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

SUMMARY RECORD OF THE TWENTY-FIRST(21ST) MEETING OF EXPERT APPRAISAL COMMITTEE HELD ON 10TH–11THAUGUST 2017 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The Twenty-first 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 on 10th – 11thAugust 2017 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

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

21.2 Confirmation of the minutes of the 20th Meeting

The minutes of the 20th meeting, as circulated were confirmed.

DATE:10thAugust 2017

21.3. Expansion of Induction Furnace and Rolling Mill of M/s Hindupur Steel and Alloy Private Limited located at Plot No. 29, APIIC Industrial Park, Village Gollapuram, Mandal Hindupur, District Anantapur, Andhra Pradesh [Proposal No. IA/AP/IND/66901/2017, MoEF&CC File No. J-11011/250/2012-IA II (I)] – Terms of Reference for expansion.

1.0 The proponent has made online application vide proposal no. **IA/AP/IND/66901/2017**dated **22nd July 2017** along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & nonferrous) under category 'A' of the Schedule of EIA Notification, 2006 as the project attracts the general condition due to location of the project near interstate boundary and specific condition "If any Industrial Estate/Complex / Export processing Zones /Special Economic Zones/Biotech Parks / Leather Complex with homogeneous typeof industries such as Items 4(d), 4(f), 5(e), 5(f), or those Industrial estates with pre-defined set of activities (not necessarily homogeneous, obtains prior environmental clearance". Therefore, the proposal is appraised at the Central Level.

2.0 M/s Hindupur Steels & Alloys Private limitedis operating an existing Induction Furnace of 30,000 TPA out of total 1,00,000 TPA capacity, 1,00,000 TPA of Rolling Mill & 6000 m^3/hr capacity of producer Gas plant at situated at Plot No.29, APIIC Industrial Park Gollapuaram (Phase-3), Gollapuaram Village, Hindupur Mandal, Ananthapur District, Andhra Pradesh. The project was granted Environmental Clearance from the Ministry vide letter no. J-11011/250/2011-IA-II(I) dated 22ndJune 2015 and having valid Consent to Operate to existing Induction Furnace & Rolling mill units from APPCB which is valid upto 28th February 2022.

3.0 Now, it is proposed to increase the capacity of the MS Billets / MS Ingots Production from 1,00,000 to 1,45,000 TPA; TMT Bars / Structural steel Production from 1,00,000 TPA to 3,00,000 TPA; and Producer Gas Plant (Gasifier) capacity from 6000 m^3/hr to 18,000 m^3/hr in the existing plant premises. The details of the existing plant, proposed expansion and final capacity are given below:

Sl	Description	Capacities as per the EC issued on 22nd June, 2015	Present operating capacity	Proposed Expansion	Final Capacity (After expansion)
1	MS Billets / MS Ingots	1,00,000 TPA (1x8 MT & 2x12 MT)	1,00,000 TPA (1x8 MT & 2x12 MT)	45,000 TPA (1x15 MT)	1,45,000 TPA (1x8 MT, 2x12 MT & 1x15 MT)
2	TMT Bars / Rolled Products /Structural Steel	1,00,000 TPA	1,00,000 TPA	2,00,000 TPA (Upgradation of existing unit capacity from 1,00,000 TPA to 1,50,000 TPA + Establishment of Additional 1,50,000 TPA unit)	3,00,000 TPA
3	Producer Gas	6,000 m^3/hr	6,000 m^3/hr	12,000 m^3/hr	18,000 m^3/hr

4.0 The project site is flat terrain with gentle slope. The proposed new project site falls in the Survey of India Topo Sheet No. 57 G/10 and (Latitude - 13°42'46.39"N & Longitude - 77°30'55.93"E) at Plot No.29, APIIC Industrial Park Gollapuaram, Gollapuaram Village, Hindupur Mandal, Ananthapur District, Andhra Pradesh. Total area of 10.0 acres of land is taken on lease from APIIC. The present use of the land is industrial. The proposed expansion will be taken up in the existing plant premises only.

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

6.0 The estimated cost for the proposed project will be of Rs.40 crores.This proposed project will provide employment for about 50 people by direct & 150 people for indirect employment which include officials, staff, skilled and semi-skilled and indirect employment, in contract works & transport.

