

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

SUMMARY RECORD OF THE THIRTY SIXTH(36TH) MEETING OF EXPERT APPRAISAL COMMITTEE HELD DURING 9TH TO 10TH OCTOBER 2018 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The thirty sixth 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 **9th to 10th October 2018** in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

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

36.2 First of all, the Committee confirmed the Minutes of the 35th Expert Appraisal Committee (Industry-1) held during 17th – 18th September, 2018.

9th October 2018

36.3. Expansion of sponge iron/sponge pellets (2 nos. of kiln), billets/ingots (2 nos. of furnace), TMT bars & channel/angle (rolling & section mill), CPP (2 MW) and waste heat recovery boiler (4 MW) manufacturing unit in existing premises at survey no. 221, Village: Vadala, Taluka: Mundra, dist. Kutch, Gujarat of M/s. Nilkanth Concast Private Limited [Online Proposal No. IA/GJ/IND/28721/2015; MoEFCC File No. J-11011/85/2008-IA II (I)] – Environmental Clearance

1.0 The proponent has made online application vide proposal no. **IA/GJ/IND/28721/2015** dated 7th September 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 and Non-ferrous) under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The project of M/s. Nilkanth Concast Private Limited located in Village: Vadala, Taluka: Mundra, District: Kutch, State: Gujarat was initially received in the Ministry on 16/06/2015 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 45th meeting held on 12/08/2015 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 14/09/2015 vide Lr No. J-11011/85/2008-IA II (I).

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3.0 The project of M/s. Nilkanth Concast Pvt. Ltd. Located in Village: Vadala, Taluka: Mundra, District: Kutch, State: Gujarat for enhancement of production of Sponge Iron/Sponge Pellets (Kiln) from 72000 TPA (2 Nos. of Kiln -100 MT/Day each) to 144000 TPA (4 Nos. of Kiln -100 MT/Day each), Mild Steel, Ingots, Billets, MS Rolled Products, TM Bars, Channel/Angle from 1,80,000 TPA (2 Nos. of Furnace: Rolling Mill) to 3,60,000 TPA (4 Nos. of Furnace: Rolling & Section Mill), Captive Power Plant from 4 MW to 6 MW and Waste heat recovery boiler- Power Plant from 6 MW to 10 MW. The existing project was accorded environmental clearance vide lr. No. J-11011/85/2008-IA II (I) dated: 23/12/2008. The status of compliance of earlier EC was obtained from Regional office, Bhopal vide lr. No. 5-54/2009(ENV)/383 dated: 17/08/2018. Out of 31 total conditions, it may be seen that are 21 fully complied, 1 is deemed complied, 3 are complied subject to acceptance by EC issuing authority, 2 are compliance in progress and 4 are agreed to comply. The existing and proposed capacity for different products for existing site area as below:

Sr. No.	Product	Existing Capacity (Ton/Annum)	TOR Obtained for Additional Capacity (Ton/Annum) (14/09/2015)	TOR Amended for Additional Capacity (Ton/Annum)	Total Capacity after Proposed Expansion (Ton/Annum)
1	Sponge Iron/Sponge Pellets (Kiln)	72,000 (2 Kiln: 100 MT/Day each)	72,000 (2 Kiln: 100 MT/Day each)	--	1,44,000 (4 Kiln: 100 MT/Day each)
2	Mild Steel, Ingots, Billets, MS Rolled Products, TM Bars, Channel/Angle	1,80,000 (2 Furnace: Rolling Mill)	--	1,80,000 (2 Furnace: Rolling & Section Mill)	3,60,000 (4 Furnace: Rolling & Section Mill)
3	Captive Power Plant	4 MW	--	2 MW	6 MW
4	Waste heat recovery boiler- Power Plant	6 MW	--	4 MW	10 MW
	Grand Total	2,52,000 & 10 MW	72,000	1,80,000 & 6 MW	5,04,000 & 16 MW

4.0 The total land required for the expansion project is 35.3798 ha, out of which nil land is an agricultural land and nil land is grazing land nil land is others (Government Land). No forestland involved. The entire land has been acquired for the existing operation and proposed project. No River passes through the project area. It has been reported that no water body exist around the project.

5.0 The topography of the area is flat and reported to lies between 22° 54' 21.76" N to 22° 54' 27.27" N Latitude and 69° 52' 13.80" E to 69° 52' 36.61" E Longitude in Survey of India toposheet No. F24J13 at the elevation of 15 m AMSL. The ground water table reported to ranges between 13.71 meter to 27.43 meter below the land surface during the post monsoon season and 25.05 meter to 37.64 meter 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 15 meter.

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. (Please refer Section 3.12, Chapter in EIA Report (Page No. 3-53 to 3-54)).

7.0 List of raw material used, quantity, source and mode of transport proposed is as follows:

Raw Material	Quantity	Source	Transportation
1.) Sponge Iron/Sponge Pellets			
Iron Pellets	1,15,200 TPA	Local/Imported	Truck/Ship
Coal	64,800 TPA	Imported	Ship
Dolomite	4320 TPA	Local	Truck
2). Mild Steel, Ingots, Billets, MS Rolled Products, TMT Bars, Section			
Mild Steel, Ingots/Billets			
Sponge Iron Pellets	2,16,000 TPA	Inhouse	--
Scrap Mild Steel	1,80,000 TPA	Local	Truck
MS Rolled Products, TMT Bars, Section			
Billets	3,78,000 TPA	--	--
3). Captive Power Plant			
Coal	54,000 TPA	Imported	Ship
4). DM Plant			
Caustic Flake	24 TPA	Local	Truck
Sulphuric Acid	60 TPA	Local	Truck
Hydrochloric Acid	36 TPA	Local	Truck

8.0 Various processes involved to produce the final output are as follows:

- 1) **Sponge Iron/ Sponge Pellets:** This process consists of feeding Iron Pellets & Coal in Rotary Kiln and reducing at a temperature 1100°C and cooled through cooler up to 100 °C, The final product from cooler called Sponge Iron which is stored separately.
- 2) **Mild Steel, Ingots, Billets:** The Power Supplied to Induction Furnace to get temp. up to 1630 °C for Melting Sponge Iron & Scrap (HMS 1 & 2), Molten Materials is shifted to CCM for Billet Casting to get Billets as final product.
- 3) **TMT BAR & SECTION MILL (CHANNEL/ANGLE):** The BILLETS are then transferred to the Rolling Mill section where, the BILLETS are made to pass through different rolling Mill strands and converted into desired shapes. The Mild Steel TMT Products are then cut into required length and transferred to the cooling bed.
- 4) **Captive Power Plant:** By using Coal, the steam generated in Boiler is passed through the Turbine which is coupled with Generator, which induces the power, All flue Gas passed through ESP and goes to atmosphere through stack.

- 5) **Waste Heat Recovery Boiler:** Waste heat from kiln is passed through WHRB where steam is generated and passed through turbine for power generation. All gases passed through ESP and goes to atmosphere through stack.

8.0 The targeted production capacity of the Sponge Iron/Sponge Pellets is 144000 TPA, Mild Steel, Ingots, Billets, MS Rolled Products, TM Bars, Channel/Angle is 360000 TPA, Captive Power plant is 6 MW and Waste heat recovery boiler- Power Plant is 10 MW. Transportation of All raw materials will be done through Road/Sea.

9.0 The water requirement of the project is estimated as 2305 m³/day, out of which 2083.5 m³/day of fresh water requirement will be obtained from the GWIL water supply and remaining requirement of 221.5 m³/day will be met from the recycling/reuse. The permission for drawl of surface water is obtained from Gujarat Water Infrastructure Limited (GWIL) vide Lr. No. CS/renewal/2015-16/855 dated: 28/04/2016.

10.0 The power requirement of the project is estimated as 24 MW out of which 16 MW will be obtained own CPP & WHRB and 8 MW from GETCO.

11.0 Baseline Environmental Studies were conducted during winter season i.e. December, 2015 to February, 2016. Ambient Air quality monitoring has been carried out at 8 locations during winter season i.e. December, 2015 to February, 2016 and the data submitted indicated: PM10 (69.89 µg/m³ to 91.30 µg/m³), PM2.5 (44.82 µg/m³ to 49.49 µg/m³), SO₂ (18.97 µg/m³ to 30.35 µg/m³), NO_x (22.72 µg/m³ to 33.83 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.89484 µg/m³ with respect to the PM, 0.18048 µg/m³ with respect to the SO₂, 0.21971 µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.16 to 8.05, Total Hardness: 26.0 to 1000.0 mg/L, Chlorides: 34.2 to 1947 mg/L, Fluoride: BDL, Heavy metals are within the limits. Surface water samples were analyzed from 3 locations. pH: 7.73 to 8.22, DO: 4.16 to 7.88 mg/L, BOD: BDL to 102.6 mg/L, COD: 12.9 mg/L to 388.8 mg/L.

13.0 Noise levels are in the range of 45.2 dB(A) to 52.7 dB(A) for day time and 38.9 dB(A) to 44.6 dB(A) for night time.

14.0 It has been reported 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.

15.0 It has been reported that total of tons of waste – 63720 TPA will be generated due to project, out of which Fly ash – 9000 TPA & Dust from bag filter – 7200 TPA will be sold to brick manufacturer, Charcoal -14400 TPA will be sold to Agarbati manufacturers or recycle back to pellet plant, Slag -30000 TPA will be sold to road maker for used as road making materials or dispose at nearest TSDF site, ETP sludge – 120 TPA will be disposed at nearest TSDF site and Tar residue -3000 TPA will be disposed at common Incineration Site or sale for co-processing in cement industries. It has been envisaged that an area of 11.7334 ha are developed as green belt

around the project site to attenuate the noise level and trap the dust generated due to project development activities.

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17.0 It has been reported that Consent to Establish/Consent to Operate from the Gujarat Pollution Control Board obtained vide Lr. No. AWH-68553 dated: 26/02/2015 and valid up to 08/12/2019.

18.0 The public hearing of the project was held on 20/12/2016 at Project site, M/s. Nilkanth Concast Private Limited, at Survey No. 221, Village: Vadala, Taluka: Mundra, District: Kutch (Gujarat) under the chairmanship of Shri D.R. Patel (GAS), Resident Additional Collector & Additional District Magistrate, Bhuj-Kutch for enhancement of production of Sponge Iron/Sponge Pellets (Kiln) from 72000 TPA (2 Nos. of Kiln -100 MT/Day each) to 144000 TPA (4 Nos. of Kiln -100 MT/Day each), Mild Steel, Ingots, Billets, MS Rolled Products, TM Bars, Channel/Angle from 1,80,000 TPA (2 Nos. of Furnace: Rolling Mill) to 3,60,000 TPA (4 Nos. of Furnace: Rolling & Section Mill), Captive Power Plant from 4 MW to 6 MW and Waste heat recovery boiler- Power Plant from 6 MW to 10 MW. The issues raised during public hearing are blackish dust observe in nearby villages, company is doing well CSR activities for nearby villages. The statement of main issues raised by the public and response of the project proponent with action plan is as follows:

Sr. No.	Question/issue/suggestion	Response by project proponent (After PH)	Time bound Action plan proposed	Budgetary Provision
1.	<p>He represented that...</p> <ul style="list-style-type: none"> Nilkanth Concast is a small company & is manufacturing steel. Company does good welfare work for benefit of people & gives co-operation in village Bhadreshwar. Company give funds every year to Gau Seva Samiti of our village, company has given steel for construction of temple, paid total expenditure for painting of 			

Sr. No.	Question/issue/suggestion	Response by project proponent (After PH)	Time bound Action plan proposed	Budgetary Provision
	<p>goddess Ashapuramataji temple. Company has constructed pucca road from its waste for approaching the sea for fishermen.</p> <ul style="list-style-type: none"> • About fifty people of village Bhadreshwar work in the company & company should give employment to local people as per their eligibility. • He added that company does good CSR activities. Company helps socio economically to village Bhadreshwar similarly company should aid surrounded affected villages. • We keep watch on company about environment. We draw attention of company if issues of pollution arise & company also co-operates in this regard. • He further added that company should beware 	<ul style="list-style-type: none"> • Vice president of company Mr. Sureshbhai replied that we will try to hire local employee as much as possible. About 150 to 180 people will be hired for new project & priority will be given to local people for employment. • He said that company helps to villages for socio economic activities & our director believes that company would remain with nearby villages & give co-operation for solving their problems. Company as well as village people will be benefited by the expansion of the project. 	<p>Company will install the fume extractor and</p>	<p>Budgetary Provision: Rs. 1.15 Crore</p>

Sr. No.	Question/issue/suggestion	Response by project proponent (After PH)	Time bound Action plan proposed	Budgetary Provision
	<p>about abatement of pollution hence, there would be no adverse impact on agriculture, herding & fishery.</p>	<ul style="list-style-type: none"> Vice president of company Mr. Sureshbhai replied that company will be solved the problems regarding pollution. We will try to our best, not to harm environment & people. 	<p>new bag filter and repairing bag filter. (Time Bound: 2 Years)</p>	
2.	<p>He represented that...</p> <ul style="list-style-type: none"> When Industrial unit comes, issue of pollution comes first. Company is having coal based power plant hence pollution will occur, but benefits for nearby villages under CSR activities. It is responsibility of company management to control the pollution. Blackish dust see here, necessary steps should be taken for this. The company has been doing good works for many years like funding to our village for fodder. Company give employment to local people but company should give employment to local people on basis of their qualification & skill. Minimum wages should be given to workers as per government law. We donot oppose the industrial units. 	<ul style="list-style-type: none"> Mr. Chetan Kabariya, EIA consultant replied that Company will develop more green belt to control pollution. Company will install ESP, bag filter and Dust collector as Air Pollution Control Measures to control pollution and sprinkle the water regularly. Vice president of company Mr. Sureshbhai assured that company will give employment on basis of qualification & skill. 		

Sr. No.	Question/issue/suggestion	Response by project proponent (After PH)	Time bound Action plan proposed	Budgetary Provision
	<p>Employment only be increased if there is industrial growth as per the prevailing government policy.</p> <p>After the earthquake, industries come in Kutchh district and employment is also increased.</p> <p>He informed that, Company shall do more & more work under CSR activities.</p>			
3.	<p>He represented that...</p> <ul style="list-style-type: none"> Black dust deposits on terraces of villagers & it will increase after proposed expansion. It is published in newspaper on 01/12/2016 that black dust is harmful for agriculture, herding & fodder. Company should care regarding this. 	<ul style="list-style-type: none"> Vice president of company Mr. Sureshbhai stated the company will install ESP and Dust collector as Air Pollution Control Measures to control pollution. 	<p>Company will install the fume extractor and new bag filter and repairing bag filter. (Time Bound: 2 Years)</p>	<p>Budgetary Provision: Rs. 1.15 Crore</p>

19.0 An amount of 125 lakhs (2.08% of project cost) has been earmarked for Enterprise Social Commitment based on Public Hearing issues. The details of ESC proposed are as follows:

Sr. No.	Enterprise Social Commitment	Year-1	Year-2	Year-3	Year-4	Year-5	Total
1.	Donation of fodder to Gaushala Seva samiti – Bhadreshwar	5,00,000/-	5,00,000/-	5,00,000/-	5,00,000/-	5,00,000/-	25,00,000/-
2.	Construction of 100	15,00,000 /-	15,00,000 /-	15,00,000 /-	15,00,000 /-	15,00,000 /-	75,00,000/-

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Sr. No.	Enterprise Social Commitment	Year-1	Year-2	Year-3	Year-4	Year-5	Total
	Toilets in nearby village for SWACH BHARAT MISSION						
3.	Construction of pond in nearby villages to harvest rain water	5,00,000/-	5,00,000/-	5,00,000/-	5,00,000/-	5,00,000/-	25,00,000/-
Total		25,00,000/-	25,00,000/-	25,00,000/-	25,00,000/-	25,00,000/-	1,25,00,000/-

20.0 The capital cost of the project is Rs. 60 Crores and capital cost for environmental Protection Measures is proposed Rs. 400 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 407.39 Lakhs. The employment generation from the proposed expansion is 150 Nos. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

Sr. No.	Description	Capital cost Rs. Lakhs	Recurring cost per annum, Rs. Lakhs
1.	Proper collection, Safe Handling, Storage within premises and disposal of waste at approved TSDF, incineration facility, re-cyclers, re-processors.	Slag Storage Yard = Rs. 20 Lakh, Fly Ash Storage Yard = Rs. 10 Lakh	Recurring cost per Annum, Rs. for Expenses: ETP Sludge = 120 MT/Annum x Rs.10000/- = Rs.1200000/- Tar Residue = 3000 MT/Annum x Rs. 20000/- = Rs. 6,00,00,000/- Total Expenses: Rs. 612 Lakh Earn: Slag = 30000 MT/Annum x Rs. 50/- = Rs. 15,00,000/- Fly Ash = 5,00,000/- Charcoal = 14400 MT/Annum x Rs. 1500/Ton = Rs. 2,16,00,000/- Dust from bag filter = 7,200 MT/Annum x Rs. 900/ Ton = Rs. 64,80,000/- Total Earning = Rs. 300 Lakh
2.	Effluent treatment plant will be provided for	Effluent treatment plant = Rs. 18 Lakh	Recurring cost of effluent = 147300 Liter/Day x Rs. 0.15 /Liter = Rs. 22095. Recurring cost of effluent/Month =

	treatment of wastewater generated from proposed plant		Rs. 22095 x 30 = Rs. 6,62,850/- Recurring cost of effluent/Annum = Rs. 6,62,850/- x 12 = Rs. 79,54,200/- (Rs. 79.54 Lakh)
3.	Adequate pollution control system (ESP, bag filter and Scrubber), water sprinkling System will be provided for control of gaseous emission.	Adequate pollution control system (ESP, bag filter and Scrubber), water sprinkling System = Rs. 271 Lakh	Recurring Cost of ESP = Rs. 10 Lakh Recurring Cost of Bag Filter = Rs. 5 Lakh Recurring cost of water scrubber = 0.35 Lakh Recurring cost of Water Sprinkling = Rs. 0.5 Lakh

21.0 Green belt will be developed in 11.7334 ha which is about 33.12% of the total acquired area. A 10 m wide green belt, 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 1500 trees per hectares. Total No. of 13800 saplings will be planted.

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 Organization: Aqua-Air Environmental Engineers Private limited, Surat.

Observations of the committee:

24.0 The committee observed that the EIA/EMP submitted by the project proponent is not as per the generic structure specified in the Appendix-III of EIA Notification, 2006 and several ToRs were not addressed in the EIA reports properly. There are some non-compliances of earlier EC conditions were reported by the Regional Officer of MoEFCC. Therefore, the committee desired to submit the revised EIA/EMP Report as per the generic structure specified in the EIA Notification, 2006 *interalia* including addressing the Terms of Reference prescribed for the project and closure of non-compliances of earlier EC conditions duly certified by the regional officer.

Recommendations of the committee:

25.0 After detailed deliberation, the committee recommended for returning of the proposal in the present form.

36.4 Expansion of Integrated Steel Plant (1 MTPA to 1.3 MTPA) of M/s JSW Steel Ltd., located at Mecheri, Taluk Mettur, District Salem, Tamil Nadu [Online proposal No. IA/TN/IND/78015/2018 MoEFCC File No. J-11011/281/2016IA.II(I)] – Environmental Clearance under clause 7(ii) of EIA Notification for installation of 0.8 MTPA Slag Grinding Unit in the existing plant.

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1.0 **M/s JSW Steel Ltd.** made online application vide proposal no. IA/TN/IND/78015/2015 dated 19th September, 2018 along with Form-1 and Form-2 seeking environmental clearance under clause 7(ii) of EIA Notification for installation of 0.8 MTPA Slag Grinding Unit; 105 tph Coal fired boiler to supply steam to 30 MW turbine for power generation; 65 TPH of LRF-5 with Vacuum Degassing facility ; 2x20 TPH BF gas fired boiler for steam to VD of LRF; DG sets for emergency operations; and upgradation of some of the facilities in the Integrated Steel Plant (1 MTPA to 1.3 MTPA) of M/s JSW Steel Ltd., located at Mecheri, Taluk Mettur, District Salem, Tamil Nadu.

Details submitted by the Project proponent:

2.0 M/s JSW Steel Ltd, Salem Works has been granted Environmental Clearance (EC) for expansion of its integrated steel plant from 1.0 to 1.3 MTPA of special steel product vide letter no. J-11011/281/2006-IA.II (I) Dated: 7th July 2017. The Status of compliance of earlier EC was obtained from Regional Office, Chennai vide diary No. 1218, dated 30.08.2017. There are no non-compliances reported by Regional officer.

3.0 The status of facilities approved in the EC for expansion of capacity of crude steel from 1.0 to 1.30 MTPA is as follows:

Sl. No.	Manufacturing facilities	Capacity in MTPA	Current status
1	Sinter Plant – 3 (90 m ²)	1.06	Construction Yet to start
2	BF – 1 (402 to 650 m ³)	0.316	Construction Yet to start
3	BF – 2 (550 to 650 m ³)	0.105	March 2019
4	EOF – 1 (45 T to 65 T)	0.23	March 2019
5	Ladle Furnace - 1 with Common VD (45 T to 65 T)	20 T/heat	March 2019
6	Continuous Casting Machine - 3	0.45	March 2019
7	Bar & Rod Mill Augmentation	0.08	Construction Yet to start
8	Blooming Mill Augmentation	0.12	Construction Yet to start
9	Pickling and Annealing Steel unit	0.06	March 2019
10	Peeled and ground rods	0.04	Construction Yet to start
11	ASP 3 – 250 Ton/Day	250 T/day	Construction Yet to start
12	CPP 3 (1 x 30)	30 MW	December 2018

4.0 As a part of value addition, it was proposed to set up a 0.8 MTPA slag grinding unit. The granulated slag produced in the blast furnaces will be dried for removal of moisture and subsequently ground to meet the standard for GGBS (IS-16714-2018). This will help in producing consistent quality of GGBS for construction purpose, besides associated environmental benefits. In addition to the these, some of the existing units are being upgraded to improve the work area environment and balancing the steam requirement for power generation. The details are as follows:

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Manufacturing Facilities	Existing Capacity	Proposed Expansion for which EC has been issued	Total Capacity after Expansion	Modification
Coke Oven Plant -1 (Non – Recovery Type)	0.50	-	0.5	The existing weakened 80m RCC chimney of Battery 1, is being replaced with two nos. of MS refractory lined chimney of 75m height.
Sinter Plant – 2 (90 Square Meter)	1.06	-	1.06	Waste heat utilization:
Sinter Plant – 3 (90 Square Meter)	-	1.06	1.06	About 6,00,000 m ³ /hr of hot air (2750C) planned to be diverted from sinter cooler of SP 2 & 3 to GGBS grinding unit to recover the sensible heat which is presently vented into atmosphere. Emission reduction: At present, Sinter machine-2 waste gas stack is operating at an average of 110 mg/Nm ³ of SPM as against the norm of 150 mg/Nm ³ , which is planned to be revamped to meet 50 mg/Nm ³ as an voluntary APC measures.
Blast Furnace – 1 (402 to 650 Cubic Meter)	0.367	0.316	0.683	It is proposed to install 0.8 MTPA slag grinding unit to produce Ground Granulated Blast furnace Slag (GGBS) as a value added facility.
Blast Furnace – 2 (550 to 650 Cubic Meter)	0.578	0.105	0.683	
Ladle Furnace - 1 with Common VD (45 T to 65 T)	45 T/heat	20 T/heat	65 T/heat	The existing primary de-dusting system of LRF 1 (38000 m ³ /hr) has been taken to common secondary de-dusting system of LRF's which is having designed capacity of 5,50,000 m ³ /hr but

Manufacturing Facilities	Existing Capacity	Proposed Expansion for which EC has been issued	Total Capacity after Expansion	Modification
				working at 4,00,000 m ³ /hr. The existing LRF-1 primary de-dusting stack of 30m height became redundant and planned to be used for CCM-3 billet grinding (surface preparation) fume extraction.
Ladle Furnace – 5 (65 T with VD)	-	-	65 T/heat (New)	Additional facility planned now. Since JSW Salem is producing special steels, the per heat process time increased from 30 min to 105 min due to vacuum degassing. Hence, additional LRF-5 is envisaged.
Continuous Casting Machine - 1	0.35	-	0.35	Additional stacks Since, CCM-2 is provided with auto cutter fume extraction system with stack, it is planned to provide the same facility to CCM-1 & 3 APC measures. The height of the chimney will be 20m. In addition, grinding fume extraction facility will be provided with bag filters for CCM 1 to 3 with stack height of 30m.
Continuous Casting Machine - 2	0.5	-	0.5	
Continuous Casting Machine - 3	-	0.45	0.45	
Pickling and Annealing Steel unit	-	0.06	0.06	A wet scrubber is envisaged to scrub the acid fumes generated from the acid bath as APC measures.

Manufacturing Facilities	Existing Capacity	Proposed Expansion for which EC has been issued	Total Capacity after Expansion	Modification
				<p>Three hot water generators are envisaged to meet the following process requirement to minimize fresh acid consumption and to ensure ZLD in the proposed ETP.</p> <ol style="list-style-type: none"> 1) To maintain the acid temperature of 55⁰ in the pickling bath. 2) To maintain the treated spent acid temp. of 55⁰ for reuse. 3) To supply hot water to thermal fluidic system of evaporator for ETP to ensure ZLD
Captive Power Plant 2 (2 x 30 MW)	2X30 MW	-	2X30 MW	<p>One coal-based boiler installed in the year 2006 with a capacity of 127 TPH is operating at emission concentration of SPM, SO₂ & NO_x with 70, 1000 and 600 mg/Nm³ respectively. This unit has been planned to be upgraded, to meet the revised emission standard as per CPCB letter dated 16.04.2018 of 50, 600 and 300 mg/Nm³ respectively.</p>
Captive Power Plant 3 (1 x 30)	-	30 MW	30 MW	<p>The total capacity of 30MW remains unaltered. Since, COP capacity remains same there is no additional waste gas is</p>

Manufacturing Facilities	Existing Capacity	Proposed Expansion for which EC has been issued	Total Capacity after Expansion	Modification
				expected. The additional BF gas as expected due to expansion is planned to be diverted to SMS (VD Boilers) and various shops, a coal based boiler of 105 TPH is envisaged to meet the planned power generation of 30 MW.
DG sets	3x625 KVA	1x1250 KVA	3x625 KVA and 1x1250 KVA	2x1250 KVA 1x1750 KVA 3x275 KVA 1x650 KVA 1x400 KVA The above DG sets are envisaged to meet the emergency conditions of plant black out requirements.

5.0 The total available plant site is 237.28 ha and township is 30.80 ha. The proposed facilities planned in the amendment is located within the existing facilities of JSW Steel Ltd., Salem works. Slag grinding unit (GGBS): Approx. 32000 sq.m, located adjacent to BF#1 slag yard (south) and east of Sinter plant#2. identified suitable for slag grinding unit. Additional Coal based boiler: Approx. 2000 sq.m, located adjacent to Air Cooled Condenser (ACC) (North) and south of WHRB#3. Picking plant ETP: Approx. 2500 sq.m, located in the east of pickling plant. BF gas fired boiler: Approx. 500 sq.m, located in the south of fire hydrant water tank.

6.0 Out of total plant site and township area, scrub land is 37.89 ha, vegetation area is 47.83 ha, open scrub is 27.19, built-up area is 69.27 ha, water bodies like rainwater harvesting pond, guard pond etc is 5.34 ha, open land is 62.50 ha, stock yard is 3.82 ha, roads 9.57 ha and rocky terrain 4.711 ha. No forest land is involved. The entire land has been already acquired for the project. No river/stream passes through the project area. It has been reported that no water body exist around the project and no modification/diversion in the existing natural drainage pattern at any stage has been proposed.

