2016vide Lr. No.J-11011/195/2007- IA.II(I).

3.0 The project of M/s. Singhal Enterprises Pvt. Ltd. located at Taraimal Village, Tamnar Tehsil (Formerly Gharghoda), Raigarh District, Chhattisgarh is having existing E.C. vide letter no. J-11011 / 195 / 2007 – IA II (I) dated 19<sup>th</sup> February 2008 and subsequently amended on  $21^{st}$  December 2010 &  $22^{nd}$  March 2011for the units of Sponge iron – 2,83,500 TPA, Billets through IF and Arc Furnace of 2,16,000 TPA, Rolled products of 90,000 TPA, Ferro Alloys of 10,800 TPA, Siter plant of 2,59,200 TPA, Mini Blast Furace of 87,500 TPA, Coal washery of 1,50,000 TPA & WHRB power of 16 MW & FBC Power Plant of 48 MW Capacity.

4.0 As validity of earlier E.C. has been expired on 19<sup>th</sup>February, 2015 and could not implemeted few of the units and submitted the request letter to MoEFCC for Extension of validity of EC before the expiry of validity period.

5.0 Now they proposed for implement the remaining units i.e. Sponge iron plant of 30,000 TPA Billets through EAF /IF of 1,20,000 TPA, rolling mill have not been implemented & was dropped, establishment of Sinter plant of 2,59,200 TPA, Pig Iron through MBF of 87,500 TPA, Power Plant of 8 MW through WHRB of DRI kilns & establishment of 22 MW FBC based Power Plant.

6.0 The existing project was accorded environmental clearance vide order No. J-11011 / 195 / 2007 – IA II (I) dated 19th February 2008. The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide F.No. 5-34/2008/ Env/2161 dated 27th July 2017. The observations reported by R.O. Nagpur inter alia include, ESP not performing well; Online data also showed higher concentrations; Lot of dust was visible at places due to improper operation of DES, DSS, etc., Fly ash utilisation data not provided at the time of site visit, Data pertaining to number of plants planted and area covered under greenbelt has not been shown, Still scope for greenbelt development, Details of expenditure incurred on Environment protection measures not provided during visit, AAQM data not provided, Noise level monitoring data not provided during site visit, Occupational health status records not provided during site visit, Display of Environmental data for public not done so far, Stack height of 120 m not provided as per EC amendment in 2010, Not submitting six monthly compliance report to Regional Office of MoEF, Not submitting Environmental Statement (Form-V) for each financial year to concerned SPCB. It has been reported that the a letter has been submitted by the proponent with action plan for compliance of the above observations to the Regional office of MoEF&CC, Nagpur vide letter dated 4<sup>th</sup> November, 2017. In reply to this, the Regional office of MoEF&CC, Nagpur has issued the closure of non-compliances letter on 15<sup>th</sup> November 2017. The following are the existing EC permitted units & Proposed units

· ·	The vehicle, 2017. The following are the existing De perinted units at 110posed units.						
S1	Details	Existing	Expansion for	Total	Status of	Total	Units to be
		production	which EC	Capacity	Implementati	Capacity in	Implement
		Capacities	Obtained on	after EC	on of	operation as	ed for EC
		Prior to	19 <sup>th</sup> Feb.	expansion	Expansion	on Current	sought
		issue of EC	2008, and	after EC	Project for	Date	[3] - [5]
		in 2008	amended on	dated Feb	which EC	[1] + [4]	
		[1]	21 <sup>st</sup> Dec. 2010	2008 and its	accorded in		
			& 22 <sup>nd</sup> March	amendments	Feb 2008 &		
			2011	(TPA)	amendments		
			[2]	[3]	thereof		
					[4]		
1.	DRI Kiln for	1,93,500	90,000 TPA	2,83,500	60,000 TPA	2,53,500	30,000
	Production of	TPA		TPA		TPA	TPA
	Sponge Iron					in Operation	
2.	Induction furnace with CCM & LRF	48,000 TPA	1,68,000 TPA	2,16,000 TPA	48,000 TPA	96,000 TPA in operation	1,20,000 TPA
----	--	------------	--	---	------------	---	--
3.	Rolling Mill		90,000 TPA	90,000 TPA		Not implemented	
4.	Ferro Alloy plant for production of Si-Mn		10,800 TPA	10,800 TPA	10,800 TPA	10,800 TPA	
5.	Sinter Plant		2,59,200 TPA (1 x 50 M <sup>2</sup> )	2,59,200 TPA (1 x 50 M <sup>2</sup> )		Not implemented	2,59,200 TPA (1 x 50 M <sup>2</sup> )
6.	Blast Furnace for production of Pig Iron		87,500 TPA (1 x 125 M <sup>3</sup> )	87,500 TPA (1 x 125 M <sup>3</sup> )		Not implemented	87,500 TPA (1 x 125 M <sup>3</sup> )
7.	Coal Washery		1,50,000 TPA	1,50,000 TPA		1,50,000 TPA applied for CTO	1,50,000 TPA
8.	Power Plant through WHRB	8 MW	8 MW	16 MW		8 MW in Operation	8 MW
	Power Plant through FBC Boiler		48 MW	48 MW	8 MW	8 MW under Operation & Installation of 1 x 18 MW is under construction	1 x 22 MW

7.0 The total land required for the existing units / unimplemented units is 137Ha./ 338.5acres. The land is industrial. Entire land is in possession of management. No additional land is proposed. No forest land involved. No River / stream passes through the plant area. It has been reported that no natural water body / stream exists in the plant area and any modification / diversion in the existing natural drainage pattern at any stage has not been proposed.

8.0 The topography of the area is flat with undulations and reported that the site lies between  $22^{\circ}01'30.60"$  to  $22^{\circ}02'21.96"$  North Latitude and  $83^{\circ}21'03.20"$  to  $83^{\circ}22'06.29"$  East longitude in Survey of india Topo sheet no. 64N/8 at an elevation of 275 AMSL. The ground water table reported to ranges between 3 to 14 m bgl below the land surface during the postmonsoon season and 2 to 6 m bgl below the land surface during the pre-monsoon season.

9.0 There are no notified National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve/ migratory routes for Birds with in 10 Km. radius of the plant. However as per the secondary source movement of Elephants is observed within 10 Kms. radius of the plant. Conservation plan is prepared and submitted to Principal Chief Conservator of Forests (PCCF), Raipur. Recommendations / comments of the Principal Chief Conservator of Forests (PCCF), Raipur have been obtained. As per their recommendation, a fund of Rs. 65.00 Lakhs to be spent for the Plan Period i.e. 2 years (2018 to 2019 & 2019 to 2020) and it would be funded by the

Project Proponent. The list of flora and fauna during study period in the study area is enclosed as Annexure -11 of EIA.

10.0 Detailed process provided in the EIA report and list of raw material for the proposed expansion project is given below

Raw Material		Quantity (TPA)	Sources	Mode of Transport
For DRI Kil	ns (Sponge	(1212) Iron) – 30,(	000 TPA	
Iron ore		48,000	Oraghat Mines, Odisha Sanindpur Mines, Odisha	By rail & road (through covered trucks)
Coal Indian		39,000	SECL Chhattisgarh / MCL Odisha	By rail & road (through covered trucks)
	Imported	24,000	Indonesia / South Africa / Australia	Through sea route, rail route & by road
Dolomite	I	1,650	Local area	By road (through covered trucks)
Limestone		2,250	Local area	By road (through covered trucks)
For Inductio	n Furnace	(MS Billets)	) – <b>1,20,000 TPA</b>	
Sponge Iron		43,000	In plant generation	By Conveyor
Hot Metal / P	ig iron	87500	In plant generation	By conveyor
Scrap		17,000	Local area	By road (through covered trucks)
Ferro Alloys		1,800	Local area	By road (through covered trucks)
Raw Materia	al	Quantity (TPA)	Sources	Mode of Transport
For Sinter p	lant (Sinter	() - 2,59,200	TPA	
Iron ore fines	· · · · · · · · · · · · · · · · · · ·	2,32,000	Oraghat Mines, Odisha Sanindpur Mines, Odisha	By rail & road (through covered trucks)
Limestone		18,400	Chhattisgarh	By rail & road (through covered trucks)
Dolomite		20,220	Chhattisgarh	By rail & road (through covered trucks)
Coke breeze		15,550	CG / MP region	By rail & road (through covered trucks)
Burnt Lime P	owder	6,480	Raigarh / Durg	By road (through covered trucks)
Mill scale		8712	Near by Industries.	By road (through covered trucks)
Flue dust		28,878	In house gen.	through covered conveyors
Sinter plant r	ter plant return		In house gen.	through covered conveyors

Return fines from BF		23,310	In house gen.	through covered	
For Blast Fu	rnace (Pig		500 TPA	conveyors	
Sinter		1,15,000	In house gen.	through covered conveyors	
Iron ore lump		76,600	Oraghat Mines, Odisha Sanindpur Mines, Odisha	By rail & road (through covered trucks)	
LAM coke		32,400	Vizag.	through covered conveyors	
Quartzite		2,200	CG / MP region	By rail & road (through covered trucks)	
Manganese of	re	1,300	MOIL, Maharashtra	By rail & road (through covered trucks)	
For FBC Bo	iler [Power	Generation	n 22 MW]		
Dolochar		9,000	In plant generation From Existing plant	through covered conveyors	
Coal	Indian	1,08,000	SECL Chhattisgarh / MCL Odisha	By rail & road (through covered trucks)	
Importe		64,000	Indonesia / South Africa / Australia	Through sea route / rail route / by road	
For Coal Wa	shery		·	·	
Raw Coal		1,50,000	SECL Chhattisgarh / MCL Orissa	By rail & road (through covered trucks)	

11.0 The targeted production capacity of the plant after expansion project is Sponge Iron of 0.28 million TPA, Sinter plant of 0.259 million TPA, Pig Iron through Blast Furnace of 0.087 million TPA& Power Generation of 64 MW (FBC: 48 MW & WHRB: 16 MW).Iron ore, Irone ore fines would be supplied by **M/s. Rungta Sons Pvt. Ltd.** & imported Coal for would be supplied by **M/s. Adani Enterprises Ltd.** Iron Ore, Iron Ore fines &Imported Coal transportation will be done through Ship from Gangavaram port and from there to Raigarh Railway Station by Rail. The coal unloaded at Raigarh Railway Station will be transported to the project site by road through covered trucks, which is at 19.5 Kms. from the plant.

12.0 Water requirement for the unimplemented units will be 2,460 KLD. Total water requirement for the entire project will be 6,660 KLD, which will be sourced from Chhuikansa Nallah. The permission for drawl of water **is obtained** from Water Resource department, Govt. of Chattisgarh vide letter dated **June 2008**.

13.0 Total power required for the existing units & for the Un-implemented units will be 50.8 MW which will be met from the existing & expansion captive power plants of 64 MW. The surplus power will be sold to the Third Party.

14.0 Baseline Environmental Studies were conducted duringwinterseason i.e. from  $1^{st}$ March to  $31^{st}$ May 2017. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated that PM<sub>2.5</sub> (23.6 to 47.2 mg/m<sup>3</sup>), PM<sub>10</sub> (41.5 to 81.9µg/m<sup>3</sup>), SO<sub>2</sub> (8.5 to 23.5 mg/m<sup>3</sup>), NOx (9.3 to 34.9 mg/m<sup>3</sup>) & CO (615 to 1242 mg/m<sup>3</sup>). The results of the modeling study indicates that the maximum increase of GLC due to the proposed un-implemented units & Vehicular emissionswill be3.49 µg/m<sup>3</sup> with respect to the PM,5.37

 $\mu g/m^3$  with respect to the SO<sub>2</sub>, 14.23  $\mu g/m^3$  with respect to the NOx &5.47  $\mu g/m^3$  with respect to the CO.

15.0 Ground water quality has been monitored in 8 locations in the study area are analysed and the data submitted indicated pH: 7.2 to 7.9, Total Hardness: 208 to 269mg/l, Chlorides: 109 to 176mg/l, Fluoride: 0.41 to 0.51 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 2locations in the study area and analysed and the data submitted indicated pH: 7.4 to 7.7 and DO: 5.4 to 5.5 mg/l.

16.0 Noise levels are in the range of 44.95 dB(A) to 62.57 dB(A) during  $1^{st}$  March to  $31^{st}$  May 2017.

17.0 It has been reported that there are no habitations in the site & no additional land isproposed for implementing un-implemented units. No R&R is involved.

18.0 It has been reported that the following Solid wastes will be generated due to the proposed project which will stored in storage yard above the ground level. Fly ash will be stored in Silo.

Sl.	Waste / By	Quantity	r (TPA)	Method of disposal		
	product	From	From the			
		Existing	Un-			
		operating	implemente			
		units	d units			
1.	Ash from DRI	45,630	5,400	Will be used in own brick		
				manufacturing unit and remaining		
				quantity will be given to other		
-	5 1 61			brick manufacturers.		
2.	DoloChar	76,050	9,000	Will be used in FBC boiler as fuel		
3.	Wet scrapper	1,14,075	13,500	Will be given to brick		
	sludge			manufacturers.		
4.	Kiln Accretion	25,350	3,000	Will be used in road construction		
	Slag		••••			
5.	ESP, FES & Bag	35833	28878	will be utilised in the sinter plant.		
	filter dust					
	(inclusive of					
6	existing)	NT:1	22.960			
6. 7	Sinter returns	N11	23,860	Will be recycled to process again		
7.	Granulated slag	N1l	26,250	Will be given to Cement Plant of		
				M/s. Ultratech Cement Ltd. Hirmi		
0	CCD also de a	NT:1	20	(D), Kaipur.		
<u>ð.</u>	GCP sludge	<u>IN11</u>	30	will be used in Sinter Plant		
9.	Slag from SMS	9,600	12,000	Slag will be crushed and after		
				recovery of front, it will be used for		
10	Mill Socla from	N1:1	NI:1	Will be reused in SMS		
10.	NIII Scale from	1N11	1N11	will be reused in SIMS		
11	Kolling Mill	1.01.442	62 206	Will be given to Compart Plant of		
11.	Asii Iroin Power	1,01,445	03,300	Will be given to Cement Plant of		
	Fiant			(D) Doingur		
				(D), Kaipur.		

	(with Indian coal)			
12.	Ash from Power Plant (with Imported coal)	75,703	36,345	Will be given to Cement Plant of M/s. Ultratech Cement Ltd. Hirmi (D), Raipur.
13.	Washery rejects	Nil	42,000	Will be utlized in FBC boiler.

19.0 It has been reported that MoUs have been entered with M/s. Ultratech Cement Ltd. Hirmi (D), Raipur for utilize the Fly ash & Granulated slag (from MBF) generated from the proposed units for manufacturing Cement in their Cement manufacturing unit.

20.0 It has been reported that an area of **50 Hectares** (**123.55 Acres**) is already been developed as green belt out of total plant area **137 Ha.** (**338.5 Acres**) to attenuate the noise levels and trap the dust generated due to the project development activities.

21.0 It has been reported that the Consent To Operate from the Chhattisgarh Environment Conservation Board has been obtained vide order no. 189/TS/CECB/2016 dated 11-04-2016 and consent is valid up to 31<sup>st</sup> March, 2018.

22.0 Public Hearing is exempted for the project as there is no change in the overall capacity of the plant as per the ToR issued to the project on 2<sup>nd</sup>August 2016vide Lr. No.J-11011/195/2007- IA II (I).

23.0 An amount of **Rs.7.5 Crores** (2.5 % of expansion Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. The details of ESC proposed are as follows:

S.No.	Major Activity Heads		Years (Rs. In Crores)						Total
		1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	<b>4</b> <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	Expenditure
									(Rs. In Crores)
1	Community & Infrastructure Development Programmes								
	(Development of village road, Supply of Water Tankers in village, development of school buldings, providing Street Lights & its maintenance in panchayat area, Construction of community hall, maintenance of Temples in nearby Villages, sanitation facilities, drainage facilities in near by villages & schools)	0.4	0.4	0.4	0.4	0.4	0.3	0.3	2.6
2	Skill&EntrepreneurDevelopment(ITI, vocation training institute with latest Tools, Women Empowerment & Development Programme, Skills updation on welder / Fitter / wiremen etc.)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.70

3	Education and Scholarship Programmes (Providing furniture, computers, library, sports equipment etc for schools, Sponsorship for School Sport events, Merit Scholarships to Schoel Children	0.2	0.2	0.2	0.2	0.2	0.1	0.05	1.15
4	Medical & health related activities (Providing Primary health center, Periodical Medical Camps and distribution of Medicines, Animal care - Veterinary Fertility Health camps, Awareness programmes on malnutrition, HIV camps etc, Ambulance facilities to villagers)	0.3	0.3	0.3	0.3	0.2	0.2	0.2	1.80
5	Water Harvesting & Plantation (Construction of water harvesting structures/ culverts/ pond deepening, Roadside Plantation & maintanance, De-siltation of Ponds etc)	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.45
6	Other requirements as per needs of the nearby Village Panchayat	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.80
	Grand Total -	@ 2.5	% of T	otal Pr	oject Co	st			7.50

24.0 The capital cost of the project is **Rs.300Crores** and the capital cost for environmental protection measures is proposed as **Rs. 28Crores**. The annual recurring cost towards the environmental protection measures is proposed as **Rs. 1.6 Crores/annum**. The employment generation is100 people during operation of the proposed expansion and 200 people during construction of the proposed units. The details of capital cost for environmental protection measures is as follows:

S.No	Item	Capital Cost (Rs.in Crores)	Recurring Cost / Annum
			(Rs.in crores)
1	Air Emission Management	20.3	0.75
	• ESPs		
	Venturi Scrubber		
	• Multicyclone		
	• Dust Extraction systems with Bag		
	filters		
	• Chimneys		
	• Water Sprinklers		
	Environment Monitoring		
2	Wastewater Management	2.0	0.30
	• ETP		
3	Solid waste Management	5.0	0.35
	• Ash handling system		

	<ul> <li>Other Solid waste management</li> <li>Construction of Pucca Platform for storage</li> <li>Hazardous &amp; Municipal solid waste storage</li> </ul>		
4	Greenbelt development, Land scaping Noise Management	0.5	0.10
5	Occupational Health & Safety	0.2	0.10
TO	ΓAL 2	28.0	1.60

25.0 Greenbelt has been developed in **50 Ha.** (**123.55 acres**) which is about 33% of the total acquired area. Greenbelt width varying from 10 to 460 m has been developed all around the plant. There are 81,151 no. of plants have already been developed in the existing plant premises.

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

# **Recommendations of the committee:**

27.0 After detailed deliberations, the committee recommended the proposal for Environmental Clearance with the following modifications in ESC, stack height and Environmental Monitoring cost and Biodiversity conservation plan and waste management plan as given below.

S No	Major Activity Heads		V	ears (R	s In Cr	ores)		Total
5.110.	Major Activity ficaus	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	Expenditure (Rs. In Crores)
1	Community & Infrastructure Development Programmes (Development of village road, Supply of Water Tankers in village, development of school buldings, providing Street Lights & its maintenance in panchayat area, Construction of community hall, maintenance of Temples in nearby Villages, sanitation facilities, drainage facilities in near by villages & schools)	0.7	0.4	0.4	0.4	0.4	0.3	2.6
2	Skill&EntrepreneurDevelopment(ITI, vocation training institute with latest Tools, Women Empowerment & Development Programme, Skills updation on welder / Fitter / wiremen etc )	0.2	0.1	0.1	0.1	0.1	0.1	0.70
3	Education and Scholarship Programmes	0.2	0.2	0.2	0.2	0.2	0.15	1.15

i. The entire ESC budget shall be implemented in 6 years time as hereunder.