7.0 Sponge Iron will be melted in Induction Furnace along with M.S. scrap/CI scrap and Ferro Alloys to produce M.S. Billets. These Billets will be fed to a Reheating furnace to produce TMT Bars / Structural Steel. Rolling Mill will be Furnace oil / producer gas fire operated to produce Rolled products. Proposed expansion of rolling mill will be done by increasing speed of the Mill and by installing one more re-heating furnace having capacity of 1,50,000 TPA.

Producer gas is made by the gas.Raw material requirement of the existing and proposed expansion along with source as follows:

Raw Material		**Quantity (TPA)**	**Sources**	**Mode of Transport**
For Steel Melting Shop (MS Billets) – 45,000 TPA				
Sponge Iron		42,000	Bellary, Karnataka	--
Scrap		10,000	Hindupur	--
Ferro Alloy		2,000	Gollapuram, Hindupur	By road (through covered trucks)
For Rolling Mill (TMT bars & Structural Steel) – 2,00,000 TPA				
Steel billets		3,40,000	Proposed SMS & Purchased from nearby plants in Industrial Park & outside Industrial Park	By road (through covered trucks)
Furnace Oil		20 KL	Hindupur (or) nearby Depot.	By road
For Producer Gas plant				
Coal	Indian	80	Open Market	By road (through covered trucks
	Imported	50	Indonesia / South Africa / Australia	Through sea route / rail route / by road

8.0 The source of power will be supplied by APIIC and the total power requirement will be about 9 MW Also 1 x 500 KVA standby D.G. sets is available in the plant.

9.0 The existing water consumption is 128 KLD. Water Consumption after expansion will be 283 KLD which will be sourced from APIIC. There will be no effluent generation in the SMS, rolling mill as closed-circuit cooling system will be adopted. Domestic sewage generated will be treated in a Septic Tank followed by a Dispersion Trench. Thus, 'Zero Discharge' will be achieved. The blow down TDS will be sold to brick manufacturing units

10.0 There will not be any solid waste generation in the industrial process.Sanitary wastewater of 2.4 KLD will be generated in the expansion project. SMS Slag after iron recovery the inert materials will be used in road construction / road repairswithin the plant premises / outside the plant premises as base material. Mill scales will be reused in SMS. Municipal (organic) solid wastes from the Plant will be sent to Municipal Bins. Inorganic wastes(Non-biodegradable) & Spent/Waste oil will be sent to TSDF facility available in Industrial Park.

11.0 The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.

12.0 The PP has made detailed presentation on the proposal along with EIA ConsultantM/s Pioneer Enviro Laboratories and Consultants Private Limited. The committee observed that some of the facilities envisaged in the earlier EC was not implemented and PP has proposed expansion again without physical progress of earlier granted EC.

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

i. Public Hearing to be conducted by the concerned State Pollution Control Board.

ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

iv. Certificate compliance of earlier EC from the Regional office of MoEF&CC shall be submitted along with EIA/EMP

v. Impact assessment shall be carried out for the proposed cumulative capacity (IF 145000 TPA; Rolling mill 300000 TPA; Producer Gas 18000 m3/hr) from the existing operation capacity (IF 30000 TPA; Rolling mill 100000 TPA; Producer Gas 6000 m3/hr).

vi. Disposal system of blow down TDS slurry shall be detailed in EIA/EMP Report along with MoU from the users.

vii. Specific consumption of power shall be reduced from the present level and details shall be furnished in the EIA/EMP.

viii. Management and disposal of hazardous waste as per the Hazardous and Other Waste Management Rules, 2016 shall be addressed in the EIA/EMP

ix. A dedicated environmental cell with qualified personnel shall be operationalized forthwith. Post project environmental monitoring including AAQ, Water Quality, Soil and Noise shall be carried out and 6-montly monitoring report shall be uploaded on the company's website and also submitted to RO of MoEFCC. The compliance of the same shall be furnished in the EIA/EMP.

x. The slag shall be characterised including the TCLP test for the hazardous metals in the slag.