7.0 The Basic raw material used after modification are as follows:

Sl. No.	Raw material	Quantity	Source
1	BF granulated slag	0.6 MTPA	In house
2	Power plant coal	0.152 MTPA	Imported

Sl. No.	Raw material	Quantity	Source
3	Limestone for power plant	0.04 MTPA	Local
4	HSD	715 KL/yr	IOCL
5	LPG	5 t/yr	IOCL

8.0 The targeted production capacity of the expansion is remains unaltered i.e. 1.3 million TPA. In the proposed amendment, 0.8 MTPA slag grinding unit for manufacturing of GGBS, 105 TPH coal fired boiler for power generation, 65 TPH of LRF-5 with vacuum degassing facility, 2x20 TPH BF gas fired boiler for steam to VD of LRF and DG sets for emergency operations are planned. The BF slag for slag grinding unit is in house and power plant coal is imported. The coal transportation will be done through rail.

9.0 An agreement already exists between PWD and JSW to utilize 5 MGD of raw water from downstream of river Cauvery. The present requirement after expansion is about 4.4 MGD of raw water is met from the intake well located at downstream of Mettur dam which meets the 1.3 MTPA capacity of steel plant and captive power plant of 67 MW. The additional water requirement after amendment is about 10 m³/day.

10.0 The estimated power requirement of value addition and technological upgradation is about 3.5 MVA. The same will be met from existing and proposed captive power generation.

11.0 The continuous ambient air quality monitoring has been carried out at 4 locations covering, up and downstream w.r.t. wind direction. Similarly, the stand alone AAQ monitoring is carried out at eight locations during Jan. to July 2018 and the data submitted indicated: PM₁₀ (5.0 µg/m³ to 75 µg/m³), PM_{2.5} (5.0 to 51 µg/m³), SO₂ (2.0 to 74.0 µg/m³) and NO_x (6.0 to 41.0 µg/m³) for continuous monitoring and PM₁₀ (50.8 µg/m³ to 63.0 µg/m³), PM_{2.5} (17.5 to 25.8 µg/m³), SO₂ (16.6 to 19.0 µg/m³) and NO_x (6.95 to 18.8 µg/m³) for standalone AAQ stations respectively. The results of the modeling study from 1.3 MTPA EC and after amendment is given below:

Sl. No.	Unit	Pollution load (Kg/hr)		
		PM	SO ₂	NO _x
As per EC configuration				
1	1.0 to 1.3 MTPA	87.34	29.92	33.22
After value addition and technological upgradation				
1	1.3 MTPA	54.24	27.87	28.28
Reduction in pollution load		-33.12	-2.05	-4.94

12.0 Ground water quality has been monitored in two locations in the study area and analyzed. pH: 7.47 to 7.68, Total Hardness: 489 to 536 mg/l, Chlorides: 151 to 236 mg/l, Fluoride: 0.5 to 0.64 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from five locations. pH: 7.38 to 7.78; DO: 5.6 to 6.2 mg/l and BOD: 2 to 3 mg/l.

13.0 It has been reported that a total of 0.018 MTPA of fly ash is generated from CPP-3 coal based boiler and the same will be supplied to fly ash brick manufacturers as per existing practice.

It has been already developed that an area of 78.9 ha as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

14.0 It has been reported that the Consent to Operate (CTO) from the Tamil Nadu State Pollution Control Board obtained for 1.0 MTPA and valid up to 2022. For 1.3 MTPA Consent to Establishment (CTE) was obtained on 23.09.2017 and valid up to 31.03.2024.

15.0 The Public hearing was held on 12-08-2016 for production of 1.0 to 1.3 million TPA of Special Alloy Steels, under the existing premises. The issues raised during public hearing are incorporated in the earlier EIA/EMP report.

16.0 The capital cost of the value addition and technological upgradation facilities is estimated to be Rs. 230 Crore which is in addition to the capital cost of Rs. 1025 Crore earmarked for expansion of 1.0 to 1.3 MTPA during the year 2017.

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

Observations of the Committee:

18.0 The Committee observed that the project proponent has proposed additional number of units. Although, the ultimate objective was appreciable because they aimed at utilizing the blast furnace slag. The Committee also observed that for adding up new facilities an additional area, though falling in the present plant premises, of 5 ha was needed. The Committee felt that in addition to the proposed grinding unit another infrastructure proposal also involved i.e. setting up of 105 TPH coal fired boiler. The Committee felt that looking into the complex nature of additional facilities and also looking at the fact that a large area of about 5 ha is going to be additionally utilized, it was not proper to give EC to consider the proposal under Para 7(ii)(a). During the discussions, the project proponent informed the committee that they would like to withdraw the setting up of 105 TPH coal fired boiler from the proposed list of new facilities envisaged in the proposal. Under Para 7(ii)(a), the Committee had to decide about the desirability of fresh EIA report and a public consultation.

Recommendations of the Committee:

19.0 In view of the project proponent's withdrawal of coal fired boiler from the proposal, the Committee recommended that the proposal may be considered under Para 7(ii)(a), the decision of which will be based on EIA Report which the PP will have to prepare and present before the Committee. The EIA report will be prepared as per the generic ToR enclosed at **Annexure I read with additional ToRs at Annexure-2.**

In view of the withdrawal of the 105 TPH coal fired boiler and in view of the fact that proposal is for waste utilization and also a public hearing has been held only on 12/08/2016. The Committee also recommended exempting from the proposal from the conduct of fresh public hearing.

36.5 Proposed expansion of Ferro Alloy Plant manufacturing of FeCr (15,000TPA) or FeSi (7000 TPA) in the existing 1x9 MVASEAFA and manufacturing of SiMn (14400TPA) or FeMn (14400 TPA) or FeCr (15000 TPA) or FeSi (7000 TPA) in the new 1x9 mVA SEAFA of **M/s V A Power and Steel Private Limited** located at Plot No. 143, 144 &

145, Sector – E, O.P. Jindal Industrial Park, Village Punjipathra, Tehsil Gharghoda, District Raigarh, Chhattisgarh [Online Proposal No. IA/CG/IND/77598/2006; MoEFCC File No. F. No. J-11011/239/2016-IA.II(I)] – Environmental Clearance.

1.0 The proponent has made online application vide proposal no. IA/CG/IND/77598/2006 dated 25th September 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 and Non-ferrous) under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The proposed expansion of Ferro Alloys plant of M/s. V.A. Power & Steels Pvt. Ltd. located at Plot Nos. 143, 144, 145, O.P Jindal industrial Park, Sector -E, Punjipathra Village, Gharghoda Tehsil, Raigarh District, Chhattisgarh was initially received in the Ministry on 10th December, 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised in 14th EAC (Industry-1) meeting held on 22nd – 23rd December 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 31st January 2017 vide F. No. J-11011/239/2016-IA.II(I).

3.0 The project of M/s. V.A. Power & Steels Pvt. Ltd. located at Plot Nos. 143, 144, 145, O.P Jindal industrial Park, Sector -E, Punjipathra Village, Gharghoda Tehsil, Raigarh District, Chhattisgarh does not have E.C. as the plant was established in August, 2006 (as per EIA Notification 1994 EC required for capital investment more than Rs 100 Crores, for Greenfield projects). Accordingly, CTE has been taken from CECB, Chhattisgarh vide Order No: 1779/TS/CECB/2006 dated 07th April 2006 & First Consent to Operate was Obtained vide order no. 4067/TS/CECB/2005 dated 17th August 2006 for Ferro Alloy Plant of 1 x 9 MVA Capacity (SEAF) to manufacture Si-Mn – 14,400 TPA or Fe-Mn of 14,400 TPA capacity. Hence, Certified Compliance report of Consent to Operate issued for existing plant from the Regional Office, CECB, Raigarh, C.G has been obtained. There are no non-compliances reported by Regional officer, CECB, Raigarh. The proposed capacity for different products for new site area as below:

S.No.	Product	Plant Configuration & Production Capacity		
		Permitted capacities as per CTE obtained vide dated 7 th April 2006 (1 x 9 MVA SEAF)	Proposed Expansion (1 x 9 MVA SEAF)	After Expansion (2 x 9 MVA SEAF)
1	SiMn	14,400 TPA (In Operation)	14,400 TPA	28,800 TPA (96 TPD)
		or		
2	FeMn	14,400 TPA (In Operation)	14,400 TPA	28,800 TPA (96 TPD)
		or		

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3	FeCr	15,000 TPA (Proposed Now)	15,000 TPA	30,000 TPA (100 TPD)
or				
4	FeSi	7,000 TPA (Proposed Now)	7,000 TPA	14,000 TPA (47 TPD)

4.0 The total land required for the existing & proposed expansion project is 4.88 Ha. / 12.05 acres. The land is industrial. Entire land is taken on lease from M/s. Jindal Steel & Power Limited. Chhattisgarh State Industrial Development Corporation (CSIDC) has given 218.253 Ha. of land to M/s. JSPL on lease for development of industrial Park. Expansion will be taken up in the existing plant premises only. No additional land is proposed. No forestland 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.

5.0 The topography of the area is flat with undulations and reported that the site lies between 22°3'18.94" to 22°3'25.56" North Latitude and 83°20'24.04" to 83°20'32.76" East longitude in Survey of India Topo sheet no. 64 N/8 at an elevation of 315 AMSL. The ground water table reported to ranges between 3 to 14 m BGL below the land surface during the post-monsoon season and 2 to 6 m BGL below the land surface during the pre-monsoon season.

6.0 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. 30.00 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 i.e. M/s. V.A. Power & Steels Pvt. Ltd. Species of bird such as Peacock is reported from the forest areas of the buffer zone are listed in Schedule - 1 of the Indian Wildlife (Protection) Act. Peacock is listed under the Least concern category. The list of flora and fauna during study period in the study area is furnished in the EIA report.

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

S.No.	RAW MATERIAL	QUANTITY (TPA)	SOURCE	DISTANCE (w.r.t Plant)	MODE OF TRANSPORT
For Ferro Silicon unit (in the EXISTING FURNACE - 1 x 9 mVA)					
1.	Quartz	8,450	Local	50 Kms.	By Road (Covered trucks)
2.	LAM coke	2,800	Imported from Australia, China	480 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)
3.	MS Scrap	175	Raipur	250 Kms.	By Road (Covered trucks)
4.	Electrode paste	420	Maharashtra / West Bengal	600 – 900 Kms.	By Road (Covered trucks)
For Ferro Chrome unit (in the EXISTING FURNACE - 1 x 9 mVA)					
1.	Chrome ore	40,000	Sukinda	400 Kms.	By Road (Covered

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S.No.	RAW MATERIAL	QUANTITY (TPA)	SOURCE	DISTANCE (w.r.t Plant)	MODE OF TRANSPORT
			(Odisha) Import (Indonesia)	480 Kms. (from Vizag Port)	Trucks) From Port By Road (Covered Trucks)
2.	LAM coke	15,750	Imported from Australia, China	480 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)
For Ferro Silicon unit (in the PROPOSED FURNACE - 1 x 9 mVA)					
1	Quartz	8,450	Local	50 Kms.	By Road (Covered trucks)
2	LAM coke	2,800	Imported from Australia, China	480 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)
3	MS Scrap	175	Raipur	250 Kms.	By Road (Covered trucks)
4	Electrode paste	420	Maharashtra / West Bengal	600 – 900 Kms.	By Road (Covered trucks)
For Ferro Manganese unit (in the PROPOSED FURNACE - 1 x 9 mVA)					
1	Manganese Ore	26,650	Balaghat (M.P.) Imported from South Africa	500 Kms. 480 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
2	LAM coke	15,350	Imported from Australia, China	480 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)
3	MS Scrap	1,030	Raipur	250 Kms.	By Road (Covered trucks)
4	Electrode Paste	3,000	Maharashtra / West Bengal	600 – 900 Kms.	By Road (Covered trucks)
For Silico Manganese unit (in the PROPOSED FURNACE - 1 x 9 mVA)					
1	Manganese Ore	15,850	Balaghat (M.P.) Imported from South Africa	500 Kms. 480 Kms. (from Vizag Port)	By Road (Covered Trucks) From Vizag Port by Road (Covered Trucks)
2	Mn. Slag	9,000	In house generation	---	By Conveyers
3	Quartz	3,900	Local	50 Kms.	By Road (Covered trucks)
4	LAM coke	1,600	Imported from Australia, China	480 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)
For Ferro Chrome unit (in the PROPOSED FURNACE - 1 x 9 mVA)					
1	Chrome ore	40,000	Sukinda (Odisha) Import (Indonesia)	400 Kms. 480 Kms. (from Vizag Port)	By Road (Covered Trucks) From Port By Road (Covered Trucks)
2	LAM coke	15,750	Imported from Australia, China	480 Kms. (from Vizag Port)	From Vizag Port by Road (Covered Trucks)

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S.No.	RAW MATERIAL	QUANTITY (TPA)	SOURCE	DISTANCE (w.r.t Plant)	MODE OF TRANSPORT
				Port)	

8.0 The targeted production capacity of the plant after expansion project is production Fe-Mn from 14,400 TPA to 28,800 TPA (OR) Si-Mn from 14,400 TPA to 28,800 TPA (OR) New Product Fe-Cr 30,000 TPA (OR) new product Fe-Si of 14,000 TPA. Major Raw material transportation will be done through Ship from Vizag port, A.P. and from there to Raigarh Railway Station by Rail. The Raw material unloaded at Raigarh Railway Station will be transported to the project site by road through covered trucks, which is at 20 Kms. from the plant.

9.0 Water requirement for the expansion project is estimated as 29 KLD. Total water requirement for the entire project will be 60 KLD, which will be sourced from Groundwater. The permission for drawl of water is approved by CGWA vide NOC no. CGWA/NOC/IND/ORIG/2018/4161.

10.0 Total power required for the proposed expansion project will be Max. of 9.0 MW which will be supplied by M/s. Jindal Steel and Power Limited.

11.0 Baseline Environmental Studies were conducted during winter season i.e. from 1st March 2017 to 31st May 2017. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated that PM_{2.5} (17.5 to 41.3 mg/m³), PM₁₀ (31.8 to 72.6 µg/m³), SO₂ (6.9 to 20.5 mg/m³), NOx (7.2 to 27.1 mg/m³) & CO (460 to 1205 mg/m³). The results of the modeling study indicates that the maximum increase of GLC due to the proposed expansion project & Vehicular emissions will be 0.93 µg/m³ with respect to the PM, Nil with respect to the SO₂, 9.0 µg/m³ with respect to the NOx & 0.7 µg/m³ with respect to the CO.

12.0 Ground water quality has been monitored in 8 locations in the study area analyzed and the data submitted indicated pH: 7.2 to 7.7, Total Hardness: 217 to 273 mg/l, Chlorides: 119 to 192 mg/l, Fluoride: 0.35 to 0.50 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 8 locations in the study area analyzed and the data submitted indicated pH: 7.2 to 8.0 and DO: 3.8 to 5.0 mg/l.

13.0 Noise levels are in the range of 40.86 dB(A) to 59.56 dB(A) during 1st March 2017 to 31st May 2017.

14.0 It has been reported that there are no habitations in the site & no additional land is proposed for implementing proposed expansion. No R&R is involved.

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

S.No.	SOLID WASTE	QUANTITY (TPA)	DISPOSAL METHOD
1.	Slag from Ferro Silicon Manufacturing Process	238	Will be given to cast iron foundries of M/s. Taj Traders & M/s. Kapilansh Dhatu Udyog Pvt. Ltd.

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S.No.	SOLID WASTE	QUANTITY (TPA)	DISPOSAL METHOD
2.	Slag from Silico Manganese Manufacturing Process	11300	Will be given to M/s. Taj Traders & M/s. Kapilansh Dhatu Udyog Pvt. Ltd. and also will be used in road construction.
3.	Slag from Ferro Manganese Manufacturing Process	9,000	Will be used in manufacture of Silico manganese as it contains high MnO ₂ .
4.	Slag from Ferro Chrome Manufacturing Process	12,000	Ferro chrome slag generated will be further processed in Zigging plant for Chrome recovery the non-chrome contents will be sent to common disposal yard within the Industrial Park.
5.	Dust from Bagfilters of SEAF and during tapping	0.05	It will be used in Briquetting Plant (Proposed now)

16.0 It has been reported that an area of 1.00 Hectares (2.5 Acres) has already been developed with greenbelt and another 0.61 Hectares (1.5 Acres) will be developed in the proposed expansion out of total plant area 4.88 Ha. (12.05 Acres) to attenuate the noise levels and trap the dust generated due to the project development activities.

17.0 It has been reported that the Consent To Operate from the Chhattisgarh Environment Conservation Board has been obtained vide order no. 1458/TS / CECB /2018 Naya Raipur dated 09th May 2018 is valid upto 31st October 2020.

18.0 The Public hearing of the project was held on 15th May 2018 at in the premises of Banjari Mata Temple under the chairmanship of Shri. Sanjay Diwan (ADM, Raigarh) for enhancement of Ferro Alloy plant production capacity i.e. *Fe-Mn from 14,400 TPA to 28,800 TPA (OR) Si-Mn from 14,400 TPA to 28,800 TPA (OR) New Product Fe-Cr 30,000 TPA (OR) new product Fe-Si of 14,000 TPA*. The issues raised during public hearing Industrial pollution in the area, Slag disposal, Crop damage, water drawl permission, Conservation measures for elephants, Water cess, Health related problems to students in nearby College, Silicosis disease, Rain water harvesting measures, Ground water availability, CER activities, Employment to local peoples, etc.

S.No.	Issue raised	Response by Project Proponent (After PH)	Time bound action Plan Proposed	Budgetary Provision
1.	There is no mention about the industrial pollution in the area.	The existing Ambient air quality is inclusive of the emissions from the existing other industries in the area. Emissions from other industries have also been considered in the prediction of incremental concentrations along with the emissions from the expansion project and vehicular emissions. The net resultant incremental GLCs	Before commissioning of the plant	Rs. 2.51 Crores will be allocated for Environmental Protection Measures

S.No.	Issue raised	Response by Project Proponent (After PH)	Time bound action Plan Proposed	Budgetary Provision
		are within the National Ambient Air Quality Standards. Hence, there will not be any adverse impact on air environment due to the proposed expansion.		
2.	Disposal of chrome slag, which is hazardous in nature. Whether TCLP for Chrome slag has been carried out?	Slag generated during manufacturing of Ferro chrome will be taken to jigging plant and after crushing and screening chrome will be recovered and as per the TCLP test the remaining material after chrome recovery has chrome content within the permissible levels. This will send to Industrial Park dump yard. TCLP test will be carried out once in a year. In future if chrome content in slag will exceeds the stipulated standard; then this will be sent to nearby TSDF.	After commencement of present proposal	Rs. 0.65 Crores will be allocated for Solid waste Management
3.	Source of water for the existing plant. Whether water drawl permission has been obtained for the existing plant? Are they paying water cess? Whether Water drawl permission for the expansion project is obtained?	Ground water is the source for the existing plant. Water requirement of existing plant is 31 KLD. The plant commenced operation in the year 2006. During that period ground water drawl permission was not required if the ground water with drawl is less than 1000 KLD for SAFE category areas and 100 KLD for Semi Critical areas. The plant falls under Safe category. Hence, water drawl permission has not been obtained for the existing plant. Water cess is being paid by the industry regularly. Source of water for expansion is also ground water. NOC has been obtained from CGWA for drawl of water vide NOC no. CGWA/NOC/IND/ORIG/2018/4161	----	----
4.	Rain water harvesting	In the existing plant, RWH has been implemented. Now, it is proposed to	Within 2 years from the date	Rs. 0.75 Lakhs for RWH with

S.No.	Issue raised	Response by Project Proponent (After PH)	Time bound action Plan Proposed	Budgetary Provision
	measures to be taken up	construct additional 5 no.s RWH tanks and implement ground water recharging measures also. The roof top water will be collected in a tank and will be used to meet the plant water requirement.	of from the date of E.C. / Financial closure	in the Premises & Rs. 1.0 Lakhs for RWH in the Villages under CER
5.	There is a college close by to the industrial park and the students have health related problems.	College is situated at a distance of 0.70 Kms. in North Eastern direction from the plant. 130 m wide Green belt has been developed towards college side by JSPL in the Industrial park peripherally. In the present proposal air emission control measures such as Bag filters, covered conveyers, dust suppression system will be provided. ZLD will be adopted. Solid waste disposal will be in accordance with the norms. 1/3 rd of the plant area is being developed with greenbelt. The existing plant has CTO issued by CECB, which is valid till 31 st October 2020.	Before commissioning of the plant	Rs. 2.51 Crores will be allocated for Environmental Protection Measures
6.	Crop damage	In the existing plant air emission control measures such as Bag filters, covered conveyers, dust suppression system have been provided. ZLD is being adopted. Solid waste disposal is in accordance with the norms. 1/3 rd of the plant area is being developed with greenbelt. The existing plant has CTO issued by CECB, which is valid till 31 st October 2020. Hence, no crop damage occurs due to this industry. In the expansion, also similar practices will be followed. However If any crop damage occurs due to our industry, then compensation will be paid to the affected farmers as per Govt. Rules.	Before commissioning of the plant	Rs. 2.51 Crores will be allocated for Environmental Protection Measures

S.No.	Issue raised	Response by Project Proponent (After PH)	Time bound action Plan Proposed	Budgetary Provision
7.	There is a mention about Elephant Corridor. However, there is no mention about conservation measures for elephants.	As per the secondary sources there is movement of Elephants has been observed within 10 Km. radius of the plant. Conservation Plan has been prepared by Mr. Haresh Chandra Tiwari, I.F.S. (Retd.) and submitted to PCCF, C.G. and Recommendations / comments of the Principal Chief Conservator of Forests (PCCF), Raipur have been obtained and as per the recommendations a budget provision of Rs. 30 Lacs will be earmarked for the Wildlife Conservation and Management Plan for two years.	2 year (2018-19 & 2019 -20)	A budget provision of Rs. 30 Lacs will be earmarked for the Wildlife Conservation and Management Plan for two years.
8.	Regarding Silicosis disease	Silicosis disease is normally found in people working in Silica sand mining where they are continuously exposed to crystalline silica. In this proposal, Quartz is used as raw material. Hence, no continuous exposure will be there in this plant. Respiratory masks will be provided to employees working in quartz handling areas. Dust suppression system will be provided. In the health checkup, Chest x- ray & Fluoroscopy will be carried out periodically. This will give symptoms of any silicosis.	Within 2 years from the date of from the date of E.C. / Financial closure	Rs. 2.51 Crores will be allocated for Environmental Protection Measures
9.	Providing Employment to local peoples.	In the existing plant, out of 42 no. of total employees 80 % are from Raigrah District. In the proposed expansion, another 40 no. of employment will be provided.	----	----
10.	Regarding ground water Cess payment.	Company is regularly paying ground water cess to Water resources Department / CECB. Last Water cess was paid on 6 th Nov.	----	----

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S.No.	Issue raised	Response by Project Proponent (After PH)	Time bound action Plan Proposed	Budgetary Provision
		2017		
11.	Gram Panchayat NOC has not been obtained.	This land is acquired by CSIDC Limited and given on lease to M/s. Jindal Steel and Power Limited for development of Industrial Park. All the plots within this industrial park are taken on lease. As the land has been acquired by CSIDC, NOC from Gram Panchayat will not be required.	----	----
12.	Impact on Forest and Wildlife	<ul style="list-style-type: none"> All the required Air Emissions Control systems will be installed and operated to comply with MoEF&CC / CPCB / CECB norms. Zero liquid effluent discharge is being maintained in the existing plant and similar practice will be maintained after expansion also. All solid waste disposal will be in accordance with the norms. Greenbelt in an area 1.00 Ha. has already been developed in the plant premises and Greenbelt in an area of 0.61 Ha. is proposed to be developed in the proposed expansion proposal. <p>When all norms are compiled and with proper implementation of Environment Management Plan, there will not be any adverse impact on Forest and Wildlife due to the proposed expansion.</p>	----	----

19.0 An amount of Rs.32.5 Lakhs has been earmarked under Corporate Environment Responsibility (CER) based on public hearing issues. The details of CER proposed are as follows:

S.No.	Major Activity Heads	Years (Rs. In Lakhs)		Total Expenditure (Rs. In Lakhs)
		1 st	2 nd	
A	Based on need based & Social assessment study			

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1	Community & Infrastructure Development Programmes (Development of village road, renovation of school buildings, providing Street Lights & its maintenance in panchayat area, maintenance of Temples in nearby Villages, sanitation facilities, drainage facilities in nearby villages & schools.	6.0	6.0	12.0
2	Skill & Entrepreneur Development (Skills updation on welder / Fitter / wiremen etc.)	2.0	2.0	4.0
3	Education and Scholarship Programmes (Providing furniture, computers, library, sports equipment etc. for schools, Sponsorship for School Sport events, Merit Scholarships to School Children)	2.0	2.0	4.0
4	Medical & health related activities (Ambulance facilities to villagers)	3.0	3.0	6.0
5	Other requirements as per needs of the nearby Village Panchayat (such as supply of Fertilizers to augment N,P,K)	2.0	2.0	4.0
	SUB TOTAL (A)	15.0	15.0	30.0
B	Based on Public Consultation			
1	Additional Rain water harvesting measures in nearby villages	0.5	0.5	1.0
2	Additional 1.5 acres of greenbelt will be developed as part of expansion proposal.	1.5	--	1.5
	SUB TOTAL (B)	2.0	0.5	2.5
	TOTAL (A+B)	17.0	15.5	32.5
C	Expenditure towards implementation of Conservation plan			
1	For the years 2018 & 2019	23.25	6.75	30.0
	TOTAL (A+B+C)	40.25	22.25	62.5

20.0 The capital cost of the project is Rs.13 Crores and the capital cost for environmental protection measures is proposed as Rs. 2.51 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 37.2 Lakhs /annum. The employment generation is 25 people during operation of the proposed expansion and 115 people during construction, indirectly employed in contract works & transport. 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 (Rs.in Lakhs)	Recurring Cost / Annum (Rs.in Lakhs)
1.	Air Emission Management		
	• Fume Extraction systems with Bag	80.0	10.0

S.No.	Item	Capital Cost (Rs.in Lakhs)	Recurring Cost / Annum (Rs.in Lakhs)
	filters		
	• Chimney	35.0	1.0
	• Water Sprinklers	5.0	0.1
2.	Wastewater Management • ETP (General)	5.0	1.0
3.	Solid waste Management		
	• Slag Disposal	10.0	---
	• Fe-Cr recovery & its disposal	25.0	5.0
	• Hazardous waste storage & disposal	5.0	5.0
	• Municipal solid waste storage & disposal	--	2.0
	• Briquetting Plant	25.0	---
4.	Greenbelt development, Land scaping, Noise Management, RWH etc.	1.5	2.5
5.	Environmental Monitoring		
	• AAQMS	40.0	5.56
	• CEMS	10.0	
6.	Occupational Health & Safety	10.0	5.0
TOTAL		251.5	37.16

21.0 Greenbelt has been developed in an area of 1.00 Hectares (2.5 Acres) in the existing plant and another 0.61 Hectares (1.5 Acres) will be developed in the proposed expansion, hence total 1.61 ha. (4.0 acres) of area will be developed with greenbelt. Around 10 m width greenbelt is being developed all around the plant. Total number of plants exists in the premises are 1500 nos., another 2525 no. of sapling will be planted in the proposed expansion.

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 Organization: Pioneer Enviro Laboratories and Consultants Private Limited, Hyderabad.

Observations of the committee.

24.0 The committee observed that the submitted action plan and commitments on the issues raised during the public consultation are not satisfactory; the activities proposed under CER shall be based on the issues raised during the public consultation and Social Impact Assessment (SIA); recharging scheme for ground water augmentation is not provided; no agglomeration/briquetting plant was proposed for recycling of fines; etc.