	(Providing furniture, computers, library, sports equipment etc for schools, Sponsorship for School Sport events, Merit Scholarships to School Children)							
4	Medical & health related activities (Providing Primary health center, Periodical Medical Camps and distribution of Medicines, Animal care - Veterinary Fertility Health camps, Awareness programmes on malnutrition, HIV camps etc, Ambulance facilities to villagers)	0.5	0.3	0.3	0.3	0.2	0.2	1.80
5	Water Harvesting & Plantation (Construction of water harvesting structures/ culverts/ pond deepening, Roadside Plantation & maintanance, De-siltation of Ponds etc)	0.1	0.1	0.1	0.05	0.05	0.05	0.45
6	Other requirements as per needs of the nearby Village Panchayat	0.2	0.2	0.1	0.1	0.1	0.1	0.80
7	Budget for conservation plan for the ye	ears 20	18-20					0.65
	Grand Total - @ 2	2.5% 0	f Total	Project	t Cost			8.15

ii. Stack height for 1x100 TPD DRI kiln shall be 50 m based on the coal consumption and sulphur content in the coal.

iii. The implementation of wildlife conservation plan shall be as given below:

S.No	Activities	Number/rate	Yearwise allotment (in 2018-19	budget Rs lakh) 2019-20	Amount (Rsin lakh)
1	Construction of stop-dams	1	30.0	-	30.0
2	Construction of earthen tank for elephants in compartment no.906 range Raigarh Purchage and	1	-	10.0 6.0	6.0
	installation of solar pump	-			
3	Creation of awareness	LS	2.50	2.5	5.0
4	Crisis management for human elephant conflict	LS	4.50	4.5	9.0

5		LS	5.0	_	5.0
Grand	total		42.0	23.0	65.0

S.N	Monito	No. of u	nits	Mon	Frequency	No.of	Cost/sam	Tota
0	ring	Existi	Propo	itori	of	samples/an	ple (Rs.)	1
	item	ng	sed	ng	Monitoring	num		cost
				para				in
				mete				(in
				rs				lakh
								s)
1	stack	10	10	SO <sub>2</sub> ,	Once in a	20x12=240	Rs.5000	Rs.1
				NO <sub>X</sub>	month	nos		2
2	Effluen	1	2	pН,	Twice in a	3x2x12=72	Rs.6000	Rs.5
	t			TDS	month			.04
				,				
				TSS,				
				0&				
				G,				
				Free				
				avail				
				able				
				Cl.,				
				Fe,				
				Zn,				
				Cr,				
				$PO_4$				
3	Ground	1	1	As	Once in a	2x12=24	Rs.7000	Rs.1
	water			per	month			.68
				IS:1				
				0500				
4	Noise		6		Once in a	6x24x12=1	Rs.100	Rs.1
	levels				month	728		.72
Tota	1							Rs.1
								9.72
Note	Note: CAAQMS & Continuous weather monitoring station will be provided							

iv. The cost for break up of environmental programme.

v. Solid waste management plan as given below:

S.No.	Waste/By	Quant	Method of disposal	
	Product	From Existing	From the Un-	
		Operating Units	implemented units	
1	Ash from DRI	45,630	5,400	Used in own brick
				manufacturing unit
				and remaining
				quantity will be
				given to other brick
				manufacturers.

2	Dolo Char	76,050	9,000	Used in FBC boiler
				as fuel. Similar
				practice in
				expansion also.
3	Wet scrapper	1,14,075	13,500	Brick manufacturing
	sludge			
4	Kiln	25,350	3,000	In road construction
	Accretion slag			

# 29.18 Expansion of cement plant at village Telighana, Tehsil Rajgangpur, Dist. Sundergarh, Odisha by M/s Shiva Cement Ltd. [Proposal No. IA/OR/IND/6582/2011; MoEF&CC File No. J-11011/84/2008-IA II(I)] – Extension of Validity of EC& Corrigendum

1.0 M/s Shiva Cement Limited made online application vide proposal no. IA/OR/IND/6582/2011 dated  $27^{th}$  Febrauary 2018 seeking extension of validity and Corrigendum of Environmental Clearance granted earlier for the above mentioned project vide J-11011/84/2008-IA.II(I) on  $23^{rd}$  July 2011.

# **Details of the project as per the submissions of the project proponent:**

2.0 The Cement Plant of M/s Shiva Cement Ltd. located in Village Telighana, Tehsil Rajgangpur District Sundergarh, State Odisha was accorded environmental clearance for the expansion of clinker capacity from 0.115 MTPA to 0.71 MTPA and Cement production capacity from 0.132 MTPA to 0.918 vide EC letter dated 23rd July 2011.

3.0 It was informed that due to financial constraints M/s Shiva Cement could not commence the expansion project earlier. However, with the focus of government on industrial growth in the country, now, the company confident of raising the adequate fund from the bankers and financial institutions to execute the expansion project.

4.0 The proponent has submitted proposed project implementation schedule in the form of bar chart and mentioned that the expansion will be completed by June 2020.

SI	Activity	Status/ completion date	
1.	Procurement of land for expansion	25.69 acres of land allotted by IDCO vide lease registration dated 10-08-10.	
2.	Permission for withdrawal of 700 m <sup>3</sup> /day groundwater from CGWA	Obtained on 08-02-2013 vide letter No. 21- 4(11)/ SER/ CGWA/ 2007-293, dated 08-02- 2013	
3.	Agreement with Irrigation Deptt. for 700 m <sup>3</sup> /day groundwater	Executed on 06-07-2017	
4.	Placement of work order for Detailed Engineering and	Awarded to M/s Ercom Engineers Pvt. Ltd. on 09-05-2017	

5.0 The progress of the project as informed by PP is as follows:

	project management of the project	
5.	Tenderdocumentsforequipmentsupply,civilandmechanical erection	Offers received from the prospective vendors in June'17
6.	Finalization of technical concept, layout & detailed project report	Completed
7.	Placement of orders for equipment supply	Order to M/s KHD Humboldt issued on 07-07- '17 with advance payment of <b>Rs. 3.65 Crore</b>
8.	Consent to Establish from SPCB	Consent granted by OSPCB vide letter dated 08-03-2018. It was applied in June' 2017.
9.	Boundary demarcation by state revenue deptt.	Applied to state revenue deptt. for demarcation in Apr 2017 and physical demarcation done by Tehsildar office in Jan' 2018
10.	Construction of boundary wall for additional land	Work Order issued and advance payment ( <b>Rs. 37</b> <b>Lakh</b> ) given to local contractor in Oct'17 for boundary wall construction
11.	Application for drawl of 20 KVA load at 132 KV	Submitted to WESCO in May'17.

5.0 It was informed that the company has invested around **Rs. 64 Crores** in the Fixed Assets for the expansion project as per details given below:

Capex for Expansion Project (From Audited	
Accounts)	Rs. Lakhs
Breakup	
Land & Mines Development	829
Building & Civil	421
Plant & Machinery	5096
Other Assets	26
	6373

#### **Observations of the committee:**

6.0 The committee observed that the PP has invested around Rs. 64 Crores in the Fixed Assets and able to complete in the balence works within 3 years.

#### **Recommendations of the committee:**

7.0 After detailed deliberations, the Committee recommended the proposal for extension of validity of Environemntal Clearance for three years, i.e., upto 22<sup>nd</sup> July 2021

**29.19** Expansion of Integrated Steel Plant (from 10 MTPA to 16 MTPA) along with Captive Power Plant (600 MW) of **M/s JSW Steel Limited** located near Village Tornagallu,

District Bellary in Karnataka. [Proposal No. IA/KA/IND/31502/2010; MoEF&CC File No. J-11011/489/2009-IA II(I)] – Amendment in EC

1.0 **M/s JSW Steel Limited**made online application vide proposal no. IA/KA/IND/31502/2010 dated 21th February 2018 seeking amendment in EC issued vide J-11011/489/2009-IA. II(I) dated 1st October, 2015and subsequent amendment vide even number dated 9<sup>th</sup> June 2016 and 22nd January 2018 for the above-mentioned proposal. The proposed project activity is listed at 3 (a) under category A of EIA notification 2006. The proposal is appraised at Central level.

# **Details of the project as per the submissions of the project proponent:**

2.0 The integrated steel plant of M/s JSW at Toranagallu is currently the largest, most modern, and technologically efficient, eco-friendly integrated steel plant in India. The following is the chronology of various phases of its expansion from 1.25 MTPA to 10 MTPA-

- 1.25 MTPA plant commissioned in 1999
- 1.57 MTPA plant commissioned in 2001
- 2.50 MTPA plant commissioned in 2004
- 4.0 MTPA plant commissioned in 2006
- 7.0 MTPA (Phase-1 of 10 MTPA) commissioned in 2009
- 10 MTPA (Phase-2 of 10 MTPA) commissioned in 2011
- 12 Mtpa ( Phse-1 of 16 Mtpa) Commissioned in 2016
- 16 Mtpa (Phase-2 of 16 Mtpa) Under execution

3.0 Environmental Clearance for the 10 MTPA to 16 MTPA expansion was granted by MoEFCC vide letter no. J-11011/489/2009-IA.II(I) dated 1<sup>st</sup> October, 2015 and amendment dated 9.06.2016 & 22.01.2018

4.0 Regional officer, MoEFCC, Bangalore visited the site on 15.06.2017 and no non-compliance reported by the Regional Officer.

5.0 JSW Steel obtained the environment clearance for the expansion from 10 MTPA to 16MTPA on Oct 2015. Subsequently, the Phase-1 of the project of 12 MTPA has beencompleted by 2016. The unit is currently producing at a capacity of 12 MTPA. During2016-17, JSW Steel produced 11.05 Mt of crude steel against a plan of 11.5 MTPA(96%).

6.0 In the meanwhile, there has been a consistent downturn in the domestic steelmarket due to large scale cheaper imports and increased input costs. It is now being proposed to marginally change the approved configuration in the production facilities. The rationale for the proposed change are given below-

- <u>Sinter Plant</u> The approved capacity of 7.5 MTPA is split into two sinter plants of 5.75 and 1.75 MTPA. These will cater to the twoblast furnaces which are located physically at different locations.
- <u>Blast Furnace</u> The upgradation of BF-1 has been completed. The existing BF-3 has come for rebuilding. This opportunity is being utilised to enhance the capacity of the furnace to from 3.0 MTPA to 4.4 MTPA. The newblast furnace BF-5 will be of 3.0 MTPA capacity.

- <u>Steel Melting Shop(SMS)-</u> Under the expansion, it was proposed to install 3X300 t BOF converters and 1X150 t EAF furnace. This is being changed to 2X300 t BOF and 2X150 T EAF. The first EAF has already been commissioned in the 12MTPA stage of expansion.
- <u>Hot Strip Mills-</u> A new HSM of 3.6 MTPA has been approved in the expansion. However, it is proposed to carry out improvements in operational practices (innovation) by way of coil weight increase, Better welder performance, Reduction in roll gap time & reduced roll change time, which will result in increase in capacity of HSM-1 from 3.2 to 4.0 MTPA and of HSM-2 from 5.0 to 5.2 MTPA.
- <u>Cold Rolling Mill (CRM)</u> The existing cold rolling mill CRM-1 is being upgraded by replacing the existing batch type rolling mill to continuous type, resulting in anincrease in capacity by 0.8 MTPA. Further with improved operational practices using the Line speed optimisation model, the capacity of CRM-2 is beingincreased from 2.0 MTPA to 2.3 MTPA.
- <u>Galvanizing Line (CGL)</u> In view of the increased production from CRM-1, it is proposed to install two new galvanising lines of 0.95 MTPA each(2x 0.25+0.45)
- <u>Captive Power Plant (CPP)</u> -The existing CPP 3 & 4 utilise imported coal and gases for power generation. However, due to difficulties in getting imported coal, it is proposed to blend domestic coal with imported coal so that theblended ash content is max 25%. ((50% imported coal+50% Indian Coal) +Gas))
- <u>Township For Project Workers</u> In order to accommodate the construction workers, it is proposed to build a township of 500 dwellings.
- <u>Use of petroleum coke for use in coke ovens:</u> Petroleum Coke is used as a raw material in coke making.NGT has recently ruled that Petroleum Coke shall not be used as a fuel.

S. No	Unit Name	Existing configuration		Total	Changes	New Total (MTPA)	Increase (MTPA)	
		0-4 MTPA	4-10 MTPA	10-16 MTPA	(MIPA)	proposed		
1	Sinter Plant	SP1 - 2.3 MTPA	SP2         -         2.3           MTPA         -         5.75           MTPA         -         5.75           MTPA         -         5.05           MTPA         -         8.05           MTPA         -         -	SP4-2.3MTPASP5-7.5MTPATotal-9.8MTPA	20.15	SP4 – 2.3 MTPA           SP5 – 5.75           MTPA           SP6 – 1.75           MTPA           Total – 9.8           MTPA	20.15	0
2	Hot Metal BF	BF1-         0.9           MTPA            BF2-         2.17           MTPA            Total-         3.07           MTPA	BF3-3MTPABF4-3MTPATotal-6.0MTPA	BF1-2.5MTPABF5-4.4MTPATotal-6.9MTPA	15.07	BF1- 2.5 MTPA BF3- 4.4 MTPA BF5- 3.0 MTPA Total- 6.9 MTPA	15.07	0
3	BOF	SMS1 – 3.8 MTPA	SMS2- 6 MTPA	SMS2-6.4 MTPA SMS3- 5.6 MTPA (3X 200 T BOF + 1.2 MTPA EAF)	15.8	SMS2-         6.4           MTPA         SMS3-         5.6           MTPA         (2X 200 T BOF + 2X1.2MTPA         EAF)	15.8	0

7.0 The details of existing configuration and changes proposed by PP are as follows:

				1				
				Total – 6 MTPA		Total – 6 MTPA		
4	HSM	HSM1- 2 MTPA	HSM1 -3.2 MTPA HSM2 - 5 MTPA Total- 8.2 MTPA	HSM3 – 3.6 MTPA	11.8	HSM1 - 4 MTPA HSM 2 - 5.2 MTPA HSM-3: 3.6 MTPA Total - 12.8 MTPA	12.8	1.0
5	CRM	0	CRM1 – 1 MTPA CRM2 – 2 MTPA Total- 3 MTPA	0	3	CRM1         -         1.8           MTPA         -         2.3           MTPA         -         2.3           MTPA         -         4.1           MTPA         -         4.1	4.1	1.1
6	Galvanizing	0	4 X 0.25 MTPA	0	1.0	4 X 0.25 and 2 X 0.45	1.9	0.9
7	CPP(MW)	100 MW + 130 MW	2 X 300 MW (100% imported coal)	660 MW	1490	Amendment in fuel type in 2 x 300MW Gas + Coal (50% imported coal + 50% Indian coal)	1490	0
8	Township				5 Nos	1 with 500 dwellings	6 Nos	1 with 500 dwelling

# **Observations of the committee:**

8.0 The committee observed that the proposal was deliberated in the 19th EAC meeting held on 8-9th June 2017; 20th EAC meeting held on 10-12th July 2017; and 21st EAC meeting held on 10-11th August 2017 and the proposed changes in the configurations were recommended subject to the cap of 16 MTPA crude steel production. In view of the Multifurcastion of the proposal was under consideration, the committee opined to take up the istant proposal after due process of multifurcation. Accordigly, the PP maded an application after multifurcation of the integrated environmental clearance.

9.0 After detailed deliberations, the committee sought additional information with respect to disposal of additional chrome sludge from new galvanising line, fly ash utilisation and changes in the raw material requirement, water, power, emissions, discharges and solid waste due to the proposed amendments in the Environmental Clearance granted for (10 to 16 MTPA) expansion dated 1<sup>st</sup> October 2015. The project proponent has submitted the above details as sought by the committe during the meeting.

# **Recommendations of the Committee:**

10.0 Based on the details furnished, the committee recommended the amendment to the Environmental Clearance as given at para (7) above.

# 29.20 Calcined petroleum coke plant of capacity 5,00,000 (2X2,50,00) TPA along with Cogeneration Power Plant (3MW) at Kalagarh village, Kendrapara Dist., Odisha

#### by M/s India Carbon Ltd. [Online Proposal No. IA/OR/IND/73202/2018; MoEF&CC File No. IA-J-11011/71/2018-IA II(I)) – Terms of Reference.

1.0 M/s India Carbon Ltdmade online application vide proposal no. IA/OR/IND/73202/2018 dated 25<sup>th</sup> February 2018 seeking Terms of Reference for the above mentioned proposal. The proposed project activity is listed at 4 (b) coke oven plants under category A of EIA notification 2006. The proposal is appraised at Central level.

#### Details of the project as per the submissions of the project proponent:

2.0 M/s India Carbon Limited (ICL) proposes to set up a Greenfield Coke Calciner Project along with 3MW Cogeneration Power Plant in an area of 8.52 Ha (21.05 acres). It is proposed to set up the project for manufacturing of 5,00,000 TPA (2,50,000 TPA in each phase) of Calcined Petroleum Coke (CPC) based on Rotary Calcination Technology.

3.0 The proposed unit will be located at. Kalagarh Village, Mahakalpada Tehsil, Kendrapara District of Odisha.

4.0 The land area acquired for the proposed plant is 8.52.Ha. It is an Industrial land allotted by Infrastructure Development Corporation (IDCO). No/forestland involved. The entire land has been acquired for the project. Of the total area 2.83 ha (33%) land will be used for green belt development.

5.0 There are no wild life sanctuaries, national parks, elephant/tiger reserves within 10km radius of the study area. The area also does not report to form corridor for Schedule-I fauna.

6.0 Total project cost is approximately Rs.315.0 Crore for phase-I and Rs.185.0 Crores for Phase-II. Proposed employment generation from proposed project will be .160 (100+60) direct employment and 200 indirect employment.

7.0 The targeted production capacity of the Plant is5,00,000 TPA (2 X 2,50,000), with a 3MW waste heat recovery power plant. The Raw Material (GPC) for the plant would be procured from various refineries in North America, South America, Middle East and Asia. Paradip Port, a natural harbor, exists at a distance of approx. 20.0 km. The raw material / finished product will be handled through port, as required.

Name of unit	No. of units	Capacity of each Unit	Productin Capacity
Phase-I	01	1 X2,50,000 TPA	2,50,000, TPA
Phase-II	01	1 X2,50,000 TPA	2,50,000, TPA

8.0 The proposed capacity for different products for new site area as below:

9.0 The total power requirement for the plant is estimated to be about 2500 kW which will be met from the Captive Power Plant and from CESCO/OSEB.

10.0 The GPC consumption per annum will be 3,37500 TPA (on dry basis for each phase. The expected yield is above 85 %.

11.0 Water Consumption for the proposed project will be  $1200 \text{ m}^3/\text{day}$  for *each* phase. Total of  $110\text{m}^3$  per day will be generated out of which 85 m<sup>3</sup> will be used for Greenbelt Development and  $25\text{m}^3$  is recirculated in the process. The Domestic Waste Water Generation form the plant is  $16\text{m}^3/\text{day}$ , which will be treated in septic tank followed by soak pit.

12.0 The proponent has mentioned that there is no court case or violation under EIA Notification to the project or relatedactivity.

#### **Recommendations of the committee:**

13.0 After detailed deliberations, in view of the location of the project site, air emissions and density of traffic, the committee suggested to revise the prefeasibity report for inclusion of these details and submit the revised report to the Ministry for further consideration.