21.4. Existing Iron Ore Pellet Plant (0.4 MTPA) at Patwari Halka No. – 38, Village Paraghat, Tehsil – Masturi, District- Bilaspur, Chhattisgarh by M/s Rashi Steel and Power Ltd. (RSPL) - [Online Proposal No. IA/CG/IND/66812/2014, MoEF&CC File No. J-11011/237/2014 IA II (I)] – Environmental Clearance based on ToR.

1.0 The proponent has made online application vide proposal no. **IA/CG/IND/66812/2014**dated 18th July 2017along with the copies of EIA/EMP seeking Environmental Clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants

under Category "A" EIA Notification.

2.0 The existing Iron Ore Pellet Plant (0.4 MTPA) of M/s Rashi Steel and Power Limited located in Village Patwari Halka No. – 38, Paraghat, Tehsil Masturi, District Bilaspur, State Chhattisgarh was initially received in the Ministry on 10th July 2014 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its 1st meeting held on 19th November 2015 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry had prescribed ToRs to the project vide Lr. No. J-11011/237/2014-IA II (I) dated 22nd January 2016.

3.0 The project of M/s Rashi Steel and Power Limited located in Patwari Halka No. – 38, Paraghat Village, Masturi Tehsil, Bilaspur District, Chhattisgarh State is for setting up of an existing Iron Ore Pellet Plant for production of 0.4 MTPA (million TPA). The proposed capacity for different products for existing site area as below. The proposed capacity for different products for existing site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Iron Ore Pellet Plant	01	0.4 MTPA	0.4 MTPA

4.0 The total land required for the project is 34.12 Acres, which was low productive agricultural land. No forest land involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that Lilaghar River (a perennial river, 1.0 km away from the center of project site) exist north of 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° 1'52.64"N to 22° 2'07.72"N Latitude and 82° 19'30.20"E to 82° 19'40.82"E E Longitude in Survey of India topo sheet No. 64 J/8, at an elevation of 250-253m AMSL. The ground water table reported to ranges between 0.5 to 6.0 m below the land surface during the post-monsoon season and 4.5 to 11.0 m below the land surface during the pre-monsoon season. Further, the stage of groundwater development is reported to be 26.03% in core and buffer zone and thereby these are designated as safe areas.

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported in the core and buffer zone of the project. The Achanakmar Wildlife Sanctuary is located at 55 Km from the site.The area also does not report to form corridor for Schedule-I fauna.

7.0 The pelletisation process involves the following three steps such as Raw material preparation; Formation of pellets; and Pellet hardening. The plant is sub grouped as Concentrate unloading handling storage and reclaiming; Concentrate Drying; flux grinding; flux storage; blending and mixing; Pelletizing, screening, handling; Preheating; Roasting; Cooling; Product handling; and Environment control equipment.

8.0 The targeted production capacity of the Iron Ore Pellet Plant is 0.4 million TPA. The ore for the plant would be procured from NMDC Jagdalpur/ Beladula&Berbil / Keonjhar area of Orrisa). The ore transportation will be done through Rail/Road. The incoming raw materials

transported from the Iron Ore Mines to Plant by rail and unloaded at Bilaspur Railway siding followed by transport to the plant premises. The details of raw material requirement is as given below:

Unit	**Raw Material**	**RawMaterial RequiredTPD**	**RawMaterial Required TPM**	**RawMaterial RequiredTPA**
PelletizationPlant(1200TPD)	Iron Ore Fines	1320	36300	435600
	Bentonite	18	495	5940
	Coal	34	935	11220

MaterialBalance(IronOrePelletizationPlant)

Input		**Output**	
Iron OreFines	1.1000Tons	B.F.Sinter	1.0Tons
Coal	0.02883Tons	Input ReturnFine Dust	0.143Tons
Betonite	0.0150Tons		
TotalInput	**1.143Tons**	**TotalOutput**	**1.143Tons**

9.0 The water requirement of the project is estimated at 670 m^3/day, out of which 400 m^3/day of fresh water requirement is being obtained from the bore well and the remaining requirement of 270.00 m^3/day is being met fromthe recycled water after adequate treatment. The permission for drawl of groundwater is obtained from CGWA vide Lr. No.21-4(109)/NCCR/CGWA/2011-1558 dated 20thOctober 2011.