Recommendations of the Committee:

25.0 After detailed deliberation, the Committee sought following additional information for further consideration of the proposal:

1. Revised time bound action plan on the issues raised during the public consultation along with budgetary provisions.
2. Revised Corporate Environment Responsibility based on the issues raised during the public hearing and Social Impact Assessment study.
3. Ambient Air Quality Data of OP Jindal Park for 2014-15 carried by Central Pollution Control Board and Comparison with the existing data.
4. Action plan for the recharging of ground water shall be submitted
5. Briquetting plant shall be envisaged for recycling of the fines generated during the operation.
6. Revised Corporate Environmental Policy prescribing standard procedure and hierarchal system for reporting of non-compliances /infringements, if any to the Board of Directors at a periodical interval.

36.6 Expansion of Ferro Alloy Plant from 11,500 TPA to 37,500 TPA (Product mix of Ferro Manganese, Silico Manganese & Ferrosilicon) located at Phase – IV/C- 1 (P) 3 Industrial Area, Village – Goradih/ Balidih, PO: Bokaro Steel City, Dist.- Bokaro Jharkhand by M/s Shree Bholey Alloys Private Limited [Online Proposal No. IA/JH/IND/75919/2018; J-11011/317/2009-IA-II (I)] – Terms of Reference.

1.0 M/s Shree Bholey Alloys Private Limited has made online application vide proposal no. IA/JH/IND/75919/2018 dated 24th July 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(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. Bholey Alloys Private Limited proposed to install an expansion of existing manufacturing unit of ferro alloy plant. It is proposed to set up the plant for Product mix of Ferro Manganese, Silico Manganese & Ferro silicon based on SAF technology.

3.0 The existing project was accorded environmental clearance vide letter no. J-11011/317/2009-IA II (I) dated 30.09.2010. Consent to Operate was accorded by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO-1741099/2018/444 validity of CTO is up to 31.12.2020.

4.0 The proposed unit will be located at IV/C-1 (P) 3 Industrial Area Village Goradih/Balidih, PO: Bokaro Steel City district Bokaro, Jharkhand.

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5.0 The land area acquired for the proposed plant is 2.28 Ha. No/forestland involved. The entire land has been acquired for the project. Of the total area 0.76 ha (33.31%) 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 INR 29 Crore rupees. Proposed employment generation from proposed project will be total 64 employment direct & indirect employment.

8.0 The targeted production capacity (existing + expansion) of the plant is 37,500 TPA (Product mix of Ferro Manganese, Silico Manganese & Ferro silicon). The ore for the plant would be procured from mines of Manganese Ore India Ltd, Nagpur, and also from private mine owners in Orissa & Jharkhand. Coal and Coke required for manufacture are available in and around Jharkhand and Orissa in sufficient quantity while dolomite is brought from Orissa. The ore transportation will be done through Rail. The existing and the proposed expansion unit details are given as below.

Name of Unit		No. of Unit	Capacity of each Unit	Production Capacity		Products
Submerged Furnace	Arc	2 Nos	3.5 MVA each	11,500 (Existing)	TPA	Product mix of Ferro Manganese, Silico Manganese and Ferro Silicon
Submerged Furnace	Arc	1 Nos	15 MVA	26,000 (Expansion)	TPA	
Total				37,500 TPA		

9.0 The electricity load of 22 MW will be procured from Damodar Valley Corporation. Company has also proposed to install 125 kVA DG Set for power backup only for lighting purpose.

10.0 Proposed raw material and fuel requirement for project are manganese ore, coke, coal, quartz, dolomite and carbon paste. The requirement would be fulfilled by Mn ore is available from the mines of Manganese Ore India Ltd, Nagpur, and also from private mine owners in Orissa & Jharkhand. Coal and Coke required for manufacture are available in and around Jharkhand and Orissa in sufficient quantity while dolomite is brought from Orissa. Other ingredients such as quartz are abundantly available from Jharkhand. Fuel consumption will be mainly diesel.

11.0 Water Consumption for the proposed project will be 110 m³/day and waste water generation will be 18 m³/day. Water will be supplied by BIADA. Industrial waste water will be treated in in Settling Tank and used for dust suppression & domestic waste water in septic tank and disposed in soak pits. Canteen wastes will be treated and reused for gardening.

12.0 The proponent has mentioned that there is no court case or violation under EIA.

13.0 EIA Consultant Organization: M/s Grass Roots Research & Creation India (P) Ltd.

Observations of the committee:

14.0 The committee opined that no ground water shall be extracted for the industrial purpose. The PP shall plan for meeting the requirements from the surface / rain water source. It was also opined that action plan for 100% utilization of solid waste generated shall be submitted along with the EIA/EMP and no dumping in the premises is allowed.

Recommendations of the Committee:

15.0 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;**

1. No ground water shall be extracted for the industrial purpose. The PP shall plan for meeting the requirements from the surface / rain water source.
2. Action Plan for 100% utilization of solid waste generated shall be submitted along with the EIA/EMP. No dumping in the premises is allowed.
3. Public Hearing to be conducted by the concerned State Pollution Control Board.
4. 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.
5. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018.
6. Certificate compliance of earlier EC from the Regional officer of the MoEFCC shall be submitted along with EIA/EMP.

36.7 Expansion of Sponge Iron from 60,000 TPA to 1,75,500 TPD and installation of New Induction Furnace to manufacture 1,53,000 TPA of M.S. Ingots / Billets, New Rolling Mill to manufacture 1,53,000 TPA of TMT bars / Structural Steel / Rolled Products, Gasifier of 12,000 m³ /hr & Power plant - 18 MW (WHRB – 12 MW & FBC – 6 MW) located at Dighora Village, Takhatpur Tehsil, Bilaspur District, Chhattisgarh by M/s PHIL Ispat Private Limited [Online Proposal No. IA/CG/IND/75951/2018; MoEFCC File No. IA-J-11011/288/2018-IA-II(I)] – Terms of Reference.

1.0 **M/s PHIL Ispat Private Limited** has made online application vide proposal no. **IA/CG/IND/75951/2018** dated **26th July 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(a) Metallurgical industries (ferrous & nonferrous) under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level.

Details submitted by the Project Proponent:

2.0 **M/s. PHIL ISPAT PRIVATE LIMITED** proposed for expansion of Sponge Iron capacity from 60,000 TPA to 1,75,500 TPA and installation of New Induction Furnace to manufacture 1,53,000 TPA of M.S. Ingots / Billets, New Rolling Mill to manufacture 1,53,000 TPA of TMT bars / Structural Steel / Rolled Products, Gasifier of 12,000 m³/hr & Power plant - 18 MW (WHRB – 12 MW & FBC – 6 MW). It is proposed to manufacture the above products based on the following technology.

- Producing Sponge Iron through DRI route.
- Producing MS Billets through IF route & LRF
- Producing MS Re-Bars (TMT) and structural steel through Rolling mill with Re-heating & Hot charging route.
- Power generation through Waste Heat Recovery & FBC Boilers.

3.0 Existing plant has doesn't have Environmental Clearance. The plant is commissioned before 14th September 2006 EIA notification & it did not attracted the EIA notification 1994 also as the project investment was less than Rs.100 crores. Hence CTE has been obtained from CECB for existing plant vide order no. 2202 / TS / CECB / 2005 dated 12/05/2005. Consent to Operate was accorded by Chhattisgarh Environment Conservation Board vide lr. no. 63/TS/CECB/2018 validity of CtO is up to 31st January, 2021.

4.0 The proposed unit will be located at Digora Village, Tahakatpur Tehsil, Bilaspur District Chhattisgarh.

5.0 Total land envisaged is 30.18 Acres (11.24 Ha.) [27.78 Acres (Existing) + 2.40 Acres (additional)] Out of which 27.78 Acres is under possession of management, 1.7 Acres of land is acquired (sales agreement executed) balance is under process of acquisition. Of the total area, 4.04 Ha./ 10 acres (33%) land will be used for greenbelt developed. No Forest land involved.

6.0 No Reserve Forest exists within 10 Km. radius of the project site. No National park/Wild life 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 project is approx. Rs. 184 Crores. Proposed employment generation from proposed project will be 150 nos. direct employment and 300 nos. indirect employment.

8.0 The targeted production capacity of the total plant is 0.153 million TPA. The ore for the plant would be procured from NMDC and Other Supplies from Chhattisgarh and Odisha. The ore transportation will be done through by rail & road (through covered trucks). The proposed capacity for different products & capacities after proposed expansion project as below:

S.No.	Name of the Product	Existing	Proposed expansion	After proposed expansion
1.	DRI plant (Sponge Iron)	2x100 TPD (60,000)	1 x 350 TPD (1,15,500 TPA)	1,75,500 TPA (2 x 100 TPD & 1 x 350)

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		TPA)		TPD)
2.	Induction Furnace (M.S. Billets / M.s. Ingots)	---	1,53,000 TPA (3 x 15 T)	1,53,000 TPA (3 x 15 T)
3.	Rolling Mill (TMT Bars / Structural Steels / Rolled Products)	--	1,53,000 TPA (30 TPH)	1,53,000 TPA (30 TPH)
4.	Gasifier (Producer Gas)	--	12,000 m ³ /hr	12,000 m ³ /hr
5.	Captive Power plant	--	WHRB – 12 MW FBC – 6 MW	WHRB – 12 MW FBC – 6 MW

9.0 The total power requirement for the expansion project will be 22.8 MW, this will be met mainly with captive power plant of 18 MW (i.e. 12 MW WHRB and 6 MW FBC based power plant), A load of ~4.8 MW is proposed to be procured from the state grid. Company has also proposed to install DG Set for emergency Backup supply.

10.0 Proposed raw material and fuel requirement for proposed project are Iron Ore, Dolomite, Scrap, Ferro Alloys, Requirement would be fulfill by external purchase /in house. Fuel Consumption will be mainly Coal & Furnace Oil. Details of raw material requirement and mode of transport is as follows:

Raw Material		Quantity (TPD)	Sources	Mode of Transport
For DRI Kilns (Sponge Iron – 350 TPD)				
Iron ore		560	NMDC and Other Supplies from Chhattisgarh and Odisha	By rail & road (through covered trucks)
Limestone		46	Supplies from Chhattisgarh	By road (through covered trucks)
Coal	Indian	455	SECL and Other Supplies from Chhattisgarh and Odisha	By rail & road (through covered trucks)
	Imported	290	South African and Australian	Through sea route, rail route & by road
For Induction Furnace (MS Billets / Ingots) – 450 TPD				
Sponge Iron		501	In-house generation	By Conveyor
Scrap		65	Supplies from Chhattisgarh and Odisha	By road (through covered trucks)

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Raw Material		Quantity (TPD)	Sources	Mode of Transport
Ferro Alloys		7	Supplies from Chhattisgarh	By road (through covered trucks)
For Rolling Mill (TMT bars & Structural Steel) – 450 TPD				
M.S. Ingots / Steel billets		533	In-house generation	through conveyors
Furnace oil		15	Supplies from Chhattisgarh	Tankers
		Or		
Pulverized coal	Indian	93	SECL and Other Supplies from Chhattisgarh and Odisha	By road (through covered trucks)
	Imported	59	South African and Australian	Through sea route / rail route / by road
For FBC Boiler [Power Generation 6 MW]				
Dolochar		105	In-house generation	through covered conveyors
Coal	Indian (100 %)	108	SECL and Other Supplies from Chhattisgarh and Odisha	By rail & road (through covered trucks)
	Imported (100 %)	69	South African and Australian	Through sea route / rail route / by road

11.0 Water consumption for the proposed project will be 270 KLD and wastewater generation from the proposed project will be 55 KLD (43 KLD from Power plant & 12 KLD from Domestic). Domestic wastewater will be treated Septic tank followed by sub-surface dispersion trench and there will be no wastewater will be discharged outside the plant premises. Closed-circuit cooling system will be provided to DRI, SMS & Rolling Mill units. 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.

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 EIA Consultant organization: Pioneer Enviro Laboratories and Consultants Private Limited, Hyderabad.

Observations of the Committee:

14.0 The committee observed that there is possibility of sourcing the water from Maniar river and achieving the Zero Liquid Discharge.

Recommendations of the Committee:

15.0 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. No Producer gas plant shall be envisaged in the proposal while submitting for environmental clearance.
- ii. The PP shall explore the possibility of sourcing the water from Maniar river and the report of the same shall be submitted along with EIA.
- iii. The PP shall plan for Zero Liquid Discharge.
- iv. Public Hearing to be conducted by the concerned State Pollution Control Board.
- v. 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.
- vi. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018.
- vii. Certificate compliance of conditions of the CTO from the Regional officer of the SPCB shall be submitted along with EIA/EMP.

36.8 Expansion of Kraft Paper Plant from 100 TPD to 200 TPD; Agro/Mixed Hard Wood/Waste Paper Pulp/Ready Pulp from 100 TPD to 200 TPD; Co-generation Power Plant 2.5 MW at Village Rampura, Tehsil Sadar, District Shahjahanpur (Uttar Pradesh) by M/s KR Pulp & Papers Limited Unit-I [Online proposal No. IA/UP/IND/77050/2018; MoEFCC File No. IA-J-11011/289/2018-IA-II(I)] – Terms of Reference.

1.0 **M/s KR Pulp & Papers Limited** made an application vide online proposal no. **IA/UP/IND/77050/2018** dated 29th August 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. 5(i) Pulp and Paper Industry under Category "A" EIA Notification; 2006. The proposal of expansion is submitted and appraised at Central Level.

Details submitted by the project proponent:

2.0 M/s. K R Pulp and Papers Limited (Unit-I) proposes expansion of Kraft Paper plant from 100 TPD to 200 TPD at Village Rampura, Tehsil Sadar (Shahjahanpur), District -Shahjahanpur (Uttar Pradesh).

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3.0 The existing project of 100 TPD Kraft paper and 2.5 MW co-generation power plant was operating on the basis of Consent to Operate obtained by Uttar Pradesh State pollution Control Board. Current CTO for Air vide letter. no. F69991/C-7/766/Air Poll/Bly/2015 dated 3.12.2015. and for Water vide letter no. F92623/C-7/Water/732/2016 dated 22.12.2016 valid up to 31.12.2018.

4.0 The proposed expansion unit is located at Village: Rampura, Tehsil: Sadar (Shahjahanpur), District: Shahjahanpur, State: Uttar Pradesh.

5.0 The total plant area for existing unit is 11 ha and proposed expansion will be done within existing plant premises and no additional land is acquired for the same. The existing land is already an industrial land. No forestland is involved. Of the total area 3.6 ha (33%) land has already been used for green belt development.

6.0 No National Park/ Wildlife Sanctuary/ Bio Sphere 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 Rs. 29.88 Crore for expansion. After expansion, total employment generation will be 149 persons (Existing manpower- 130 and additional manpower -19 persons) as direct employment and from 250 to 400 persons as indirect employment.

8.0 The existing capacity of the unit would be 200 TPD kraft paper after its expansion. The main raw material bagasse / wheat straw / waste paper/ready pulp and mixed hard wood for the plant would be procured from sugar mills, farmers and plywood Industries. The raw material transportation will be done through road. The proposed capacity for different units is as below:

Name of Unit	Capacity of each unit		Total capacity after expansion
	Existing capacity	Additional capacity	
Kraft paper production	100 TPD	100 TPD	200 TPD
Pulp production (Agro waste, Wood pulp, waste paper pulp, ready pulp)	100 TPD	100 TPD	200 TPD
Co-generation power plant (Unit -I)*	2.5 MW	Nil	2.5 MW
<i>*2.5 MW Co-generation Power Plant in Unit- I will be kept standby and power will be sourced from proposed co-generation power plant and chemical recovery boiler in Unit- II.</i>			

9.0 After expansion, total power requirement will be 4.0 MW which will be sourced from proposed co-generation power plant and chemical recovery boiler in Unit- II. The company has D.G. Sets of 2*1000 KVA and 2*500 KVA capacity which will be used as startup power source.

10.0 Proposed raw material and fuel requirement for expansion project are bagasse, wheat straw, mixed hard wood/waste paper and ready pulp as main raw material, chemicals (Caustic soda, Rosin, Alum) and Rice Husk/pith as fuel for boiler. The requirement would be fulfilled by nearby agriculture land for main raw material and nearby markets for chemicals. Fuel requirement would be fulfilled by nearby agricultural land.

11.0 Existing fresh water requirement is 2430 KLD. After expansion, additional fresh water requirement will be 2070 KLD and total fresh water requirement will be 4500 KLD. Waste water generation after expansion will be 3476KLD. Of total tertiary treated waste water in Effluent Treatment Plant, 200 KLD will be reused by sprinkling on bagasse stacks, greenbelt development, dust suppression and remaining 3276 KLD will be discharged in the nearby drain. Domestic waste water will be treated by 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 related activity.

13.0 EIA Consultant Organization: J.M. EnviroNet Pvt. Ltd., S. No. in QCI List - "90" (as updated on 05th Sept., 2018)

Observations of the Committee:

14.0 The committee observed that the project proponent has made application for expansion of Unit-I and Unit-II separately. The committee advised for the recommendation of the combined ToRs for the unit –I and unit –II. The PP requested the committee to consider the units as separate units, as at present under respective heads of the profit centers. Therefore, the committee agreed for the request of the Project Proponent.

Recommendations of the Committee:

15.0 After detailed deliberations, the Committee considered the request made by project proponent and recommended the project proposal for prescribing ToRs along with 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. No treated and untreated effluents shall be discharged directly or indirectly to Ganga and its tributaries as per the Notification issued vide S.O.3187 dated 7th October 2016 by Ministry of Water Resources, River Development, and Ganga Rejuvenation.
- ii. Responsibility for ownership of the common facility in willing I and II shall be clearly demarcated in the EIA/EMP Report
- 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 and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.
- vi. Certificate compliance of conditions of the CTO from the Regional officer of the SPCB shall be submitted along with EIA/EMP.

36.9 Proposed Expansion of existing Steel Plant by installation of Sponge Iron Plant with 2x200 TPD DRI Kilns, 4x15 T Induction Furnaces, 400 TPD Rolling Mill & 8 MW capacity WHRB based Captive Power Plant located at Jamuria, MouzaIkra,

Jamuria Industrial Estate, Dist. Burdwan, West Bengal by M/s Calstar Sponge Limited [Online Proposal No. IA/WB/IND/77147/2018; MoEFCC File No. J-11011/655/2009-IA-II(I)] – Terms of Reference.

M/s Calstar Sponge Limited made application vide online proposal no. IA/WB/IND/77147/2018 dated 30th August 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(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” EIA Notification; 2006 and appraised at the Central Level.

Details submitted by Project Proponent:

2.0 M/s Calstar Sponge Ltd. proposes to expand existing manufacturing unit by installation of Sponge Iron Plant with 2x200 TPD DRI Kilns, 4x15 T Induction Furnaces, 400 TPD Rolling Mill & 8 MW capacity WHRB based Captive Power Plant. It is proposed to set up the plant for production of 1,20,000 TPA Sponge Iron, 1,80,000 TPA liquid steel (1,76,500 TPA Billets), 1,20,000 TPA (400 TPD) TMT Bars and 8 MW power from WHRB based Captive Power Plant.

3.0 The existing project was accorded environmental clearance by State Level Environment Impact Assessment Authority (SEIAA), West Bengal vide Memo. No. EN/2098/T-II-1/045/2009 dated 7th August, 2009 and Environmental Clearance from State Level Environment Impact Assessment Authority (SEIAA), West Bengal vide Memo. No. EN/332/T-II-1/045/2009 dated 3rd February, 2010 and Environmental Clearance from Ministry of Environment & Forests, Govt. of India vide F. No. J-11011 / 655 / 2009- IA II (I) dated 20.05.2011. Consent to Operate was accorded by West Bengal State Pollution Control Board vide Memo No. 895-WPBA/Red(Bwn)/Cont(595)/08(Part-II) dated 07.07.2017 having validity upto 30.11.2017. This CTO was renewed vide Memo. No. 1974/WPBA/Red (Bwn)/ Cont (595)/08 (Part-II) dated 30.11.2017. Validity of CTO is up to 31.07.2022.

4.0 The proposed unit is located at J.L. No. – 38, Jamuria, Mouza – Ikra, Jamuria Industrial Estate, P.S. – Jamuria, Dist. Paschim Burdwan, West Bengal.

5.0 The proposed expansion project will be installed within the existing plant premises occupying total land area of 7.81 hectares (19.29 acres). No forest land involved. The entire land has been acquired for the project.

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. 90 Crores. Proposed employment generation from proposed project will be 220 in total in the operational phase.

8.0 The targeted production capacity of the proposed Sponge Iron Plant with 2x200 TPD DRI Kilns is 1,20,000 TPA Sponge Iron, 4x15 T Induction Furnaces (with matching LRF & CCM) - 1,80,000 TPA liquid steel (1,76,500 TPA Billets), Rolling Mill – 1,20,000 TPA (400 TPD) TMT Bars and 8 MW capacity WHRB based Captive Power Plant. The ore transportation

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will be done through Rail & Road. The existing as well as proposed capacity for different products are as below:

Unit	Existing Unit under Operation as per NOC dated 21.02.2007	Units under implementation / to be Implemented		Proposed Units Capacity	Total Units Capacity	Product
		As per EC obtained from SEIAA, West Bengal dated 07.08.2009 & 03.02.2010	As per EC obtained from MoEF&CC, New Delhi dated 20.05.2011			
Sponge Iron Plant	2x100 TPD (72,000 TPA)	-	2x100 TPD (60,000 TPA) (Under Construction)	2x200 TPD (1,20,000 TPA)	4x100 TPD + 2x200 TPD (2,52,000 TPA)	Sponge Iron
SMS Induction Furnaces (with matching LRF & CCM)	-	1x8 T (24,000 TPA)	-	4x15 T (1,80,000 TPA)	1x8 T + 4x15 T (2,04,000 TPA)	Liquid Steel
Rolling Mill	-	240 TPD (72,000 TPA)	-	400 TPD (1,20,000 TPA)	640 TPD (1,92,000 TPA)	Rods, Bars, Light Structural
Ferro Alloy Plant	-	-	2 x 9 MVA Submerged Arc Furnaces (30,000 TPA)	-	2 x 9 MVA Submerged Arc Furnaces (30,000 TPA)	Ferro Manganese & Silico Manganese
Captive Power Plant	-	9 MW (4 MW WHRB based & 5 MW AFBC based)	8 MW (4 MW WHRB based & 4 MW AFBC based)	8 MW (WHRB based)	25 MW (16 MW WHRB based & 9 MW AFBC based)	Power

9.0 The electricity load of 31.5 MW which will be met from the proposed Captive Power Plant and the rest would be sourced from the State grid.

10.0 Proposed raw material and fuel requirement for major products of the project are as follows:

Sl. No.	Raw Materials	Annual Requirement (In TPA)	Source
SPONGE IRON PLANT (2x200 TPD)			
1.	Iron Ore	2,30,000	Orissa
2.	Imported Coal	1,87,200	South Africa
3.	Lime Stone	4,608	Market
INDUCTION FURNACES (4x15 T)			
1.	Sponge Iron	1,60,000	In House DRI Plant
2.	Scraps	26,000	In House Plant & Market
3.	Pig Iron	30,000	Market
4.	Ferro Alloys	1550	In House Plant

11.0 Water Consumption for the proposed project will be 225 kld (Industrial daily make-up water – 215 KLD, domestic water – 10 KLD). Domestic waste water will be treated in septic tank-soak pit system and industrial waste water generated will be treated in water treatment facility and reused completely.

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 Consultant Details: Envirotech East Pvt. Ltd., NABET Accreditation as per QCI NABET list of 5th September, 2018: Sl. No. 54, Page No.: 53, Sector No. 8, Metallurgical Industries (Ferrous & Non-ferrous) - both Primary & Secondary, Category-A

Observations of the Committee:

14.0 The Committee noted that M/s Calstar Sponge Limited has revised the proposed unit configurations of induction furnaces which are different from the online application submitted to the Ministry. The Committee also noted that existing 2x100 TPD sponge iron units have been installed based on the NOC dated 21/02/2007 and no prior environmental clearance have been obtained from the Competent Authority concerned.

Recommendations of the committee:

12.0 After detailed deliberations, the Committee deferred the consideration of the proposal and asked the project proponent to submit revised unit configuration details of induction furnaces along with revised Form-I and pre-feasibility report.

36.10 Proposed Installation of Induction Furnace for Production of 2,00,000 TPA M.S. Billets located at Village – Khupri, Tahsil – Wada, District – Palghar, Maharashtra by M/s Regency TMT Private Limited [Online Proposal No. IA/MH/IND/77451/2018; MoEFCC File No. IA-J-11011/293/2018-IA-II(I)] – Terms of Reference.

1.0 M/s Regency TMT Private Limited has made online application vide proposal no. IA/MH/IND/77451/2018 dated 27th September 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(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. Regency TMT Private Limited proposed to install a new manufacturing unit for 5,00,000 TPA M.S. Billets. It is proposed to set up the plant for M.S. Billets based on Induction Furnace technology.

3.0 The proposed unit will be located At Gut No 13/2, 13/4, 15/2, 15/3, Village – Khupri, Tahsil – Wada, District – Palghar, State – Maharashtra.

4.0 The land area acquired for the proposed plant is 5.0 Ha. No forest land involved. The entire land has been acquired for the project. Of the total area 5.0 ha (33%) land will be used for green belt development.

5.0 The proposed boundary of Tansa Wild Life Sanctuary is located at a distance of 1.18 KM from the site. The existing boundary of Eco-sensitive Zone of Tansa Wild Life Sanctuary is located at a distance of 9.0 KM from the site.

6.0 Total project cost is approx. Rs. 180 Crores. Proposed employment generation from proposed project will be 350 direct and indirect employment.

7.0 The targeted production capacity of the M.S. Billets is 5,00,000 TPA. The proposed capacity for M.S. Billets for new site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Induction Furnace	8	4 x 15 TPH 4 x 30 TPH	5,00,000

8.0 The electricity load of 30 MW will be procured from State Electricity Board.

9.0 Proposed raw material for project are Sponge Iron, M.S. Scrap. The requirement would be fulfilled by vendors as well as Open Market. Fuel consumption will be Electricity.

10.0 Water Consumption for the proposed project will be 160 KLD and waste water generation will be 40 KLD. About 14 m³/day domestic wastewater will be treated in Packaged Type STP and industrial waste water generated will be treated in settling tank and reused in process.

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

12.0 Consultant: Pollution and Ecology Control Services (PECS) Listed at no. 118 in QCI List

Observations of the Committee:

13.0 The committee observed that the Tansa Wild Life Sanctuary is located at a distance of 1.18 KM from the proposed project site and attracts the provisions of ESZ Notification.

Recommendations of the committee:

14.0 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;**

1. The PP shall obtain approval from the Standing Committee for National Board for Wildlife and same shall be submitted along with EIA/EMP Report
2. No ground water shall be extracted for the industrial purpose. The PP shall plan for meeting the requirements from the surface / rain water source.
3. Action Plan for 100% utilization of solid waste generated shall be submitted along with the EIA/EMP. No dumping in the premises is allowed.
4. The PP shall plan for Zero Liquid Discharge.
5. Public Hearing to be conducted by the concerned State Pollution Control Board.
6. 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.
7. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018.

36.11 Expansion of existing plant from 62,400 TPA Billet production to 207,900 TPA Rolled production by Modification of Existing 2x8 Tons Induction Furnaces with 2x10 Tons, Installation of 2x15 Ton Induction Furnaces with 1x15 Ton LRF, installation of 630 TPD Rolling Mill with Producer Gas Plant of Capacity 2,850 Nm³/hr. & 100 TPD Cold Drawing Complex located at Nakrajoria, PS- Salanpur, Dist: Burdwan (W), West Bengal by M/s Chhabra IspatPvt. Ltd. (CIPL) [Online Proposal No. IA/WB/IND/77591/2018; MoEFCC File No. J-11011/376/2010-IA.II(I)] – Terms of Reference.

1.0 M/s Chhabra IspatPvt. Ltd. (CIPL) has made online application vide proposal no. IA/WB/IND/77591/2018 dated 3rd September 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(a) Metallurgical industries (ferrous & nonferrous) under category 'A' of the Schedule of EIA Notification, 2006 and the proposal is appraised at the Central Level.