29.21 Expansion of Steel Plant – DRI Kilns (Sponge Iron from 1,80,000 TPA to 7,57,500 TPA), Induction Furnace (MS Ingots / Billets/ Hot Charging from 2,17,800 TPA to 6,13,800 TPA), New Electric Arc Furnace (1,98,000 TPA), Rolling Mill (Hot Rolled TMT / Structural / Cold Rolled Bars/Wire Rod - 2,00,000 TPA to 6,29,000 TPA), Ferro Alloys (32,400 TPA to 81,000 TPA), WHRB based Power Plant from 8 MW to 50 MW, AFBC based Power Plant from 7 MW to 57 MW, New Galvanization Plant (1,00,000 TPA), New Oxygen Plant (4000 TPA), New I/O Beneficiation Plant (8,00,000 TPA – throughput), New Pellet Plant (6,00,000 TPA) and Dropping Sponge Iron briquette, Coal / Coke / Chrome fines briquette, Mini Blast Furnace, Sinter Plant J.L.No. 11, Jemua Mouza, Mejia Block, Bankura District, West Bengal-722143 by M/s Shyam Steel Manufacturing Limited [Online proposal No. IA/WB/IND/73003/2018; MoEFCC File No. J-11011/724/2007-IA-II(I)] – Terms of Reference

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/73003/2018** dated 27<sup>th</sup> Feburary **2018** along with the 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 3(a) Metallurgical industries (ferrous &non-ferrous) under category A and the proposal is appraised at Central level

#### Details of the project as per the submissions of the project proponent:

2.0 M/s. **Shyam Steel Manufacturing Ltd.** proposed to expand the capacities of existing Steel plant by increasing the capacity of DRI Kilns (Sponge Iron from 1,80,000 TPA to 7,57,500 TPA),Induction Furnace (MS Ingots / Billets/ Hot Charging from 2,17,800 TPA to 6,13,800 TPA),New Electric Arc Furnace (1,98,000 TPA), Rolling Mill (Hot Rolled TMT / Structural / ColdRolled Bars/Wire Rod - 2,00,000 TPA to 6,29,000 TPA), Ferro Alloys (32,400 TPA to 81,000TPA), WHRB based Power Plant from 8 MW to 50 MW, AFBC based Power Plant from 7MW to 57 MW, New Galvanization Plant (1,00,000 TPA), New Oxygen Plant (4000 TPA),New I/O Beneficiation Plant (8,00,000 TPA – throughput), New Pellet Plant (6,00,000 TPA)and Dropping Sponge Iron briquette, Coal / Coke / Chrome fines briquette, Mini Blast Furnace,Sinter Plant. It is proposed to manufacture the above products based on the following technology:

- Producing Beneficiated Iron ore through Iron ore beneficiation plant
- Producing Pellet plant throught Pellet plant
- Producing Sponge Iron through DRI route.
- Producing MS Ingots / Billets through IF route

- Producting Blooms through Electric Arc Furnace route (Laddle Refining Furnace &AOD Converter)
- Producing Hot rolled TMT / Structural / Cold Rolled bars / Wire rod through Rolling mill and Hot charging route.
- Power generation through Waste Heat Recovery & FBC Boilers.

3.0 The existing plant was accorded Environment Clearance vide F.No. J-11011/724/2007 – IA II (I) dated 4<sup>th</sup> August 2008 (in name of Sova Ispat Ltd.) & 27<sup>th</sup> February 2017 (EC transferred in Name of Shyam Steel Manufacturing Ltd.). Consent to Operate was accorded by West Bengal Pollution Contol Board vide CTO No CO092326 dt 28.09.15(Sponge Iron – 1 x 100 TPD) valid upto 30<sup>th</sup> Sept. 2018, CTO No CO090298 dt 03.03.16 (Sponge Iron 1X300 TPD + 2 X100 TPD, Cement 75000 TPA, CPP WHRB + FBC 15 MW, Ferro Alloys 2 x 9 MVA) valid upto 31<sup>st</sup> March 2019, CTO No CO74292 dt 18.03.16 (Billet/Ingot - 6608 TPM 79300 TPA) valid upto 31<sup>st</sup> December 2018, CTO No CO107508 dt 09.12.16 (Billet/Ingot - 6600 TPM 79200 TPA -2nd Phase) valid upto 30<sup>th</sup> June 2021, CTO No CO090298 dt 03.03.16 (change in product mix) dated 31<sup>st</sup> March 2019.

4.0 The proposed unit is located at J.L.No. 11, Jemua Mouza, Mejia Block, Bankura District, West Bengal.

5.0 Existing plant is located in 150 acres / 60.7 Ha. of land. Proposed expansion will be taken up partially in the Existing plant (i.e. 150 acres / 60.7 Ha) and partially in the land adjacent to the existing plant (i.e. 13.3 acres / 5.4 Ha.) which will be taken on lease from the sistern concern unit. Total land after proposed expansion will be 163.3 acres / 66.1 Ha..of the total area,54.4 Ac. / 22.0 Ha. (33%) land is allocated for greenbelt developed. No Forest land involved.

6.0 No Reserve Forest exists within the 10 Kms. Radius of the plant site. Only Gangajalghati Protected Forest (3.0 Kms.) exist within 10 Km. radius of the plant site. No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserves are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule – I fauna.

7.0 Total project cost for proposed expansion is approx. Rs. 1560 Crores. Proposed employment generation from proposed project will be 500 nos. direct employment and 1000 nos. indirect employment.

8.0 The targeted production capacity of the total plant is 0.629 million TPA. The ore for the plant would be procured from Rungta Mines, Essel Mines & other mines in Barbil & Jharkhand. The ore transportation will be done through by Rail (proposed railway siding upto site) & Road (through covered trucks). The proposed capacity for different products for new site area as below:

G 11					<b>T</b> : 1
S.N	Unit (Product)	Configuration	Existing units	Proposed	Final
0.		for which CTE /	commissioned /	Expansion	Configuration
		EC Granted	Under		after Proposed
		(J-11011/ 724/	Implementation as		Expansion
		2007- IA II (I)	per EC		
		dated 04.08.08,			
		18.04.12,			
		06.02.15 &			
		27.02.17)			
		[1]	[2]	[3]	[4] = [2] + [3]
1	Iron Ore	Nil	Nil	8,00,000 TPA	8,00,000 TPA
	Beneficiation			throughput	throughput
	Plant				
	(Beneficiated Iron			(6,80,000 TPA –	(6,80,000 TPA
	Ore)			Beneficiated Iron	- Beneficiated
				ore)	Iron ore)
2	Pellet Plant	Nil	Nil	6,00,000 TPA	6,00,000 TPA
	(Pellet)			, ,	, ,
3	DRI Kilns	3,60,000 TPA	1,80,000 TPA	Instead of	7,57,500 TPA
	(Sponge Iron)	(3X300 TPD +	(1X300 TPD +	remaining	(1X300 TPD +
		3X100 TPD)	3X100 TPD)	1,80,000 TPA	3X100 TPD +
				(2 x 300 TPD),	5X350 TPD)
				now proposed to	,
				install	
				5,77,500 TPA	
				(5 X 350 TPD)	
4	Induction Furnace	3,56,000 TPA	2,17,800 TPA	Instead of	6,13,800 TPA
	(MS Ingot/Billet/		(6 X 11 T)	remaining	(6 X 11 T +
	Hot Charging)			138200 TPA,	8 X 15 T)
				now proposed to	
				install	
				3,96,000 TPA	
				(8 X 15T)	
5	Electric Arc	Nil	Nil	1,98,000 TPA	1,98,000 TPA
	Furnace with 30 T			(1 x 30 T)	
	Laddle Refining			× /	
	Furnace and AOD				
	Converter				
	(Bloom)				
6	Rolling Mill	3,15,000 TPA	2,00,000 TPA	Instead of	6,29,000 TPA
	(Hot Rolled TMT		(Under	remaining	
	/ Structural / Cold		Implementation	1,15,000 TPA,	
	Rolled Bars/Wire		and will be	now proopsed to	
	Rod)		comiissioned	install	
			before 03-08-	4,29,000 TPA	
			2018)	(2 x 650 TPD)	
7	Ferro Alloy Plant	55,000 TPA	2 x 9 MVA	Instead of	5 x 9 MVA
	(FeSi/FeMn/SiMn			remaining	
	/FeCr)		(FeMn 32,400	1 x 9 MVA, now	(FeMn 81,000
			TPA / SiMn	proposed to	TPA / SiMn
			32,400 TPA /	install	81,000 TPA /
			FeCr – 27,000	3 x 9 MVA	FeCr – 67,500
			,		

S.N o.	Unit (Product)	Configuration for which CTE / EC Granted (J-11011/724/ 2007- IA II (I) dated 04.08.08, 18.04.12, 06.02.15 & 27.02.17) [1]	Existing units commissioned / Under Implementation as per EC	Proposed Expansion	Final Configuration after Proposed Expansion
			TPA / FeSi – 15,600 TPA)	(FeMn 48,600 TPA / SiMn 48,600 TPA / FeCr – 40,500 TPA / FeSi – 23,400 TPA)	TPA / FeSi – 39,000 TPA)
8	Power Plant (WHRB)	32 MW	8 MW	Instead of remaining 24 MW, now proposed to install 42 MW (40 MW + 2 WM)	50 MW
9	Power Plant (AFBC)	20 MW	7 MW	Instead of remaining 13 MW, now proposed to install 50 MW (2 x 25 MW)	57 MW
10	Galvanization Plant	Nil	Nil	1,00,000 TPA	1,00,000 TPA
11	Oxygen Plant	4,000 TPA	Nil	Instead of 4,000 TPA of Earlier EC, now proposed to install 4,000 TPA	4,000 TPA
12	Cement Plant	75,000 TPA	75,000 TPA	Nil	75,000 TPA
13	Sponge Iron Briquette	60,000 TPA	Nil	Nil	Dropping Now
14	Coal / Coke / Chrome fines Briquette	90,000 TPA	Nil	Nil	Dropping Now
15	Mini Blast Furnace-165 M <sup>3</sup> (Pig iron)	1,20,000 TPA	Nil	Nil	Dropping Now
16	Sinter Plant - 15M <sup>2</sup> (Sinter)	80,000 TPA	Nil	Nil	Dropping Now

9.0 The electricity load of **156.7 MW** for operating existing & expansion projects will be met from proposed captive WHRB, FBC based power plant & remaining will be supplied from Damodar Valley Corporation (DVC). It is also proposed to install 2 x 500 KVA DG set.

10.0	Proposed raw material and fuel requirement for expansion project are Iron Ore fines,
Pellets,	, Mn ore, Dolomite, Scrap etc., Requirement would be fulfill by external purchase /in
house.	Fuel Consumption will be mainly Coal & Furnace Oil.

For Iron ore beneficiation plant (Beneficiated Iron ore – 6,80,000 TPA)	Fransport
Iron ore fines 8,00,000 Rungta Mines, Essel By R	Rail
Mines & Other mines (through p	proposed
in Barbil & Jharkand railway sidin	ig upto site)
For Pellet plant - 600000 TPA	
I/O concentrate 6,80,000 Inhouse Generation	_
Coal & Coke fines 18000 By R	oad
(through cover	ered trucks)
Bentonite 4500 Local market, West By R	oad
Bengal (through cove	ered trucks)
Furnace Oil6900IOCL, West BengalBy Tar	nkers
Lime Powder 12000 Madhya Pradesh By R	oad
(through cover	ered trucks)
For DRI Kilns (Sponge Iron) – 577500 TPA	
Pellet 600000 Inhouse Generation	_
Iron ore 324000 Barbil, Orissa, By rail &	& road
Chhattisgarh (through cove	ered trucks)
Coal Indian 693000 ECL, West Bengal By rail &	& road
(through cove	ered trucks)
Imported 520000 South Africa Through sea	a route, rail
route & t	by road
Dolomite 29000 Bhutan, Chhattisgarh By re	oad
(through cove	ered trucks)
For Steel Melting Shop (MS Ingots / Billets/Hot Charging) – 396000 TPA	
Sponge Iron 327100 Own generation	-
Sponge Iron327100Own generationScrap140000Local area, WestBy red	- oad
Sponge Iron327100Own generationScrap140000Local area, WestBy ro (through coverBengal(through cover	 oad ered trucks)
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Raw Material		Quantity (TPA)	Sources	Mode of Transport
For Rolling M	ill (Hot Rolled T	MT / Structural / C	Cold Rolled Bars/Wire Ro	d) – 4,29,000 TPA
MS Billets / In	igots	459030	Own generation	
Furnace Oil		17,000 KL	IOCL, West Bengal	By road
For AFBC Bo	iler [Power Gener	ation 50 MW]		
Delecher		173250	In plant generation	through covered
Dolochar				conveyors
Coal	Indian	190875	ECL, West Bengal	By rail & road
				(through covered trucks)
	Imported	113500	South Africa	Through sea route / rail
				route / by road

For Ferro Silicon unit (For 3 x 9 MVA)						
S.No.	Raw Material	Quantity (TPA)	Source	Mode of Transport		
1	Quartz	25350	Chhattisgarh / Andhra Pradesh	By Rail & Road (covered trucks)		
2	Pet coke	8400	Vizag	By Rail & Road (covered trucks)		
3	MS Scrap	525	Inhouse Generation & Local, West Bengal	By Road (covered trucks)		
4	Electrode paste	1260	Jharkhand	By Rail & Road (covered trucks)		

For Ferro Manganese unit (For 3 x 9 MVA)					
S.No.	Raw Material	Quantity (TPA)	Source	Mode of Transport	
1	Manganese Ore	79950	MOIL / OMC	By Rail & Road (covered trucks)	
2	Pet coke	46050	Vizag	By Rail & Road (covered trucks)	
3	MS Scrap	3090	Local, West Bengal	By Road (covered trucks)	
4	Electrode Paste	18000	Jharkhand	By Road (covered trucks)	

For Silico Manganese unit (For 3 x 9 MVA)						
S.No.	Raw Material	Quantity (TPA)	Source	Mode of Transport		
1	Manganese Ore	47550	MOIL / OMC	By Rail & Road (covered trucks)		
2	Mn. Slag	27000	In house generation			
3	Quartz	11700	Chhattisgarh / Andhra Pradesh	By Rail & Road (covered trucks)		

4	Pet coke	4800	Vizag	By Rail & Road (covered
				trucks)

For Ferro Chrome unit (For 3 x 9 MVA)						
S.No.	Raw Material	Quantity (TPA)	Source	Mode of Transport		
1	Chrome Ore	1,20,000	Sukinda, Odisha Import, South Africa	By Road (Covered Trucks) From Port By Road (Covered Trucks)		
2	Pet coke	47250	Chhattisgarh / Bihar	By Road (Covered Trucks)		

For For Galvanizing unit (For 100000 TPA)						
S.No.	Raw Material	Quantity	Source	Mode of Transport		
1.	Rerolled Steel or MS Pipe	110000	In house generation & Local Market, West Bengal			
2.	Zinc	6000	Rajasthan	By road		
3.	HC1	4320	Local area, West Bengal	By road		
4.	Ammonium Zinc Chloride	420	Local area, West Bengal	By road		
5.	Sodium di- chromate	2.4	Local area, West Bengal	By road		
6.	Furnace oil	6.6 KL/Annum	IOCL, West Bengal	By road		

11.0 Water consumption for the **proposed expansion project** will be **3050 KLD** and waste water generation from the proposed expansion project will be **487 KLD** (447 KLD from Process & 40 KLD from Domestic).

12.0 Domestic waste water will be treated Septic tank followed by sub- and there will be no wastewater generation from the I/O Beneficiation, Pellet Plant, DRI, Induction Furnace, EAF, Rolling Mill, Ferro Alloys unit, Oxygen Plant, as closed-circuit cooling system will be provided.

13.0 Boiler blowdown & DM plant regeneration wastewater will be treated in Neutralization tanks and will be mixed in a Central Monitoring Basin (CMB). Effluent from Galvanization plant will be treated in ETP.

14.0 The treated effluent from CMB will be reused for dust suppression, ash conditioning and for greenbelt development.

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

#### **Observations of the committee:**

16.0 After detailed deliberations, the committee observed that the proposed layout appears to be highly congested with multiple facilities as proposed by the project proponent.

### **Recommendations of the committee:**

17.0 Therefore, the Committee advised to revise the proposed layout based on the general arrangement drawings of multiple facilities including utilities, parking place, road, open areas, emergency reposnce provision and green belt

#### 29.22 Proposed Steel Plant [800 TPD Pellet Plant; 600 TPD DRI; 1000 TPD Induction Furnace; 17 MW Power Plant (12 MW WHRB and 5 MW FBC)] by M/s Genext Steels Private Limited at Village Bagodara Tehsil Baula District Ahmedabad State Gujarat [Online Proposal No. IA/GJ/IND/70023/2017; MoEFCC File No. J-11011/501/2017- IA-II(I)] – Further consideration based on reply to ADS for Terms of Reference.

1.0 **M/s Genext Steels Private Limited**has made online application vide proposal no. **IA/GJ/IND/70023/2017** dated **30<sup>th</sup> September 2017** 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level.

2.0 M/s Genext Steels Private Limited has proposed to establish a Greenfield mini integrated steel project comprising of Pellet plant (800 TPD), DRI (600 TPD), Induction Furnace (1000 TPD), Rolling Mill (1000 TPD), Power Generation – 17 MW (12 MW through Waste Heat Recovery Boiler (WHRB) and 5 MW through Fluidized bed combustion (FBC) Boiler) in Village: Bagodara, Tehsil: Baula, District: Ahmedabad, State: Gujarat.

3.0 The manufacturing technology *inter alia* include manufacturing of pellets through rotary grate kilns; manufacturing of Sponge Iron through Rotary kilns; manufacturing of MS Billets through IF along with concast; manufacturing of Structural Steel TMT bars & Rolled products through Rolling Mill; power generation through WHRB & FBC Boiler.

4.0 The proposed unit will be located inSurvey Nos. 661,662,664,665,1822 & 1823, Village: Bagodara, Tehsil: Baula, District: Ahmedabad, State: Gujarat.

5.0 Total land envisaged for the proposed project is 37.5 acres. Of the total area, 12.0 acre (33%) of land will be used for greenbelt development. No Forest land is involved. Agreements have been entered for total 37.5 acres of land.

6.0 There are no Reserve Forests, National Parks, Wild life Sanctuaries within 10 Km. radius of the project site. Nalsarovar Bird Sanctuary is at a distance of 12 Kms. from the proposed project site. However, ESZ of Nalsarovar Bird Sanctuary is at a distance of 1.9 Km from the proposed project site. The proposed project site does not fall in the ESZ of Nalsarovar Bird Sanctuary.

7.0 Total project cost for proposed project is approx. **Rs. 261 Crores**. Proposed employment generation from the proposed project will be **500 nos.** direct employment and **1000 nos.** indirect employment.

8.0 The targeted production capacity of the total plant is 0.33 million TPA. The ore for the plant would be procured from Rajasthan, Orissa, Chhattisgarh and Karnataka. The ore transportation will be done through by road (through covered trucks). The proposed capacity for different products for new site area as below:

S.No.	Unit		Plant configuration	Production capacity
1.	Pellet(I/o Pellets)		4 X 200 TPD	800 TPD
2.	DRI Kilns(Spong	ge Iron)	4 X150 TPD	600 TPD
3.	Induction Furnace with		4 X 25 MT	1000 TPD
	Concast (MS Bill	ets)		
4.	Rolling Mill(Structural Steel		2 X 500 TPD	1000 TPD
	TMT bars & Rolled products)			
5.	Power Plant	WHRB	4 x3 MW	12 MW
	(Electricity)	FBC	1 X 5MW	9 MW

9.0 The total power requirement for the proposed project will be 57 MW, this will be met partly from the captive power plant of 17 MW (i.e. 12 MW WHRB and 5 MW FBC based power plant), and the remaining 40 MW will be procured from the state grid i.e. Gujarat State Electricity Corporation Limited (GSECL).