10.0 The Power requirement of the project is estimated as 4.0 MW, which is sourced from Chhattisgarh State Electricity Board (CSEB), Bilaspur District. Two Nos. of green insulated DG Sets (500 KVA) are proposed for alternate source of power for essential services.

11.0 Baseline environmental studies were conducted during pre-monsoonseason i.e. from March 2016 to May 2016. Ambient air quality monitoring has been carried out at 8 locations during March 2016 to May 2016 and the data submitted indicated: PM_{10} (42.96 µg/m^3 to 84.54 µg/m^3), $PM_{2.5}$ (16.02 to 37.45 µg/m^3), SO_2 (4.27 to 14.18 µg/m^3) and NOx (9.43 to 27.56 µg/m^3). The results of the modeling study indicated that the maximum increase of GLC for the proposed project is 3.61 µg/m^3 with respect to the PM_{10}, 11.74 µg/m^3 with respect to the SO_2& 7.75 µg/m^3 with respect to the NOx.

12.0 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH:7.10 to 7.58, Total Hardness:191 to 568 mg/l, Chlorides: 46 to 198 mg/l, Fluoride: 0.1 to 0.3 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 4 locations. pH: 7.49 to 7.55; DO: 5.33 to 8.10 mg/l and BOD: 1 to 2mg/l. COD from1.33 to 6.67 mg/L.

13.0 Noise levels are in the range of 41.47 to 52.85 dB(A) for day time and 36.66 to 44.50 dB(A) for night time.

14.0 It has been reported that there are no people residing in the core zone of the project. Since it is an existing Plant, No R&R is involved. It has been envisaged that no families to be rehabilitated, which will be provided compensation and preference in the employment.

15.0 It has been reported that a total of 171.5 TPD of Iron Ore Fine Dust will be generated due to the project, the dusts generated from pellet plant are collected through ESP & Bag filters and are being reused in the process of palletization. Waste water generated from pelletization process (Grinding System, Balling, Disc., Cooling, etc.) is being treated in the existing ETP and treated water is being reused into the Process. Sewage Treatment Plant is proposed with a capacity of 15.0 KLD Capacity. The pelletizing plant has been designed with Zero Discharge concept with no solid or liquid waste disposal. It has been envisaged that an area of 11.25 Acre is being developing as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities. The details of solid waste management is as given below:

Sl. No	Process Unit	Solidwaste	QuantityTon /Annum	Modeofdisposal
1.	PelletPlant	Iron Ore Fine Dust:	171.5 TPD /56628 TPA)	Reusedinexisting Pelletplant.

16.0 It has been reported that the Company has obtained Consent to Establish (CTE) on 22.10.2010 from Chhattisgarh Environment Conservation Board, Raipur. Consent to Operate was granted for the Period of three months on 26.08.2014 & Commissioning of the 01 x 0.4 MTPA low grade iron ore pellet plant was attempted till 26.11.2014. Now Company has obtained Consent to Operate (CTO Renewal), till Dated 31.10.2016 from Chhattisgarh Environment Conservation Board Raipur and further applied for its renewal to Chhattisgarh Environment Conservation Board Raipur.

17.0 The Public hearing of the project was held on 08thMarch 2017 at Mishan School, Bhanesar, Tehsil Masturi District Bilaspur, Chhattisgarh under the chairmanship of Mr. K.D. Kunjam (Additional District Magistrate) for production of 0.4 million TPA of existing Iron Ore Pellet Plant, The issues raised during public hearing *inter alia* include arrangement of basic amenities (viz. Road, Medical, Electricity, Education & Drinking Water facilities for nearby villages of the existing Plant); time bound action plan for employment of Women & Youths; adaptation of Villages; widening of Roads; plantation along with the roads;separate road to be made available for movement of heavy vehicles to avoid possibility of accidents; plantation through third part; etc. A fixed amount shall be invested under CSR head for development programme of Gram Panchayats as per requirement. An amount of 3.75 Crores (2.5% of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues. RSPL has a well lay down community development program under CSR activities. About 60.0 lakhs spent towards development of the region.