Observations of the Committee:

The proposal was already considered in the 35th meeting of Expert Appraisal Committee held during 17th – 18th September, 2018 and the committee recommended for grant of ToR.

Recommendations of the committee:

After detailed deliberations, the Committee re-iterated the recommendation made in the earlier meeting.

36.12 Proposed expansion of existing Steel Plant by installation of Sponge Iron Plant with 5x100 TPD DRI Kilns, 4x15 T Induction Furnaces, 50 TPH Coal Washery, Iron Ore Beneficiation & Palletization Plant & 22 MW capacity Captive Power Plant along with the product mix change of existing 2x7 MVA Submerged Arc furnaces Located at Mangalpur Industrial Complex, P.O.-Baktarnagar, P.S. Raniganj, District – Burdwan, West Bengal by M/s JAI BALAJI INDUSTRIES LIMITED [Online proposal No. IA/WB/IND/77814/2018; MoEFCC File No. IA-J-11011/290/2018-IA-II(I)] – Terms of Reference.

The project proponent has made request vide his letter dated 3rd October, 2018 that they are not in a position to attend the EAC meeting due to unavoidable circumstances and requested to consider in the month of November. Therefore, the proposal is deferred.

36.13 Setting up of a Greenfield Integrated Steel Plant of 0.7 MTPA with Captive Power Plant of 70 MW in in Dhasal, Jamuria at Paschim Bardhaman in West Bengal by M/s Spintech Tubes Private Limited (STPL)[Online proposal No. IA/WB/IND/78705/2018; MoEFCC File No. IA-J-11011/295/2018-IA-II(I)] – Terms of Reference.

1.0 M/s Spintech Tubes Private Limited (STPL) made application vide online proposal no. **IA/WB/IND/78705/2018** dated 25th September 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(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006 and appraised at Central Level.

Details submitted by the project proponent:

2.0 M/s. Spintech Tubes Private Limited proposes to install a new manufacturing unit for Integrated Steel Plant with Captive Power Plant. It is proposed to set up the plant for producing 0.7 MTPA rolled product with captive power plant of 70 MW capacity based on BF/DR-IF/EAF-Caster technology.

3.0 Proposed project is a Greenfield project, hence no environmental clearance/Consent to Operate was accorded by MoEFCC/ West Bengal Pollution Control Board.

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4.0 The proposed unit will be located at Villages: Dhasal, Bahadurpur & Mamudpur, Taluka: Jamuria, District: Paschim Bardhaman, State: West Bengal.

5.0 The land area acquired for the proposed plant is 97.16 Ha out of which 8.65 ha is an agricultural land, no grazing land and 88.51 Ha is others (14.17 Ha is Government Land). No forestland involved. The entire land has been not acquired for the project. Of the total area 32.06 ha (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 3200 Crore rupees. Proposed employment generation from proposed project will be 1150 direct employment and 4000 indirect employment.

8.0 The targeted production capacity of the Integrated Steel Plant is 0.7 MTPA rolled products & 70 MW captive power. The ore for the plant would be procured from Joda-Barbil and Koira & Sundargarh mines region, Odisha. The ore transportation will be done through Rail and then by Road. The proposed capacity for different products for new site area as below:

Sl. No.	Name of Unit	No. and Capacity of Unit	Production MTPA	
1	Iron Ore Grinding Unit	1.2 MTPA	1.186	
2	Pellet plant	1 x 1.13 MTPA	1.13	
3	Sinter plant	1 x 60 m sq.	0.62	
4	DRI plant (coal based)	3 x 500 TPD	0.495	
5	Blast furnace	1 x 350 cum	0.367	
6	Submerged Arc Furnace	1 x 12 MVA (FeCr), 1 x 12 MVA (FeMn, SiMn)	0.0466	
7	Chrome Ore Briquetting Plant	1 x 10 TPH	0.041	
8	Steelmaking Shop (SMS)	4 x 25 t IF 1 x 50 t LF	1 x 50 t EAF 1 x 50 t LF	0.729
9	Caster Shop	Billet Caster - 1 x 3 strand Billet/Bloom Caster - 1 x 3 strand	0.712	
10	Mill	Bar mill - 1 x 0.25 MTPA Wire Rod Mill - 1 x 0.25 MTPA Wire drawing facility with 50% hot dip galvanizing - 0.03 MTPA Structural Mill with hot dip galvanizing - 1 x 0.2 MTPA	0.699	
11	Captive Power Plant	BF gas based - 10 MW DR kiln off gas based WHRB - 37.5 MW Char & Coal based AFBC boiler - 22.5 MW	70MW	
12	Air Separation Plant	1 x 180 TPD	180 TPD	

9.0 The electricity load of 77 MW will be procured from India Power Corporation Limited and also there will be a captive generation of 70 MW power (BF gas based 10 MW, DR kiln off

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gas based WHRB 37.5 MW & Char/Coal based AFBC boiler 22.5 MW). Company has also proposed to install adequate number of DG Sets for exigencies.

10.0 Proposed raw material requirement for project are as follows:

Sl. No.	Major Raw materials	Estimated Quantity, tons	Likely source	Mode of Transport
1	Coke	219,920	Merchant cokery in India/abroad	Rail/Sea/ Road
2	Anthracite	18,384	International market	Sea
3	Non coking Coal	400,950	International market	Sea/Rail/ Road
4	Iron ore fines	1,597,228	Procured from the Joda-Barbil and Koira & Sundargarh mines region, Odisha	Rail/Road
5	PCI coal	36,750	International market	Sea
6	Limestone	73,287	Purchased from mines in Sundargarh district, Odisha or quarries in Jukehi-Katni-Niwar area in Central India	Rail/Road
7	Calcined lime	48,132	Domestic	Rail/Road
8	Dolomite	82,698	Purchased from mines in Sundargarh district, Odisha & Baradwar regions in Chattisgarh	Rail/Road
9	Chrome Ore Fines	37.106	Procured from the mines in Sukinda regions, Odisha	Rail/Road
10	Chrome Ore lump	7,236	Procured from the mines in Sukinda regions, Odisha	Rail/Road
11	Manganese Ore	56,968	Procured from the mines of Manganese Ore India Limited (MOIL) in MP & Odisha.	Rail/Road
12	Steam coal	143,416	Domestic	Rail/Road
13	Bentonite	11,724	International market	Sea/Rail/ Road
14	Quartzite	21,395	Procured from Chaibasa, Ranchi and Hazaribagh areas of Jharkhand	Sea/Rail/ Road

11.0 Apart from the major raw materials mentioned below, other materials like hydrated lime, molasses, quartz fines, electrode paste, fluorspar, zinc would also be required. Fuel consumption will be mainly char, steam coal, BF gas, fuel oil and propane.

12.0 Water Consumption for the proposed project will be 276 cum/hr (source - Ajay River & Asansol Municipal Corporation) and waste water generation will be 65 cum/hr. Domestic waste water will be treated STP and industrial waste water generated will be treated in CETP and reused in makeup water.

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

14.0 Name of the consultant – M. N. Dastur & Co (P) Limited. Sl. No. in the QCI list – 99 (Rev. 69 dated 05 September 2018)

Observations of the Committee:

15.0 After detailed deliberations, the Committee observed that the proposed site is consisting of water logged area and agricultural land surrounded by streams /nallah. In view of this, the Committee has desired to know the site specific details. Land use pattern supported by maps/documents for further deliberation on the proposal. The Committee also advised to explore the alternative sites for setting up of the proposed plant.

Recommendations of the Committee:

16.0 After detailed deliberations, the Committee advised to submit the site specific details. Land use pattern supported by maps/documents for further deliberation on the proposal.

36.14 Capacity Enhancement of Steel Manufacturing Unit by Replacing Existing Induction Furnaces and Enhance production capacity from 45,000 MTPA to 1,40,000 MTPA by M/s Vardhman Ispat Udyog Located at Village Bathri, Dist. Una, State-Himachal Pradesh [Online proposal No. IA/HP/IND/78812/2018; MoEFCC File No. IA-J-11011/291/2018-IA-II(I)] – Terms of Reference.

1.0 M/s Vardhman Ispat Udyog made application vide online proposal no. **IA/HP/IND/78812/2018** dated 13th September 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(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” EIA Notification; 2006 and appraised at Central Level.

Details submitted by the Project Proponent:

2.0 M/s Vardhman Ispat Udyog proposes to install a new manufacturing unit of Steel at Village Bathri, Distt. Una (HP). M/s Vardhman Ispat Udyog acquired M/s H.N Steel & M/s S.R. Steel along with Rakesh Kumar’s land (10199 sq.m) in the village Bathri and formed a new unit. M/s. H. N. steel has induction furnaces of capacity of 4T & 6T and M/s. SR Steel has only

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rolling mill, both these units were located adjacent to each other at Village Bathri district Una Himachal Pradesh.

3.0 The existing project was accorded environmental clearance vide lr.no. NA dated NA Consent to Operate was accorded by Himachal Pradesh State Pollution Control Board vide lr. no. HPSPCB /PCB-ID10611 (H N Steel) & HPSPCB /PCB-ID10264 (S R Steel) validity of CTO is up to 31.03.2009 and 31.03.2023 respectively.

4.0 The proposed unit will be located at. Village: Bela Bathri, Taluka: Haroli, District: Una, State: Himachal Pradesh.

5.0 The land area acquired for the proposed plant is 2.7 Ha. No forestland involved. The entire land has been acquired. Of the total area 0.8 ha (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. 30.38 Crore rupees. Proposed employment generation from proposed project will be 184 direct employment and indirect employment.

8.0 The targeted production capacity of the 45,000 is 1,40,000 MTPA. The ore for the plant would be procured from (linkages Open Market). The ore transportation will be done through Road (Rail/Road/Conveyor/Slurry Pipeline).

9.0 The electricity load of 9925 KW will be procured from Himachal Pradesh State Electricity Board Company has also proposed to install 125 & 250 KVA DG Set.

10.0 Proposed raw material and fuel requirement for project 1,47,000 MTA are. The requirement would be fulfilled by Open Market as well as HSD Fuel consumption will be mainly DG Set.

11.0 Water Consumption for the proposed project will be 31 KLD (10 KLD (Domestic)+ 21 KLD (Industrial)) and waste water generation will be 8 KLD Domestic waste water will be treated in Proposed STP 10 KLD and industrial waste water generated will be treated and reused within the plant premises after neutralization and addition of makeup water.

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 EIA Consultant:Shivalik Solid Waste Management Limited, Accredited EIA Consultant by NABET (QCI), SCO 20-21, II floor, Near Hotel Dolphin, Baltana, Zirakpur (Punjab)

Observations of the Committee:

14.0 After detailed deliberations, the Committee noted the Vardhman Ispat Udyog (VIU) is undergoing backward integration with the proposed purchase of 2 plants (Land & Building, Plant

& Machinery, Stocks & Receivables) namely; M/s H.N. Steel Casting Pvt. Ltd and S.R. Steel along with the Land of Mr. Rakesh Kumar in Village Bathri, Distt. Una (HP). However, it was noted that Vardhman Udyog has no legal ownership on the proposed companies to be expanded. Therefore, the Committee advised to obtain a legal ownership first on the proposed firm and may approach Ministry for Terms of Reference. Therefore, the proposal is returned in the present form

Recommendations of the Committee:

15.0 Therefore, the proposal is returned in the present form

36.15 Proposed Cement project for enhancement of production capacity (2000 TPD) by M/s Trumboo Industries Pvt. Ltd. (TIPL) village-Khrew, Tehsil-Pampore, District Pulwama, State J & K. by M/s Trumboo Industries Private Limited [Online proposal No. Proposed Cement project for enhancement of production capacity (2000 TPD) [Online proposal No. IA/JK/IND/53478/2016; MoEFCC File No. J-11011/204/2016-IA-II] – amendment in ToR for Change in layout plan due to change in land area. 2. Change in project cost 3. Annual production instead of daily production.

The proposal was considered in the last EAC meeting i.e. 35th EAC meeting held during 17th -18th September, 2018 However, the Project Proponent did not attend the meeting. Again, the project proponent informed through e-mail that they are not in a position to attend due to prevailing situation in the state. Therefore, the committee deferred the proposal. The proposal may be considered after submission of request by the project proponent.

10th October, 2018

36.15 Expansion of Cement Plant with increase in production of Clinker from 2.0 to 4.81 and Cement from 2.35 to 5.00 MTPA & Installation of 2x18 MW coal based Thermal Power plant along with 22 MW Waste Heat Recovery based Power Plant at Mattampally Village, Matampally Mandal, Suryapet District, Telangana State of M/s Sagar Cements Limited [Online proposal No. IA/TG/IND/78600/2006; MoEFCC File No. J-11011/379/2006-IA-II (I)] – Environmental Clearance.

1.0 M/s Sagar Cements Limited made online application vide proposal no. **IA/TG/IND/78600/2006** dated 12th September, 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(b) Cement Plants under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by Project Proponent:

2.0 M/s **Sagar Cements Ltd (SCL)**, is operating a Cement Plant near Mattampally Village & Mandal, Suryapet District, Telangana State. The Terms of Reference application was initially received online on 14.08.2016 vide Application No. IA/TG/IND/67426/2017. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 22nd meeting of in

Sep, 2017 and prescribed Terms of Reference (ToR) to the project for undertaking detailed EIA study for obtaining Environmental Clearance. Due to change in capacities of production in the existing units through Modernization, SCL submitted proposal for Amendment of the Terms of References. In this connection SCL has submitted application through MoEF website on 17.02.2018 Vide Application No. IA/TG/IND/67426/2017 for Amendment in Terms of Reference. . The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 29th meeting of EAC March, 2018 and issued amendment for Terms of Reference (ToR) for undertaking detailed EIA study for obtaining Environmental Clearance vide letter No. **J-11011/379/2006-IA-II (I)** Dt. 28/03/2018. Due to correction in proposed capacities, request for ToR Corrigendum was submitted by SCL on 12.04.2018. Accordingly, the Ministry of Environment, Forest and Climate Change had issued ToR Corrigendum to the project vide letter No. J-11011/379/2006-IA.II (I) dated 15.06.2018.

3.0 M/s Sagar Cements Ltd (SCL) is operating Cement Plant located at Mattampally Village & Mandal, Suryapet District, Telangana. Present proposal is for increasing Clinker production capacity from 2.0 to 4.81 MTPA by modernization of existing Unit I & II and installation of New unit i.e. Unit III of 2.0 MTPA clinker capacity; cement production capacity of the plant will be enhanced from 2.35 to 5.0 MTPA. Power requirement of the Cement is presently met from existing 7 MW Waste Heat Recovery Based Power plant and Grid. To support cement plant and as part of expansion SCL proposes to increase power generation capacity from 7 to 58 MW by installing 2 X 18 MW Coal Based Power Plant along with one more Waste Heat Recovery Based Power Plant of 15 MW capacity (WHRB PP). The existing project was accorded Environmental Clearance vide Lr.No. J-11011/379/2006-IAII(I) dated 2nd April 2007. The Status of compliance of earlier EC was obtained from Regional Office, Chennai vide Lr. No.EO/12.1/545A/AP/600, dated: 25.04.2018. There are no non-compliances reported by Regional officer. The proposed capacity for different products are as below:

Cement plant	Before Expansion			After expansion		
	Clinker (MTPA)	Cement	Power (MW)	Clinker (MTPA)	Cement	Power (MW)
Unit –I	0.50	0.30	7.0 (WHRB CPP)	0.66	0.30	58 MW (addition of 2x18MW Coal based CPP +15 MW WHRB CPP)
Unit –II	1.50	2.05		2.15	3.00	
Unit –III	0.00	0.00		2.00	1.70	
Total	2.00	2.35		4.81	5.00	

4.0 The Cement plant is presently located in an area of 61 Ha and after expansion the total area of the cement plant will be increase to 86 Ha (an additional area of 25 Ha will be used for expansion) in the jurisdiction of Mattampally Village & Mandal, Suryapet District, Telangana State which is owned by SCL.No forest land involved. No River passes through the project area. No perennial water bodies are present which needs modification/diversion.

5.0 The topography of the area is gently undulating with Lateritic soils and reported to lie between 16°45'39.98"N to 16°46'21.63"N latitude and 79°51'27.43"E to 79°52'4.06"E Longitude in Survey of India topo sheet No. 56/P/13, at an elevation of 84 m above msl. The ground water table reported to range between 5-60 m below the land surface. No ground water will be used for

the plant. The stage of development below 70% is considered safe. The present stage of development up to 36.07 %. The present study area is in “SAFE” category.

6.0 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc., are reported to be located in 10 km radius of the study area. The nearest Reserved forest is Sultanpur RF at 1.8 km in the SW direction. During the ecological studies, No, Schedule – I species are observed.

7.0 The major raw material used in the manufacture of cement is Limestone. The limestone requirement of the plant after expansion will be met captive limestone mines i.e., from the existing mine (Mine – ML-1, ML-2 & ML-3) and New Captive Limestone Mines of SCL. The following table shows the present and proposed raw material consumption in the cement plant:

Raw Material		Before Expansion (TPA)	After Expansion (TPA)	Source	Mode of Transport
Limestone		3.30	7.2	3.30 MTPA from Existing Captive Limestone Mine – ML-1	Conveyor
				3.9 MTPA from New Captive Limestone Mines (ML-2 & ML-3)	Road & Conveyor
Limestone – CPP For control of SO ₂			0.013	New Captive Limestone Mines	Conveyor
Iron ore		0.06	0.144	Bellary	Railway
Laterite		0.06	0.144	Rajahmundry	Railway
Gypsum		0.12	0.25	EID Parry India Ltd., Chennai & Coramandel Fertilizers Ltd., Vizag	Trucks / Railway
Coal / Petcoke	Cement Plant	0.36	0.86	Singareni Collieries Company Ltd/ Imported Coal/ Petcoke from USA	Trucks / Railway
	CPP	-	0.22		
Fly ash		0.20	1.5	<ul style="list-style-type: none"> • 1.41 from Power plants of VTPS, KTPS, NTPC and ITC. • 0.08 from SCL Captive Power plant and 	Road

8.0 The plant is designed to manufacture cement by adopting the dry process technology. The process involves inter alia including Limestone Mining; Limestone Crushing; Stacking & Reclaiming; Raw material grinding; Coal Crushing & Grinding; Pyro-Processing; Cement Grinding; Cement Packing. SCL proposes to increase power generation capacity from 7 to 58 MW by installing 2 X 18 MW Coal Based Power Plant along with 15 MW Waste Heat Recovery Based Power Plant (WHRB PP). Power generation process is based on Rankine Steam cycle. The steam generated in the boiler when expanded through a turbine, turns the turbine shaft, which in tandem is coupled to an electric power generator.

9.0 The coal requirement after expansion will be obtained from Singareni Collieries Company Ltd/ Imported Coal/ Petcoke from USA. The existing railway siding will be used for transportation of coal to the proposed Captive Power Plant. The cement/clinker produced from SCL Plant after expansion will be transported by rail/road. For transport of other raw material, SCL will ensure that all the trucks employed are “Environmentally Compliant”.

10.0 The present water requirement of the plant including colony is about 1300 m³/day is sourced from Mine Pit and Bore wells. For the expansion phase, additional water consumption of 1000 m³/day is required. The source of water for this additional quantity is bore well and mine pit. SCL has obtained necessary permission for water drawal of 453.2 m³/day from Borewells from the Mandal Revenue Officer (Tahisildar), who is the sanctioning Authority under WALTA Act.

11.0 The peak power consumption in the SCL Cement plant complex including mine is 25 MW. This requirement is met from Grid and WHRB Power Plant. Additional power required is about 35 MW and the same will be sourced from existing 7 MW WHRB CPP and proposed 15 MW WHRB CPP and 2 X 18 MW Coal Based CPP Power plant.

12.0 Baseline Environmental Studies were conducted during Post monsoon Season i.e. from October 2017 to December 2017, Ambient air quality monitoring has been carried out at 8 locations during October'17, November'17 and December '17 and the data submitted indicated: PM10 (51.9 to 60.4 µg/m³), PM2.5(21.8 to 31.9 µg/m³), SO₂ (11.3 to 13.9 µg/m³) and NO₂ (12.5 to 15.0 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 7.37µg/m³ with respect to the PM10, 5.86µg/m³ with respect to the SO₂ and 15.9µg/m³ with respect to the NO_x.

13.0 Ground water quality has been monitored in eight locations in the study area and analysed. For Ground water samples pH: 7.09 to 7.19, Chlorides: 63 to 330 mg/l, Fluoride: 0.49 to 1.0 mg/l. Heavy metals are within the limits. Surface water sample was analyzed in six locations. pH: 7.39 to 8.37, Chlorides: 60 to 421 mg/l, Fluoride: 0.65 to 1.15 mg/l, Heavy metals are within the limits.

14.0 Noise levels are in the range of 53.9 to 50.4dB(A) for daytime and 43.8 to 40.1dB(A) for nighttime in 10 KM Study Area.

15.0 The total area of cement plant is owned by SCL. Additional area required is also own land of SCL, no Rehabilitation and Resettlement is involved. Thus no adverse impact is anticipated.

16.0 The major solid waste management inter alia include i) Solid waste generated from colony is disposed after segregating the waste into bio-degradable and non-degradable; ii) Bio degradable waste – Composting; iii) Non-degradable waste - land filled at within plant site; iv) STP sludge will be used as Manure in the Plantation work; v) SCL is storing hazardous waste in an isolated storage area with covered shed is provided within plant site with all safety precautions of handling; and v) Ash generated from proposed power plant will be totally consumed in the cement plant.

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17.0 The Telangana State Pollution Control Board (TSPCB) issued the Water & Air consent to operate renewal for the existing production capacity i.e. Clinker-2.0 MTPA, Cement-2.35 MTPA vide letter no. TSPCB/RCP/NLG/CFO/HO/2017-3408 dated 14.03.2017, and consent is valid up to 31.01.2022 and also TSPCB issued the Water & Air consent to operate renewal for the existing capacity i.e. WHRB CPP 7 MW, vide letter no. TSPCB/RCP/NLG/CFO/HO/2017-1572 dated 29.08.2017 valid up to 31.01.2022

18.0 The Public hearing of the project was held on 09.08.2018 by Telangana State Pollution Control Board near Existing plant under the Chairmanship of Joint Collector & Additional District Magistrate Sri. D. Sanjeeva Reddy, for Proposed expansion of Cement plant to increase in production capacity of Clinker from 2.0 MTPA to 4.81 MTPA and Cement production from capacity 2.35 MTPA to 5.0 MTPA by new Line-III and Power Generation from 7 MW to 58 MW by Installation of 2X18 MW Coal Based Thermal power plant along with 22 MW Waste heat Recovery based power plant. The issues raised during public hearing along with action plan and budget allotment are addressed in Final EIA report. Summary of the Public hearing issues along with action plan and budget are given below:

S.No	Issues Raised In Public Hearing	Response Of The Project Proponent After Public Hearing	Time Bound Action Plan	Budgetary Provision
1.	Anticipated the industry to undertake development work to get the support of the local people.	Development activities will be continued.	Providing skill development centre at Mattampally with training facilities for 20 people	Rs 110 Lakhs allotted for skill development under CER budget
2.	Appealed to the industry to regularize the services of contract workers and felt that only employees knew the value of jobs.	Contract workers regularisation will be considered for regular employment.	-	-
3.	Control of Air and Noise pollution became possible with the adoption of latest technologies the Technical Consultant and expect the industry to implement the pollution abatement measures.	State of Art technology will be adopted for the expansion.	-	Rs 80 Crores has been proposed towards EMP Budget
4.	Requested the industry to conduct the medical camps once in three months periodically.	Medical camps will be conducted for every three months	Diagnostic facilities at Pedaveedu Construction of	Rs 130 Lakhs allotted for Health Care under CER

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			Primary Health Centre (PHC)	budget
5.	Proposed expansion of the existing unit. He stated that the industry laid roads and supplied safe side drinking water plants to the villages. 5-10 members were engaged to train them for 2 years in the plant.	Locals will be preferred for employment.	Providing skill development centre at Mattampally with training facilities for 20 people Construction of elevated water tank and water pumping system at 5 thandas RO plants in 3 villages	Rs 110 Lakhs allotted for skill development under CER budget Rs 90 Lakhs allotted for Drinking water under CER budget
6.	Appreciated the gesture of the industry for constructing a school on 2 acres of land and Model School on 4 acres of land for the benefit of local people.	-	Providing infrastructure to Schools in Mattampalli and Pedaveedu Providing computers, Boundary walls for the model school, setting up of Library Building and Training centre	Rs 80 Lakhs allotted for Education under CER budget
7.	Proposed expansion as the lands of tribal people and their crops were affected due to dust pollution. He alleged that growth of crops were stunted, consequently, the yield of the crops reduced. Dust pollution affected the health of the local people and posed problems like Pneumonia and diseases to their lungs. Doctors, RMP and other specialists are	The emissions are regulated to be well within norms. There was no complaint from locals about crop loss and low yield	-	Rs 80 Crores has been proposed towards EMP Budget

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	aware of the sufferings of the people living in the vicinity.			
8.	A study circle should be developed with library facilities and coaching to enable the local youth to secure better employment such as Civil services, Group-I and II services.	Library will be setup if the land is given by the panchayath Candidate aspiring for civil services will be encouraged with financial interest.	Setting up a Library building with all facilities Setting up a training centre for higher studies	Rs 80 Lakhs allotted for Education under CER budget
9.	There will be impact on all living beings and may be subjected to health problems. Particulate matter is a major concern in such kind of industries and that people are made to run towards hospitals. There should not be any sort of air, water and soil pollution. He appealed to the management of the industry to ensure that the environment should be maintained for survival of all living beings.	State of Art technology Pollution Control equipment will be erected. The emissions are regulated to be well within norms.	-	Rs 80 Crores has been proposed towards EMP Budget
10.	Appealed for employment to the SCs, STs and Minorities. Assurances given earlier should be implemented.	Employment for SCs and STs will also be provided.	-	-
11.	Industry terminated 100 women members from employment, who worked in the plant for the last 10 months and prevented their entry into the workplace demanded for re-employment to the terminated	Reemployment will be done shortly.	-	-

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12.	Raghunathapalem village are close to the factory. If at all any pollution is there, they will be the losers first. He made it clear that their village extend full support to the proposed project conceived by M/s Sagar Cements Limited.	Raghunathapalem also will be developed in similar lines.	-	-
13.	Thanked the management for extending their support in maintaining the Lift Irrigation equipment to benefit the people of the village.	The Lift schemes will be maintained.	Feeder channels extension	Rs 15 Lakhs allotted for Feeder Chanells under CER budget
14.	Bad odour problem was experienced by the local inhabitants earlier, which is controlled now.	Bad odour has nothing to do with the cement plant.	-	-
15.	There were no rains and attributed the low rainfall due to increase in temperatures and unabated pollution problem in this region. Quantum in the receipt of rainfall reduced after establishment of the industries.	The region receives good rainfall and also from the feeders. The agri.yield has improved over years. The greenbelt provided is acting as sink for CO2.	Feeder channels extension	Rs 15 Lakhs allotted for Feeder Chanells under CER budget
16.	Requested to provide infrastructure facilities in thandas.	The thandaas will be provided with the facilities like street lights,toilets,drinking water etc.	Laying of roads, in 5 thandas (each - 2 km length), Drainage, Street lights, in all 5 Thandas. Community centre construction in 1 thanda	Rs 110 Lakhs allotted for Roads and other infrastructures under CER budget
17.	Proposed increase in capacity of the existing	The forests in the vicinity are dry	-	-