10.0	Proposed raw materials and fuel requirement for project are Iron Ore, Dolomite, Scrap,
Ferro	Alloys, Bentonite, etc. Fuel Consumption will be mainly Coal & Furnace Oil. The details
of raw	w material requirement and mode of transport is given below:

Raw Material	Quantity (TPD)	Source	Mode of Transport
For pellet plant			
Iron ore fines/Iron Oxide (Mill Scale)	832	Rajasthan Chattisgarh, Karnataka,Odissa	By road (through covered trucks)
Bentonite	48	Kutch (Gujarat)	By road (through covered trucks)
Imported Coal	128	South African from Kandla port (Gujarat)	By road (through covered trucks)
For DRI (Sponge Iron)			
Pellets	800	Internal	Through covered conveyors
Imported Coal	570	South African from Kandla port (Gujarat)	By road (through covered trucks)
Dolomite	48	Local/Gujarat	By road (through covered trucks)

Raw Material	Quantity (TPD)	Source	Mode of Transport
For Steel Melting Shop (	MS Billets)		
Sponge Iron		Internal	Through covered
	600		conveyors
M.S.Scrap	562	Bhavnagar/	By road
	502	Alang Imported	(through covered trucks)
Ferro alloys	12.5	Local /Gujarat	By road
	12.3		(through covered trucks)
For Rolling Mill (Structu	ural Steel, TM	T Bars & Rolled products	5)
Billets	1000	Internal	Through Conveyors
Imported Coal	155	South African	Dr. road
		from Kandla port	by IOau (through covered truelies)
		(Gujarat)	(through covered trucks)
For FBC Boiler [Power C	Generation 5 N	1W]	
Char/Dalashar	100	Internal/local	through covered
Char/Dolochar	100		conveyors
Imported Coal	30	South African from	By road
		Kandla port (Gujarat)	(through covered trucks)

11.0 Water consumption for the proposed project will be 1680 KLD and will be sourced from Ground Water. Water drawl permission will be obtained from the concerned Authority.

12.0 Domestic waste water will be treated Septic tank followed by sub-surface dispersion trench and there will be no wastewater generation from the pellet, DRI, SMS & Rolling Mill processes, as closed-circuit cooling system will be provided. Boiler blowdown & DM plant regeneration wastewater will be treated in Neutralization tanks and will be mixed with CT Blowdown in a Central Monitoring Basin (CMB). The treated effluent from CMB will be reused for dust suppression, ash conditioning and for greenbelt development.

13.0 The proponent has mentioned that there is no court case against the proposed site and project.

14.0 The proposal was considered in the  $24^{th}$  meeting of Expert Appraisal Committee (Industry-I) held during  $13^{th} - 15^{th}$  November 2017. During the deliberations, the committee observed following:

- i. The proposed project site is land locked, surrounded on three sides by agricultural lands as seen by the google maps presented by PP
- ii. On the fourth side, the plant is bounded by a seasonal river
- iii. Plant site is almost touching (140 m distance) from the main national highway connecting Ahmedabad to Rajkot and being only about 20 to 30 Km from the busy Taluka headquarters of Bawla. This is already very busy and vital highway as it connects mainland Gujrat to Saurashtra.
- iv. The raw material required for the plant is planned from the Rajasthan about 500 Km from the plant and coal is planned from Kandla Port which is at 400 Km from the plant.

- v. The proposed project would likely to further increase the traffic load by about 500 trucks per day. Considering 12 hours of permitted truck transportation on this road, it would mean an additional truck plying on the road in every 1.5 minutes.
- vi. The proposed project demands drawl of ground water @ 1700 KLD.

15.0 The proposal was considered by the Expert Appraisal Committee (Industry-I) during its 24<sup>th</sup> meeting held on 13<sup>th</sup> to 15<sup>th</sup> November, 2017. The committee was of the opinion that the suitability of the proposed site from the environmental perspective needs to be intensively examined before taking the decision on ToR proposal.Therefore, the committee asked the project proponent the following;

- i. Explore alternative sites with environmental strengths and weaknesses;
- ii. Detailed traffic analysis based on the data collected on different time periods of the day;
- iii. Details of competitive users for withdrawal of ground water within 5 Km;
- iv. Analysis of the ground water quality and proposal for achieving ZLD; and
- v. Likely impact on the surrounding agricultural land.

16.0 During the deliberations, likely inconveniences to the local people was discussed. The project proponent proposed that they will conduct the pre-ToR public hearing through the SPCB to ascertain site suitability and opinion of people likely to be affected by the proposed project site.

17.0 The committee agreed to this proposal of the PP and decided that the suggested pre-ToR public hearing to be carried out through SPCB under the chairmanship of local revenue authority.

#### **Observations of the committee:**

18.0 The Committee observed that the PP could not conduct the pre-ToR Public hearing /consultation as agreed by the PP in the earlier meeting.

#### **Recommendations of the committee:**

19.0 After detailed deliberations, the Committee advised to get the public consultation with concerned stakeholders conducted through State Pollution Control Board and submit the report to the Ministry for further consideration on suitability of the site.

29.23 Expansion of DRI Plant (300 TPD to 1700 TPD), SMS Plant (0.1 MTPA to 0.5 MTPA), Captive Power Plant (1x12 MW to 52 MW), Coal Washery (100 TPH to 300 TPH), MBF (0.15 MTPA), Rolling Mill (0.35 MTPA), Pellet Plant with Beneficiation (2600 TPD) in addition to pellet plant (1800 TPD) & Ferro Alloys Plant (2x18 MVA) located at Jiabahal, Kalunga Industrial Estate, Kalunga, Dist-Sundargarh, Odisha by M/s Shri Mahavir Ferro Alloys Private Limited [Online Proposal No. IA/OR/IND/5857/2007; MoEFCC File No. J-11011/606/2007- IA-II(I)] - Further consideration based on reply to ADS for Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/OR/IND/5857/2007** dated **3<sup>rd</sup> November 2017** 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 Sl. No. 3(b) Metallurgical industries (ferrous & nonferrous); 1(d) Power Plants; 2(a) coal washaries under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level.

2.0 M/s. Shri Mahavir Ferro Alloys Pvt. Ltd. proposes to install an expansion of existing manufacturing unit for 0.1 MTPA Steel Plant to 0.5 MTPA Steel Plant. It is proposed to set up the plant for Expansion of Coal Washery (100 TPH to 300 TPH), Pellet Plant (with Beneficiation) (1800 TPD to 4900 TPD), DRI Plant (300 TPD to 1700 TPD), MBF (0.15 MTPA), SMS Plant (0.1 MTPA to 0.5 MTPA), Rolling Mill (0.35 MTPA), Ferro Alloys Plant (2x18 MVA) & Captive Power Plant (1x12 MW to 52 MW).

3.0 The existing project was accorded environmental clearance vide lr. No. J-11011/606/2007-IA II (I) dated 29.01.2008. Consent to Operate was accorded by Odisha State Pollution Control Board vide lr. No. 4870/IND-I-CON-3294, dated 31.03.2017 validity of CtO is up to 31.03.2019.

4.0 The proposed unit will be located at Kalunga Industrial Estate, Village: Jiabahal, Taluka: Lathikata, District: Sundargarh, State: Odisha.

5.0 The land area acquired for the proposed plant is 44.66 Ha. No forest land involved. The entire land has been acquired for the project. Of the total area 15.21 ha (34 %) land will be used for green belt development.

6.0 The National Park/WL etc are located at a distance of 175 KM from the site/No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx. 610 Crore rupees. Proposed employment generation from proposed project will be 1250 direct employment and indirect employment.

8.0 The targeted production capacity of the Proposed Plant is 0.5 million TPA. The ore for the plant would be procured. The ore transportation will be done through Rail (Rail/Road/Conveyor/Slurry Pipeline). The proposed capacity for different products for new site area as below:

Sl. No.	Unit/Plant		Existing Capacity	Proposed Capacity	Final Capacity after Expansion
1	DRI Plant		300 TPD	1400 TPD	1700 TPD
			(3x100 TPD)	(4x350 TPD)	1700 11 D
2	SMS Plant		0.1 MTPA	0.40 MTPA	0.50 MTPA
3	Captive	Power	12 MW	40 MW	52 MW
	Plant			(AFBC - 12 MW,	

			WHRB - 4x7 MW - 28	
			MW	
4	Mini Blast Furnace		0.15 MTPA	0.15 MTPA
5	Coal Washery	100 TPH	200 TPH	300 TPH
6	Pellet Plant (with	1800 TPD	In two Phase	
	Beneficiation)		Phase-1 - 2300 TPD	4900 TPD
			Phase-2 – 2600 TPD	
7	Rolling Mill		0.35 MTPA	0.35 MTPA
8	Ferro Alloys Plant		2 x 18 MVA	2 x 18 MVA

9.0 The electricity load of 113 MW will be procured from (52 MW power will be of captive generation and will be for in-house use and balance will be purchased from State Electricity Board) Company has also proposed to install DG Set.

10.0 Proposed raw material and fuel requirement for project are given below:

Raw Materials	Quantity				
DRI plant (1400 TPD)					
Coal	630000 TPA				
Iron Ore 610000 TPA					
Dolomite/	25200 TPA				
SMS Plan	nt (0.40 MTPA)				
Sponge Iron	410000 TPA				
Pig Iron	34800 TPA				
Ferro Alloys &Non Ferro Alloys	5500 TPA				
MS Scrap	20200 TPA				
MBF (	0.15 MTPA)				
Iron ore Pellet	125000 TPA				
Coke	80000 TPA				
Sinter	125000 TPA				
Ferro Alloys F	Plant (2X18 MVA)				
Manganese Ore	1650 TPA				
Non Manganese Ore	39800 TPA				
Coke	7960 TPA				
Coal	23880 TPA				
Dolomite	3980 TPA				
Rolling M	lill ( 0.35 MTPA)				
Steel Billets	357000 TPA				
Captive Power Plant (40 MW	= AFBC- 12 MW + WHRB- 28 MW)				
Dolochar	60000 TPA				
Coal	30000 TPA				
Washery Rejects	45000				
Pellet Plant with F	Beneficiation (2600 TPD)				
Iron Ore Fines	1120000 TPA				
Bentonite	13200 TPA				
Dolomite / limestone	13200 TPA				
Coke	30000 TPA				

11.0 Water Consumption for the proposed project will be 380 m3/day and Domestic waste water will be treated in STP and industrial waste water generated will be treated ETP.

12.0 There is no court case or violation under EIA Notification to the project or related activity.

13.0 The project Proponent has made detailed presentation along with EIA Consultant M/s Centre for Envotech and Management Consultancy Pvt. Ltd. (Sl. No. in QCI list -22).

14.0 Name of Consultant: Centre for Envotech and Management Consultancy Pvt. Ltd. Sl. No. in QCI list – 23

15.0 The proposal was considered by the Expert Appraisal Committee (Industry-I) during its  $26^{th}$  meeting held on  $11^{th} - 13^{th}$  December, 2017. After detailed deliberations, the committee observed that as per the proposed layout plan, the plant area appears to be highly congested due to the expansion of several proposed facilities, viz., DRI Plant (300 TPD to 1700 TPD), SMS Plant (0.1 MTPA to 0.5 MTPA), CPP(1X12 MW to 52 MW), Coal Washery (100 TPH to 200TPH), MBF (0.15 MTPA), Rolling Mill (0.35 MTPA), Pellet Plant with beneficiation (2600 TPD), pellet plant 1800 TPD and Ferro alloys (2x18 MVA). Accordingly, the Committee suggested to revise the layout proposal addressing the issue of decongestion to eliminate the risk by either acquiring additional land or by increasing the scale production units or both and submit the revised proposal to the Ministry for reconsideration.

SI. No.	Unit/Plant	Existing – 0.1 MTPA	Old Expansion Proposal – (0.4 MTPA)	New Expansion Proposal – (0.2 MTPA)	Remarks	Ultimate Capacity after proposed expansion
1	Coal Washery	100 TPH	200 TPH		No Expansion	100 TPH
2	Pellet Plant (with Beneficiation)	1800 TPD	3100 TPD	3000 TPD	100 TPD Reduced	4800 TPD
3	DRI Plant	300 TPD (3x100 TPD)	1400 TPD (4x350 TPD)	700 TPD (2x350 TPD)	700 TPD Reduced	1000 TPD
4	Mini Blast Furnace		0.15 MTPA		No Expansion	
5	SMS Plant	0.1 MTPA	0.40 MTPA	0.20 MTPA	.20 MTPA reduced	0.30 MTPA
6	Rolling Mill		0.35 MTPA	0.25 MTPA	.10 MTPA Reduced	0.25 MTPA

16.0 Accordigly the project proponent has scaled down the activities in order to avaoid the decongesion and the details of old and new proposal is given below:

7	Ferro Alloys Plant		2 x 18 MVA		No Expansion	
8	Captive Power Plant	12 MW	40 MW (AFBC - 12 MW, WHRB - 4x7 MW - 28 MW	26 MW (AFBC - 12 MW, WHRB - 2x7 MW - 14 MW	14 MW Reduced	38 MW

# **Recommendations of the committee:**

17.0 After detailed deliberations, <u>the Committee recommended to issue the ToR and</u> prescribed following specific ToRs, in addition to the standard ToR, for undertaking detailed <u>EIA-EMP study in addition to the generic</u> ToR enclosed **at** <u>Annexure I read with additional</u> <u>ToRs at Annexure-2</u>.

- i. Public Hearing to be conducted by the concerned State Pollution Control Board.
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier EC from the Regional office of MoEFCC shall be submitted along with EIA/EMP

29.24 Expansion of existing steel manufacturing unit having existing capacity 25,2000TPA(70 TPD) of steel Ingots to 1,72,800TPA (480TPD) of steel Ingots/Billets and 1,50,000 TPA of round, MS Bars, Flats, Wire, Road and TMT Bars by replacing existing Induction Furnace at Village Gobindgarh, Adjoining, Phase-VII, Focal Point, Ludhiyana, Punjab by M/s Sharu Special Alloys Pvt. Ltd., [Online Proposal No. IA/PB/IND/70840/2017; MoEFCC File No. J-11011/402/2010-IA.II(I)] - Further consideration based on reply to ADS for Terms of Reference.

1.0 **M/s Sharu Special Alloys Pvt Ltd.**has made online application vide proposal no. IA/PB/IND/70840/2017 dated 8<sup>th</sup> November, 2017 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 Sl. No. 3(a) Metallurgical industries (ferrous & nonferrous) under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level.

**2.**0 M/s. Sharu Special Alloys Pvt. Ltd. proposes expansion of existing manufacturing unit by installation of one rolling mill for manufacturing of Round MS-Bars, TMT Bars, wire rod, Flats and two number induction furnaces of 20 TPH for manufacturing of Steel ingots and billets.

3.0 Consent to Operate of water was accorded by Punjab pollution Control Board vide lr. No. RI5LDH4CTOW3448580 validity of CtO is up to 30/06/2020. Consent to Operate of Air was accorded by Punjab pollution Control Board vide lr. No. RI5LDH4CTOA3448621 validity of CtO is up to 30/06/2020.

4.0 The proposed unit will be located at Village: Gobindgarh, Adjoining Phase- VII, Focal Point, District: Ludhiana, State: Punjab.

5.0 The project has already 4.5 acres (1.821 Ha) land. No additional land is required for expansion. No forestland involved. Of the total area 33% land will be used for green belt development.

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx 27.55 Crores rupees. Proposed employment generation from proposed project will be 400 Persons by direct employment.

8.0 The targeted production capacity of the unit after expansion will be 1, 72,800 TPA Steel Billets/Ingots, 3300TPA forged roll & 1, 50,000 TPA Round, TMT bars, wire rod, and flats. The ore for the plant would be procured from Local & international Market. The ore transportation will be done through Covered Trucks. The proposed capacity for different products for new site area as below:

Sl	Name of unit	No. of	Capacity of each	Production
		units	Unit	Capacity
1	Induction Furnace	2	20 TPH each	1,72,800
2	Rolling Mills	1	18 TPH each	1,50,000

9.0 The electricity load of total 21000 KW will be procured from Punjab State Power Corporation Limited, Punjab. One number sound proof DG sets having capacity 180KVA already installed. No DG set required for expansion.

10.0 Proposed raw material and fuel requirement for project are Sponge Iron, MS Scrap & Ferro Alloys. The requirement would be fulfilled from local & international market.

11.0 Water Consumption for the proposed project will be 38 KLD (Existing-5.0 KLD). Domestic & industrial waste water will be treated through septic tank and reused for plantation within premises. Proposed project is based on Zero discharge.

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

13.0 The Project proponent has made detailed presentation along with EIA Consultant M/s Chandigarh Pollution Testing Laboratory (Certificate No. NABET/ EIA/ 1619/ IA 0012).

14.0 The committee noted that the proposed project is located in the critically polluted area.

15.0 The proposal was considered in the  $26^{th}$  meeting of EAC held during  $11^{th} - 13^{th}$  December 2017After detailed deliberations, the committee asked the PP to submit revised prefeasibility report *inter alia*, covering existing ambient air quality and incremental pollution load due to proposed expansion proposal for further consideration of the proposal.

#### **Observations of the Committee:**

16.0 After detailed deliberations, the committee observed that the proposed expansion is located in the critically polluted area of village Govindgarh, Ludhiana. Further the committee observed that as per the ambient air quality status submitted by the PP, the levels of particulate matter were found to be beyond the prescribed limits.

#### **Recommendations of the Committee:**

17.0 After detailed deliberations, since, the project is located in the crically polluted area and the levels of particulate matter are exceeding the prescribed limits, the Committee did not recommend for grant of ToRs

29.25 Integrated Cement Plant, Clinker 2.5 Million TPA, Cement 3.5 Million TPA, Waste Heat Recovery Power Plant 20MW (GPP), Captive Thermal Power Plant 25MW (CPP) along with Synthetic Gypsum Unit 65 TPH, DG Sets of 1250 KVA and Railway Siding near village Maldo, Tehsil Lakhpat, District Kachchh, Gujarat by M/s Shree Cement Limited. [Proposal No. IA/GJ/IND/73058/2018; MoEF&CC File No. J-11011/61/2018-IA II(I)] – Terms of Reference.

**1.0** M/s Shree Cement Limited madeonline application videproposal No. IA/GJ/IND/73058/2018 dated 18<sup>th</sup>February 2018 along with the 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 Sl. No. 3(b) cement plants under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

#### Details of the project as per the submissions of the project proponent:

2.0 M/s. Shree Cement Limited Unit: Bhuj Cement Plantproposes to install anIntegrated Cement Plant, Clinker 2.5 Million TPA, Cement 3.5 Million TPA, Waste Heat Recovery Power Plant 20MW (GPP), Captive Thermal Power Plant 25MW (CPP) along with Synthetic Gypsum Unit 65 TPH, DG Sets of 1250 KVA and Railway Siding. It is proposed to set up the plant for cement manufacturing based on dry processtechnology.

3.0 The proposed unit will be located near village Maldo, Tehsil Lakhpat, District Kachchh, Gujarat.

4.0 The land area acquired/ required for the proposed plant is 141.96 Ha.Out of which Nil is an agricultural land, Nil is grazing land and 141.96 ha is Government Land. No /forestland involved. The entire land has been acquired/ not acquired for the project. Of the total area 46.84 ha (33%) land will be used for green belt development.

5.0 Narayan Sarovar sanctuary is located at a distance of 5.6 KM from the site and ecosensitive zone of Narayan Sarovar sanctuary is located at 4.6 KM. Project site is out of sanctuary and its Eco sensitive zone. The area also does not report to form corridor for Schedule-I fauna.

6.0 Total project cost is approximately Rs. 1837.36 Crore rupees. Proposed employment generation from proposed project will be 500 direct employments and 550 indirect/ contract based employments.