18.0 The capital cost of the project is Rs. 150 Crores and the capital cost for environmental protection measures is proposed as Rs. 3.3 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 0.615 Crores. The detailed CSR plan has been provided in the EMP. The employment generation from the existing project is 90 Nos.

19.0 Greenbelt is being developed in phase wise manner at 11.25 Acres which is about 33% of the total acquired area. Greenbelt, consisting of at least 3 tiers around plant boundary is being developed as greenbelt and green cover as per CPCB/MoEFCC guidelines. Local and native species are being planted with a density of 2500 trees per hectare. Total no. of 1500 saplings has been planted during 2016 to 2017 and nurtured with a survival rate of 70%.

20.0 The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.

21.0 The PP has made detailed presentation along with EIA consultant M/s Shivalic Solid Waste Management. The committee observed that the present proposal is for environmental clearance for the existing 0.4 MTPA Pellet Plant as per the directions of Hon'ble NGT.

22.0 After detailed deliberations, the committee recommended for grant of environmental clearance with following specific conditions along with any other conditions prescribed by the ministry:

i. The project proponent shall address the public hearing issues by carving out projects and ESC funds (Rs. 3.75 Crs @ 2.5% of the project cost) shall be utilized for capital expenditure. The project shall be completed in 5 years and estimated on the basis of Scheduled Rates.

ii. The PP shall adhere to the ZLD norms.

iii. A dedicated environmental cell with qualified personnel shall be operationalized forthwith. Post project environmental monitoring including AAQ, Water Quality, Soil and Noise shall be carried out and 6-montly monitoring report shall be uploaded on the company's website and also submitted to RO of MoEFCC.

21.5. Expansion of Cement Plant (5.0 MTPA to 6.0 MTPA) and Captive Power Plant (50 MW)located at GadchandurKorpara, Chandrapur, Maharashtra by M/s Manikgarh Cement Limited [Online Proposal No. IA/JH/IND/19591/2008; MoEF&CC File No. J-11011/458/2006-IA.II(I)]– Environmental Clearance under clause 7(ii) of EIA Notification, 2006 – Further Consideration based on ADS.

1.0 The proponent has made online application vide Proposal No. **IA/JH/IND/19591/2008**on **28th December 2016** seeking environmental clearance for expansion of production capacity of the cement plant from 5 MTPA to 6 MTPA (20% increase) in the existing plant under clause 7(ii) of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "A" EIA Notification.

2.0 The Ministry had granted Environment Clearance for the expansion of Cement Plant from 2.0 MTPA to 5.0 MTPA vide F.No. J-11011/458/2006-IA II (I) dated 7thJanuary 2008. The Maharashtra State Pollution Control Board had grantedConsent to Operate (CtO) vide MSPCB letter no. BO/CAC-Cell/EIC No.-CH-1673-14/CH-1674-14and CAC/CAC-12547-A dated 14/08/2015 and isvalid up to 31/10/2017.

3.0 M/s Manikgarh Cement Limited is proposing an expansion of its combined cement production capacity from 5.0 MTPA to 6.0 MTPA by process optimization and increasing production of blended cement without any Capital Investment. The plant is located at village Gadchandur, DistChandrapur, Maharashtra at Latitude 79°09' 15" and Longitude 19°40' 45". It is 215 Km from Nagpur, 50 Km from Chandrapur and on state highway No 268.

4.0 It was informed that, the expended capacity will be achieved by process optimization, increasing production of blended cement by increasing running hours in a calendar year. There will not be any additional capital investment. The plant is having the sufficient grinding capability to grind 6.0 MTPA from both Lines. The plant is having sufficient packing capability to pack and dispatch 6.0 MTPA from both the Lines. The existing water allotted is 10840 KLD which will be sufficient for the expansion proposal. No extra water is needed. No extra power is required.

5.0 The proposal was considered in the 15th meeting of Expert Appraisal Committee [EAC (Industry-I)] held during 2nd – 3rdFebruary, 2017.After detailed deliberation the Committee advised the PP to submit information such as compliance report to be submitted from RO, Nagpur; substantiation for pollution will not increase and revised norms are complying.