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	unit of M/s SCL, he alleged that the entire forest area was destroyed by the industries. The people living in surrounding areas were subjected to dust, resulting in health problems. He contended that people were happy by grazing the cattle earlier. The tribals who are dependent on the nearby forest resources are affected, as plants and trees are mostly covered in harmful dust from the cement industry.	deciduous and were not effected by cement plant.		
18.	alleged that the industry illegally occupied the land belonged to his uncle and no compensation was ever paid to the owner of the land, despite several representations. Requested the management to render justice by paying compensation	None lost in the land acquisition. He may approach the Management for the grievance	-	-
19.	alleged that the industry is exploiting the ground water resulting in deprivation of water to the irrigation needs of the people. Farmers were not getting water to meet their irrigation needs and agriculture lands in surrounding area were affected due to extraction of water by the industry.	The water requirement is mostly met from minepit of 5,00,000 m ³ capacity which will be enhanced to 10,00,000 m ³ . Ground water will be used for domestic purpose only in future.	Feeder channels extension	Rs 15 Lakhs allotted for Feeder Channels under CER budget
20.	Emissions from the	Greenbelt is already		

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	Thermal Power Plant would be injurious to health and requested the management to take up avenue plantation extensively all along the roads.	developed with broad leaved species in an area of 20.5 Ha. And additional greenbelt of 8.5 Ha will be developed under the proposed expansion The greenbelt provided is acting as sink for CO ₂ .		
21	Appealed to establish a Gym to train up the local youth to enable them to join Police Department as the recruitment drive is going on. He requested the management to establish a hospital outside the premises of the factory so that the benefits will be accrued to the local villagers.	Primary Health Centre will be provided outside the factory gate. Skill development centre will be set up., for unemployed to impart training.	Diagnostic facilities at Pedaveedu Construction of Primary Health Centre (PHC) outside factory Exclusive Maternity wing in PHC Providing skill development centre at Mattampally with training facilities for 20 people	Rs 130 Lakhs allotted for Health Care under CER budget Rs 110 Lakhs allotted for skill development under CER budget

19.0 Corporate Environment Responsibility (CER) budget towards capital expenditure in accordance to the MoEFCC's office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018 for Social Welfare Measures has been worked out as per the following table:

Capital Cost Of Expansion Project (Rs Crores)	As per MoEFCC's office Memorandum # F.No. 22-65/2017-IA.III dated 01.05.2018		CER Budget (Rs Crores)
	Capital Investment/Additional Capital Investment (Rs)	Brownfield project - % of the additional capital investment	
100	< 100 crores	1.0	1.00
400	>100 crores to <500 crores	0.75	3.00
500	>500 crores to <1000 crores	0.50	2.50
Total			6.50

Summary of budget towards Corporate Environment Responsibility (CER) along with the activities

S.No	DESCRIPTION	Budget in Rs. Lakhs (for 3 years)
1	SwachhBharath	65

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2	Education	80
3	Women Welfare	20
4	Roads and other infrastructures	110
5	Drinking water	90
6	Skill development	110
7	Health Care	130
8	Veterinary	30
9	Others	15
	Total	650

DETAIL BREAKUP OF BUDGET TOWARDS CER ALONG WITH ACTIVITIES

S.No	Description of Activity	1 st Year	2 nd Year	3 rd Year
I	Swachh Bharath			
1	Construction of 20 Nos. of toilets in 5 thandas @ Rs. 2 lakh per toilet	20	10	10
2	Providing 100 Dust Bins & Trolleys for 5 thandas and 5 villages @ Rs. 1500 each.	10	5	0
3	Providing a common dung collection center in 3 villages	5	5	0
	Total (Rs in lakhs)	35	20	10
II	Education			
1	Providing infrastructure to Schools in Mattampalli and Pedaveedu	10	10	10
2	Providing computers for the model school	5	5	5
3	Boundary wall for model school	5	5	0
4	Setting up a Library building with all facilities	5	5	0
5	Setting up a training center for higher studies	10	5	0
	Total (Rs in lakhs)	35	30	15
III	Women Welfare			
1	Construction of building for self- group schemes at Mattampally and Pedaveedu	6	9	5
	Total (Rs in lakhs)	6	9	5
IV	Roads Development & other infrastructure			
1	Laying of roads in 5 Thandas (each - 2 km length)	20	26	30
2	Proper Drainage in all 5 Thandas	10	5	0
3	Street lights in all 5 Thandaas	3	3	3
4	Community centre construction in 1 thanda	5	5	0
	Total (Rs in lakhs)	38	39	33
V	Drinking water			
1	Construction of elevated water tank and water pumping system at 5 thandaas @ Rs 16 lacs	30	30	21
2	RO plants in 3 villages	3	6	0
	Total (Rs in lakhs)	33	36	21
VI	Skill Development			
1	Providing skill development centre at Mattampally with	40	40	30

S.No	Description of Activity	1 st Year	2 nd Year	3 rd Year
	training facilities for 20 people			
	Total (Rs in lakhs)	40	40	30
VII	Health care			
1	Construction of Primary Health Centre (PHC) outside factory	30	40	0
2	Diagnostic facilities at Pedaveedu	10	10	10
3	Exclusive Maternity wing in PHC	10	10	10
	Total (Rs in lakhs)	50	60	20
VIII	Veterinary			
1	Setting up a Veterinary centre at Mattampally	15	15	0
	Total (Rs in lakhs)	15	15	0
IX	Others			
1	Feeder channels extension	5	5	0
	Total (Rs in lakhs)	5	5	5

20.0 The cost of the proposed expansion is estimated to be about Rs. 1000 Crores which includes the cost of Environmental Management Plan of Rs. 80 crores. The annual recurring cost towards the Environmental Protection measures is proposed as Rs. 6.65 Crores.

Description	Capital Cost (Rs. in Lakhs)	Recurring Cost per annum (Rs. in Lakhs)
Upgradation of Air Pollution equipment – Unit-I & II	1200	200
Air pollution control equipment - Unit-III	4900	300
Air pollution control equipment - CPPs	1600	100
Effluent Treatment Plant - CPP	75	5
Rainwater harvesting – 20 pits	10	2
Greenbelt (additional GB in 8.5 Ha)	45	15
Waste Water – ETP for Power Plant	20	2.0
Sewage Treatment Plant	0	10.0
Environmental Monitoring	150	31
Total	8000	665

21.0 SCL proposes to recruit about 250 persons for operation of Unit – III and Coal based Thermal and WHR Power Plant.

22.0 SCL will be utilizing an additional area of 25.0 Ha which is own land for expansion. The total area of the plant after expansion will be 86.0 Ha. The required greenbelt as per norms is 33 % of the plant area which is about 29 Ha. SCL has already developed greenbelt in 20.5 Ha, under the expansion an additional area of 8.5 Ha will be developed under greenbelt. All the open

spaces have been utilized for plantation purposes. SCL have planted more than 1500 saplings per hectare.

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 Name of Environment Consultant: BS Envirotech, Hyderabad.

Recommendations of the committee:

25. After detailed deliberations, the Committee recommended for environmental clearance with following conditions:

A. Specific Conditions:

- i) The project proponent shall transport the lime stone from proposed mine lease area to the plant only by closed conveyer system.
- ii) Permission for drawl of water shall be obtained from the competent authority.
- iii) The CER shall address, *inter alia*, including the rain water harvesting in and around the plant premises.
- iv) No ground water shall be drawn for the expansion project.
- v) Plantation of additional 10,000 trees shall be carried in the plant premises, *inter alia*, including mine premises.
- vi) No pet coke shall be used for thermal power plant.

B. General Conditions:

I. Statutory compliance:

- i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- ii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. No. 612 (E) dated 25th S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Provide Low NO_x burners as primary measures and SCR /NSCR technologies as secondary measure to control NO_x emissions.
- xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
- xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

III. Water quality monitoring and preservation

- i. The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th

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August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories. (case to case basis small plants: Manual; Large plants: Continuous)

- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers / sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- vii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- viii. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- ix. The project proponent shall make efforts to minimise water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
- ii. Provide the project proponent for LED lights in their offices and residential areas.

- iii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

VI. Waste management

- i. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Greenbelt:

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. 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).
- xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

36.17 Installation of facilities for production of 3,600 TPA Low carbon Ferro Chrome and / or Low Carbon Ferro Manganese, 1200 TPA -Ferro Molybdenum & 1200 TPA Ferro Vanadium at NS-88, VIth Phase, Adityapur Industrial Area, Gamharia, District- Seraikela-Kharsawan, State-Jharkhand after dismantling of the existing hydrated lime unit at site by M/s Jamshedpur Chlorochem Private Limited [Online Proposal No. IA/JH/IND/67929/2017 MoEFCC File No. J-11011/459/2017-IA-II(I)] – Environmental Clearance.

1.0 M/s Jamshedpur Chlorochem Private Limited made online application vide proposal no. IA/JH/IND/67929/2017 dated 14th September, 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 and Non-ferrous) under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by Project Proponent:

2.0 The proposed project of M/s Jamshedpur Chlorochem Private Limited, located at Plot No. NS-88, VIth Phase, Adityapur Industrial Area, Gamharia, District Saraikela- Kharsawan, State - Jharkhand was initially received in the Ministry on 10.10.2017 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 23rd meeting held on 9 & 10th October 2017 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 13.10.2017 vide Lr.No. J-11011/459/2017-IA.II(I).

3.0 The project of M/s Jamshedpur Chlorochem Private Limited located at Plot No. NS-88, VIth Phase, Adityapur Industrial Area, Gamharia, District Saraikela- Kharsawan, Jharkhand is for setting up of a new unit for production of Low Carbon Ferro Alloys (Ferro Chrome and/or Ferro Manganese)-3600 TPA and Noble Ferro Alloys (Ferro Molybdenum-1200 TPA and Ferro Vanadium-1200 TPA). The latitude and longitude of the project site is 22° 47' 50.17" N 86° 07' 17.78" E respectively. The existing unit of hydrated lime will be dismantled. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Units	Product	Production Capacity (TPA)
Reactor	20	Low Carbon Ferro Alloys– Ferro Chrome and/or Ferro Manganese	3600
Roaster	1	Ferro Molybdenum Ferro Vanadium	1200
Jaw Crusher	1		
Pulverizer	1		
Mixer	1		
Total Production of Ferro Alloys			6000

4.0 The total land required for the project is 0.37 ha. No forest land is involved. The entire land has been acquired for the project. It has been reported that no water body exist 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 area is flat and reported to lies between 22° 47' 51.69" to 22° 47' 49.50" N Latitude and 86° 07' 17.43" to 86° 07' 16.35" E Longitude in Survey of India topo sheet No. 73J1 & 73J2 at an elevation of 160 m AMSL. The ground water table reported to ranges between 1.6 to 7.1 m bgl during the post-monsoon season and 5.23 to 12.20 m bgl during the pre-monsoon season. Further, the stage of groundwater development is reported to be as safe exploited 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 DFO, Saraikela Kharsawan vide letter No. 317 dated 08/02/2018 reporting presence of no /schedule-I fauna in the study area (Annexure- 12 of EIA).

7.0 The process of project showing the basic raw material used and the various processes involved to produce the final output are provided below.

S.N.	Final Product	Process
1	Low Carbon Ferro Manganese	Roasting of Mn Ore → Sizing of Mn Ore → Grinding of Mn Ore → Mixing and Batching of Raw Material → Reaction and product separation.
2	Low Carbon Ferro Chrome	Handling of Chrome Ore → Pre-heating of Chrome Ore → Mixing and Batching of Raw Material → Reaction and product separation
3	Ferro Vanadium	Raw material Feeding → Mixing of Raw material → Reaction and Product Separation
4	Ferro Molybdenum	Raw material Feeding → Mixing of Raw material → Reaction and Product Separation

8.0 The targeted production capacity of the Ferro Alloys is 6000 TPA. The ore for the plant would be procured from open market, Odisha, Ahmedabad etc. The ore transportation will be done through road.

9.0 The water requirement of the project is estimated at 2.5 m³ /day, which will be met through water supply by Adityapur Industrial Area development Authority (AIADA) or Drinking Water & Sanitation Department (DW&SD) Govt. of Jharkhand. The permission for drawl of water is obtained vide Lr. No. 187 date 17.07.2000.

10.0 The power requirement of the project is estimated at 133 KVA. The total power demand of the plant will be met from Jamshedpur Utility and Supply Company (JUSCO).

11.0 Baseline Environmental Studies were conducted during Post Monsoon Season i.e. from 01.10.2017 to 31.12.2017. Ambient air quality monitoring has been carried out at 8 locations during study period indicates: PM₁₀ (64.6 to 95.8 µg/m³), PM_{2.5} (26.1 to 56.5 µg/m³), SO₂ (5.2 to 16.2 µg/m³) and NO_x (19.4 to 46.3 µg/m³). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 1.14 µg/m³ with respect to the PM₁₀, 0.34 µg/m³ with respect to SO₂ and 0.36 µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.47 to 7.93, Total Hardness: 240 to 365 mg/l, Chlorides: 80.96 to 152.63 mg/L, Fluoride: 0.71 to 1.14 mg/L. Heavy metals are within the limits. Surface water samples were analyzed from 4 locations. pH: 7.32 to 7.84, DO: 5.8 to 6.9 mg/l and BOD: 10.47 to 18 mg/l. COD from 35.62 to 62.22 mg/l.

13.0 Noise levels are in the range of 50.84 to 72.58 dB(A) for day time and 41.62 to 63.73 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

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involved.

15.0 It has been reported that a total of approx. 13,491 TPA of waste will be generated due to the project, out of which approx. 30% will be used and remaining will be sold. It has been envisaged that an area of 0.105 ha 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 Consent to Establish / Consent to Operate from the Jharkhand State Pollution Control Board will be obtained after grant of Environmental Clearance.

17.0 The Public hearing of the project was held on 14.07.2018 at Seminar Hall of Adityapur Small Industries Association, Adityapur Industrial Area, Gamharia, Saraikela- Kharsawan district, Jharkhand under the chairmanship of Shri Kunj Bihari Pandey (Deputy Commissioner, Saraikela Kharsawan) for production of 6000 TPA of Ferro Alloys. The issues raised during public hearing and response of the project proponent with action plan are tabulated below:

Question / Issues / Suggestions	Commitment	Time Frame	Budget
How the Air pollution will be controlled	For controlling Air pollution the proponent will install fume extraction system with bag filters along with Chimney of 100 feet will be installed. 'Pacca' road will be constructed inside the premises. Water sprinkling shall be done on 'kaccha' transport road. Greenbelt shall be developed in plant area.	18 months	Proposed cost for installation of pollution control equipment is Rs. 47 lakhs. Proposed Cost of Greenbelt development is Rs. 1.00 Lakhs
Will there be any usage of water during operation phase. What will be source for the water	There is no requirement of water in the process. Water will be required for domestic use, plantation and water sprinkling. Source supply water. Ground water will not be used. No effluent discharge will be there.	---	---
What arrangement company has made for setting up of Medical Camp?	Management assured of all assistance for organizing Medical camps in the villages in consultation with Gram Panchayat.	10 months	Medical camp will be organized under CSR. Budget of Rs. 2.0 lakhs has been kept for opening Health Center.
Provision for employment from the industry	<ul style="list-style-type: none"> Estimated direct employment from the project will be 34 and indirect employment approx. 20 persons will be generated from the proposed project. 	8 months	Budget of Rs. 1.2 lakhs for Vocational Training at Gamharia and Dirlang village

Question / Issues / Suggestions	Commitment	Time Frame	Budget
	<ul style="list-style-type: none"> • Employment will be given to the local people, based on their skill and training. • Vocational Training will be provided to under educated youths for skill developments 		

18.0 An amount of 5.4 Lakhs (approx. 2% of Project cost) has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues. The details of CER proposed are as follows:

Sl. No	Corporate Environment Responsibility Activities	Year1	Year2	Year3	Total
1	Vocational Training for Skill development for self-employment like Sewing, Pickle making, Craft for 20 youth of Gamharia and Dirlang village	0.6	0.3	0.3	1.2
2	Health Care Center at Gamharia village	1.1	0.6	0.3	2.0
3	Rain Water Storage facility and Hand Pumps at Gamharia village	1.2	0.7	0.3	2.2

19.0 The capital cost of the project is Rs 96.2 Lakhs and the capital cost for environmental management is proposed as Rs 49.5 Lakhs. The annual recurring cost towards the environmental management is proposed as Rs 6 Lakhs/year. The employment generation from the proposed project is 34. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental management is as follows:

S.No.	Description	Capital Cost Rs. In lakhs	Recurring Cost Per annum Rs. in lakhs
1	Air Pollution Control Measures	45.0	4.80
2.	Noise Pollution Control Measures	2.00	0.60
3.	Greenbelt Development	1.00	0.30
4.	Rain Water Harvesting	1.50	0.30
TOTAL		49.50	6.00

20.0 Greenbelt will be developed in 0.105 Ha which is about 30% of the total area as per TOR. Local and native species will be planted. Total 200 number of trees will be planted in the plant along the by boundary based on the condition as mentioned in TOR.

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

22.0 Name of Environment Consultant – M/s Vardan Environet.S.L. No. 154 in QCI list of accredited consultants dated 05.09.2018. Certificate No. NABET/EIA/1619/RA 0037.

Observations of the Committee

23.0 The Committee observed that the project proponent has mentioned only cost of plant and machinery as a capital cost. The Committee suggested to submit project cost which includes cost of land, cost of existing civil structures, and plant of machinery. Accordingly, the project proponent has submitted a revised capital cost as INR 200 lakhs.

Recommendations of the Committee

24.0 After detailed deliberations, the Committee recommended the proposal of M/s. Jamshepur Chlorochem Private Limited for grant of environmental clearance subject to the following conditions:

A. Specific conditions

- i) Only washedore shall be used for the Ferro-chrome.
- ii) 100% solid waste generated in the plant shall be utilized and no dumping shall be allowed either in the plant premises or outside area.
- iii) The project proponent shall carry out decommissioning operations of existing hydrated lime unit by following the pollution control norms and the report on decommissioning shall be submitted to the Ministry's Regional Office, soon after its completion.
- iv) Additional 5000 trees shall be planted around the plant premises.
- v) TCLP test shall be carried for Ferro chrome slag at a frequency of 6 months.

B. General Conditions:

I. Statutory compliance:

- i. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- ii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project
- iii. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time and connected to SPCB and CPCB

online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
 - iii. The project proponent shall carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
 - iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and monitoring of air quality / fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
 - v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.
 - vi. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
 - vii. The project proponent shall use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
 - viii. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.
 - ix. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
 - x. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- III. Water quality monitoring and preservation
- i. The project proponent shall carry effluent monitoring with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time.
 - ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and

adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- vii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- viii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- ix. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

- i. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- ii. Practice hot charging of slabs and billets/blooms as far as possible.
- iii. Ensure installation of regenerative type burners on all reheating furnaces.
- iv. 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.
- v. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

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

- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016

VII. Green Belt

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

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iii. 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.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
 - ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
 - x. 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).
 - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
 - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
 - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
 - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
 - xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
 - xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 36.18 Expansion of Steel Plant by increasing the capacity of Rolling Mill (30,000 TPA to 1,80,000 TPA), Sponge Iron (90,000 TPA to 1,50,000 TPA), MS Billets (36,000 TPA to 1,86,000 TPA), Pig Iron (90,000 TPA), Iron Ore Pellets (6,00,000 TPA), Captive Power Plant (10 MW to 25MW) and Fly Ash Blocks (2000 bricks/day to 8000 bricks/day) at Village Jodidevarahalli, Kallambella Hobli, Taluk Sira, District Tumkur, Karnataka by M/s Sunvik Steels Pvt. Limited [Online Proposal No. IA/KA/IND/79611/2008; MoEFCC File No. J-11011/959/2008-IA.II(I)] – Environmental Clearance.**

1.0 **M/s Sunvik Steels Private Limited** made online application vide proposal no. **IA/KA/IND/79611/2008** dated 20th September, 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” EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The proposed expansion of Steel Plant of M/s. Sunvik Steel Private Limited located at Jodidevarahalli Village, Sira Taluka, Tumkur District, Karnataka was initially received in the Ministry on 22nd May, 2015 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised in 2nd EAC (Industry) meeting held on 28th to 30th December, 2015 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 27th May 2016 vide Lr. No. J-11011/959/2008-IA.II(I).

3.0 The project of M/s. Sunvik Steel Private Limited located at Jodidevarahalli Village, Sira Taluka, Tumkur District, Karnataka is having existing E.C. vide letter no. J-11011/959/2008-IA-II (I) dated 10th June 2009 for the units of Sponge Iron of 90,000 TPA, M S Ingots/Billets of 36,000 TPA, Rolled products of 30,000 TPA, Fly Ash Brick plant of 2000 Bricks/day, Slag Crusher & Beneficiation Plant of 4500 TPA capacity, Power generation capacity through WHRB of 6 MW & through FBC Boiler of 4 MW Capacity.

4.0 Now it is proposed for to expand the Sponge Iron capacity from 90,000 TPA to 1,50,000 TPA through DRI Kilns, M S Ingots/Billets capacity from 36,000 TPA to 1,50,000 TPA through Induction Furnace with Concast, Rolled products from 30,000 TPA to 1,50,000 TPA through Rolling Mill, Fly Ash Brick plant capacity from 2000 Bricks/day to 6000 Bricks/day, Slag Crusher & Beneficiation Plant production capacity from 4500 TPA to 13,500 TPA, Power generation capacity through WHRB from 6 MW to 11 MW, through FBC Boiler 4 MW to 14 MW & New units to produce Pig Iron of 90,000 TPA through Mini Blast Furnace, Cold Briquetted Iron of 60,000 TPA through Tunnel Kilns, Iron Ore Beneficiation & Palletization Plant of 6,00,000 TPA capacity. The following are the existing EC permitted units & Proposed units:

S.No	Product	Existing Permitted capacities as per E.C. obtained on 10th June 2009	Proposed	Total after expansion
1	Sponge Iron	90,000 TPA (3 x 100 TPD)	60,000 TPA (1 x 200 TPD)	1,50,000 TPA (3 x 100 TPD & 1 x 200 TPD)
2	M.S. Ingots/Billets	36,000 TPA (1 x 12 T)	1,50,000 TPA (2 x 25 T)	1,86,000 TPA (1 x 12 T & 2 x 25 T)
3	Rolled products	30,000 TPA (1 x 100 TPD)	1,50,000 TPA (1 x 500 TPD)	1,80,000 TPA (1 x 100 TPD & 1 x 500 TPD)
4	Power	WHRB - 6 MW & AFBC - 4 MW	WHRB - 1 x 5 MW &	25 MW WHRB - 6 MW & 5 MW

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			AFBC - 1 x 10 MW	& AFBC - 4 MW & 10 MW
5	Pig iron	---	90,000 TPA (1 x 125 m ³)	90,000 TPA (1 x 125 m ³)
6	Cold Briquetted Iron (CBI)	---	60,000 TPA (2 x 100 TPD)	60,000 TPA (2 x 100 TPD)
7	Iron ore concentrate / Pellets	---	6,00,000 TPA (1 x 2000 TPD)	6,00,000 TPA (1 x 2000 TPD)
8	Fly ash Bricks	2000 Bricks/day	18000 Bricks/Day	20000 Bricks/Day
10	Slag Crusher & Beneficiation Plant	4500 TPA 1 x 15 TPD	9000 TPA 1 x 30 TPD	13,500 TPA (1 x 15 TPD & 1 x 30 TPD)

5.0 The existing project was accorded environmental clearance vide order No. J-11011/959/2008-IA-II (I), dated 10th June 2009. The Status of compliance of earlier EC was obtained from Regional Office, MoEF&CC, Bangalore vide F.No. EP/12.1/629/Karnataka, dated 30th May, 2018. Earlier Regional Office, MoEF&CC, Bangalore has issued a Certified Compliance report vide F.No. EP/12.1/629/KAR dated 12th April, 2016. It was observed that there are some Non-compliances in that report. Accordingly M/s. Sunvik Steels Pvt. Ltd. Has submitted Action Plan for the Non-Compliances raised by the Regional Office, MoEF&CC, Bangalore vide letter date 23rd April, 2018 and requested for Certified Report. Accordingly, Site inspection was carried out by Regional Office, MoEF&CC, Bangalore on 19-05-2018 and issued Certified report on 30th May, 2018. It was observed from the latest Certified report that all conditions stipulated in the Earlier E.C. are Complied.

6.0 The total land required for the existing & expansion project is 39.46 Ha. / 97.5 acres. Proposed expansion will be taken up partly in the existing plant of 49.5 acres for which EC has already been obtained and the remaining in the 48 acres land adjacent to the existing plant. The land is Private land & Assigned land converted to Industrial. Out of 97.5 Acres of land 57.55 Acres was already under acquisition, remaining land is to be allotted under Section 109 of Karnataka Land Reforms Act, 1961. Govt. of Karnataka. 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.

7.0 The topography of the area is flat with undulations and reported that the site lies between 13°33'12.30"N to 13°33'29.24" North Latitude and 77° 0'28.83"E to 77° 0'56.80" East longitude in Survey of India Topo sheet no. 57 C/14 & 57 G/2 at an elevation of 792 AMSL. The ground water table reported to ranges between 0.3 to 11 m bgl below the land surface during the post-monsoon season and 1.2 to 12 m bgl below the land surface during the pre-monsoon season.

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8.0 There are no notified National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve/ Elephant Corridors / 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 furnished in Chapter # 3 of EIA report.

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

Raw Material		Quantity	Sources	Distance in Kms. w.r.t. plant	Mode of Transport
For Iron Ore beneficiation plant (Iron ore concentrate)					
Iron ore fines		9,00,000	Karnataka (E-auctions conducted by Monitoring Committee)	~200	By rail & road (through covered trucks)
For Pellet Plant (Pellets)					
Iron ore Concentrate		6,30,000	Own Generation	Nil	Covered Conveyor
Bentonite		9,000	Karnataka	200 to 300	By road (through covered trucks)
Limestone		9,000	Karnataka	~100	By road (through covered trucks)
Coke breeze		36,770	Indonesia / South Africa / Australia	~350	By Sea, Rail & Road (Covered trucks)
Furnace Oil		8100 KL/annum	Karnataka	~350	By road (through Tankers)
Coal (Gasifier)	Imported	23,750	Indonesia / South Africa / Australia	~350	By Sea, Rail & Road (Covered trucks)
For DRI Kilns (Sponge Iron)					
Pellets (for 1 x 200 TPD DRI Kilns)		96,000	Own generation	---	Covered Conveyor
Dolomite		3,000	Karnataka	~100	By road (through covered trucks)
Coal (1 x 200 TPD DRI Kilns)	Indian	78,000	SCCL, Telangana / SECL	~750	By rail & road (through covered trucks)
	Imported	46,200	Indonesia / South Africa / Australia	~350	Through sea route, rail route & by road
For Induction Furnace (MS Billets)					
Sponge Iron		1,08,000 42,000	In plant generation & External	--- ~200	By road (through covered trucks)

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		purchase		
Scrap / end cuttings from Rolling mill	22,500	Karnataka	~200	By road (through covered trucks)
Ferro Alloys	2,250	Karnataka	~200	By road (through covered trucks)

10.0 The targeted production capacity of the plant after expansion project is Rolled Products 0.15 million TPA, Pelletization Plant of 0.6 million TPA & Power Generation of 25 MW (FBC: 14 MW & WHRB: 11 MW). Iron ore, Iron ore fines will be procured from E-auction conducted by Monitoring committee of Karnataka. Imported Coal for would be supplied by M/s. M/s. Agarwal Coal Corporation Pvt. Ltd., M/s. Hemang Resources Limited, M/s. Magnifico Minerals Pvt. Ltd. Iron Ore, Iron Ore fines transportation railway rakes upto Tumkur Railway Station by Rail then by road through covered trucks. Imported Coal transportation will be done through Ship from Manglore Port through Ship and from there to Tumkur Railway Station by Rail. The coal unloaded at Tumkur Railway Station will be transported to the Plant by road through covered trucks, which is at 30 Kms. from the plant.

11.0 Water requirement for the expansion project will be 1000 KLD. Total water requirement for the entire project will be 1642 KLD, which will be sourced from Groundwater. An application has been submitted for NOC from Karnataka State Ground Water Authority.