7.0 The targeted production capacity of Clinker is 2.5 Million TPA, Cement is 3.5 Million TPA, Waste Heat Recovery Power Plant is 20MW (GPP), Captive Thermal Power Plant is 25MW (CPP), Synthetic Gypsum Unit is 65 TPH and DG Sets of 1250 KVA. The limestone for the plantwould be procured from the proposed Shree cement's captive limestone mine which is adjacent to the plant site. The limestone transportation will be donethroughconveyor belt. The proposed capacity for different products for new site area as below:

Name of unit	No. of	Capacity of each Unit	Production Capacity
	units		
<b>Clinker Production</b>	1	2.5 Million TPA	2.5 Million TPA
Cement Production	1	3.5 Million TPA	3.5 Million TPA
Synthetic Gypsum	1	65 TPH	65 TPH
Thermal Power	1	25 MW	25 MW
Generation			
Waste Heat	1	20 MW	20 MW
Recovery			
Power Generation			
DG Sets	3	2*500 and 1*250	1250

8.0 The electricity load of 31 MW will be procured/sourced from Captive Power Plant, WHRS & Grid. Company has alsoproposed to install 1250 KVA DG Sets.

9.0	0 Proposed raw material and fuel requi	irement for project are given in the follo	wing table:

Cement Plant					
Raw Material Quantity		Source			
	(Million TPA)				
Lime Stone	4.0	Captive lime stone mine			
Indian and Imported Pet	0.25	Local petroleum refinery Jamnagar,			
coke / Coal and Lignite		Reliance & Essar/ USA / Saudi Arabia			
		/ Turkey / Canada etc.			
	0.40	Local market / USA etc.			
Laterite or	0.1	Local market			
Iron ore					
Bauxite	0.02	GMDC Dabhan Mines			
Indian, Imported, synthetic	0.175	Synthetic gypsum -manufacturing at			
and chemical Gypsum		the site			
		Chemical Gypsum			
		Marine Gypsum			

		Imported (Iran/Oman)		
Fly ash	1.22	Captive power plant and nearb Thermal Power Stations		
Sulphuric Acid	655 TPD	Local sources		
		Imported (Japan / South Korea)		

Fuel and Limestone Requirement for CPP					
<b>Raw Material</b>	Quantity	Source			
	(Million TPA)				
Lime Stone	0.01	Captive lin	ne stone mine		
Imported and Indian	0.20 Imported from USA		From USA		
Coal					
	0.22 Indian from		n local market		
Raw materials Rec	quirement for Syr	nthetic Gyps	sum Manufacturing		
Matarial	Requi	rement 65 T	'PH / 1560 TPD		
Material	%		TPD		
Limestone	62.0		968		
H <sub>2</sub> SO <sub>4</sub> 98%	42.0		655		
Water	35.0		546		

10.0 Water Consumption for the proposed project will be  $1500 \text{ m}^3/\text{daywith TDS } 300 \text{ mg/l}$  which will be sourced from ground water, mine dewatering and see water with RO and desalination plant and waste watergeneration will be discharged in nearby estuary. Domestic waste water will be treated in the STP andtreated water will be used for plantation.

11.0 The proponent has mentioned that there is no court case or violation under EIANotification to the project or relatedactivity.

12.0 EIA Consultant: M/s Vimta Labs, Hyderabad

#### **Observations of the committee**

13.0 After detailed deliberations, the committee observed that neither the PP nor the EIA consultant visited the site while preparing the prefeasibility report. Thus, the prefeasibility report prepared with out any idea of the site location with respect to its environmental aspects.

#### **Recommendations of the committee**

14.0 Therefore, the committee advised the PP to revise the pre-feasibility report after visting the site and taking into consideration of the ecology of the area with respective to ecosensitivity/biodiversity, socio-economic aspects and land use /land cover.

# 28.26 Greenfield Integrated Cement Plant (capacity – clinker 2x2.6 MTPA, cement 3.0 MTPA, CPP 2X25MW and WHRB Power generation – 2x20 MW) near village Joga, Tehsil &Dist.Jaisalmar, Rajasthan by M/s Shree Cement Ltd. [Proposal No.

# IA/RJ/IND/26554/2015 dated 16<sup>th</sup>February 2018; MoEF&CC File No. IA-J-11011/05/2015-IA II(I)].

**1.0 M/s Shree Cement Limited**has made online application vide proposal no. IA/RJ/IND/26554/2015 dated 16<sup>th</sup>February 2018 for the extension of validity of ToR for the above proposed project activity issued vide letter no. **J-11011/05/2015-IA.II(I)** dated 28/04/2015.

#### **Details of the project as per the submissions of the project proponent:**

2.0 The ToR Letter was issued by MoEF&CC, New Delhi vide letter no. J-11011/05/2015-IA-II (I) dated 28/4/2015 for the above said proposed Greenfield Integrated Cement Plant-Clinker (2 x 2.6 Million TPA), Cement (3.0 Million TPA), Captive Power Plant (2 x 25 MW) & Waste Heat Recovery Power Generation (2 x 20 MW) near Village: Joga, Tehsil & District: Jaisalmer (Rajasthan) by M/s. Shree Cement Ltd.

3.0 It was informed that EIA studies have been carried out during March 2015 to May 2015. Accordingly, application for conducting the public hearing submitted on 20/8/2015 to Regional office, Rajasthan State Pollution Control Board (RSPCB), Jodhpur.Regional Office, RSPCB, Jodhpur requested the District Collector (DC), Jaisalmer vide letter no. RPCB/RO/JODH/PH/Shree Cement/Jsl/356 dated 1/9/2015 to decide the date, time and venue for conducting the public hearing.

4.0 Further, the DC was again requested by the Regional Office RSPCB vide letter no. RPCB/RO Jodh/PH/Shree Cement Ltd./1601 dated 25/10/2017 and RSPCB Letter no. RPCB/RO Jodh/PH/Shree Cement Ltd./2031 dated 24/01/2018 for the same.

5.0 M/s Shree Cement Limited has also requested the DC to decide the date, time and venue for conducting the public hearing on 06.02.2018 and 06.03.2018

6.0 Since the finalization of the PH date is presently at the DC level & ToR is valid upto 27.04.2018, It is requested to kindly renew the same for next one year i.e. 27.04.2019.

7.0 After detailed deliberations, the committee recommended for extension of validity of ToRs for further period of one year, i.e., 27.04.2019 with following considiions;

- i. The Baseline date used for preparation of EIA/EMP and date of Public Consultation shall be older than 3 years.
- ii. All other terms and conditions of earlier ToR shall remain same.

# 14th March 2018 (Teesta)

29.27 Proposed production (12000 TPA) or craft paper (6000 TPA) and writing paper (6000 TPA) at MaujaMahuli, PO Kothiya, Tehsil Patna Sadar, Bihar by M/s Maa Jagadambe Paper Mills Pvt. Ltd. (Proposal No. IA/BR/IND/72947/2017 dated 13<sup>th</sup> February 2018; MoEF&CC File No.) – Environmental Clearance

1.0 The proponent has made online application vide proposal no. IA/BR/IND/72947/2017, dated 13<sup>th</sup> February 2018 along with copies of EIA/EMP report seeking environmental

clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 5(i) Paper and Pulp industry as Category "B" under EIA Notification 2006 and subsequent amendments due to non-existence of SEIAA in Bihar at present, the proposal was appraised at Central level.

# Details of the project as per the submissions of the project proponent:

2.0 The paper mill project of M/s Maajagdambe Paper Mills Pvt. Ltd., is located near Vill. Mahuli, P.O. Kothiya, PS. Deedarganj, Dist. Patna, State Bihar, was initially received in SEIAA, Bihar on 19<sup>th</sup> Mar.'2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the State Expert Appraisal Committee [Bihar] during its meeting held on 28<sup>th</sup> Apr.'2017 and recommended ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, SEIAA, Bihar had prescribed ToRs to the project on 02.06.2017 vide Lr. Ref. No. 54/SEIAA/17.

3.0 The project of Maajagdambe Paper Mills Pvt. Ltd., located near Vill. Mahuli, Block Patna Sadar, Dist. Patna, State Bihar is for production of 40 TPD Paper (20 TPD Writing Paper and 20 TPD Craft Paper). The proposed capacity for different products for existing site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Paper Mill based	1 No	20 Ton / Day Writing Paper	6000 TPA Writing Paper
waste paper	1 110.	20 Ton / Day Craft Paper	6000 TPA Craft Paper
Total Production Capacity		40 Ton / Day	12000 TPA

3.0 The total land required for the project is 1.66Ha., which is owned by project proponent under lease agreement (25 years) with land owners. No forestland involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

4.0 The topography of the area is flat and reported to lies between  $25^{\circ}32'15.30$ "N to  $25^{\circ}32'14.80$ "N Latitude and  $85^{\circ}13'13.89$ "E to  $85^{\circ}13'19.50$ "E Longitude in Survey of India topo-sheet No. 72 G/2 at an elevation of 51 m AMSL. The ground water table reported to ranges between 0.44 - 11.47 m. below the land surface during thepost-monsoon season and 2.05 - 11.83 m. below the land surface during the pre-monsoon season. Based on the hydrogeological study, it has been reported that the radius of influence of pumped out water will be 500 m. Further, the stage of groundwater development is reported to be 47.64 % in core and buffer zone and thereby these are designated as safe areas.

5.0 The National Park / WL etc are not located at a distance of 10 KM from the site / No national park / wildlife sanctuary / biosphere reserve / tiger reserve /elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the EIA reporting presence of no schedule-I fauna in the study area.
6.0 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process in described in Chapter 2 of EIA/EMP Report.

7.0 The targeted production capacity of the project is 40 TPD (12000 TPA). The raw materials for the plant would be procured from local suppliers in Bihar. The transportation of raw materials will be done through Road.

8.0 The total water requirement of the project is estimated as  $105 \text{ m}^3$ /day, out of which 60 m<sup>3</sup>/day of fresh ground water requirement will be obtained from the borewells and the remaining requirement of 45 m<sup>3</sup>/day will be met from the treated water from ETP. Applied for permission for drawl of 60 m<sup>3</sup>/day fresh groundwater from CGWB vide Application No. 21-4/323/BR/IND/2017.

9.0 The power requirement of the project is estimated as  $\max^{m}$  2500 KVA, which will be obtained from the BSEB Grid.

10.0 Baseline Environmental Studies were conducted during pre-monsoon season i.e. from March to May'2017. Ambient air quality monitoring has been carried out at 8 locations during March to May'2017 and the data submitted indicated:  $PM_{10}$  ( 39.5 µg / m<sup>3</sup> to 71.7 µg / m<sup>3</sup>),  $PM_{2.5}$  ( 23.6 to 43.3 µg / m<sup>3</sup>),  $SO_2$  (5.4 to 16.7 µg/m<sup>3</sup>) and NOx (10.2 to 35.2 µg/m<sup>3</sup>). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 3.55 µg/m<sup>3</sup> with respect to the PM<sub>10</sub>.

11.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.39 to 6.83, Total Hardness: 252 to 308 mg/l, Chlorides: 16 to 26 mg/l, Fluoride: 0.28 to 0.51 mg/l. Heavymetals are within the limits. Surface water samples were analysed from 2 locations. pH: 7.14 to 7.18; DO: 3.4 to 5.9 mg/l and BOD: 2.4 to 4.6 mg/l. COD from 8.0 to 16.0 mg/l.

12.0 Noise levels are in the range of 36.2 to 64.8 dBA for daytime and 44.7 to 26.2 dBA for night time.

13.0 It has been reported that there are no people in the core zone of the project. No/ R&R is involved. It has been envisaged that no families to be rehabilitated as the project site is in possession of project authorities under leasehold basis for period of 25 years.

14.0 It has been reported that Waste paper sheet (1 TPD), Boiler Ash (1 TPD), ETP Sludge (0.1 TPD), Used Oil (0.1 KL/Annum) will be generated as waste due to the project. Waste paper will be recycled back to process within premises. Boiler ash will be sold to brick manufacturers for use as raw materials. ETP sludge will be sold to cardboard/hardboard manufacturers for use as raw materials. Waste used oil will be sold to CPCB authorized vendors for reprocessing. It has been envisaged that an area of 0.51 ha. will be developed as green belt around the project site to attenuate noise levels and trap the dust generated due to the project development activities.

15.0 The Public hearing of the project was held on 16<sup>th</sup>Sep.'2017 near project site at Utkramit Madhya Vidyalaya, Mahuli, Patna City, Dist. Patna- 800009, State Bihar under the chairmanship of Virendra Kumar Paswan, Dy. Collector (Special Program), Patna, (duly appointed Representative of District Magistrate, Patna) and Sri Nand Kumar, Regional Officer,

Bihar State Pollution Control Board, Patna for production of 40 TPD paper (20 TPD Writing paper and 20 TPD Craft Paper). The issues raised during public hearing are attached as Chapter 7 in EIA/EMP Report. The Statement of main issues raised by the public and response of the project proponent with action plan is as follows:

Sl. No.	Question/Issue/Suggestions	Response by project proponent (after PH)	Time Bound Action Plan proposed	Budgetary provision
1.	Sri Ramji Singh, resident of Vill.Kothia, Sri Mukesh Kumar & SriSanjay Kumar, resident of Vill.Mahuli, expressed theirhappiness for establishment ofproposed paper mill project. They requested that localunemployed youths should bepreferred for employment inproposed paper mill project.	Sri Sarabjit Prasad, Director, Maajagdambe Paper Mills Pvt. Ltd., explained that educated youth of nearby areas will be employed after providing training to them. It is assured that local unemployed educated youth will be preferred for employment in proposed paper mill project.	Local educated unemployed youth will be provided skill development training and will be absorbed in proposed paper mill project. (UptoMar.'2019)	Rs. 3.0 Lakhs hasbeen allocated for Skilldevelopment training of localyouths.
2.	Sri Omprakash Singh & Sri Rambalak Singh , resident of Vill.Mahuli, requested that inproposed paper mill project,emission control measuresshould be provided forminimizing emission from stack,so that crop should not beaffected.	In the proposed paper millproject reverse pulse jet bagfilters will be installed forminimizing dust emission instack emission due tooperation of	Reverse Pulse Jet Bag Filters will be installed Upto Mar.'2019 & full fledged 3 tier green belt will be developed by Oct.'2020	Installation of Air Pollution Control Device : Rs. 20.0 Lakhs Green Belt Development : Rs. 10 Lakhs

		rice huck		
		firedboilers		
3	Sri Baskitnath Mukhia	In the	Reverse Dulsalat	Installation of
5.	(Hushand) Mahuli	nronosed	Rag Filters	$\Delta SP$ has a FTD $\cdot$
	Panchavat expressed his	proposed	$\& \Delta SP based$	Rs 750Lakhs
	hannings onestablishment	mill generated	ETDwith DSE	IX3. 75.0 Lakiis
	of proposed modern paper	min,generated	& ACE will	Installation of
	mill project	waste water	bainstalled Unto	Air
	intheirpenchevet which	in ASP	Mor '2010	All Pollution Control
	will troot	III ASF BasadETD	$\frac{1}{8}$	$\frac{POIIUIOII COIIUOI}{Dovico \cdot P_0} 20.0$
	will treat,	usith DCE &	a full fladged 2tion	Lekke
	recycle and reuse	with FCF $\alpha$	run neugeu Stier	Lakiis
	generated	ACF	developed	Croop Dolt
	waste water within their	treatment All	heveloped	Development :
	OWII	theatment. All	byOct. 2020	Development :
	premises and arrangement	thetreated		RS. 10 Lakns
	01	water will be		
	humin and rise hugh as fuel	recycleand		
	burningol rice nusk as luel.	reuses within		
	Thus, panchayat is agree for	in ano acces		
	establishment of proposed	in process		
	papermin project.	andgreen ben		
		irrigation.For		
		air pollution		
		load reverse		
		pulse jet bag		
		filters will be		
		installed for		
		minimizing		
		dust emission		
		instack		
		emission due		
		to operation		
		of fice husk		
<u> </u>		firedboilers.		
1		1		

16.0	An amount of 24.5 La	khs (2.5 % of Projec	ct cost) has been	earmarked for Enterprise
Social	Commitment based on	public hearing issues.	The details of ES	SC proposed as follows;

ESC Activities	Year after Co ( <i>All f</i>	ommissioning of the <i>igures in Lakhs Rs</i> .	Project
	2018-19	2019-2020	Total
1. Adoption of 1 Ha. land forimproving crop yield. (Chemical analysis of soil, supply of high yield seeds and advice for proper irrigation and monitoring of crop	2.5	2.5	5.0

	yield).			
2.	Setting up Hand pump incommunity areas	1.5	1.5	3.0
3.	Providing lighting arrangements for village streets (Supply, erection and commissioning of LED and allied fixtures)	2.0	1.5	3.5
4.	Development of road andinfrastructure in the area	5.0	3.0	8.0
5.	Skill Development of LocalYouths for employment inproposed MJPMPL project.	2.5	2.5	5.0
	TOTAL AMOUNT	13.5	11.0	24.5

17.0 The capital cost of the project is Rs 986.5 Lakhs and the capital cost for environmental protection measures is proposed as Rs. 105 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 35Lakhs. The employment generation from the proposed project is75 nos. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

S1.	Description	Capital Cost	Recurring cost per
No.		Rs. Lakh	annum, Rs Lakh
1.	Installation of Air Pollution Control System (Reverse Pulse Jet Bag Filters)	20.0	10.0
2.	Installation of 65 KLD ETP	75.0	15.0
	Green Belt Development	10.0	5.0
3.	Environmental Monitoring		5.0
	TOTAL	105	35

18.0 Greenbelt will be developed in 0.55 Ha which is about 33% of the total acquired area. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 1300 saplings will be planted and nurtured in 0.55 Ha. in 2 to 5 years.

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

# **Observation and recommendation of EAC**

2.0.0 After detailed deliberations, the committee recommended for grant of environmnental clearance with the following specific conditions:

- i. Deinking sludge and fine sludge from ETP shall be disposed through TSDF.
- ii. ZLD system should be put in place in view of loaation of the plant in the Ganga basin.
- iii. Elemental chlorine free bleaching should be adopted.

- iv. An amount of Rs 35 Lakhs proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
- v. Green belt shall be developed in 0.55 Ha equal to 33% of the plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- vi. The Capital cost Rs. 105 Lakhs and annual recurring cost Rs. 35 Lakhs towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

**29.28** Expansion of steel plant at Tulsiberia Road, village Kulgachia, PS Uluberia, Mouza Sreerampur, Dist. Howrah, West Bengal by **Shri Badri Narain Alloys & Steel Limited** – Amendment for reduction of proposed units [Proposal No. IA/WB/IND/4978/2012; MoEF&CC File No. IA-J-11011/432/2008-IA II(I)] - Amendment in Environmental Clearance.

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant

29.29 Expansion of MS Ingots manufacturing from 21,600 TPA to 36,000 TPA and installation of submerged arc furnace to manufacture 15,000 TPA of silico manganese at Kandra Industrial Area, Dist. Dhanbad, Jharkhand by M/s Jai Prabhuji Iron & Steel Limited (Proposal No. IA/JH/IND/3121/2011; MoEF&CC File No. IA-J-11011/180/2010-IA II(I)] - Amendment in Environmental Clearance.

1.0 M/s Jai PrabhujiIron& Steel Limited made online application vide proposal no. IA/JH/IND/3121/2011 dated24<sup>th</sup>February 2018 seekingamendment in the existing Environmental Clearance No. J-11011/180/2010-IA II(I), dated 13.07.2011.

# **Details submitted by the project proponent:**

2.0 The project is located atKandra Industrial Area,Govindpur, District Dhanbad (Jharkhand)for production of 36,000 TPA MS Ingot and 15,000 TPA SilicoManganese as per the Environment Clearance granted by MoEFCC, GOI vide letter No. **J-11011/180/2010-IA II**(**I**) on dated **13.07.2011**.