6.0 Accordingly the PP has submitted reply to the ADS vide his letter dated 9th May 2017. The Site inspection has been carried out on 13th April 2017 and following observations made by Joint Director, RO, Nagpur:

- Air pollution control systems such asReverse Air Bag House, Electrostatic Precipitator, Hybrid Filters, Bag filters have been provided. Continuous stack emission monitoring systemshave been provided for all the major stacks. Sewage Treatment Plant has been provided for the colony. Green belt has been developed over an area of 98.20 Ha. Covered storage has been provided for the raw materials. Limestone from mines is being transported in the closed pipe conveyor. Fly ash is being used for the cement manufacturing. Housekeepingfound to be good.

- Specific Condition no. Viii:High calorific hazardous waste is not being used in the cement kiln in **not complied**.

- General Condition No. V regarding setting up of adequate number of influentand effluent monitoring stations; Condition No. VI and VII of amendment grantedfor the captive power plant vide letter F.No. J-l 10111458/2006- IA.ll(l), dated l6thOctober 2012 regarding submission of environmental statement, corporate environmental policy were **partially complied.**

- It was also informed the **PP did not upload the latest status of compliance of environmental clearance conditions** and analytical reports on the web site of the company which are required as per the provisions of EIA Notification, 2006.

7.0 The PP also informed that the six bag filters were provided which can meet the requirement after expansion (increase of throughput from 160 TPH to 200 TPH, the corresponding flow rate is 41000 m^3/hr which is well under the design flow rate of bag filter i.e. 42840 m^3/hr). It was also informed that new norms of cement plant are being complied.

8.0 Vide letter No. 5-16/2008(ENV), dated 7th August 2017, Regional officer informed that action taken report on the observations were submitted by PP and concluded that Project Authorities has taken steps based on monitoring report inter alia include an application to MPCB for use of high calorific hazardous waste in the kiln; installed PTZ camera to follow zero discharge; uploaded the environmental statement on company website; and submitted revised environmental policy.

9.0 The PP has made detailed presentation along with EIA Consultant and the committee observed existing plant is producing 2.5 MTPA OPC and 2.5 MTPA PPC.

10.0 After detailed deliberations, the committee recommended for grant of environmental clearance under clause 7(ii) for the proposed expansion in production capacity from 5 MTPA to 6 MTPA with following specific conditions along with any other conditions prescribed by the ministry:

i. The production capacity of the OPC will be 35% and PPC will be 65% of the total production.

ii. Filer bag house shall be redesigned for 150% of the air flow rate of 41000 m3/hr. The filter bag shall be PTFE dipped PPS type.

iii. The PP shall carryout the plantation in 40% of the total area amounting to 107.6 Ha.

iv. The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly.

v. The project proponent shall provide Kitchen waste digester for canteen for production of biogas and same may be used for canteen.

21.6. Proposed modernization of Paper Mill Project of 25 TPD Capacity located at Mauza.: Dhawalpura, Block.: Patna Sadar, Mahuli Road, Math Par, March Mirchi Link Road Patna by Indira Paper Mill Pvt. Ltd. (IPMPL)- [Proposal No. IA/BR/IND/66124/2017.MoEF&CC File. No. J-11011/381/2017-IA II (I)]-Terms of Reference for Expansion.

1.0 The proponent has made online application vide proposal no. **IA/BR/IND/66124/2017** dated 19th July 2017 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above.The proposed project activity is listed at Sl. No. 5(i) Pulp &Paper Industry excluding manufacturing of paper from waste, under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central Level.

2.0 M/S Indira Paper Mill Private Limited (IPMPL) located at Vill. Dhawalpura, Block. Patna Sadar, Mahuli Road, Math Par, March Mirchi Link Road, Patna is operating paper mill with Consent to Establishment from the Bihar State Pollution Control Board vide memo no. T-375, dated 13th October 2015 as the existing plant does not attracts the provisions of EIA Notification and subsequent amendments thereof.

3.0 M/s IPMPL is proposed to modernize itsexisting Paper Mill by addition of bleaching process for producing 25 TPDWriting Paper. The paper mill will generate pulp from recycling of waste paper.