12.0 Total power required for the existing units & for the proposed units will be 45.8 MW which will be partly met from the existing & expansion captive power plants of 25 MW & Balance 20.8 MW will be sourced from the State Grid.

13.0 Baseline Environmental Studies were conducted during winter season i.e. from 1st October 2015 to 31st December 2015. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated that PM_{2.5} (17.1 to 31.4 mg/m³), PM₁₀ (29.6 to 52.3 µg/m³), SO₂ (9.5 to 15.9 mg/m³), NO_x (9.9 to 17.9 mg/m³) & CO (355 to 690 mg/m³). The results of the modeling study indicates that the maximum increase of GLC due to the proposed units & Vehicular emissions will be 7.62 µg/m³ with respect to the PM₁₀, 21.7 µg/m³ with respect to the SO₂, 12.9 µg/m³ with respect to the NO_x & 2.0 µg/m³ with respect to the CO.

14.0 Ground water quality has been monitored in 8 locations in the study area are analysed and the data submitted indicated pH: 7.1 to 7.6, Total Hardness: 177 to 302 mg/l, Chlorides: 105 to 180 mg/l, Fluoride: 0.18 to 0.36 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 4 locations in the study area and analysed and the data submitted indicated pH: 7.8 to 8.1 and DO: 3.5 to 6.6 mg/l.

15.0 Noise levels are in the range of 45.9 dB(A) to 68.2 dB(A) during 1st October 2015 to 31st December 2015.

16.0 It has been reported that there are no habitations in the site additional land proposed for expansion project. No R&R is involved.

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

S.No	Waste / By product	Quantity (TPA)	Method of disposal
1	Tailings	2,70,000	Will be given to M/s. KEJ Minerals Pvt. Ltd. for their processing plant.
2	Ash from Pellet plant	16,200	Will be completely utilized in our own existing & proposed brick manufacturing unit.
3	Ash from DRI	10,800	Will be completely utilized in our own existing & proposed brick manufacturing unit.
4	DoloChar	18,000	Will be used in FBC boiler as fuel
5	Wet scrapper sludge	27,000	Will be used in own brick manufacturing unit and remaining quantity will be given to other brick manufacturers.
6	Kiln Accretion Slag	6,000	Will be used in road construction
7	Granulated slag	27,000	Will be given to M/s. Samvruddi Concrete Blocks & M/s. Pragathi Enterprises for manufacturing Concrete blocks in their units.
8	Slag from SMS	15,000	Slag will be crushed and after recovery of iron, it will be used for road construction.
9	Mill Scale from Rolling Mill	3,000	Mill scales will be given to nearby Ferro alloys manufacturing units or casting units.
10	End cuttings from Rolling Mill	4,500	Recycled back as raw material in own induction Furnaces
11	Char from Tunnel Kiln	48	Will be used in Gasifier as fuel
12	Ash from Power Plant • with Indian coal	33,525	Will be completely utilized in our own existing & proposed brick manufacturing unit.
13	Ash / cinders generated from Gasifier units	20	Will be used in own brick manufacturing unit
14	Tar from Gasifier	4.0	Will be Given to TAR recyclers or Road making contractors.
15	Dust from APCS	300	It will be used in own brick manufacturing unit.

18.0 It has been reported that an area of 13.36 Hectares (33 Acres) will be developed as green belt (inclusive of existing greenbelt) out of total plant area 39.46 Ha. (97.5 Acres) to attenuate the noise levels and trap the dust generated due to the project development activities.

19.0 It has been reported that the Consent To Operate from the Karnataka State Pollution Control Board has been obtained vide no. AW-300966 dated 15-09-2016 and consent is valid up to 30-06-2021.

20.0 The Public hearing of the project was held on 12th September, 2017, Near premises of Sri Rama Devara Temple Community Hall under the chairmanship of Deputy Commissioner for

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proposed expansion. The issues raised during public hearing are dust pollution, Crop damage, Road damage, Health problems due to dust pollution, Tank pollution, CER activities, Employment to local peoples, etc. The following are the issues raised during PH & commitment of the Project Proponent.

S.No.	Name of the Person	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
1.	Sri. Govindaraju, Jodidevarahalli	<ul style="list-style-type: none"> He said that the concerned authorities have not given wide publicity regarding the Environmental Public Hearing. 	KSPCB has conducted the Public hearing as per the procedure prescribed by MOEF&CC	----	----	----
		<ul style="list-style-type: none"> The Project authorities have stated that, there is no dust pollution from the industry but the local villagers face lot of problem due to dust. 	<p>In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CFO for the existing plant which is valid till 30th June, 2021. KSPCB accords CFO after all necessary emission control systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p> <p>Copy of the Stack monitoring report is enclosed. Ambient air quality is also within the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that emissions are controlled and are within the norms. Greenbelt development also reduces the emissions further.</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum
		<ul style="list-style-type: none"> The authorities are discharging air pollutants after 8.00 PM, nearby water bodies are polluted, dust 	Air emission control systems such as ESP, Bag filters, dust suppression system, dust extraction system with bag filters,	Implement ed parallel with implementation of	As part of expansion project Rs. 32.7 Crores is	Rs. 2.0 crores / Annum

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		<p>is deposited on the cultivated crop due to dust discharged from the industry; The local villagers are forced to cultivate horse gram in place of Ragi and Sunflower.</p> <ul style="list-style-type: none"> Ragi grown needs to be washed due to dust deposition on Ragi field. Flowers grown have no market because of dust deposition 	<p>covered conveyers, pucca internal roads have been installed / implemented to comply with the norms.</p> <p>Surface water sample collected in the nearby water body does not indicate any contamination and all parameters are in accordance with IS: 2296. Interlocking system has also been provided to ESP and whenever ESP fails, the raw material feed to the unit will stop and there will be no production till ESP is rectified.</p> <p>Net Incremental Ground Level Concentrations have been worked out and are within the National Ambient Air Quality Standards. KSPCB has issued CTO only after all required environment protection measures are installed and operated to comply with the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that emissions are controlled and are within the norms. Greenbelt development also reduces the emissions further. Once all required environment protection measures are implemented and operated to comply with the norms, then there will not be any adverse impact on water environment, air environment crops in the area due to the plant.</p>	<p>the expansion project</p> <p>----</p>	<p>earmarked for Air Emission Management</p> <p>----</p>	<p>----</p>
2.	Sri. Venkatesh, Jodidevaraha lli	<ul style="list-style-type: none"> He compliant about siltation and pollution of water by the discharge of waste in to the lake, Due to this lake water is not fit for drinking by 	<p>Zero Liquid Effluent discharge system is being followed in the existing plant. No effluent is discharged outside the plant.</p>	<p>Implement ed parallel with implement ation of the</p>	<p>As part of expansion project Rs. 1.7 Crores is earmarked</p>	<p>Rs. 50 Lakhs / Annum</p>

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		the live stock in the surrounding area.	MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that no effluent is being discharged outside the plant. Water quality in the nearby water bodies and ground water will be periodically monitored and reports will be submitted to MOEF&CC & KSPCB.	expansion project	for Wastewater Management	
		<ul style="list-style-type: none"> Roads are damaged due to heavy vehicles plying between industry and national highway 	Company is using only the permitted capacity trucks for transport of raw materials and products. However the company will definitely contribute to the maintenance of the road between NH # 4 and the plant.	1 to 7 years	As part of expansion Rs. 70 Lakhs is earmarked for Repairs & maintenance of damaged Roads in the near by village under CER activities	---
3.	Sri. Dasappa, Jogihalli	<ul style="list-style-type: none"> He stated that the industry authorities are misguiding by furnishing false information about location of the industry and the surrounding villagers. 	Land details including the survey numbers to be acquired have been clearly stated in the Draft EIA report. The total land envisaged for the plant is 97.5 acres and out of which 57.55 Acres is in possession. The surrounding villages are shown in the topographical map enclosed in the EIA report.	----	----	----
		<ul style="list-style-type: none"> Local villagers and livestock are suffering from respiratory problem due to dispersion of dust from the industry, ESP (Electro Static Precipitator) is not continuously operated by the industry and he has filed complaint to the Pollution Control Board regarding dust pollution. SPM 	In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CTO for the existing plant which is valid till 30th June, 2021 . KSPCB	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum

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		<p>(Suspended Particulate Matter) quantity in the AAQ (Ambient Air Quality) result of the samples collected from my Agricultural land was less, since the wind movement was in the opposite direction.</p>	<p>accords CTO after all necessary emission control systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that emissions are controlled and are within the norms. Interlocking system has also been provided to ESPs and whenever the emission exceeds the standard, then raw material feed to the unit will be stopped till ESP is rectified. Greenbelt development also reduces the emissions further.</p> <p>Copy of the Stack monitoring report is enclosed. Ambient air quality is also within the norms.</p> <p>ESPs are being operated continuously in the plant.</p> <p>As all required environment protection measures have been installed and operated duly complying with the norms, there is no adverse impact on humans and on live stock due to the existing plant.</p> <p>Similarly in the expansion also ESP, Bagfilters, dust suppression system, dust extraction system with bagfilters, pucca internal roads, covered conveyers, pneumatic ash handling system etc will be provided and operated duly complying the norms.</p>			
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			Hence there will not be any adverse impact on villagers and on live stock due to the proposed expansion project.			
		<ul style="list-style-type: none"> • He complained about raise in ambient temperature due to industrial operation causing crop loss in the surrounding area. 	In the existing DRI plant the exhaust flue gases have a temperature of around 160 Deg C. These gases will be discharged through a stack of 60 m height for effective dispersion of emissions. Due to higher wind speeds and higher dispersion the temperature will come to ambient. Greenbelt developed will also help in mitigating the ambient temperature further.	----	----	----
		<ul style="list-style-type: none"> • He said that the dust from the industry is reaching Cheluru Village. The surrounding villagers are suffering from dust pollution caused from the existing plant, if they increase the production capacity further, pollution load will also be increased. Betel leaves which were sold for Rs. 100 is now selling for Rs. 25 because of dust deposited on them, both due to industry and also due to transportation of heavy vehicles because of factory. 	<p>In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CTO for the existing plant which is valid till 30th June, 2021. KSPCB accords CTO after all necessary emission control systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also conforms that emissions are controlled and are within the norms. Interlocking system has also been provided to ESPs and whenever the emission exceeds the standard, then raw material feed to the unit will be stopped till</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum

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		<p>ESP is rectified. Greenbelt development also reduces the emissions further.</p> <p>Copy of the Stack monitoring report is enclosed. Ambient air quality is also within the norms.</p> <p>As all required environment protection measures have been installed and operated duly complying with the norms, there is no adverse impact on betel leaves due to the existing plant.</p> <p>Similarly in the expansion also ESP, Bagfilters, dust suppression system, dust extraction system with bagfilters, pucca internal roads, covered conveyers, pneumatic ash handling system etc will be provided and operated duly complying the norms. Covered trucks will be used for transportation. Pucca road exist upto the plant. Hence there will not be any adverse impact on crops in the area due to the proposed expansion project.</p>			
	<ul style="list-style-type: none"> • KSPCB has notified the meeting details in News Papers, but the villagers don't read News Papers. Farmers are suffering from respiratory diseases, and I have information about mortality details of livestock due to industrial pollution. Local villagers are not benefited from the industry. Instead Labours from Bihar, Uttar Pradesh and Other North Indians are benefited. 	<p>Public hearing has been conducted by KSPCB as per the procedure stipulated in EIA notification.</p> <p>All required environmental protection measures such as ESPs, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, have been provided and operated complying with the norms. Covered trucks are used in transportation. CEMS connected to the CPCB server confirms that the emissions are within the</p>	1 to 7 years	As part of expansion Rs. 90 Lakhs is earmarked for Health & Hygiene of the community under CER activities	---

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			<p>norms. Hence there is no adverse impact on health of the people in the area.</p> <p>However periodical health checkups will be carried out in the nearby villages and necessary basic medicines will be given free of cost to the affected village people.</p> <p>Local employment is provided as per govt norms.</p>			
		<ul style="list-style-type: none"> Local villagers are suffering from various deceases. We don't want industry to operate here. He requested the Chairman not to recommend for Expansion activity. 	<p>All required environmental protection measures such as ESPs, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, have been provided and operated complying with the norms. Covered trucks are used in transporation. CEMS connected to the CPCB server confirms that the emissions are within the norms. Hence there is no adverse impact on health of the people in the area.</p> <p>However periodical health checkups will be carried out in the nearby villages and necessary basic medicines will be given free of cost to the affected village people.</p>	1 to 7 years	As part of expansion Rs. 90 Lakhs is earmarked for Health & Hygiene of the community under CER activities	---
4.	Sri. Jayasimha, Salupanahalli	<ul style="list-style-type: none"> Industry is manufacturing steel, Bricks and other material. But cultivating Ragi, Maize, Pulses and other food grains in surrounding lands is the livelihood of the local villagers. The villagers cannot work in the field and are facing eye irritation because of dust discharged from industry. Crops are also damaged due to 	<p>In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal road, Dust extraction system with bag filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CTO for the existing plant which is valid till 30th June, 2021. KSPCB accords CTO after all necessary emission control</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum

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		<p>deposition of dust generated from the vehicular movement. Even during rains the water is full of dust and is not visible.</p> <ul style="list-style-type: none"> • Villagers & also crop lands which are from 1 km to 4 kms. from the industry are facing several problems. 	<p>systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that emissions are controlled and are within the norms. Interlocking system has also been provided to ESPs and whenever the emission exceeds the standard, then raw material feed to the unit will be stopped till ESP is rectified. Greenbelt development also reduces the emissions further.</p> <p>Copy of the Stack monitoring report is enclosed.</p> <p>Ambient air quality is also within the norms. ESPs are being operated continuously in the plant and same can be verified from Stack monitoring report.</p> <p>As all required environment protection measures have been installed and operated duly complying with the norms, there is no adverse impact on crops due to the existing plant.</p> <p>Similarly in the expansion also ESP, Bagfilters, dust suppression system, dust extraction system with bagfilters, pucca internal roads, covered conveyers, pneumatic ash handling system etc will be provided and operated duly complying the norms. Covered trucks will be</p>			
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		<p>used for transportation. Pucca road exist upto the plant. Hence there will not be any adverse impact on crops in the area due to the proposed expansion project.</p> <p>Net incremental GLCs even after the proposed expansion are within the National Ambient Air Quality standards. Isopleths for PM, SO₂ & NO_x clearly indicate the incremental GLCs are within the NAAQS.</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p>			
	<ul style="list-style-type: none"> Industry authorities are providing financial support only to selected farmers but most of the villagers who have lost their crops are not given compensations. 	<p>CER activities have been carried out in the village and not to the individuals.</p>	1 to 7 years	As part of expansion Rs. 35 Lakhs is earmarked to provide financial support to the Farmers of the Village under CER activities	---
	<ul style="list-style-type: none"> Borewells in the agricultural land are depleted due to excess water drawn from the industry. The Deputy Commissioner should view the matter seriously, since more than 20 villages in the surrounding area get affected due to expansion project. 	<p>The existing plant water requirement is 642 KLD.</p> <p>Ground water is used in the existing plant. Rain water recharging pits have been constructed and ground water is being recharged to augment the water table.</p>	---	---	---
	<ul style="list-style-type: none"> The villagers around this industry are not able to have matrimonial relations because of pollution from the industry. He requested to close the industry 	<p>In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag</p>	Implement ed parallel with implementation of the expansion	As part of expansion project Rs. 32.7 Crores is earmarked for Air	Rs. 2.0 crores / Annum

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		<p>and give compensation to the Farmers since 2003.</p>	<p>filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CTO for the existing plant which is valid till 30th June, 2021. KSPCB accords CTO after all necessary emission control systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that emissions are controlled and are within the norms. Interlocking system has also been provided to ESPs and whenever the emission exceeds the standard, then raw material feed to the unit will be stopped till ESP is rectified. Greenbelt development also reduces the emissions further.</p> <p>Copy of the Stack monitoring report is enclosed.</p> <p>Ambient air quality is also within the norms. ESPs are being operated continuously in the plant and the same can be verified from Stack monitoring report.</p> <p>As all required environment protection measures have been installed and operated duly complying with the norms, there is no adverse impact on crops due to the existing plant. Similarly in the expansion also ESP, Bagfilters, dust</p>	project	Emission Management	
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			<p>suppression system, dust extraction system with bagfilters, pucca internal roads, covered conveyers, pneumatic ash handling system etc will be provided and operated duly complying the norms. Covered trucks will be used for transportation. Pucca road exist upto the plant. Hence there will not be any adverse impact on crops in the area due to the proposed expansion project.</p> <p>Net incremental GLCs even after the proposed expansion are within the National Ambient Air Quality standards. Isopleths for PM, SO₂ & NO_x clearly indicate the incremental GLCs are within the NAAQS.</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p>			
5.	Smt. Manjamma, Jodidevarahalli	<ul style="list-style-type: none"> She informed that the local villagers are facing severe problems from the day of industry commissioned. The Vegetables and flowers in the field have been deposited with dust, betel leaves grown have no market. Industry people advise us for selection of different crops in our field. 	<p>In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CTO for the existing plant which is valid till 30th June, 2021. KSPCB accords CTO after all necessary emission control systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum

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			<p>MOEF&CC Regional office issued certified compliance report on EC conditions also conforms that emissions are controlled and are within the norms. Interlocking system has also been provided to ESPs and whenever the emission exceeds the standard, then raw material feed to the unit will be stopped till ESP is rectified. Greenbelt development also reduces the emissions further.</p> <p>Copy of the Stack monitoring report is enclosed.</p> <p>Ambient air quality is also within the norms.</p> <p>ESPs are being operated continuously in the plant and the same can be verified from Stack monitoring report.</p> <p>As all required environment protection measures have been installed and operated duly complying with the norms, there is no adverse impact on crops due to the existing plant.</p> <p>Similarly in the expansion also ESP, Bagfilters, dust suppression system, dust extraction system with bagfilters, pucca internal roads, covered conveyers, pneumatic ash handling system etc will be provided and operated duly complying the norms. Covered trucks will be used for transportation. Pucca road exist upto the plant. Hence there will not be any adverse impact on crops in the area due to the</p>			
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			<p>proposed expansion project.</p> <p>Net incremental GLCs even after the proposed expansion are within the National Ambient Air Quality standards. Isopleths for PM, SO₂ & NO_x clearly indicate the incremental GLCs are within the NAAQS.</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p>			
6.	Sri. Bheemanna, Haldodderi.	<ul style="list-style-type: none"> • He informed that, he is cultivating Betel leaves and coconut in his 6.09 Acres land at Sy.No. 58/2, he could not sell Betel leaves to a good price due to dust pollution. • • He also informed that his family members who reside in his agricultural land since 40 years are now suffering from various dust related problems. • • He also informed that he has lost 150 to 200 sheep from the industrial pollution, and requested not to allow the industry to operate. 	<p>In the existing plant air emission control systems such as ESP, Bagfilters, dust suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag filters have been installed and operated to comply with the KSPCB norms. KSPCB has issued CTO for the existing plant which is valid till 30th June, 2021. KSPCB accords CTO after all necessary emission control systems have been installed and operated.</p> <p>Recently KSPCB has also done stack monitoring and is within the norms.</p> <p>MOEF&CC Regional office issued certified compliance report on EC conditions also confirms that emissions are controlled and are within the norms. Interlocking system has also been provided to ESPs and whenever the emission exceeds the standard, then raw material feed to the unit will be stopped till ESP is rectified.</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum

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			<p>Greenbelt development also reduces the emissions further.</p> <p>Copy of the Stack monitoring report is enclosed.</p> <p>Ambient air quality is also within the norms.</p> <p>ESPs are being operated continuously in the plant and the same can be verified from Stack monitoring report.</p> <p>As all required environment protection measures have been installed and operated duly complying with the norms, there is no adverse impact on crops due to the existing plant.</p> <p>Similarly in the expansion also ESP, Bagfilters, dust suppression system, dust extraction system with bagfilters, pucca internal roads, covered conveyers, pneumatic ash handling system etc will be provided and operated duly complying the norms. Covered trucks will be used for transportation. Pucca road exist upto the plant. Hence there will not be any adverse impact on crops, sheep, etc. in the area due to the proposed expansion project.</p> <p>Net incremental GLCs even after the proposed expansion are within the National Ambient Air Quality standards. Isopleths for PM, SO₂ & NO_x clearly indicate the incremental GLCs are within the NAAQS.</p> <p>If any crop damage</p>			
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			occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.			
7.	Sri. Padalingaiah, Haldodderi.	<ul style="list-style-type: none"> He informed that, he has agricultural land adjacent to industry and could not grow any crop from the day of commissioning of this industry. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms that environment protection measures have been implemented.</p> <p>Hence there is impact on crops due to the existing plant.</p>	Implement ed parallel with implement ation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum
8.	Sri Ramesh, Haldodderi	<ul style="list-style-type: none"> He informed that, industry authorities are destroying unity among the villagers, not giving compensation to crop loss, but industry people are saying that, they have provided motor to few villagers. He requested Deputy Commissioner to close down the industry and avoid migration of villagers in search of livelihood to other places. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms that environment protection measures have been implemented.</p> <p>Hence there is no crop damage due to the existing plant.</p> <p>Skill development training will be provided</p>	1 to 7 years	Rs 70 Lakhs is earmarked for Skill development training will be provided to unemployed youth in the nearby villages under CER activities.	--

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			to unemployed youth in the nearby villages.			
9.	Sri. Bommana, Zilla Panchayath Member from Kallambella area.	<ul style="list-style-type: none"> He informed that, because of factory operations some problems happened, the local people are also benefited from the industry. He requested the industry authorities to give crop compensation. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms that environment protection measures have been implemented.</p> <p>Hence there is no crop damage due to the existing plant.</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum
10.	Sri. Srinivas, Haldodderi	<ul style="list-style-type: none"> He informed that, he has agricultural land adjacent to industry, where even weed/grass could not grow due to dust. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p>	Implement ed parallel with implementation of the expansion project	As part of expansion project Rs. 32.7 Crores is earmarked for Air Emission Management	Rs. 2.0 crores / Annum
11.	Sri. Hanumantay ya, Channenahalli	<ul style="list-style-type: none"> He informed that, the industry authorities let out there dust after 8.00 PM, from which surrounding villagers are facing severe problems. 	<p>ESPs, Bagfilters , dust suppression systems are operated continuously. Energy consumption records of APCS is being submitted to KSPCB regularly. That conforms the regular operation of APCS.</p>	---	---	---
12.	Sri. Rangaiah,	<ul style="list-style-type: none"> He informed that, villagers in the 	<p>All required environmental protection measures such</p>	---	---	---

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	Channenahalli:	surrounding area viz, jodidevarahalli, Haldodderi, jogihalli, Sompanahalli are severely affected by the industry. He informed that, only Ragi can be grown in the agricultural land, which is also affected by the dust, he also informed that vegetables, flowers, betel leaves are affected by the industrial dust.	<p>as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms that environment protection measures have been implemented.</p> <p>Hence there is no crop damage due to the existing plant.</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p>			
13.	Sri. Jayanna, Salabarahalli	<ul style="list-style-type: none"> • He requested the Deputy Commissioner to allow agriculturalist to lead there agricultural life. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms that environment protection measures have been implemented .</p> <p>Hence there is no crop damage due to the existing plant.</p> <p>If any crop damage occurs due to our</p>	---	---	---

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			industry operation then compensation will be paid as per the Govt rules to the affected.			
14.	Sri. Yogesh, Dasarahalli	<ul style="list-style-type: none"> He informed that, the villagers could not grow any crops, harvested food grain has no value and rate of mortality in livestock has increased due to industrial activity. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms that environment protection measures have been implemented .</p> <p>Hence there is no crop damage due to the existing plant. As all environment protection measures have been implemented there will be no adverse impact on live stock</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p>	---	---	---
15.	Sri. Thimmaraju, Dasarahalli	<ul style="list-style-type: none"> He informed that, the villagers could not grow any crops and harvested food grain has no value, rate of mortality in livestock has increased, water in the surrounding land is polluted, could not be used for any purposes. He requested to give crop loss compensation. 	<p>All required environmental protection measures such as ESPs, bagfilters, covered conveyers, dust suppression system, pucca internal roads will be provided. KSPCB has also issued CTO to the existing unit only after duly verifying the compliance of the norms by the industry.</p> <p>Certified compliance report issued by the Regional office of MOEF&CC also confirms</p>	---	---	---

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			<p>that environment protection measures have been implemented .</p> <p>Hence there is no crop damage due to the existing plant.</p> <p>If any crop damage occurs due to our industry operation then compensation will be paid as per the Govt rules to the affected.</p> <p>There is no effluent discharge outside the industry and ZLD is followed in the existing plant. Surface water and ground water quality in the area is within the norms specified. Hence there is no adverse impact on water quality due to the plant operations.</p> <p>Ground water quality is also being monitored by KSPCB periodically and the quality of water is within the norms.</p> <p>After the expansion also ZLD will be implemented and water quality will be monitored periodically and the reports will be submitted to MOEF&CC and KSPCB.</p>			
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21.0 An amount of Rs.4.25 Crores (as per Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018) has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues. The details of CER proposed are as follows:

S.No.	Major Activity Heads	Years (Rs. in Lakhs)							Total Expenditure (Rs. In Lakhs)
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	
A	Based on Social Impact Assessment (SIA)								
1	Community & Infrastructure Development Programmes (Laying of Roads, Providing	20	20	20	20	10	10	10	110

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S.No.	Major Activity Heads	Years (Rs. in Lakhs)							Total Expenditure (Rs. In Lakhs)
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	
	Street lights, drainage facilities)								
2	for Health & Hygiene of the community (Medical Camps, Mineral Water plants, construction toilets in villages, PHC, additional Ambulance facility, Distribution of Medicines etc.	15	15	15	15	10	10	10	90
3	for Education & Sports (Merit Scholarships, Renovation of class rooms in schools, providing computers in class rooms, development of library facility, Sponsoring for Sport activities, Sport kits etc.	5	4	4	4	4	4	4	29
4	Borewells / RWH pits / Greenbelt Development in nearby villages / deepening of Ponds	3	3	3	3	3	3	3	21
B	Based on Public Consultation								
1	Repairs & maintenance of damaged Roads	10	10	10	10	10	10	10	70
2	Vocational Training Institute / Computer / IT Training Centre for improving computer knowledge and making Industry ready.	10	10	10	10	10	10	10	70
3	Financial support only to farmers in Jodidevarahalli Village & providing Fertilizers to improve the soil supplements such as N,P,K.	5	5	5	5	5	5	5	35
	Total	68	67	67	67	52	52	52	425

22.0 The capital cost of the project is Rs.550 Crores and the capital cost for environmental protection measures is proposed as Rs. 47 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 3.45 Crores/annum. The employment generation is 150 people during operation of the proposed expansion and 300

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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 (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lakhs)
1.	Air Emission Management		
	• Electro Static Precipitators (ESP)	15.0	200
	• Fume Extraction system with bag filters	4.0	
	• Dust catcher followed by Venturi scrubber	2.5	
	• Multicyclones followed by Bag filters & others	2.0	
	• Stacks	5.0	
	• Flue Gas Desulphurization (FGD) & for Selective Catalytic Reduction (SCR)	4.0	
	• Water Sprinklers	0.2	
2.	Wastewater Management		
	• for ETP	1.5	50
	• for Garland drains	0.2	
3.	Solid waste Management		
	• Fly Ash Handling & disposal	3.0	30
	• Slag Handling & Disposal	0.5	
	• Tailings handling & disposal	0.5	
	• Hazardous waste storage & disposal	0.3	
	• Municipal solid waste storage & disposal	0.2	
4.	Greenbelt development, Land scaping, Noise Management, RWH etc.	0.4	10
5.	Fire Safety Systems	3.9	5
6.	Environmental Monitoring		
	• AAQMS	1.6	6
	• CEMS	1.6	4
	• Third party Monitoring	--	20
7.	Occupational Health & Safety		
	• PHC	0.3	20
	• PPEs	0.2	
	• Ambulance (additional)	0.1	
TOTAL		47.0	345

23.0 Greenbelt will be developed in **13.36 Ha. (33 Acres)** which is about 33% of the total acquired area. Greenbelt width varying from 7 to 95 m have been developed all around the plant. There are 11,750 no. of plants have already been developed in the existing plant premises. PA's proposed to plant about another 10,000 no. of saplings as part of expansion project.