S.	Products Units		Quantity (TPA)
No.			
1.	MS Ignot	Induction Furnace 1x3 T and 2x6 T	36,000
2.	Silica Manganese	2x5 MVA SAF	15,000
Othe	er Details		
3.	Area required		5.38 Acres
4.	Water Requirement		51 KLD
5.	Power Requirement		20 MW

3.0 Products and other details as per the existing EC are as follows:

4.0 The topography of the area is flat and location co-ordinate23°50'55.49"NLatitude and 86°28'43"ELongitude in Survey of India topo sheet No. 73 I/5.No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

5.0 It was informed that at present the demand of short length MS Ingot has become obsolete and the product with longer length, i.e. MS Billet is sustainable. Therefore, requested following amendment in the existing Environmental Clearance:

- 1. MS Billet (in place of MS Ingot) 36000 TPA
- 2. Silicomanganese (15,000 TPA) may be omitted from the EC as we have not installed the 2x5 MVA Submerged Arc Furnaces and shall not installed in future also.

6.0 It was informed that there is no change in the process for production of liquid steel and only Ingot route is being replaced with Continuous Casting route which is more environment friendly. The capital cost of the project is **Rs. 4.95 crores** for the existing facilities and additional Rs4.10 Crores for change to CCM, i.e. total cost of the project will be **Rs. 9.05** Croresand the capital cost for environmental protection measures is Rs25.00 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 2.80 Lakhs per year.

7.0 The water requirement of the project is estimated as  $33m^3/daya$  fter the proposed change.

8.0 The power requirement after the proposed change shall be 16.5 MVA and shall be sourced from JharkhandState Electricity Board (JSEB).

9.0 Total manpower after the proposed change shall be 100 to operate and maintain the plant facilities including its technical/ administration needs.

10.0 No change in raw materials requirement due to the proposed change.

11.0 Approx. 1.16 Acres (33% of the total area) shall be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project activities.

12.0 The proponent has mentioned that there is no court case / litigation against the plant

13.0 M/s VardanEnvironet, who has revalidated the EIA Report, is listed at Serial no. 148 as per NABET list of accredited consultant organizations (Rev. 62 dated 05.02.2018).

14.0 During the deliberations, the PP informed that the detailed information with respect to increase or otherwise in the pollution load and the compliance status of the existing Environmental Clearance conditions was not readily not available. The PP informed the committee that he would submit the requisite information to the Ministry for further consideration and action by the Ministry.

15.0 Therefore, the committee advised to submit the information for consideration of the proposal.

29.30 Integrated Steel Plant (Sponge Iron- 90, 000 TPA, Pellet Plant -1,00,000 TPA, Iron Ore Beneficiation and palletization -3,00,000 TPA, Sinter - 2,07,360 TPA, Blast Furnace – 1,50,000 TPA, Induction Furnace with CCM/PCM- 1,50,000 TPA, Rolling Mill – 1,50,000 TPA, Ferro alloys – (FeMn/SiMn/FeSi)- 30,000 TPA, Captive Power Plant-20.5 MW, WHRB from Sponge – 6 MW, WHRB from BF- 2.5 MW and FBC boiler

#### 12 MW, Coal Washery- 1.44 MTPA) at village Sarora, Tehsil Tilda, Raipur Dist., Chhatisgarh by **M/s Khetan Sponge & Infrastructure Pvt Ltd** [Online Proposal No. **IA/CG/IND/20452/2011**; MoEF&CC File No. **IA-J-11011/387/2009-IA II(I)**] – **Validity Extension of Environmental Clearance**.

1.0 M/s Khetan Sponge & Infrastructure Pvt Ltd has made online application vide proposal No. IA/CG/IND/20452/2011 dated 25thJanuary 2018 seeking validity extension of Environmental Clearance granted vide IA-J-11011/387/2009-IA.II(I) dated 29th March 2011 for the above-mentioned project.

		Capacity				
S.N	Deteile	Existing C	FE awarded	Proposed	Total	
о.	Details	T	To be			
		Implemented	commissioned			
1.	Sponge Iron	2 x 100 TPD	1 x 100 TPD		90,000 TPA	
2.	Only Pellet plant	100000 TPA			100000 TPA	
3.	Iron Ore			3,00,000 TPA	3,00,000 TPA	
	Beneficiation &			(1 x 1000 TPD)		
	Pelletization					
4.	Blast Furnace			1 x 250 M <sup>3</sup>	1,50,000 TPA	
5.	Sinter			1 x 24 M <sup>2</sup>	2,07,360 TPA	
6.	Induction Furnace			5 x 10 MT	1,50,000 TPA	
	with CCM/ PCM					
7.	Rolling Mill			1 x 500 TPD	1,50,000 TPA	
8.	Ferro Alloys Unit			2 x 9 MVA	30,000 TPA	
9.	POWER				20.5 MW	
i.	WHRB – from			3 x 2 MW	6.0 MW	
	sponge iron					
ii.	WHRB - from			2.5 MW	2.5 MW	
	Blast Furnace					
iii.	FBC Boiler			12 MW	12 MW	
10.	Coal Washery			200 TPH	1.44 MTPA	

2.0 Following is the plant configuration for which Environmental Clearance was obtained:

# 3.0 The following are the reasons for delay in implementation of expansion proposal Environment Clearance has been accorded in March 2011.

- Existing Pellet plant, Sponge iron has been shut down in August 2012 due to severe financial constraints and fall in cash flow.
- Power connection to the plant got disconnected in September 2012.
- Plant was not in operation from September 2012 to March 2017.
- One-time settlement with bank has been done and cleared our bank liabilities on 30<sup>th</sup> March 2016 by the company and accordingly NOC is issued by State Bank of India dt. 30<sup>th</sup> August 2016.

- Meantime New Director have joined the Board of Directors of the company and they have arranged the requisite funds for restarting of the operation of the plant and implementing the unimplemented portion of the EC.
- Subsequently Obtained Consent To Establish from Chhattisgarh Environment Conservation Board (CECB) vide letter no. 2873/TS/CECB/2017 dated 24<sup>th</sup> August 2017 for the entire plant.
- Detailed engineering has been completed for the units that are to be implemented.
- Accordingly Purchased Orders have been issued to the various equipment suppliers.

4.0 The following is the current implementation status, Target date for completion of units & details of units that are proposed to be dropped

S.No.	Details	Capacity for	Implementation Status	Details of
		which EC		Units
		obtained on		Dropping
		29 <sup>th</sup> March 2011		
1.	Iron Ore	3,00,000 TPA		Dropping
	Beneficiation &	(1 x 1000 TPD)		Now
	Pelletization			
2.	Blast Furnace	1,50,000 TPA		Dropping
		$(1 \text{ x } 250 \text{ M}^3)$		Now
3.	Sinter	2,07,360 TPA		Dropping
		1 x 24 M <sup>2</sup>		Now
4.	Induction Furnace	1,50,000 TPA	• Yet to be	
	with CCM/ PCM	(5 x 10 MT)	implemented	
			• will be completed	
			by April 2019	
5.	Rolling Mill	1,50,000 TPA	• Yet to be	
		(1 x 500 TPD)	implemented	
			• will be completed	
			by June 2019	
6.	Ferro Alloys Unit	30.000 TPA	• Yet to be	
	5	(2 x 9 MVA)	implemented	
			• will be completed	
			by December	
			2020	
7.	POWER			
i.	WHRB – from	6 MW	• 50 % Civil work	
	sponge iron	(3 x 2 MW)	is completed	
	10		• 50 % Equipment	
			ordering	
			completed.	
			• will be	
			operational by	
			April 2010	
			April 2019	

ii.	WHRB - from Blast Furnace	2.5 MW		Droping Now
iii.	FBC Boiler	12 MW	<ul> <li>50 % Civil work is completed</li> <li>50 % Equipment ordering completed.</li> <li>9 MW FBC will be operational by April 2019</li> </ul>	Dropping remaining 3 MW
8.	Coal Washery	200 TPH	<ul> <li>Yet to be implemented</li> <li>will be completed by December 2020</li> </ul>	

# 5.0 The following is the detailed information on progress of work

S.No.	Details	Capacity after dropping few units for which EC obtained on 29 <sup>th</sup> March 2011	Detailed Implementation Status
1.	Induction Furnace with CCM/ PCM	1,50,000 TPA (5 x 10 MT)	<ul> <li>Purchase order issued.</li> <li>Detailed Engineering has been done.</li> <li>Equipment ordering done</li> <li>Yet to be implemented and will be completed by April 2019</li> </ul>
2.	Rolling Mill	1,50,000 TPA (1 x 500 TPD)	<ul> <li>Purchase order issued.</li> <li>Detailed Engineering has been done.</li> <li>Yet to be implemented and will be completed by June 2019.</li> </ul>
3.	Ferro Alloys Unit	30,000 TPA (2 x 9 MVA)	<ul> <li>Yet to be implemented</li> <li>will be completed by December 2020</li> </ul>
4.	Coal Washery	200 TPH	<ul> <li>Yet to be implemented</li> <li>will be completed by December 2020</li> </ul>
5	Power	6 MW WHRB based (3 x 2 MW) 9 MW FBC based	<ul> <li>Boiler</li> <li>Purchase order issued</li> <li>Detailed Engineering completed &amp; approved by Director of Boilers for manufacture.</li> <li>100 % Raw material for pressure parts of all 4 boilers have been received at vendor works</li> </ul>

<ul> <li>Manufacturing under progress at vendor works.</li> <li>Civil construction drawing released.</li> <li>Civil work will be upto Ground level. Superstructure will be steel.</li> <li>30% civil work completed.</li> <li>30% of work is completed for Boilers.</li> <li><u>Turbine</u></li> <li>Purchase order issued</li> </ul>
<ul> <li>Detailed Engineering completed &amp; Casting received at Vendor end.</li> <li>Civil construction drawing</li> </ul>
<ul><li>released</li><li>Civil work will be upto Ground</li></ul>
<ul> <li>Superstructure will be steel.</li> <li>75% of civil work is completed</li> </ul>
• TG deck civil construction drawing released for construction
and civil construction started. Reinforcement for raft completed.
<u>Air Cooled Condenser</u>
• Purchase order issued
• Detailed Engineering completed.
Civil construction drawing released
Civil work will be upto Ground
level. Superstructure will be steel.
• 60% civil work completed.
• Order placed and drawing
approved
Civil construction released
Balance of Plant
Scheme finalised
Tender released
Offer received and same are under
evaluation.
Ordering completion by April     2018

6.0 Accordingly requested for amendment and extension of validity of the EC.

# **Onservations of the committee:**

7.0 the committee observed that with the proposed dropping of some of the units, overall pollution load will reduce and PP has made physical progress regarding expansion proposals.

# **Recommendations of the committee:**

8.0 Based on the detailed information provided by the PP, the Committee recommended the validity of extension of environmental clearance for a period of 3 years, i.e., upto 28<sup>th</sup> March 2021.

29.31 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. [Online Proposal No. IA/JH/IND/73158/2018; MoEF&CC File No. J-11011/99/2007-IA II(I)]- Terms of Reference

1.0 The proponent has made online application vide proposal no**IA/JH/IND/73158/2018** dated 22<sup>th</sup>**February 2018** along with the (Form-I, copy of prefeasibility 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 Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and the proposal is appraised at Central level

#### Detail submitted by the project proponent

2.0 M/s. SAIL-Bokaro proposes modernization-cum-expansion of existing Iron & Steel plant of 5.77 MTPA hot metal production capacity. It is proposed to up -grade existing SMS-I(1.306 MTPA), carry out debottlenecking activities for SMS-II (3.35 MTPA) & existing CRM complex (1.66 MTPA), install a new kiln of 450 TPD in Lime plant, a new Sinter Plant(3.7MTPA) and an Oxygen plant (1250 TPD on BOO basis) without increasing the overall production capacity of 5.77 MTPA hot metal of existing Bokaro Steel Plant.

3.0 The existing project was accorded environmental clearance vide lr.no. J-11011/99/2007-IA.II(I) dated 16.10.2008, which was subsequently granted extension of validity till 15.10.2018. The same had also been granted amendment in EC vide MoEFCC's lrs. no. J-11011/99/2007-IA.II(I) dated 28.11.2014 and 13.12.2017. Consent to Operate was accorded by Jharkhand State pollution Control Board vide lr. no. JSPCB/HO/RNC/CTO-63953/2016/98 dated 17.06.2016 and the validity of CtO is up to 31.12.2019.

4.0 The proposed modernization-cum-expansion programme will be carried out within the existing Bokaro Steel plant which is located at Bokaro Steel City, Tehsil: Chas, District: Bokaro, State: Jharkhand.

5.0 The land area under possession of SAIL-Bokaro for the existing Bokaro Steel Plant within which the proposed modernization-cum-expansion programme is envisaged is 6973.68 Ha (all under BSL's possession) out of which 5413.5 Ha is under industrial use (plant area), 1199.99 Ha is under water bodies (the existing cooling pond which works as reservoir for facilitating central recirculation system and cooling of hot process water), 1782.35 Ha is under greenbelt plantation and 360.17 Ha is others. No forestland is involved. The entire land is already in possession of SAIL-Bokaro and no additional land acquisition is required for the proposed modernization-cum-expansion project. Of the total plant area, 1782.35 Ha (33%) land is under use for green belt development.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx. 2276.01 Crore rupees. No direct employment generation from proposed modernization-cum-expansion project is envisaged as existing manpower from different units will be trained and re-deployed for the modernized as well as new units. However, some contractual workers will be engaged during construction and expansion plan who will be sourced from locals.

8.0 The targeted production capacity of the existing Bokaro Steel plant is 5.77 MTPA of hot metal (EC already accorded by MoEFCC). The iron ore for the plant would be sourced from SAIL Captive mines. The ore transportation will be done through Rail and in-plant logistics will be via Conveyors. The modifications, up-gradations and capacity enhancements of various units envisaged in the proposed modernization-cum-expansion program of BSL is mentioned below:

Sl.	Name of	Capacity of	Changes proposed in	Total capacity after
No.	units/products	units(as per	modernization-cum-	proposed
		existing EC &	expansion programme	modernization-cum-
		all amendments		expansion
		thereof)		_
1.	Hot Metal	5.77 MTPA	No change	5.77 MTPA
2.	Crude Steel	4.606 MTPA	4.656 MTPA with some	4.656 MTPA
			proposed debottlenecking	
			projects.	
3.	Coke Oven	3.442 MTPA	No change	3.442 MTPA
	Complex	coke		
4.	Blast Furnace	5.77 MTPA Hot	No change	5.77 MTPA
	Complex	metal		
5.	Sinter Plant	8.7 MTPA (5	-1 new sinter plant of 360	8.7 MTPA
	Complex	MTPA + 3.7	m <sup>2</sup> grate area of 3.7 MTPA	
		MTPA)	(included in new proposal	(5 MTPA + 3.7
			due to delay in installation	MTPA)
			activities)	
			No change in overall sinter	
			production (8.7 MTPA) as	
			per earlier EC amendment	
			granted.	
6.	SMS Complex	<u>SMS-I</u>	- SMS-I up-gradation to	4.656 MTPA (1.306
			1.306 MTPA included in	MTPA + 3.35
		[upgraded from	new proposal due to delay	MTPA)
		<u>1.5 MTPA to</u>	in installation activities.	
		<u>Stage-1:</u> 1.306		
		MTPA]		

Sl.	Name of	Capacity of	Changes proposed in	Total capacity after
No.	units/products	units(as per	modernization-cum-	proposed
		existing EC &	expansion programme	modernization-cum-
		all amendments		expansion
		thereof)		
			No change in capacity of	
			1.306 MTPA as per earlier	
			EC amendment granted.	
		SMS-II (with	- Execution of some	
		capacity	debottlenecking facilities of	
		augmentation to	SMS-II will augment the	
		3.30 MTPA)	capacity to 3 35 MTPA	
		Tot. Capacity:		
		4.606 MTPA		
		(1.306  MTPA +		
		3.30 MTPA)		
7.	Slabbing Mill	- Universal	No change	-
	C	Slabbing Mill		
		with 7 no.		
		soaking pit		
		batteries		
8.	Hot Strip Mill	4.5 MTPA	No change	4.5 MTPA
9	CRM complex	• Existing CRM	- Execution of some	2.86 MTPA (1.66
1.	ermi eempren			<b>_</b>
	eran compron	Complex: 1.2	debottlenecking facilitiesat	MTPA + 1.2 MTPA)
	erni compren	Complex: 1.2 MTPA	debottlenecking facilitiesat existing CRM complex will	MTPA + 1.2 MTPA)
	ordin compreh	Complex: 1.2 MTPA • New CRM	debottlenecking facilitiesat existing CRM complex will augment the capacity to	MTPA + 1.2 MTPA)
	ordin compreh	Complex: 1.2 MTPA • New CRM Complex: 1.2	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA.	MTPA + 1.2 MTPA)
	ordin compreh	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA.	MTPA + 1.2 MTPA)
	ordin comprehender	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity:	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA.	MTPA + 1.2 MTPA)
	ordin comprehender	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA.	MTPA + 1.2 MTPA)
	ordin comprehender	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA.	MTPA + 1.2 MTPA)
	or an on provide the second seco	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA)	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA.	MTPA + 1.2 MTPA)
10.	Lime-Dolo	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will	MTPA + 1.2 MTPA) 6 x 270 TPD
10.	Lime-Dolo Kiln	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation:	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450
10.	Lime-Dolo Kiln	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new)
10.	Lime-Dolo Kiln (Existing	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite)	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new)
10.	Lime-Dolo Kiln (Existing Rotary Kiln for	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite)	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new)
10.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II)	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite)	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new)
10.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II) Oxygen Plant	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite) Tot. Capacity:	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added No change.Installation of	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new) 3950 TPD
10.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II) Oxygen Plant	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite) Tot. Capacity: 3950 TPD	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added No change.Installation of earlier envisaged of 1250	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new) 3950 TPD
10.       11.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II) Oxygen Plant	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite) Tot. Capacity: 3950 TPD	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added No change.Installation of earlier envisaged of 1250 TPD Oxygen plant (BOO)	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new) 3950 TPD [1450 TPD (existing
10.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II) Oxygen Plant	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite) Tot. Capacity: 3950 TPD (1450 TPD	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added No change.Installation of earlier envisaged of 1250 TPD Oxygen plant (BOO)	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new) 3950 TPD [1450 TPD (existing plant) + 1250 TPD
10.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II) Oxygen Plant	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite) Tot. Capacity: 3950 TPD (1450 TPD captive plant +	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added No change.Installation of earlier envisaged of 1250 TPD Oxygen plant (BOO)	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new) 3950 TPD [1450 TPD (existing plant) + 1250 TPD (existing BOO Plant)
10.	Lime-Dolo Kiln (Existing Rotary Kiln for SMS-II) Oxygen Plant	Complex: 1.2 MTPA • New CRM Complex: 1.2 MTPA Tot. Capacity: 2.4 MTPA (1.2 MTPA + 1.2 MTPA) - 6 x 270 TPD (4 kiln in operation: 3 for lime + 1 for dolomite) Tot. Capacity: 3950 TPD (1450 TPD captive plant + 2x1250 TPD	debottlenecking facilitiesat existing CRM complex will augment the capacity to 1.66 MTPA. - New kiln of 450 TPD will be added No change.Installation of earlier envisaged of 1250 TPD Oxygen plant (BOO)	MTPA + 1.2 MTPA) 6 x 270 TPD (existing) + 1 x 450 TPD (new) 3950 TPD [1450 TPD (existing plant) + 1250 TPD (existing BOO Plant) + 1250 TPD (new)]

Sl.	Name of	Capacity of	Changes proposed in	Total capacity after
No.	units/products	units(as per	modernization-cum-	proposed
		existing EC &	expansion programme	modernization-cum-
		all amendments		expansion
		thereof)		
12.	Water supply	Tenu Canal	<i>No change</i> . Alternate water	Tenu Canal along
	system	along with	pipeline system included	with alternate water
		alternate water	due to delay in project	pipeline system
		pipeline system	execution activities.	

9.0 The major additional electricity load of 79 MVA will be procured from existing power network of Bokaro Steel Plant.

10.0 The additional raw material and fuel requirement for proposed modernization-cumexpansion project of BSL are described in the following tables. The fuel requirement would be fulfilled by existing gas network. Fuel consumption will be mainly Coke Oven gas and Mixed gas (mix of Blast furnace and Coke Oven gas).

	ADDITIONAL RAW MATERIAL REQUIREMENT (Sinter Plant-II)			
Sn.	Raw material	Quantity (Tons/yr)		
1.	Iron ore fines	30,40,290		
2.	Limestone	1,93,140		
3.	Dolomite	3,16,350		
4.	Coke Breeze	2,33,100		
5.	Calcined lime	66,600		
	ADDITIONAL F	UEL REQUIREMENT		
Sn.	Fuel	Quantity		
Mod	lernized SMS-1			
1.	Coke Oven gas	8000 Nm <sup>3</sup> /hr		
2.	Propane gas	100 Nm <sup>3</sup> /hr		
Sint	er Plant-II			
3.	Mixed Gas (BF+CO gas)	3503.8 Nm <sup>3</sup> /hr		

11.0 Additional make-up water requirement for the proposed modernization-cum-expansion project of BSL will be 1684 m<sup>3</sup>/hr which will be sourced from existing water supply system as well as by treatment & recycling of waste water from OF-1B & 2A. No waste water will be discharged from the proposed units and all process wastewater will be treated and recirculated within the units.

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

# **Observations of the committee:**

13.0 During the deliberations, the committee noted that **M/s Steel Authority India Limited** has madeonline application **IA/JH/IND/25333/2014** dated 18<sup>th</sup> October, 2016 for modernisation of existing Bokaro Steel Plant by addition of 2.0 MTPA Pellet Plant and 0.768 MTPA Coke Oven Battery. It was also noted that the PP will take up the proposal of 2.0 MTPA Pellet Plant and 0.768 MTPA Coke Oven Battery after the expansion of the Hot Metel from

4.0 MTPA to 5.77 MTPA for which ToR sought in the instant proposal.

14.0 During the deliberations, the PP requested the committee that another proposal under agenda item 29.32 for Environmental Clearace for modernisation of existing steel plant by addition of 2.0 MTPA pellet plant and 0.768 MTPA cokeoven battery may be merged with this proposal with the consolidated configuration as given below vide letter dated 14.03.2018.

	proposal with	the combondated	a configuration as	Siven below vic	de lettel autou i la	.03.2010.
SI	Units/	Capacity of	Capacity of units	STATUS OF	CHANGES	FINAL
	Products	units at 4.5	after expansion	EXISTING	PROPOSED AS	CONFIGURATI
		MTPA hot	from 4.5 to 5.77	FACILITIES	PER REVISED	ON AFTER
		metal stage	mtna hot metal	(AT 5.77 HOT	CONFIGURATI	ACCEPTANCE
			(as par avisting of	METAL		OF PROPOSAL
			for volid unto	STAGE)	UN	
			1/1 10 2018 & ATT			
			AMENDMENTS			
			THEREOF)			
1.	Coke Oven	3.442 MTPA	3.442 MTPA	Completed.	Addition of 1.0	4.442 MTPA
	Complex			compietear	MTPA Coke	
	complex				oven battery*	
2.	Blast Furnace	4.5 MTPA	5.77 MTPA	Completed.	NO CHANGE	5.77 MTPA
	Complex					
3	SMS Complex	SMS-1+15	SMS-1+1 306	SMS-Lun-	SMS-Lun-	
5.	Sivis Complex	мтра	MTPA	gradation	gradation	
				delaved	included	4 656 MTPA
		SMS-2: 2.7	SMS-2: 3.3 MTPA	uchuyeu	menuueu	
		МТРА		SMS-2	SMS-2 proposed	
			Total: 4.606 MTPA	expansion	to be upgraded to	
		<b>Total: 4.2</b>		completed.	3.35 MTPA	
		MTPA		-		
4.	Slabbing Mill	- Universal	- Universal	Universal	NO CHANGE	Universal
	_	Slabbing Mill	Slabbing Mill with	Slabbing Mill		Slabbing Mill
		with 7 no.	7 no. soaking pit	with 7 no.		with 7 no.
		soaking pit	batteries to be	soaking pit		soaking pit
		batteries	phased out after	batteries		batteries
			SMS-1	retained		
			upgradation			
5.	Sinter Plant	6.9 MTPA	Existing plant: 5.0	New sinter plant	New Sinter Plant	<b>8.7 MTPA</b>
	Complex		MTPA	of 3.7 MTPA	of 3.7 MTPA	
			New Sinter plant:	delayed.		
			3./ MIPA			
	Dollot Dlont*		Total: 8.7 MITPA		Addition of 2.0	
	r enet r lant	-	-	-	MTPA Pollot	2.0 WIIFA
					nlant	
6.	Lime-Dolo	0.2449 MTPA	0.5358 MTPA	Expansion	New Kiln of	0.4091 MTPA
•••	Kiln			deferred.	0.1642 MTPA	
7.	Hot Strip Mill	3.2 MTPA	4.5 MTPA	Completed	NO CHANGE	4.5 MTPA
8.	CRM complex	1.2 MTPA	2.4 MTPA	Completed	Increase by 0.46	2.86 MTPA
				proces	MTPA	
9.	Oxygen Plant	-	Tot. Capacity:	Installation of	Installation of	3950 TPD
			3950 TPD	1x1250 TPD	1250 TPD	
1			(1450 TPD captive	BOO based	Oxygen Plant on	
			plant + 2x1250	Oxygen plant	<b>BOO Basis</b>	
			TPD BOO plant)	delayed.		
10.	Water supply	-	Tenu Canal and	Project delayed		Tenu Canal and
	system		alternate water		Project Included	alternate water
			pipeline system			pipeline system

# **Recommendations of the committee:**

15.0 After detailed deliberations, the Committee agreed to their request for changing the title of the consolidated proposal as 'Expansion –cum-modernisation of Bokaro steel plant from 4.5 MTPA hot metal to 5.77 MTPA hotmetal at Bokaro Steel city, Jharkhand.'

16.0 The Committee recommded for issue of the ToRs for aforementioned consolidated proposal.

29.32 Addition of a 2.0 MTPA Pellet plant and 7 m tall top charged Coke oven battery to Bokaro Steel Plant of 0.768 MTPA production capacity to existing Bokaro Steel Plant of M/s Steel Authority India Limited at Bokaro Steel City, Bokaro Dist., Jharkhand. [Online Proposal No.IA/JH/IND/25333/2014; MoEFCC File No. J-11011/327/2014-IA-II(I)] – Further consideration based on reply to ADS for Environmental Clearance.

M/s Steel Authority India Limited has madeonline application IA/JH/IND/25333/2014 dated 18th October, 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal for modernisation of existing Bokaro Steel Plant by addition of 2.0 MTPA Pellet Plant and 0.768 MTPA Coke Oven Battery was initially received in the Ministry on 27.10.2014 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its 27th meeting held between 13th to 14th November 2014 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project dated 31st December 2015. The proposed project activity is listed at Sl. No. 3(a) in Metallurgical Industries under Category "A" of Schedule of EIA Notification, 2006. Based on the ToRs prescribed to the project, the project proponent applied for environmental clearance to the Ministry online on 18th October 2016 along with EIA/EMP report.

2.0	The project of M/s SAIL located in Bokaro Steel City, District Bokaro, Jharkhand, is
for	Modernization of existing Bokaro Steel Plant by setting up of a new Pellet plant of 2.0
M	TPA of pellets and Coke Oven battery for production of 0.768 million TPA of gross coke
wit	hout increasing the production capacity of the existing Bokaro Steel Plant.

Sl. No.	Name of units/products	Configuration	Existing Capacity	Proposed capacity	Total
1.	Hot Metal	-	5.77 MTPA		5.77 MTPA
2.	Crude Steel	-	4.606 MTPA		4.606 MTPA
3.	Coke Oven Complex	- 8 batteries, 5.0 m Tall, 69 ovens	3.442 MTPA Gross coke		3.442 MTPA Gross coke
4.	Blast Furnace Complex	- 4 BFs of 2000m <sup>3</sup> - 1 BF modified to 2365 m <sup>3</sup>	5.77 MTPA Gross Hot metal		5.77 MTPA Gross Hot metal
5.	Sinter Plant Complex	<ul> <li>2 sinter m/c of 252 m<sup>2</sup> grate area</li> <li>1 sinter m/c modified to 312 m<sup>2</sup> area</li> </ul>	8.7 MTPA (5 MTPA + 3.7 MTPA)		8.7 MTPA (5 MTPA + 3.7 MTPA)

Sl. No.	Name of units/products	Configuration	Existing Capacity	Proposed capacity	Total
		- 1 new sinter m/c of 360 m <sup>2</sup> grate area			
6.	SMS Complex	SMS-I(upgraded from 1.5MTPA to Stage-1: 1.306 MTPA& Stage-2: 1.85 MTPA)- 2x1300 t mixers- 5x100/130 t BOF- Casting ingot of different sizeswith soaking pits.SMS-II(with capacityaugmentation)- 2 x 2500 t mixers- 2/2 x 300 t BOF- 2 x 300 t LF(new)- 1 x 300 t Argon rinsing unit- 2x2 strand Slab caster	6.506 MTPA (3.156 MTPA + 3.35 MTPA)		6.506 MTPA (3.156 MTPA + 3.35 MTPA)
7.	Slabbing Mill	- Universal Slabbing Mill with 7 no. soaking pit batteries	-		-
8.	Hot Strip Mill	- 4x260 t Re-heating Furnaces - Roughing mill up-gradation	4.5 MTPA		4.5 MTPA
9.	CRM complex	Existing CRM Complex         - Pickling line –I         - 4-stand Tandem Cold Mill-I         - Hood Annealing Furnaces         - single stand Skin Pass Mill         - 4 CR Shearing Lines         - 3 CR Slitting Lines         - Pickling Line-II         - 5- stand Tandem Cold Mill –II         - Electrolytic Cleaning Line         - Hood Annealing Furnaces         - Cont. Annealing Line         - Twin stand / Temper Mill         - Hot dip galvanizing line         - galvanized sheet shearing line         - coil corrugating line         - acid regeneration plant-1         - conversion of Sulphuric acid to         HCL pickling line         New CRM Complex         - Coupled Pickling and Tandem         Mill,         - Electrolytic Cleaning Line,         - Bell Annealing Furnace,         - Skin Pass Mill,         - CR Annealed and Skin Passed         Coil Packaging Line,         - Tension Leveler, Inspection & recoiling line         - Recoiling & Inspection line         - Galvanized Coil Packaging Line	2.4 MTPA (1.2 MTPA + 1.2 MTPA)		2.4 MTPA (1.2 MTPA + 1.2 MTPA)

Sl. No.	Name of units/products	Configuration	Existing Capacity	Proposed capacity	Total
10.	Lime-Dolo Kiln (Rotary Kiln for SMS-II)	- 6x270 t/d (4 kiln in operation: 3 for lime + 1 for dolomite)	6x270 TPD (at a time only 4 in operation)		6x270 TPD (at a time only 4 in operation)
11.	Raw Materials Preparation Plant (RMP)	-	Matching the production facilities		Matching the production facilities
12	Pellet Plant	Working area 1x348 m2		2.0 MTPA	2.0 MTPA
13	Coke Oven Battery with CDCP and By- product plant	7m tall, top charged battery comprising of two blocks of 34 ovens each, totaling 68 ovens.		0.768 MTPA	0.768 MTPA

3.0 The Status of compliance of earlier EC was obtained from Regional Office, Ranchi vide Lr. No. 103-211/08/EPE/265, dated 08.01.2016. There are no non-compliances reported by Regional officer.

4.0. The total land required for the project is 36 ha (Industrial land within Bokaro Steel Plant's premises). No forestland is involved. The entire land is under the possession of SAIL-Bokaro. No river passes through the project area. It has been reported that no water body exists around the project and modification /diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0. The topography of the project area is flat and reported to lies between  $23^{\circ}38'$  N to  $23^{\circ}42'$  N Latitude and  $86^{\circ}02'$  E to  $86^{\circ}10'$  E Longitude in Survey of India topo sheet Nos. 73I/1 & 73I/2 at an elevation of 215 to 243 m AMSL. The ground water table reported to ranges between 4.8 to 8.8 m below the land surface during the post-monsoon season and 6.0 to 11.3 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 7-8 m. Further, the stage of groundwater development is reported to be 0% and 31% in core and buffer zone respectively and thereby these are designated as safe areas.

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The authenticated list of flora and fauna provided through the Forest Offices of the Forest Division and reported that no schedule-I fauna in the study area.

7.0 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process include **Pellatisation-Travelling grate process; and Coke Making - Coal Carbonisation.** The raw materials used and products manufactured are listed below:

Sl	Raw material	Quantity (TPA)	Source
PELLET PLANT			
1	Beneficiated Iron Ore Fines	2,500,000	Bolani Iron Ore mines
2	BF grade Limestone	47,520	Kuteshwar mines

3	BF grade Dolomite	47,520	Tulsidamar mines
4	Coke Breeze	31,680	In-plant generation
5	Bentonite	23,760	Kuchch region in Gujarat
CO	KE OVEN BATTERY		
6	Dry coal charge	1,011,000	Existing coal network

Sl	Finished Products	Quantity (TPA)			
PEI	PELLET PLANT				
1	Beneficiated Iron Ore Fines	2,500,000			
2	BF grade Limestone	47,520			
3	BF grade Dolomite	47,520			
4	Coke Breeze	31,680			
5	Bentonite	23,760			
COKE OVEN BATTERY					
6	Dry coal charge	1,011,000			

8.0 The targeted production capacity of the Coke Oven Battery #9 is 0.768 MTPA of gross Coke and that of the new Pellet plant is 2.0 million TPA of finished pellets. The ore for the plant would be procured from Bolani iron ore mines and lime-dolo mines of Kuteshwar and Tulsidama. As well as coke breeze from in-plant generation and coal from existing coal network of Bokaro Steel Plant. The ore transportation will be done through railways as well as in-plant covered conveyors.

9.0 The water requirement of the project is estimated as  $455 \text{ m}^3/\text{day}$  (60 m<sup>3</sup>/day for Pellet plant and 395 m<sup>3</sup>/day for Coke oven battery). No fresh water will be drawn from river/ground water table. The total water requirement will be met from recycling the treated wastewater as well as from the existing water allocation of Bokaro Steel plant.

10.0 The power requirement of the project is estimated as 32MVA (20 MVA for Pellet plant and 12 MVA for COB#9), which will be obtained from the existing Power network of BSL including import from DVC

11.0 Baseline Environmental Studies were conducted during winter season i.e. from December 2014 to February 2015. Ambient air quality monitoring has been carried out at 8 locations during December 2014 to February 2015 (Winter Season) and the data submitted indicated: mean  $PM_{10}$  (68 µg/m<sup>3</sup> to 96 µg/m<sup>3</sup>), mean  $PM_{2.5}$  (37 to 50 µg/m<sup>3</sup>), mean  $SO_2$  (08 to 15 µg/m<sup>3</sup>) and mean NOx (20 to 48 µg/m<sup>3</sup>). The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 2.5 µg/m<sup>3</sup> with respect to the  $PM_{10}$ , 11.45 µg/m<sup>3</sup> with respect to the  $SO_2$  and 8.72 µg/m<sup>3</sup> with respect to the NOx.

12.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.7 to 7.7, Total Hardness: 150 to 830 mg/L, Chlorides: 64 to 212mg/L, Fluoride: 0.56 to 1.37 mg/L. Heavy metals are within the limits. Surface water samples were analysed from 9 locations. pH: 7.1 to 7.6; DO: 5.2 to 7.8 mg/L and BOD: 2 to 7 mg/L.

13.0 Noise levels are in the range of 51.9 to 63.7 dB(A) for daytime and 41.5 to 52.1 dB(A) for night time.

14.0 It has been reported that there are no people in the core zone of the project. No/ R&R is involved. So, no families are to be rehabilitated.

15.0 It has been reported that a total of 154 TPA of Decanter Sludge as waste will be generated due to the project, all of which will be used in the Coke oven battery mixed as coal blend. It has been envisaged that an area of 116.44 ha (balance area from 33% of total plant area) will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.0 It has been reported that the Consent to Establish from the Jharkhand State Pollution Control Board shall be applied post-facto grant of Environmental Clearance for the proposals.

17.0 The Public hearing of the project was held on 19.08.2015 for setting up of 0.768 MTPA COB#9 and 2.0 MTPA Pellet plant at existing Bokaro steel Plant, under the Chairmanship of Director, District Rural Development Agency, Bokaro. The issues raised during public hearing, such as infrastructure development, issues, municipal solid waste management in the area, modernization of townships, employment generation air pollution, etc. An amount of 59.7 Crores (2.5% of Project cost as per ToR amendment granted) has been earmarked for Enterprise Social Commitment based on public hearing issues

18.0 The capital cost of the project is Rs. 2388.17 Crores and the capital cost for environmental protection measures is proposed as Rs 167 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 41.8 Crores. The detailed CSR plan has been provided in the EMP in Clause No. 4.2.5.6 of Chapter 4 as well as its highlights attached as Annexure 4.3 of the EIA report. The employment generation from the proposed project is 710 as direct employment and approx. 1500 as indirect employment.

19.0 Greenbelt will be newly developed in 116.44 Ha and the existing plantation in 1670.18 ha will be maintained, which is totalling to about 33% of the total acquired area. A 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 1600 trees per hectare. Total no. of 1,86,304 additional saplings (in 116.44 ha area) will be planted and nurtured in a period of 7 years.

20.0. The proponent has mentioned that there is no court case to the project or related activity.

21.0 The proposal was considered during the  $17^{\text{th}}$  meeting of Expert Appraisal Committee [EAC] (Industry-I) held on  $6^{\text{th}} - 7^{\text{th}}$  April 2017.

22.0 After detailed deliberation, it has been observed by the Committee that the issues raised during the Public hearing, quantitative assessment of pollution, air pollution in the colony, details of sewage treatment plant, post project monitoring details etc. are not addressed adequately and compliance report of earlier EC is more than one year old. It was also noted by the committee that there was no senior level representation from the proponent side in the meeting who could give the commitments on behalf of proponent. The PP shall submit following information for further consideration of the proposal:

i) Latest certified compliance report of earlier EC by the Regional Office of MoEF&CC shall be submitted.

- ii) Issues raised during the public hearing along with action plan for addressing issues including budget provision and time frame for completion.
- iii) Skill development plan for addressing the issues of unemployment raised during the PH shall be prepared as per the modules developed by the Skill Council of India.
- iv) Solid Waste management in the colony including establishment of biogas from kitchen waste, compost pits, utilization of compost etc. shall be prepared.
- v) Revised greenbelt plan including development of greenbelt in surrounding villages in addition to the mandatory requirement of 33% of total plant area.
- vi) Reduction of power consumption by using LED, energy efficient appliances.
- vii) Post EC monitoring plan including number of stations, location of monitoring, parameters, frequency, etc.
- viii) Time bound action plan for the issues raised in the Public Hearing including budget provisions in order to complete the same in the timelines of the proposed project.
- 23.0 The Project proponent has submitted reply to ADS.

24.0 During the deliberations, the committee noted that M/s Steel Authority India Limited has made online application IA/JH/IND/73158/2018 dated 22<sup>th</sup> February 2018for Terms of Reference for the 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 as the expansion proposal may not be implemented in the specified time. It was also noted that the PP will take up the proposal of 2.0 MTPA Pellet Plant and 0.768 MTPA Coke Oven Battery after the expansion of the Hot Metel from 4.0 MTPA to 5.77 MTPA for which ToR was sought. The committee also noted that several non-compliances of earlier EC was reported by the regional officer.