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

25.0 EIA Consultant: M/s. Pioneer enviro Laboratories and Consultants Pvt. Limited

Observations of the Committee:

26.0 After detailed deliberations, the Committee observed that non-compliance for two of the earlier environmental conditions granted in 2009 i.e. prior permission for abstraction of ground water and prior approval from the State Forest Department regarding likely impact of the emissions of the plant on the reserved forest and the project proponent shall also be required to prepare and implement conservation plan for wildlife in consultation with State Forest Department. The Committee also noted several terms of reference prescribed were not addressed properly.

Recommendations of the Committee:

27.0 Therefore, the Committee advised to submit the following information/reports for further consideration of the proposal.

- i) Closure of non-compliances of the earlier environmental clearance conditions duly certified by Regional Officer of MoEF&CC.
- ii) Revised Corporate Environmental Policy prescribing standard operating procedure and hierarchal system for reporting of non-compliances /infringements, if any, to the Board of Directors at periodical intervals.
- iii) Substantiating documents for acquisition of land for the proposed project /consent of the owners.
- iv) Revised action plan / commitment of the project proponent for the issues raised during the public hearing including time bound programme and budgetary allocations.
- v) The Revised Corporate Environmental Responsibility which shall be in capex mode treated as a project and shall be implemented in concurrence with the project implementation.
- vi) The project proponent shall submit an action plan for protection of drainage lane / stream passing through the plant premises.
- vii) The project proponent shall submit the scheme for slime management, inter alia, including provision of tailings disposal and area for disposal of tailings.

36.19 Modernization cum expansion of MS Billets /Alloys billets production (1,58,400 TPA to 7,28,400 TPA) and TMT Barproduction (1,58,400 TPA to 7,28,400 TPA) and Additional Unit of production of Ferro Manganese 21500 TPA /Silico

Manganese 18000 TPA Located at Gut No. 48, Daregaon, Adjacent to MIDC Phase II, Taluka-Jalna, District – Jalna, Maharashtra by M/s Metarolls Ispat Pvt.Ltd. [Online Proposal No. IA/MH/IND/79013/2018; MoEFCC File No. IA-J-11011/292/2018-IA-II(I)] – Terms of Reference.

1.0 M/s Metarolls Ispat Pvt. Ltd. made application vide online proposal no. IA/MH/IND/79013/2018 dated 15th September 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(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category “A” EIA Notification; 2006. The proposal of expansion is submitted and appraised at Central Level.

Details Submitted by the Project Proponent:

2.0 M/s. Metarolls Ispat Pvt Ltd. (MIPL) has a steel plant located at Gut No. 48, Daregaon, Adjacent to MIDC Phase II, Taluka-Jalna, District – Jalna, Maharashtra. The company’s existing units are for Induction Furnace with production capacity of MS Billets 1,58,400 TPA and rolling mill Production for TMT Bars 1,58,400 TPA at located at Gut No. 48, Daregaon, Adjacent to MIDC Phase II, Taluka-Jalna, District – Jalna, Maharashtra. Now, company is proposing to remove the existing old furnaces with new Induction furnaces. After expansion total induction furnace production capacity will be 7,28,400 TPA and rolling mill production capacity will be 7,28,400 TPA along with adding new 6 MVA Ferro Alloys Unit.

3.0 The existing project was accorded environmental clearance vide order.no. SEAC 2011/CR-683/TC2 dated 30th Sep. 2014. Consent to Operate was accorded by Maharashtra State Pollution Control Board vide consent order no. BO/JD (APC)/UAN No. 0000042822/R/CC-1808000690 dated 16.08.2018 validity of CTO is up to 31st May 2023.

4.0 The proposed unit will be located at Gut No. 48, Daregaon, Adjacent to MIDC Phase II, Taluka - Jalna, District – Jalna, Maharashtra.

5.0 The land area acquired for the proposed plant is 19.05 Acres. 100% land is industrial land (land use conversion completed). No /forest land involved. The entire land has been acquired for the project. Of the total area 6.25 Acres (33%) land will be used for green belt development.

Area	Existing Area (Acres)	Proposed Area (Acres)	Total Area (Acres)
Plant Area	6.00	4.60	10.60
Road Area and Open Area	2.20	-	2.20
Future Expansion Area	4.60	-	-
Greenbelt Area	6.25	-	6.25
Total	19.05		19.05

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.

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7.0 Total project cost is approx 200.0 Crore rupees. Proposed employment generation from proposed project will be 450 direct employment and 700 indirect employment.

8.0 The targeted production capacity of the MS Billets - 7,28,400 TPA and TMT Bars – 7,28,400 TPA and Ferro Alloys 21,500 TPA. The ore for the plant will be procured from open market. transportation will be done through road The proposed capacity for different products for new site area as below:

Sr. No.	Particular	Existing (TPA)	Proposed (TPA)	Total (TPA)
1	Billets	1,58,400	5,70,000	7,28,400
2	TMT Bars	1,58,400	5,70,000	7,28,400
3	Ferro Manganese or Silico Manganese	-	21,500 or 18,000	21,500 or 18,000

9.0 The electricity load of 55 MW will be procured from Maharashtra State Electricity Board.

Sr. No.	Particular	Existing (MW)	Proposed (MW)	Total (MW)
1	Power Requirement	26	29	55

10.0 Proposed raw material requirement for project are Sponge Iron (40%) Scrap (58%) and Other Minerals (2%) for Billets, Billets for TMT bar and Manganese Ore, Dolomite and Quartz for Ferro Alloys. The requirement would be fulfilled by open market.

11.0 Water Consumption for the proposed project will be 415 KLD and waste water generation will be zero. Domestic waste water will be treated STP and Treated wastewater will be used for Greenbelt Development.

Item	Existing Water Requirement (KLD)	Proposed Water Requirement (KLD)	Total Water Requirement (KLD)
Cooling Purpose	185	180	365
Domestic Purpose	20	15	35
Dust Suppression	10	5	15
Total	215	200	415

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 Environmental Consultant Name: Sri Sai Manasa Nature Tech. Pvt. Ltd., Hyderabad, QCI/NABET Accredited Vide S. No. 142, (Dated 05.09.2018 displayed on MOEF&CC website)

Observations of the Committee:

14.0 The project proponent requested for use of baseline data collected during post monsoon, 2017 for the adjoining project by other Consultant (M/s PECS, Nagpur). The Committee allowed the project proponent to use the data, subject to obtaining no objection and authorization for utilization of data from the M/S PECS, Nagpur.

Recommendations of the Committee:

15.0 After detailed deliberations, the Committee recommended the project proposal for prescribing ToRs along with the 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. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.
- ii. Public Hearing to be conducted by the concerned State Pollution Control Board.
- iii. 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.
- iv. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.
- v. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

36.20 Expansion of existing 29,500 TPA Billets to 1,65,000 TPA Billets production by installation of 1x10 Ton & 2x15 Ton Induction furnaces and production of 6,600 TPA Silico Manganese through 1x5 MVA Submerged Arc Furnace located at Village: Rauta, PO- Marar, PS- Mandu, District- Ramgarh, State- Jharkhand by M/s Vaishnavi Ferro Tech Pvt. Ltd. [Online Proposal No. IA/JH/IND/79090/2018; MoEFCC File No. J-11011/448/2009-IA-II(I)] – Terms of Reference.

1.0 M/s Vaishnavi Ferro Tech Pvt. Ltd. made application vide online proposal no.IA/JH/IND/79090/2018 dated 15th September 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(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification; 2006. The proposal of expansion is submitted and appraised at Central Level.

Details of the project as per the submission of Project Proponent

2.0 M/s Vaishnavi Ferro Tech Pvt. Ltd. proposes for expansion of existing manufacturing unit for production of 29,500 TPA MS Ingot (1x10 T Induction Furnace) to 1,65,000 TPA Billets by installation of additional 1x10 Ton & 2x15 Ton Induction furnaces with Billet Caster and production of 6,600 TPA Silico Manganese through 1x5 MVA Submerged Arc Furnace.

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3.0 Initially the company had applied for EC as per EIA Notification 2006 for Production of M.S. Ingot – 22,500 TPA on 17th July 2009 and TOR for the same was issued vide F. No. J-11011/448/2009- IA II (I), dated 4th September 2009. The unit had submitted the final EIA/EMP on 15th December 2009. and the other details as required by MoEF on 30th March 2010. MoEF&CC examined the proposal and communicated to M/s Vaishnavi Ferro Tech Pvt. Ltd. vide letter F. No. J-11011/448/2009- IA II (I) dated 10th May 2010 that “as per EIA Notification, 2006 as amended vide S.O. No. 307(E) dated 1st December, 2009, all Induction Furnace Units with total production capacity less than 30,000 TPA are exempted from environmental clearance”. Consent to Establish was obtained from Jharkhand State Pollution Control Board vide letter No. N46 dated 31.12.2009.

4.0 M/s Vaishnavi Ferro Tech Pvt. Ltd., expanded the production from 22,500 TPA to 29,500 TPA during the year 2018 after obtaining Consent to Establish from JSPCB vide JSPCB/HO/RNC/CTE-1933058/2017/816 on 26-12-2017. Consent to Operate was accorded by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO-2108321/2018/433. Validity of CTO is up to 31.03.2021.

5.0 The proposed unit will be located at Khasra No. 332/956, Khata No: 29, Village: Rauta, P.O.: Marar, District: Ramgarh, Jharkhand.

6.0 The total land area for the existing plant is 1.4 ha. Project does not envisaged additional land for the expansion project. No forestland involved. Of the total area, 0.477 ha (33%) land will be used for green belt development.

7.0 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.

8.0 Total project cost is approx INR 2584.73 lakhs rupees. Proposed employment generation from the proposed project will be 217 direct employments and approx. 600 indirect employments.

9.0 The targeted production capacity is 0.165 million TPA Billet production and 0.0066 million TPA Silico-manganese Ore for the plant will be procured from the open market. Ore transportation will be done through road. The proposed capacity for the different products are given below:

Name of Unit	No. of Units	Capacity of each unit	Production Capacity
Induction Furnaces	1	10 Tons	135,500 TPA
Billet Caster	2	15 Tons	Billets
Submerged Arc Furnace	1	5 MVA	6,600 TPA Ferro alloys

10.0 The electricity load of 24.5 MW will be procured from JBVNL/DVC. The company has also proposed to install and 1x125 kVA will be augmented with additional 1 x 500 kVA DG set.

11.0 Proposed raw material and fuel requirement for project are:

Induction Furnace: (Billets – 1,65,000 TPA)		
SL	Raw material	Consumption (TPA)
1	Sponge Iron	123750
2	Cast Iron/Pig Iron	33000
3	MS Scrap	33000
4	Ferro Alloys	1650
TOTAL		191400
Submerged Arc Furnace: (Silico-Manganese – 6600 TPA)		
SL	Raw material	Requirement (TPA)
1	Mn ore	9900
2	FeMn Slag	4620
3	Coke	5280
4	Quartz	1650
5	Dolomite	1650
TOTAL		23,100

12.0 The total water requirement after the expansion is estimated to be 132 KLD. No effluent will be discharge outside the plant boundary as the company will follow zero liquid discharge (ZLD). Domestic waste will be treated in Septic Tank with Soak Pit and Industrial waste water will be treated and reused.

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

14.0 Name of Environment Consultant – M/s Vardan Environet.S.L. No. 154 in QCI list of accredited consultants dated 05.09.2018.Certificate No. NABET/EIA/1619/RA 0037.

Observations and recommendations of the committee:

15.0 After detailed deliberations, the Committee observed that the proposed expansion was envisaged in the existing plan premises which is operating under Consent to Operation was located only 25 mtrs away from the River Damodar. Therefore, the Committee did not agree for proposed expansion due to close proximity to the River Damodar. The Committee also noted that the existing furnace operations are less than 30,000 TPA scale which is exempted from the purview of the EIA Notification, 2006.

36.21 Capacity Expansion in Clinker Production (1.67 MTPA to 2.0 MTPA) through up gradation and optimization of plant parameters & Cement Production (2.40 MTPA to 3.0 MTPA) through up gradation in plant parameters at - Baikunth, Tilda Dist. Raipur, Chhattisgarh by M/s Century Cement (A division of Century Textiles and Industries) [Online proposal No.IA/CG/IND/79181/2018; MoEFCC File No. J-11011/404/2007-IA-II(I)] – Terms of Reference.

1.0 M/s Century Cement (A division of Century Textiles and Industries) made application vide online proposal no. IA/CG/IND/79181/2018 dated 17th September, 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.

Details submitted by the Project Proponent:

2.0 M/s Century Cement, Baikunth, Tehsil- Tilda, Dist Raipur (CG) proposes capacity expansion in production of clinker (from 1.67 million TPA to 2 Million TPA- Percentage increase – 20%) & production of cement (from 2.40 million TPA to 3 Million TPA; Percentage increase – 25%) through up-gradation and optimization of plant parameters/capacity utilization in pyro processing section and cement mill section.

3.0 The project is in operation prior to EIA notification 2006 and 1994. The existing project was accorded Environment clearance vide no J-11011/404/2007-IA II (I) dated 28th September 2007 for expansion from 1.8 MTPA to 2.4 MTPA and amendment issued vide no.J-11011/404/2007-IA II (I) dated 2nd January 2015. The Consent to Operate (CCA Renewal) under Air and Water act was accorded by CG Environment Conservation Board vide number Air 3830 & 3828 dated 01/08/2018. The Validity of existing CTO is up to 31/07/2021.

4.0 The unit is located over Khasara No 85/2, 84/2, 105, 86, 615/2, 619/4, 599 etc , at Baikunth (Bahesar, Kundru & Tandwa), Tehsil- Tilda, Dist-Raipur (CG).

5.0 The unit is already acquired land of 587.119 hact inclusive of mines, plant and colony, out of above the plant and colony is having total land of 275.273 hact. Green belt has been developed over 169.698 hact out of total land of cement plant & colony i.e. 275.273 hact, whereas greenbelt of 5,27,753 number have been developed over land of 269.96 hact of out of total land of 587.119 hact.

6.0 No national park/wild life sanctuary/biosphere reserve/ tiger reserve/ elephant reserve etc are 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 The existing project cost is Rs. 255.57 crores, which will be increased by Rs 48.41 crores for modernization of the project. The direct employment has been reported as 1500 and indirect employment generation is about 20,000 no. The direct employment generation will be increased by 15-20 number with the expansion of the project.

8.0 The targeted production capacity of clinker is from 1.67 million TPA to 2 million TPA (Percentage increase – 20%) & cement is from 2.40 million TPA to 3 million TPA (Percentage increase – 25%). The limestone ore for the plant is procured through captive limestone mines located near to the cement plant. The ore transportation is done through dumpers as plant is located within 1km from the mines. The existing and proposed capacity for different unit to produce desired volumes of products is as below:

Units	Existing Capacity	Proposed Capacity
Clinker Production Capacity	1.67 Million TPA	2 Million TPA
Cement production capacity	2.40 Million TPA	3 Million TPA
Captive Power Plant	16 MW & 11 MW	Remain Same

Solar Power (SPVPP)	6X100 KWp & 1X102 KWp	Remain Same
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9.0 Present total power requirement for simultaneous running of our complete plant is about 33.4 MW which is met from CSEB, captive Thermal Power Plants & Solar Power Plant. There are two Thermal Power Plant with having capacity of 16 MW & 11.0 MW & solar plant of 6X100 KWp & 1X102 KWp SPVPP.

10.0 The requirement of major raw material i.e. limestone is reported as 7400 metric tonnes per day. The upgraded requirement will be around 8850 metric tonnes per day. The requirement will be met from the captive mines. Total Limestone production capacity of captive mines are 30 Lac Ton/year as recommended by MoEF & CC. The existing fuel Coal/Pet Coke (0.27/0.16 LMT) have been procured from Linkage/e-auction/purchase and same sources shall be continue for expansion also.

11.0 Water Consumption for the existing project (Cement plant, Colony and Mines) is 3793 KLD, which will be increased by 100 KLD and waste water Generation will be approx. 348 KLD. The domestic waste water is being treated at STP (250 x 2 KLD & 60 KLD STP) and industrial waste water from captive TPP is also treated at neutralization tank. Treated waste water are being recycled and used in coal /ash quenching, dust suppression and green belt development.

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 brief details of upgradation/modernization are as follows :

Technical Summary of Operation at Existing Capacity		
Parameter	Unit	Value
Clinker production	tpd	2530
Kiln specific loading	tpd/m ³	3.74
Cooler Specific loading	tpd/ m ²	70.28
Specific Heat Consumption	Kcal/ kg clinker	790-800
Specific Power consumption (upto clinkerization)	kwH/t	67.5
PH outlet Pressure	mm WG	-420to-430 (k-line) & -460 to -480 (c-line)
PH outlet Temperature	°C	370-375
Preheater fan inlet Pressure	mm WG	-460 to -480 (k-line) & -500 to -520 (c-line)
Preheater fan inlet Temperature	°C	280 to 290 (with water spray) & 300-310 (Cline with water spray)
Cooler Vent Temperature	°C	300-350 (with water spray)
Clinker Temperature	°C	140-160

14.0 The expected operating parameters while operating single kiln 3030 TPD clinkerization with respective modifications are given below:

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Technical Summary of Operation at Upgraded Capacity		
Parameter	Unit	Expected Value
Clinker production	tpd	3030
Kiln specific loading	tpd/m ³	4.4
Cooler Area	m ²	K-1 – 62.0/K-2 – 55.0
Specific Heat Consumption	Kcal/ kg clinker	750-760
Specific Power consumption (for clinkerization)	kwh/t	64.5
PH stages	5 Stage	
PH outlet Pressure	mm WG	-580 to -620 (K-line) -610 to -650 (C-line)
PH outlet Temperature	°C	340-350
Pre heater fan inlet Pressure	mm WG	-610 to -650 (K-line) -650 to -690 (C-line)
Pre heater fan inlet Temperature	°C	270-280 (K-line/With water spray)/290-300 (C-line/With water spray)
Cooler Vent Temperature	°C	280-300 (With water spray)
Clinker Temperature	°C	85 +amb

An Estimate Of Process Fan Flows Is Given Below				
Parameter	Units	Existing	Estimated	Remarks
Daily Clinker Production	tpd	2530x2	3030x2	
Clinker production	tph	105	126	
Clinker factor		1.65	1.65	
Kiln feed requirement	tph	170-175	208-210	
Specific Cooler Vent Air	Nm ³ /kg	0.9-1.1	1.1-1.2	
Cooler Vent air flow	Nm ³ /h	90000-110000	135000-150000	
Air density	kg/nm ³	1.29	1.29	
Cooler Vent air flow	kg/h	115000-145000	175000-195000	
Vent air Density	kg/m ³	0.60-0.62	0.50-0.52	
Cooler Vent air flow	m ³ /h	190000-230000	340000-360000	
Specific Preheater Gas Quantity (K+C line)	Nm ³ /kg	1.70-1.75	1.45-1.50	K-PH fan 288000 m ³ /hr (Design Capacity)
Preheater Gas flow (K+C line)	Nm ³ /h	165000-170000	180000-190000	C-PH fan 215000 m ³ /hr (Design Capacity)

Gas density	kg/nm3	1.42	1.42	
Preheater Gas flow (K+C line)	kg/h	235000-240000	255000-270000	
Preheater Gas temperature	□C	370-375	340-350	
Preheater gas Density	kg/m3	0.55	0.57	
Preheater Gas flow (K+C line)	m3/h	425000-440000	450000-470000	
Temp at fan inlet	□C	280-300	270/290	With water spray
Pressure at fan inlet	mm wg	-460 to -480/-500 to -520 (K/C line)	-610 to -650/-650 to -690 (K/C line)	
Flow at Preheater fan inlet (K+C line)	m3/h	400000-410000	420000-430000	
RABH Fan (Design)	m3/h	250000 (K-line)/194500 (C-line)	250000 (K-line)/194500 (C-line)	

15.0 A comparison of fuel firing requirements is given below:

This is based on existing fuel mix of coal and petcoke with an average calorific value (ncv) of 6600- 6900 kcal/kg clinker.

A comparison of fuel firing requirements is given below:

This is based on existing fuel mix of coal and pet coke with an average calorific value of (ncv) 6600 -6900 kcal/kg clinker.

		Existing	Estimated
Daily Clinker Production	tpd	2530	3030
Specific heat consumption	kcal/kg clinker	795	750
Fuel Calorific Value	kcal/kg coal	6940	6940
Total Heat consumption	Mkcal/h	83.8	94.69
firing in kiln	%	55-60	45-55
Fuel to kiln	tph	6.0-6.2	6.0-6.1
Daily Clinker Production	tpd	2530	3030
Fuel to sec firing	tph	-	-
Fuel to calciner	tph	6.5-6.6	7.5-7.7
Total fuel requirement	tph	12.5-12.7	13.5-13.7

Environmental Consideration

16.0 The proposed up-gradation will not affect the particulate emission, it is worked out that the existing RABH is sufficient to take care of Preheater gas volume. The existing cooler ESP will be able to handle the slight increase in quantity of cooler vent gases. Adequate dedusting filters will be provide at material transfer points to take care of fugitive emissions if any. Raw mill additional dust collectors (4Nos -5000m3/hr each). For efficient operation of all the dust collectors the diaphragm of solenoid has planned to replace. Replacement of existing polymers bags with homo polymer bags of RABH/dust collector/ESP (Internals).

Observations of the Committee:

17.0 The project proponent requested for consideration for grant of environmental clearance under 7(ii) of EIA Notification, 2006 for expansion of production capacity about 25%. The Committee noted that the earlier environment clearance was granted in 2007 is also under Clause 7(ii) of EIA Notification, 2006.

Recommendations of the Committee:

18.0 Therefore, further consideration for expansion under 7(ii) is not recommended. During the deliberations, the Committee recommended the project proposal for prescribing ToRs along with 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 project proponent shall explore possibility of installation of waste heat recovery boiler for all the kilns for power generation.
- ii. The project proponent shall explore the possibility of utilizing alternate fuel in the kiln.
- iii. Action plan for compliance of earlier unit with revised emission/discharge norms.
- iv. Action plan for rain water harvesting for the quantity abstracted from the ground.
- v. Public Hearing to be conducted by the concerned State Pollution Control Board.
- vi. 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.
- vii. Detailed Road traffic study for inside and outside the plant shall be conducted and furnished in the EIA/EMP report.
- viii. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.
- ix. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.
- x. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

36.22 **Expansion of Sponge Iron from 60,000 to 90,000 TPA, production of 72,000 TPA Billet by addition of 2x12T Induction Furnace and 12 MW Captive Power Plant at Village:Ara Saru Bera Road, PO-Kuju, District -Ramgarh, State Jharkhand by M/s Sri Ram Power & Steel Pvt. Ltd. [Online proposal No. IA/JH/IND/79533/2018; MoEFCC File No. J-11011/260/2009-IA-II(I)] – Terms of Reference.**

1.0 M/s Sri Ram Power & Steel Pvt. Limited made application vide online proposal no.IA/JH/IND/79533/2018 dated 20th September, 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(a) Metallurgical industries (ferrous & non-ferrous) under Category “A” EIA Notification, 2006 and the proposal is appraised at Central Level.

Details submitted by the Project Proponent:

2.0 M/s Shri Ram Power & Steel Pvt. Ltd. proposes for expansion existing manufacturing unit of Sponge Iron Plant from 60,000 to 90,000 TPA, production of 72,000 TPA Billet by addition of 2x12 Ton Induction Furnace with CCM and 12 MW Captive Power Plant.

3.0 The existing project was accorded environmental clearance vide letter no.J-11011/260/2009-IA.II (I) dated 30.09.2010 for expansion of existing Sponge Iron Plant from 30,000 to 90,000 TPA Sponge iron, Steel Melting Shop 60,000 TPA and 8 MW Power Plant through 3x100 TPD DRI Kilns, 2x12 Ton Induction Furnace and 8 MW Power generation through WHRB & AFBC Boiler. Under this EC, all units were not installed within the validity of EC. The company applied for extension of the validity of the existing environment clearance on 21st December, 2017, however, the ministry rejected the proposal vide letter dated 9th April 2018 for extension of validity in view of no progress made at site by the project proponent in last 7 years. Consent to Operate was accorded by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO-2012198/2018/860. Validity of CTO is up to 31.03.2019.

4.0 The proposed unit will be located at Khasra No. 7, 88, 28, 28, 1/193, 1/193 Village: Ara Saru Bera Road, P.O.: Kaju, District: Ramgarh, Jharkhand.

5.0 The land area acquired for the proposed plant is 4.96 Ha. Project does not envisage additional land for the expansion project. No forestland involved. Of the total area, 1.71 ha (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 at a distance of 10 kms. from the project site. The area also does not report to form corridor for Schedule-I fauna.

7.0 Total project cost is approx 78.25 Crore rupees. Proposed Employment generation from the proposed project will be 143 direct employments and approx. 700 indirect employments.

8.0 Targeted production capacity for sponge iron will be 90,000 TPA, Billet production will be 72,000 TPA and Captive Power Plant - 12 MW. The ore for the plant would be procured from the open market and from other states depending upon the quality. The ore transportation will be done by rail till railway siding and then by road. The proposed capacity for different products for new site area as below:

Units	Existing Units		Proposed Units		Final Configuration	
	Unit	Production TPA	Unit	Production TPA	Unit	Production TPA
Sponge Iron Plant – 90,000 TPA						

Units	Existing Units		Proposed Units		Final Configuration	
	Unit	Production TPA	Unit	Production TPA	Unit	Production TPA
DRI Kilns	2x100 TPD	60,000	1x100 TPD*	30,000	3x100 TPD	90,000
Steel Melting Shop – 72,000 MS Billets						
Induction Furnace	--	--	2x12 Ton	73050	2x12 Ton	73050
Billet Caster	--	--	2x6/11 m radius	72000	2x6/11 m radius	72000
Captive Power Plant – 12 MW						
WHRB	--	--	3	6 MW	3	6 MW
AFBC Boiler	--	--	1	6 MW	1	6 MW

9.0 The electricity load of 11.8 MW will be procured from DVC and captive generation and also proposed to install 1x500 KVA and 1x250 KVA DG Sets.

10.0 Proposed raw material and fuel requirement for project are:

S.No.	Item	Requirement (TPA)			Source and Transportation
		Existing	Proposed	Total	
1.	Iron Ore	96,000	48,000	1,44,000	From mines in Odisha & Jharkhand – by Rail rake and by road.
2.	Non Coking Coal	78,000	39,000	1,17,000	From various mines of CCL – by Rail rake and/or road.
3.	Dolomite/ Limestone	1,800	900	2,700	From Chhatisgarh by road

11.0 Water consumption for the proposed project will be 1119 m³/day and no waste water will be discharged as the company will follow liquid effluent discharge (ZLD). Domestic waste water will be treated in Septic Tank with Soak Pit and Industrial waste water in Neutralisation Pit and reused.

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 Environment Consultant – M/s Vardan Environet.S.L. No. 154 in QCI list of accredited consultants dated 05.09.2018.Certificate No. NABET/EIA/1619/RA 0037.

Observations of the Committee:

14.0 During the deliberations, the project proponent informed that they have made request to DFO for clarification regarding involvement of forest land. The Committee also noted that project proponent has not made clear presentation regarding environment sensitivity of the

project site, existing /proposed configuration in consonance with environment clearance accorded.

Recommendations of the Committee:

15. After detailed deliberations, the Committee deferred the consideration of the proposal and advised the project proponent to submit clarification from the DFO regarding involvement of forest land for the further consideration of the proposal.

36.23 Expansion of Integrated Cement Plant - Clinker (6.5 to 10.0 MTPA), Cement (3.3 to 7.0 MTPA), WHRS (16 to 36 MW) and CPP (80 MW) at Village: Rawan, Tehsil: Simga, District: Balodabazar- Bhatapara (Chhattisgarh) by M/s. Ultra Tech Cement Ltd. (Unit: Rawan Cement Works) [Online Proposal No. IA/CG/IND/79603/2018; MoEFCC File No. J-11011/262/2009-IA II (I)] – Terms of Reference.

1.0 M/s Ultra Tech Cement Ltd. made application vide online proposal no. IA/CG/IND/79603/2018 dated 20th September, 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 and the proposal is appraised at Central Level.

Details submitted by the project proponent:

2.0 M/s. UltraTech Cement Limited (Unit: Rawan Cement Works) has proposed an Expansion of Integrated Cement Plant - Clinker (6.5 to 10.0 MTPA) & Cement (3.3 to 7.0 MTPA), WHRS (16 MW to 36 MW) & CPP (80 MW) at Village: Rawan, Tehsil: Simga, District: Balodabazar - Bhatapara (Chhattisgarh).

3.0 The existing project i.e. Cement Plant was accorded environmental clearance *vide* letter no. J-11011/262/2009-IA II (I) dated 17th March, 2011 and name change in EC from Grasim Industries Ltd. to UltraTech Cement Ltd. has been obtained *vide* letter dated 5th Sept., 2016. Consent to Operate was accorded by Chhattisgarh Environment Conservation Board *vide* letter no. 6416-6418/TS/CECEB/2018, dated 13th Feb., 2018 for Clinker, CPP & WHRS; which is valid up to 28th Feb., 2021 and *vide* letter no. 3437/TS/CECB/2018 dated 23rd July, 2018 for Cement & Coal Washery; which is valid up to 31st Aug., 2021.

4.0 The plant site is located at Village: Rawan, Tehsil: Sigma, District: Balodabazar-Bhatapara, State: Chhattisgarh.

5.0 Total existing plant area is 388.37 ha (Plant & Colony) and the proposed expansion will be done within the existing plant premises. No additional land will be acquired for proposed expansion project. No forest land is involved. Out of the total plant area, 155.58 ha (~40%) land has already been developed under greenbelt / plantation.

6.0 No National Park / Wildlife Sanctuary / Biosphere Reserve etc. exists within 10 km radius of the plant site.

7.0 Total project cost is Rs. 1800 Crores. Employment generation from proposed expansion project will be 310 direct employments and 2000 indirect employment.

8.0 The targeted production capacity of the Clinker is 10.0 MTPA, Cement 7.0 MTPA, CPP 80 MW and WHRS 36 MW. The limestone for the plant would be sourced from captive limestone mines. The limestone transportation will be done via covered conveyor belt. The proposed capacity for different products is given as below:

S. No.	Product	Existing Capacity	Additional Capacity	Total capacity
1.	Clinker (MTPA)	6.5	3.5	10.0*
2.	Cement (MTPA)	3.3	3.7	7.0
3.	CPP (MW)	80	Nil	80
4.	WHRS (MW)	16	20	36
5.	D.G. Set (MW)	12	Nil	12

*Clinker will also be sent to sister Grinding Units

9.0 The existing power requirement is 59 MW. Additional 44 MW power will be required for proposed expansion project. Thus, the total power requirement after proposed expansion will be 103 MW; which will be sourced from CPP, WHRS & Grid (Excess power will also be sourced from Sister Unit Hirmi Cement Works).

10.0 The raw materials required for the expansion project are Limestone; which will be sourced from Captive Limestone Mines; Iron Ore; which will be sourced from Rashi steel / Sparsh baldev, Gypsum; which will be sourced from Koromandal fertilizer / Paradeep phosphate Ltd., Fly Ash will be sourced from CPP, Bako, NTPC Korba and Slag will be sourced from Bhilai steel plant/ NICCO. Fuel required for proposed expansion project includes Pet-coke / Coal which will be either be imported from USA or from Reliance/Essar/ CPCL or Coal India Ltd.

11.0 The existing water requirement for the project is 3962 KLD. Additional 1000 KLD water will be required for proposed expansion project. Thus, the total water requirement after proposed expansion project will be 4962 KLD; which will be sourced from Ground Water and Mine Sump Water. No waste water will be discharged from the cement plant. Domestic wastewater generated from the plant and colony will be treated in STPs and treated water will be used for greenbelt development / plantation.

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

13.0 EIA Consultant: J.M. EnviroNet Pvt. Ltd., S. No. in QCI List - "90" (as updated on 05th Sept., 2018)

Recommendations of the Committee:

14.0 After detailed deliberations, the Committee recommended the project proposal for prescribing ToRs along with 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. No ground water abstraction shall be proposed for further expansion operations.
- ii. Public Hearing to be conducted by the concerned State Pollution Control Board.
- iii. 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.
- iv. Detailed Road traffic study for inside and outside the plant shall be conducted and furnished in the EIA/EMP report.
- v. Scheme for skill development as per the programmes of Skill Development Council of India to improve the employability of the locals in the proposed project.
- vi. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.
- vii. Certificate compliance of earlier EC from the Regional officer of the MoEF&CC shall be submitted along with EIA/EMP.

36.24 Expansion of Steel plant (Sponge Iron: 90000; MS Billets 123500 TPA; TMT Bars/ Structural Steel / Steel Wire Rod: 94800 TPA) along with Captive Power Plant [18 MW – WHRB (6 MW) and FBC (12 MW)] at Village Saraipalli, Tehasil Ghargoda, District Raigarh in Chhattisgarh M/s Shree Rupanadham Steel Limited [IA/CG/IND/4118/2011; MoEF&CC File No.J-11011/308/2009-IA.II(I)] - Amendment in Environmental Clearance.

1.0 M/s Shree Rupanadham Steel Limited made an application vide online proposal No. IA/CG/IND/4118/2011 dated 4th September, 2018 for amendment in environmental clearance regarding compliance of emission norm for particulate matter.

Details submitted by the Project Proponent:

2.0 Environmental Clearance to the project cited above was accorded by the Ministry vide letter no. J-11011/308/2009-IA.II(I) dated 29/03/2011. Thereafter, EC validity period was extended by the Ministry till 28/03/2021 during May, 2018 with a stipulation that PP shall comply with the stack emission norm of 30 mg/Nm³ of particulate matter.

3.0 The project proponent vide letter dated 11/08/2018 requested the Ministry to amend the environmental clearance with respect to particulate matter emission for the DRI kiln as 50 mg/Nm³.

Observations and recommendations of the Committee:

4.0 The Committee noted that the validity of the expansion was recommended by the Committee subject to achieving the norms of the emission of the particulate matter less than 30 mg/Nm³. The project proponent made an elaborate request for reverting the required norms of 50 mg/Nm³ for DRI. The Committee did not agree for recommending the change of norms from 30 mg/Nm³ to 50 mg/Nm³ because earlier recommendation was very site specific and was based on consideration of prevailing local scenario. The project proponent requested to allow them for some time to adhere to the prescribed norm of 30mg/Nm³. The Committee also observed that the EC given to them is valid up to March 2021. However, looking at the urgency of adhering to the norm of 30mg/mg/Nm³, the Committee agreed to allow the project proponent time upto 31st December 2019 for achieving the aforesaid norm of 30 mg/Nm³.

36.25 Proposed integrated steel plant (sponge iron DRI kiln -99000 TPA, Sponge iron tunnel kiln – 148500 TPA, Beneficiation plant – 600000 TPA, Pelletisation plant – 300000 TPA, Steel melt shop – 1,07,800 TPA, Rolling mill – 1,04,000 TPA, along with 18 MW captive power plant (12 MW AFBC, 6MW WHRB) at village Halavarthi, Taluk & District Koppal in Karnataka by M/s Gallantt Metal Limited [Online proposal No. IA/KA/IND/3868/2011; MoEFCC File No. J-11011/271/2010-IA.II(I)] – Extension of validity of EC.

M/s Gallantt Metal Limited made an application vide online proposal no. IA/KA/IND/3868/2011 dated 4th September, 2018 seeking extension of validity of environmental clearance granted for proposed integrated steel plant (sponge iron DRI kiln -99000 TPA, Sponge iron tunnel kiln – 148500 TPA, Beneficiation plant – 600000 TPA, Pelletisation plant – 300000 TPA, Steel melt shop – 1,07,800 TPA, Rolling mill – 1,04,000 TPA, along with 18 MW captive power plant (12 MW AFBC, 6MW WHRB) at village Halavarthi, Taluk & District Koppal in Karnataka vide File No. J-11011/271/2010-IA.II(I) dated 29th February, 2012.

Details submitted by the Project Proponent:

2.0 M/s. Gallantt Metal Ltd. has obtained Environmental Clearance for Proposed Integrated Steel Plant (Sponge Iron (DRI Kiln)-99,000 MTPA, Sponge Iron (Tunnel Kiln) – 1,48,500 MTPA, Beneficiation (Iron Ore Fines) – 6,00,000 TPA, Pelletization Plant – 3,00,000 TPA, Steel Melt Shop (SMS) – 1,07,800 TPA, Rolling Mill (TMT) – 1,04,000 TPA along with 18 MW Captive Power Plant (12 MW – AFBC & 6 MW – WHRB) at Village – Halvarthi, Taluka & District – Koppal, Karnataka vide MoEF&CC Letter No. J-11011/271/2010-IA-II(I) dated 29/02/2012.

3.0 Following is the implementation status of the project for which EC has been accorded:

SN	Details	Production Capacity	Status of Implementation of present proposal
1	SPONGE IRON (DRI KILN)	99,000 MTPA	<ul style="list-style-type: none"> • Land Purchased converted into NA for industrial purpose. Copy of NA Attached As Annexure-X • Land / Site Development Activity (Wire Fencing on four boundaries) Completed.
2	SPONGE IRON (TUNNEL KILN)	1,48,500 MTPA	
3	BENEFICIATION (IRON ORE)	6,00,000 TPA	

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	FINES)		<ul style="list-style-type: none"> • Total 127.73 Lakhs spent on land purchase & development. • Other process are yet to be implemented and it will be implemented by December 2021.
4	PELLETIZATION PLANT	3,00,000 TPA	
5	STEEL MELT SHOP (SMS)	1,07,800 TPA	
6	ROLLING MILL (TMT)	1,04,000 TPA	
7	CPP (From Waste Heat, Coal & Dolachar), with Air cooled condenser	12 MW – AFBC 6 MW – WHRB	

4.0 Justification for delay / non-implementation: -

- After obtaining EC, pre-operation activities/purchase & land development (Wire Fencing at four boundaries) has been implemented.
- Could not go ahead with the implementation of unimplemented portion of the above referred EC due to following: -
 - i. There was a blanket ban on Iron Ore mining in Karnataka on 29.07.2011. Due to closure of mining activities, it became very difficult to get the required raw material.
 - ii. Recently, company bought the tender documents for Iron Ore Mine in Karnataka and started the process to obtain the Iron Ore Mine.

Observations of the committee:

5.0 The Committee noted that the project proponent could not implement the project due to blanket ban on Iron Ore mining in Karnataka.

Recommendations of the Committee:

6.0 After detailed deliberations, the Committee recommended for extension of validity of Environmental Clearance for a period of three years i.e., from 28/02/2019 to 28/02/2022 subject to environmental safeguards.

36.26 Expansion of Integrated Steel Plant Project along with Captive Power Plant (7 MW) and Coal Washery (40 TPH Jig) located at Village Palgam, Kaushalgarh, Chowka-Kandra Road, P.O. Ghatdulmi, Tehsil Chandil, District Saraikela Kharsawan, Jharkhand by M/s Divine Alloys & Power Co. Limited [Online proposal No. IA/JH/IND/57731/2010; MoEFCC File No. J-11011/492/2010-IA-II (I)] - Corrigendum to EC.

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.

36.27 Steel Plant (95,000 TPA to 6,95,000 TPA) and captive power plant (16 MW to 52MW) at Jamgoan, Raigarh, Chhatisgarh by M/s MSP Steel & Power Ltd [Online Proposal IA/CG/IND/3823/2008; MoEFCC File No. J-11011/267/2007-IA.II(I) – amendment in EC.

M/s MSP Steel & Power Ltd made an application vide online proposal no. IA/CG/IND/3823/2008 dated 20th September, 2018 sought amendment in the environmental clearance accorded by the Ministry on 2nd April, 2009 vide letter No. J-11011/267/2007-IA II(I).

Details submitted by the Project Proponent:

2.0 Details of earlier project along with details of EC/ToR granted for the project with letter no and date of issue:

- EC issued vide File No. J-11011/267/2007-IA II (I) dated 02/04/2009 for capacity expansion of MSP Steel & Power Limited from 95,000 to 6,95,000 TPA Billet Production and Captive Power Plant from 16 MW to 52 MW.
- Amendment in EC issued on 9th September, 2010 for expansion of Pellet plant from 0.6 MTPA to 0.9 MTPA and Captive Power Plant (AFBC Boiler) from 20 MW to 44 MW.
- Amendment in EC issued on 23rd August, 2012 for change in configuration of Steel melting Shop within 672,172 TPA Billet production and inclusion of 4.5 MW biomass based power plant.

3.0 Compliance status of the EC from the Regional Office of MoEF&CC

- The latest compliance of EC was submitted to RO (Nagpur) of MoEF&CC on 21.05.2018. The Regional officer visited the plant site for monitoring of compliance of conditions stipulated in EC on 06.06.2018 and submitted a report to IA division of MoEF&CC, New Delhi on the status of compliance of EC conditions vide F.No. 5-189/2009(ENV)/3993 dated 31.07.2018.

4.0 The configuration of the Steel Melting Shop as per amendment in the Environmental Clearance dated 23rd August, 2012, is as follows:

Furnace configuration of Steel melting Shop	Production Capacity (TPA)
4x8 Ton Induction Furnace	95,000
1x8 Ton Induction Furnace	24,832
1x18 Ton Induction Furnace	46,000
3x15 Ton Induction Furnace	139,680
2x35 Ton Electric Arc Furnace	366,660
Total Production	6,72,172

5.0 M/s MSP Steel & Power Ltd. has now proposed for change in configuration in Steel Melting Shop within the permitted production capacity under the EC as mentioned below:

Configuration of SMS as per the Environmental Clearance		Changes proposed in configuration of SMS	
Furnace configuration	Production of Billet in TPA	Furnace configuration	Production of Billet in TPA
4x8 Ton Induction Furnace	95,000	4x8 Ton Induction Furnace	95,000
1x8 Ton Induction Furnace	24,832	1x8 Ton Induction Furnace	24,832
1x18 Ton Induction Furnace	46,000	1x18 Ton Induction Furnace	46,000
3x15 Ton Induction Furnace	139,680	3x15 Ton Induction Furnace	139,680
2x35 Ton Electric Arc Furnace	366,660	1x35 Ton Electric Arc Furnace	183,330
		4x20 Ton Induction Furnace	183,330
Total Production	672,172	Total Production	672,172

6.0 There will be no increase in pollution load due to the proposed change in configuration of Steel Melting Shop (SMS). Changes proposed within the total permitted production capacity of SMS under the EC. A detailed study of pollution load for existing and proposed facilities will be prepared and presented.

7.0 Name of Environment Consultant – M/s Vardan Environet., S.L. No. 154 in QCI list of accredited consultants dated 05.09.2018. Certificate No. NABET/EIA/1619/RA 0037.

Observations of the Committee:

8.0 The Committee observed that the instant proposal is for amendment of environmental clearance for unimplemented units of 2x35 ton electric arc furnace, two 1x35 ton electric arc furnace and 4x21 ton induction furnace which was the part of environment clearance granted in 2009. The Committee noted that the validity of the EC was expired by 8th September 2017.

Recommendations of the Committee

9.0 Therefore, the Committee opined that amendment in the expired environmental clearance is not recommended. Therefore, the proposal is rejected.

36.28 Proposed Steel Plant at Ananthapur, Andhra Pradesh by M/s Shyam Ferrous Limited [Online Proposal No. IA/AP/IND/61021/2009; MoEFCC File No. J-11011/634/2009-IA II (I)] – Validity Extension of EC.

M/s **Shyam Ferrous Limited** made an application vide online proposal no. **IA/AP/IND/61021/2009** dated 7th November, 2017 seeking extension of validity of environmental clearance granted for proposed **Steel Plant at Ananthapur, Andhra Pradesh** vide File No. **J-11011/634/2009-IA II (I)** dated 23rd November, 2019.

Details submitted by the Project Proponent:

2.0 It was informed that out of the granted facilities, 1X15 MT steel melting shop and mould casting was not implemented due to financial constraints.

Observations of the committee:

3.0 The Committee noted that instant proposal was made for extension of validity in November 2017 and the proposal was considered during the EAC meeting held in December 2017. However, the project proponent did not attend the meeting and has already obtained ToR for expansion of existing project, *inter alia*, including 1x15 ton induction furnace for which extension of validity was sought. The project proponent has not given any substantiating justification for non-implementation of the units. Since, unimplemented activities under the environmental clearance already granted are also part of the Terms of Reference granted during March 2017, it was mutually agreed that the extension of validity is not required because the purpose is going to be achieved through compliance of ToR process

Recommendations of the Committee:

4.0 Therefore, the committee advised to prepare the EIA report as per the ToR already given to them in March 2017. Therefore, the project proposal is returned in the present form.

36.29 Expansion of Sponge Iron Plant (from 1,20,000 TPA to 1,38,000 TPA), Rolling mill (90,000 TPA), Iron Ore crushing & Beneficiation plant (2,70,000 TPA), Slag Crushing plant (16,200 TPA) and Captive Power plant (4x2 MW WHRB; 1x10 AFBC) located at Village Budhakhap, P.O - Karma, Dist. - Ramgrah, Jharkhand by M/s Alope Steels Industries Private Limited [Online Proposal No. IA/JH/IND/53261/2016; MoEFCC File No. J-11011/205/2016-IA-II] – Corrigendum to EC.

1.0 **M/s Alope Steels Industries Private Limited** made an application vide online proposal no. **IA/JH/IND/53261/2016** dated 9th July, 2018 seeking corrigendum to the environmental clearance granted for the proposed expansion of Sponge Iron Plant (from 1,20,000 TPA to 1,38,000 TPA), Rolling mill (90,000 TPA), Iron Ore crushing & Beneficiation plant (2,70,000 TPA), Slag Crushing plant (16,200 TPA) and Captive Power plant (4x2 MW WHRB; 1x10 AFBC) located at Village Budhakhap, P.O - Karma, Dist. - Ramgrah, Jharkhand vide Letter No. J-11011/205/2016-IA-II, dated 23/07/2018.

Details submitted by the Project Proponent:

2.0 The Industry has not yet installed the facilities as per the EC granted on 23.07.2018. The EC compliance report will be submitted after the installation of new facilities and after six months of operation.

3.0 The corrections sought by the project proponent is furnished below.

Para No.	As per the EC issued by MoEF&CC	Correction required																								
Subject	Expansion of Sponge Iron Plant (from 1,20,000 TPA to 1,38,000 TPA) Rolling Mill (90,000 TPA), Iron Ore Crushing & Beneficiation plant (2,70,000 TPA), Slag Crushing plant (16,200 TPA) and Captive Power Plant (4x2 MW WHRB; 1x10 AFBC) located at Village Budhakhap, P.O – Karma, Dist.- Ramgarh, Jharkhand by M/s Alope Steels Industries Private Limite. – Environmental Clearance regarding.	Subject of EC may be corrected as: “ Expansion of existing 1,20,000 TPA Sponge Iron Plant for addition of Steel Melting Shop for production of 1,08,000 TPA of Billets), Rolling mill (90,000 TPA TMT Bar), Iron Ore crushing & Beneficiation plant (2,70,000 TPA), Slag Crushing plant (16,200 TPA), Captive Power plant 18 MW (4x2 MW WHRB: 1x10 MW AFBC) and Briquetting unit (40,100 TPA).....”																								
3.0	The project of M/s Alope Steel Industries Pvt. Ltd., located in Budhakhap village, P.O. - Karma, Ramgarh District, Jharkhand State is for expansion of the existing plant for production of 0.12 MTPA of Sponge Iron by installation of new facilities for production of Steel Melting Shop for 0.108 MTPA of Billets, Rolling Mill for production of 0.09 Million tons of rolled product with 18 MW Power Plant and 0.27 MTPA of Ore Crushing & Beneficiation plant. EC for the existing project was not required as the project was installed prior to EIA Notification, 2006 and the project cost was less than 100 Cr. The proposed project facilities and the cost are as below.	The product mix of the plant is to corrected as “.....expansion of existing plant for production 0.12 MTPA of Sponge Iron by installation of new facilities for production of Steel Melting Shop for 0.108 MTPA of Billets, Rolling Mill for production of 0.09 MTPA of rolled product with 18 MW Power Plant, 0.27 MTPA of Ore Crushing & Beneficiation Plant, 0.0162 MTPA Slag Crushing plant, and 0.0401 MTPA of Briquetting unit for Iron Ore fines”																								
	<table border="1"> <thead> <tr> <th>S.No.</th> <th>Project Particulars</th> <th>Cost Rs. (in lakhs)</th> </tr> </thead> <tbody> <tr> <td colspan="3">Existing</td> </tr> <tr> <td>1</td> <td>Existing Sponge Iron Plant</td> <td>2975</td> </tr> <tr> <td colspan="3">Proposed</td> </tr> <tr> <td>2</td> <td>SMS (3X12 T induction furnace + CCM)</td> <td>1600</td> </tr> <tr> <td>3</td> <td>Power Plant (18 MW)</td> <td>6200</td> </tr> <tr> <td>4</td> <td>Bar Mill</td> <td>4000</td> </tr> <tr> <td>5</td> <td>Iron Ore Crushing and Beneficiation facility with filter press</td> <td>550</td> </tr> </tbody> </table>	S.No.	Project Particulars	Cost Rs. (in lakhs)	Existing			1	Existing Sponge Iron Plant	2975	Proposed			2	SMS (3X12 T induction furnace + CCM)	1600	3	Power Plant (18 MW)	6200	4	Bar Mill	4000	5	Iron Ore Crushing and Beneficiation facility with filter press	550	Total Capital cost (1+14+15) – 20835 (in place of 20385)
S.No.	Project Particulars	Cost Rs. (in lakhs)																								
Existing																										
1	Existing Sponge Iron Plant	2975																								
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5	Iron Ore Crushing and Beneficiation facility with filter press	550																								

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Para No.	As per the EC issued by MoEF&CC			Correction required
	6	Briquetting plant	600	
7	Slag crushing facility	60		
8	Utilities & Central services	1500		
9	Engineering and Project management	500		
10	Contigencies	690		
11	Plant cost without IDC (2 to 10)	15700		
12	Interest during construction	1000		
13	Margin money for working capital	1000		
14	Cost of expansion project with IDC (11+12+13)	17700		
15	Enterprise Social Commitment Budget	160		
	Total Capital Cost (1+14+15)	20385		
7.0	The raw materials required for the expansion project are be Iron Ore 2,25,000 TPA; Coal – 1,92,000 TPA; Dolomite – 3000 TPA; Pig Iron/Scrap – 13,642 TPA. The raw material sourced from local market and transported by road.			
16.0	The Public hearing of the project was held on 13.05.2017 at Nav Prathamik Vidyalya, Vill- Budhakhap, Sub Division- Mandu, P.O- Karma, District- Ramgarh, Jharkhand under the Chairmanship of Sri Dinesh Prasad Singh, Dy. Magistrate for setting up of 18 MW Power Plant, Steel Melting Shop of 108,000 TPA Billet Production and Rolling Mill for 90,000 TPA TMT Br production with ore crushing and Beneficiation Plant of 2,70,000 TPA throughput and Slag Crushing Unit. The issues raised during public hearing which, inter alia, are concern over health of children, villagers and cattle due to pollution; effect on crop/ agriculture due to pollution from the plant; concern over water level going down in the area; Increase of			“.....under the Chairmanship of Mrs. Jyotsna Singh , Dy. Magistrate.....”

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Para No.	As per the EC issued by MoEF&CC	Correction required
	development fund being given to the affected villages; employment to educated people in the nearby villages.	

4.0 Name of Environment Consultant – **M/s Vardan Environet.**, S.L. No. 154 in QCI list of accredited consultants dated 05.09.2018. Certificate No. NABET/EIA/1619/RA 0037.

Observations of the Committee

5.0 The Committee observed that the corrigendum sought to the environmental clearance granted to them in July 2018 are factual in nature. The Committee also noted that public hearing was chaired by Mrs. Jyotsna Singh, Additional District Magistrate.

Recommendations of the Committee

6.0 After detailed deliberations, the Committee recommended for the corrigendum to the environmental clearance dated 23/07/2018 as mentioned at para 3.0 above.

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 all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. Site Details
 - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

6. Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport

- of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
 - v. Details of stack emission and action plan for control of emissions to meet standards.
 - vi. Measures for fugitive emission control
 - vii. Details of hazardous waste generation and their storage, utilization and disposal. Copies of MOU regarding utilization of solid and hazardous waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
 - viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
 - ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
 - x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
 - xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
 - xii. Action plan for post-project environmental monitoring shall be submitted.
 - xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8. Occupational health

- i. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre-designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analysed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- iii. Annual report of health status of workers with special reference to Occupational Health and Safety.

- iv. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
9. Corporate Environment Policy
 - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
 - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
 - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
 - iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. Corporate Environment Responsibility (CER)
 - i. To address the Public Hearing issues, an amount as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018 amounting to Rs.crores, shall be earmarked by the project proponent, towards Corporate Environment Responsibility (CER). Distinct CER 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 CER projects as indicated by the project proponent shall be implemented along with the 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 CER 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 4th August, 2009, which are available on the website of this Ministry shall also be followed.
- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and 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.

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 (PM₁₀ 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 PM₁₀ 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.

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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(PM₁₀ 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 PM₁₀ 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

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ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Trace metals in waste material especially slag.

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

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

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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.

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ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS

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

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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.

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METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)

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




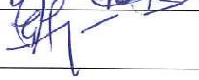

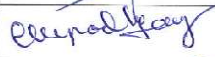



Executive Summary

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

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of its acquisition, nearby (in 2-3 km.) water body, population, within 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

MoM of 36th meeting of the EAC (Industry-I) held during 9th to 10th October, 2018

LIST OF PARTICIPANTS OF EAC (I) IN 36th MEETING OF EAC (INDUSTRY-I) HELD ON 9th to 10th October, 2018

S. No	Name and Address	Position	Attendance		Signature
			9 th	10 th	
1	Dr.Chhavi Nath Pandey, IFS(Retired)	Chairman	P	P	
Members					
2.	Dr. Nitin Endaly Representative of Central Pulp and Paper Research Institute	Member	P	A	
3.	Director, Central Leather Research Institute	Member	A	A	
4.	Dr.Siddarth Singh, Representative of Indian Meteorological Department	Member	A	A	
5.	Representative of Central Ground Water Board	Member	A	A	
6.	Dr. G. Bhaskar Raju	Member	P	P	
7.	Prof. Naresh Chandra Pant	Member	A	A	
8.	Dr. Jagdish Kishwan, IFS(Retired)	Member	P	P	
9.	Dr.G.V.Subrahmanyam	Member	P	P	
10.	Prof.Arun Pandey	Member	A	A	
11.	Shri Santosh Raghunath Gondhalekar	Member	P	P	
12.	Shri Ashok Upadhyay	Member	P	P	
13	Mr. R.P. Sharma	Member	P	P	
14.	Shri Sharath Kumar Pallerla, Scientist 'F' / Director, MoEF&CC	Member Secretary	P	P	
15.	Shri Sundar Ramanathan, Scientist 'D', MoEF&CC	Joint Director	P	P	
16.	Shri RajasekharRatti, Scientist 'C', MoEF&CC	Dy. Director	P	P	