25.0 During the deliberations, the PP requested the committee that instant proposal may be merged with online application IA/JH/IND/73158/2018 dated 22th February 2018 for Terms of Reference for the 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.

26.0 The committee agreed for the same and recommended to return the proposal in the present form.

29.33 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 at Plot no. 5, Village Bakhli, Tehsil Pehowa, District Kurukshetra (Haryana) by M/s Sainsons Paper Industries Ltd [Online Proposal No. IA/WB/IND/72129/2018; MoEF&CC File No. IA-J-11011/64/2018-IA-II(I)] – Terms of Reference

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/72129/2018** dated **19<sup>th</sup> January 2018** along with the application in prescribed format (Form-I), copy of prefeasibility 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 Sl. No. 5(i) Pulp and paper industry under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

# **Details as per the submisiion of project proponent:**

2.0 M/s. Sainsons Paper Industries Private Limited (SPIPL) proposes expansion of existing manufacturing unit of 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). The expansion will be achieved by adopting latest technology and up-gradation of existing machinery and process.

3.0 The existing project is operating on the basis of NoC & Consent to Operate accorded by Haryana State Pollution Control Board vide letter no. DEH/ 6/67/99/921 dated 2<sup>nd</sup> Nov., 1999 & HSPCB/ Consent/: 2779217KURCTO3491806 dated 25<sup>th</sup> Sep., 2017 respectively. The validity of CTO is up to 30<sup>th</sup> Sep., 2021.

4.0 The existing unit is located at Plot no. 5, Village Bakhli, Taluka Pehowa, District: Kurukshetra, State Haryana.

5.0 The existing plant area is 16.2 Ha (40 acres) which is already an industrial land. Expansion will be done within existing plant premises. No forest land is involved. The entire land is already under the possession of the company. Of the total area 16.2 ha, 5.34 ha (33%) land will be used for greenbelt development.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. Bakhli Reserved Forest (Birbarasuan RF) (~1.0 km in SSW Direction) and Saraswati Protected Forest (~7.5 km in WSW Direction) lies within the study area.

7.0 Total project cost for expansion project is approx 80.0 Crore rupees. Proposed employment generation from expansion project will be 50 persons direct employment and 200 indirect employment.

Name of Unit		Existing Capacity	Proposed Expansion Capacity	Total Capacity after Expansion
Paper production		200 TPD	250 TPD	450 TPD
Pulp production	Agro residue pulp	40 TPD	110TPD	150 TPD
	Waste paper based recycled pulp	160 TPD	140 TPD	300 TPD
Co-generation power plant		4.2 MW	15.8 MW	20 MW

8.0	he targeted production capacity of the kraft paper is 450 TPD & co-generation power
plant is	20 MW. The expansion capacity for different products are given as below:

9.0 The electricity load of 9.0 MW will be procured from 20.0 MW Co-generation power plant. The surplus power will be sold to the State grid.

10.0 Raw material for the production of Kraft paper are agro residues (wheat straw), paddy straw, waste paper & chemicals and fuel requirement for the project is biomass. The requirement would be fulfilled by nearby agricultural lands as well as from waste paper suppliers. Fuel consumption will be mainly of biomass.

11.0 Fresh water consumption for the project will be 4550 KLD after expansion and waste water generation will be 3400 KLPD. Domestic waste water is being/ will be treated in septic tank & disposed off by soak pit system and industrial waste water generated is being/ will be treated in ETP and recycled in the process itself and the remaining is being/ will be used in ferti-irrigation in nearby farm lands. During rainy season, treated water is being/ will be discharged in nearby local drain as farmers will have adequate water for irrigation.

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

13.0 After detailed 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 I read with additional ToRs at Annexure-2.

- i. Public Hearing to be conducted by the concerned State Pollution Control Board;
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. Certificate of compliance of earlier CTE/CTO from the Regional office of SPCB shall be submitted along with EIA/EMP
- 29.34 Expansion of leather processing unit (semi-finished to finished leather) at Survey no 702/6, 702/7, 723/10 Vannivedu Village, Walajahpet Taluk, Vellore District, Tamil Nadu by M/s Good Leather Company [Online Proposal No. IA/TN/IND/72463/2018; MoEF&CC File No. IA-J-11011/72/2018-IA-II(I)] Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/TN/IND/72463/2018** dated 24<sup>th</sup>Jan 2018 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 4(f) Leather/skin/hide processing industries under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

2.0 M/s. **Good Leather Company**proposes to install a expansion of existing manufacturing unit for Expansion of Leather Processing Unit (unfinished to Finished). The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 24<sup>th</sup>Jan 2018 vide Online Application No.IA/TN/IND/72463/2018.

3.0 The existing project does not come under EIA preview as the existing unit was established before 1994. Consent to Operate was accorded by Tamil NaduState pollution Control Board vide lr. no. 0789VLR/RS/DEE/TNPCBNLR/A/2017 on dated 03.08.2017validity of CTO is up to 31<sup>st</sup>March2018.

4.0 The proposed unit is located atSurvey no 702/6, 702/7, 723/10 Vannivedu Village, WalajahpetTaluk, Vellore District, Tamilnadu State.

5.0 The land area acquired for the proposed plant is 2.21Ha. 100% land is industrial land (land use conversion completed). No forestland involved. The entire land has been acquired for the project. Of the total area 0.863 ha(39%) land will be used for green belt development.

Particulars	Area in Ha
Built up area	0.79
Solid waste storage area	0.09
Sapling area	0.003
Open land	0.464
Green Belt	0.863
Total area	2.21

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx4.23Crore rupees. Proposed employment generation from proposed project will be 126 nos.(directand indirect).

8.0 The Raw Material for the plant would be procured from open market. The Raw Material transportation will be done through road. The product details are given below:

Existing capacity	Proposed Expansion Capacity
1 Ton/Day (30 Ton/Month)	4 Ton/Day (120 Ton/Month)
(Single Shift)	(Three Shifts)

9.0 The electricity load of 485kVA will be procured from Tamilnadu State Electricity Board.

Power Source	Tamilnadu State Electricity Board
Total Electric Load	485 KVA
Type of The Fuel Used	Low Sulphur Diesel
DG sets	3 DG sets of 125, 250 & 500 KVA
DG sets (running hours)	Max 2 – 3 hrs./day

10.0 Proposed raw material and fuel requirement for project are wet blue skin and sulphuric acid. Therequirement would be fulfilled by open market.

11.0 Water Consumption for the proposed project will be 120 KLD. Domestic waste water will be treated Septic Tank followed by soak Pit and industrial wastewater will be treated in ETP and After treatment send to CETP.

S.No	Water Requirement	Water in KLD
1.	Processing in Wet Section	107
2.	Process in semi finish stage	5.0
3.	Domestic sewage	8.0
Total		120

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

#### **Observation and recommendation of EAC**

13.0 After detailed 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 I read with additional ToRs at Annexure-2.

- i. Public Hearing to be conducted by the concerned State Pollution Control Board;
- ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
- iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA.I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and Enterprise Social Commitment (ESC) related issues. The social impact assessment study so carried out should form part of EIA and EMP report.
- iv. The PP design and implement the plant with State of -the art technology for minimization of solidwate and wastewater.
- **29.35** Standardization of EC conditions for Paper and Pulp Industries and Tanneries / Leather / Hide processing Units

#### Pulp and Paper Industries:

#### A. General Conditions:

- 1. The project proponent shall (Air Quality Monitoring):
  - a. install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 (GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December 1993 or as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> December 2015 as amended from time to time) and connected to SPCB and CPCB online servers and the systems be calibrated according

to equipment supplier's specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- b. monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- c. Install system to carryout Continuous Ambient Air Quality monitoring for parameters relevant to pollutants released as per National Ambient Air Quality Standardsissued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 (as amended from time to time) within and outside the plant area at least at four locations, one within and three outside the plant area at an angle of 120° each, covering upwind and downwind directions;
- d. provide sampling facility at process stacks as per CPCB guidelines for manual monitoring of emissions;
- e. submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring for calibrations of CEMS and manual monitoring of air quality /fugitive emission to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 2. The project proponent shall (Water Quality Monitoring):
  - a) install 24x7 continuous effluent monitoring system at process stacks/outlets to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 (GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31st December 1993 or as amended from time to time; S.O. 3305 (E) dated 7<sup>th</sup> December 2015 as amended from time to time) and connected to SPCB and CPCB online servers and the systemsbe calibrated according to equipment supplier's specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
  - b) monitor regularly ground water quality at least twice a year (pre and post monsoon) using sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories; and
  - c) submit monthly summary report of continuous effluent monitoring and results of manual effluent testing for calibration of CEMS and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 3. The project proponent shall (Air Pollution Control):
  - a) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

- b) install high volume, low concentration NCG collection & destruction system to mitigate all malodorous gases emitted;
- c) control the emissions from chemical recovery section through primary and secondary venturi scrubbers
- d) provide pollution control system in the pulp and paper sector as per the CREP Guidelines of CPCB;
- e) provide sufficient number of mobile or stationery vacuum cleaners to clean plant roads, shop floors, roofs regularly;
- f) provide wind shelter fence and chemical spraying on the raw material stock piles; and
- g) 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
- 4. The project proponent shall (Water Pollution Control):
  - a) provide the ETP to meet the standards prescribed in GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31st December 1993 or as amended from time to time;
  - b) provide Sewage Treatment Plant for domestic wastewater;
  - c) provide garland drains and collection pits 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;
  - d) provide tyre washing facilities at the entrance of the plant gates;
  - e) explore extensive use of RO technology to recycle permeate to the plant to reduce fresh water demand; and
  - f) install RO for water softening in place of conventional water softening that use huge amount of salt in order to reduce TDS in plant water system and increase recycling to conserve water.
  - g) Project proponent shall ensure that there is no black liquor spillage in the area of pulp mill, no use of elemental chlorine for bleaching in mill, installation of hypo preparation plant. The PP should ensure no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE in the Chemical recovery process directly to ETP.
- 5. The project proponent shall (Water conservation):
  - a) practice rainwater harvesting to maximum possible extent;
  - b) provide water meters at the inlet to all unit processes in the pulp and paper plant; and

- c) make efforts for reduction in specific water and power consumption and increase in the recycling of the treated effluent to minimize the discharge.
- 6. The PP shall (Energy Conservation):
  - a) 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;
  - b) provide LED lights in their offices and residential areas; and
- 7. Black Liquor shall be separately processed for recovery of energy and chemical in a Chemical Recovery Process.
- 8. The proponent shall follow International Standards of safety for ClO2 generation and storage system, and ozone plant, and certification on regular basis may be submitted. Provision for adequate safety for personnel in case of any accidental leakage should be in place.
- 9. The company shall install Oxygen Delignification (ODL) Plant and shall maintain AOX below 1 kg/tonne of paper production.
- 10. ECF technology shall be used and lime kiln shall be installed to manage lime sludge
- 11. Sufficient number of colour coded waste collection bins shall be constructed at shop floors in each shop to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
- 12. The PP shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- 13. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 14. The PP 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.
- 15. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
- 16. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the pulp and paper shall be implemented.
- 17. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.

- 18. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 19. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- 20. 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).
- The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- 22. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- 23. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 24. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- 25. The project proponent shall (Post-EC monitoring):
  - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
  - b. put on the clearance letter on the web site of the company for access to the public.
  - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.nic.in.
  - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
  - e. 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;
  - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;
  - g. 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;

h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

# **B. Specific conditions:**

- 1. An amount of Rs------ proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
- 2. Green belt shall be developed in ----- Ha equal to 33% of the plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
- 3. The Capital cost Rs. ------ and annual recurring cost Rs. ------ towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.
- 4. Kitchen waste shall be composted or converted to biogas for further use.
- 5. The project proponent shall carryout analysis of AOX both in soil and water samples collected from the irrigated area periodically (once in six months) and the report of same shall be submitted to Regional office of MoEF&CC.
- 6. The project proponent shall undertake every year, bio-accumulation study on the soils of surrounding agricultural fields with a view to ascertaining the build-up of toxic chemicals in these fields.

#### **Tanneries and Leather / Hide Processing Units Industries**

# A. General Conditions:

- 1. The project proponent shall (Air Quality Monitoring):
  - a. install system to carryout Ambient Air Quality monitoring for parameters relevant to pollutants released as per National Ambient Air Quality Standardsissued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 (as amended from time to time) within and outside the plant area at least at four locations one within and three outside the plant area at an angle of 120° each, covering upwind and downwind directions;
  - b. submit monthly summary report of emission and air quality monitoring and results submitted to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 2. The project proponent shall (Water Quality Monitoring):

- a) install 24x7 continuous effluent monitoring system at process stacks/outlets to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 (SO 4(E) dated 01.01.2016 as amended from time to time) and connected to SPCB and CPCB online systemsand the systemsbe calibrated according to equipment supplier's specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- b) monitor regularly ground water quality at least twice a year (pre and post monsoon) using sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories; and
- c) submit monthly summary report of continuous effluent monitoring and results of manual effluent testing for calibration of CEMS and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- 3. The project proponent shall (Air Pollution Control):
  - h) provide appropriate Air Pollution Control (APC) system for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- 4. The project proponent shall (Water Pollution Control):
  - h) provide the ETP or connect to the CETP to meet the standards prescribed in SO 4(E) dated 01.01.2016 as amended from time to time;
  - i) provide Sewage Treatment Plant for domestic wastewater;
  - j) provide garland drains and collection pits to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off;
  - k) explore extensive use of RO technology to recycle permeate to the plant to reduce fresh water demand; and
  - 1) install RO for water softening in place of conventional water softening that use huge amount of salt in order to reduce TDS in plant water system and increase recycling to conserve water.
- 5. The project proponent shall (Water conservation):
  - d) practice rainwater harvesting to maximum possible extent;
  - e) provide water meters at the inlet to all unit processes in the plant; and
  - f) make efforts for reduction in specific water and power consumption and increase in the recycling of the treated effluent.
- 6. The PP shall (Energy Conservation):

- a) 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;
- b) provide LED lights in their offices and residential areas; and
- 7. Spent chrome liquor should be segregated at the tannery premises and collected separately and processed for recovery and reuse of chromium in the tanneries. The process adopted should be the one involving precipitation of chromium with the help of a suitable alkali. Design of the proposed continuous Chrome Recovery plant should be submitted for approval.
- 8. The individual tanneries should adopt State of the Art technology recommended by CLRI. The technology should include recovery and reuse of chrome/Alutan BCS/Alecrotan combined tanning process to ensure maximum chromium recovery and minimum chromium discharge in the effluent.
- 9. The chromium concentration in the wastewater discharged into ETP should not exceed 2 ppm. The effluent quality for ETP (both inlet and outlet should meet the norms stipulated in schedule I of the Environment (Protection) act Rules, 1991. The wastewater after primary treatment should be discharged into the ETP through a closed pipeline.
- 10. At 100% utilisation of the processing capacity, the total effluent generated from the leather complex should not exceed stipulated limit. All tanneries located in the area should install pre-treatment facilities in their tannery. The entire effluent generated (except chrome liquor) after pre-treatment, should be treated in the CETP/ETP. Copy of the final CETP/ETP design and recommended standards should be submitted to the Ministry for approval
- 11. Adequate method shall be adopted to control odour and a report submitted to the Ministry's Regional Office
- 12. Dry salting for reduction of TDS in wastewater, counter current soaking to reduce wastewater quantity, pretreatment and segregation of wastes etc. shall be practiced to reduce TDS.
- 13. The Company shall provide stacks of adequate height to the D.G. Sets along with acoustic enclosures for noise control as per guidelines. The DG Sets should comply with the norms notified.
- 14. The spent soak liquor containing high concentration of salt shall be discharged into the Solar Evaporation Pond (SEP) only.
- 15. Sufficient number of colour coded waste collection bins shall be constructed at work places to systematically segregate and store waste materials generated at the shop floors (other than Process waste) in designated coloured bins for value addition by promoting reuse of such wastes and for good housekeeping.
- 16. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

- 17. The PP shall adhere to the corporate environmental policy and system of the reporting of any infringements/ non-compliance of EC conditions at least once in a year to the Board of Directors and the copy of the board resolution shall be submitted to the MoEF&CC as a part of six-monthly report.
- 18. A dedicated environmental cell with qualified personnel shall be established. The head of the environment cell shall report directly to the head of the organization.
- 19. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- 20. 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).
- The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- 22. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dB(A) during day time and 70 dB(A) during night time.
- 23. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- 24. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.
- 25. The project proponent shall (Post-EC monitoring):
  - a. send a copy of environmental clearance letter to the heads of Local Bodies, Panchayat, Municipal bodies and relevant offices of the Government;
  - b. put on the clearance letter on the web site of the company for access to the public.
  - c. inform the public through advertisement within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http://envfor.nic.in.
  - d. upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same periodically;
  - e. monitor the 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;
  - f. submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB;

- g. 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;
- h. inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

# **B. Specific conditions:**

- 1. An amount of Rs------ proposed towards Enterprise Social Commitment (ESC) shall be utilized as capital expenditure in project mode. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.
- 2. Green belt shall be developed in ----- Ha 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.
- 3. The Capital cost Rs. ------ and annual recurring cost Rs. ------ towards the environmental protection measures shall be earmarked separately. The funds so provided shall not be diverted for any other purpose.

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# ANNEXURE -- I

# **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 (Quantative) from raw material to products to be provided
- x. Hazard identification and details of proposed safety systems.
- xi. Expansion/modernization proposals:
  - a. Copy of <u>all</u> 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 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in <u>all</u> 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<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, 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.
- 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. Enterprise Social Commitment (ESC)
  - To address the Public Hearing issues, 2.5% of the total project cost of (Rs. .....crores), amounting to Rs. ....crores, shall be earmarked by the project proponent, towards Enterprise Social Commitment (ESC). Distinct ESC projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These ESC projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting

main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat & District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above ESC budget

- 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).

The following general points shall be noted:

- 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 4<sup>th</sup> 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 SPCBshall 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 summarised 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<sub>10</sub> and P<sub>2.5</sub>) 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.  $PM(PM_{10} \text{ and } P_{2.5})$  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

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- 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.

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#### 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 basebleaching 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.

#### 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.

#### 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.

#### 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 technoenvironmental 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.

#### INDUCTION/ARC FURNACES/CUPOLA FURNACES 5TPH OR MORE

- 1. Details of proposed layout clearly demarcating various units within the plant.
- 2. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
- 3. Details on design and manufacturing process for all the units.
- 4. 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.
- 5. Details on requirement of raw materials, its source and storage at the plant.
- 6. 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).

- 7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
- 8. Details on toxic content (TCLP), composition and end use of chrome slag. Details on the recovery of the Ferro chrome from the slag and its proper disposal.

### 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 gaseousemission, 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. Capitalcost 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

Minutes of 29<sup>th</sup>EAC (Industry-1) held during 12<sup>th</sup> to 13<sup>th</sup> March, 2018

# LIST OF PARTICIPANTS OF EAC (I) IN 29<sup>TH</sup>MEETING OF EAC (INDUSTRY-I) HELD ON 12<sup>th</sup> to 14<sup>th</sup> March, 2018

		Dr.Chhavi Nath Pondou	Position	1	A	ttend	Signat	
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2.		Dr. Nitin Endaly Representative of Central Pulp and Paper Research Institute	Member	1	Ą	А	F	
3.		Director, Central Leather Research	Member	Ā	1	A	A	
4.		Dr. Siddarth Singh						
5.	1	Representative of Indian Meteorological Department	Member	A		Р	A	
5	1	Water Board	Member	A		А	A	
,		or. G. Bhaskar Raju	Member	Р		Р	Р	l str.
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•	D IF	r. Jagdish Kishwan, FS(Retired)	Member (Chairman	Р		Р	Р	
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