4.0 Project site is located near road connecting NH 30 (Patna Bakhtiyarpur Road) to SH 1 (Patna Gaya Road), near village Fatehpur, District Patna, Bihar having Latitude 25° 33'26.71"N& Longitude 85°13'50.27"E at 49 m AMSL. It is about 12 km from district head quarter Patna and is well connected by NH - 30 and is about 7 Km from Patna Sahib Railway Station on Howarh - Delhi Main Line Section of Eastern Central Railway. It was reported that Patna Saheb Gurudwara is at a distance of 4.5 Km in North; Shitla Mata Temple is at 5.5 Km in Northwest; River Ganaga at 5 Km in North and River Punpun at 3 Km Southwest.

5.0 The land area acquired for the proposed plant is 2.95 Acres or 1.19 Ha (No Government Land). No forestland involved. The entire land has been acquired for the project. Of the total area 0.97 Acres or 0.39Ha (33%) land is being used as green belt.

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported 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 including proposed expansion is approx. Rs. 6.55 Crores (Capital cost of existing plant is 4.55 Crs and proposed expansion is 2.0 Crs).Proposed employment generation from proposed project will be 55 Nos. direct employment and 20 Nos. indirect employment.

8.0 Proposed raw material and fuel requirement for project are Waste Paper (26 TPD), Bleaching agents (2.5 KLD), Resin (0.6 KLD), Other Chemicals (0.12 KLD) & Rice Husk (150 TPD). Requirement would be fulfilled by collection of waste paper from local market of Patna.

9.0 The electricity load of 1000 KVA OR 1 MW will be procured from SBPDCL. Company has also installed 250 KVA DG Set.

10.0 Approx. 490 KLD of waste water will be generated from the proposed paper mill project.ETP of 500 KLD capacity based on Activated Sludge Principle (ASP) is installed for treatment of generated waste water of paper mill. Treated waste water will be 70%recycle and reuse in process and other activities inside the premises and balance 30%treated water will be discharge to government drains.

11.0 In the proposed paper mill project 6 TPH boiler based on rice husk (6 Ton/Ton of Paper)as fuel will be installed for meeting the steam requirement of the project. Boiler will beequipped with bag filters with dust collectors for controlling air pollution and 30 m height stack for wider dispersion of pollutants.

12.0 4.6 TPD of Waste paper sheets will be generated as process solid waste from the operation of proposed paper mill. All these waste paper sheets will recycle and reuse inside the premises in manufacturing process. 0.6 TPD of boiler ash will be generated due to burning of rice husk as boiler fuel. This boiler ash will be sold to vendors for filling activities. Sludge from ETP will be used and sold as manure.

13.0 The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.

14.0 The PP has made detailed presentation on the proposal along with EIA Consultant M/s Paramarsh (Servicing Environment & Development), Lucknow.

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 <u>Annexure I read with additional ToRs at Annexure-2.</u>**

i. Public Hearing to be conducted by the concerned State Pollution Control Board.

ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

iv. No treated or untreated waste water shall be discharge directly or indirectly into the River Ganga.

v. Filer bag house shall be designed for 150% of the air flow rate. The filter bag shall be PTFE dipped PPS type.

vi. Ink sludge containing hazardous materials shall be disposed as per the Hazardous and other Waste (Management and Transboundary Movement) Rules, 2016.

21.7. Expansion of Integrated Steel Plant (MS Billet from 216000 TPA to 330000 TPA; Captive power from 24 MW to 53 MW; Sponge Iron from 198000 TPA to 297000 TPA) of M/s GallanttIspat Limited,Plot No: Al -5, Sector – 23, Gida Industrial Area, Tehsil: Sahjanwa, District; Gorakhpur, Uttar Pradesh [Online proposal No. IA/UP/IND/55089/2016, MoEF&CC File No. J-11011/229/2008-IA.II(I)] – Environmental Clearance based on ToR.

1.0 The proponent has made online application vide Proposal **No. IA/UP/IND/55089/2016** on **10th July 2017** along with the copies of EIA/EMP seeking environmental clearance under the provisions of the EIA Notification, 2006 for the above mentioned proposed project. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central Level.

2.0 The proposed expansion of Integrated Steel Plant of M/s GallanttIspat Limited located at Plot No: AL – 05, Sector – 23, GIDA Industrial Area, Tehsil:Sahjanwa, District: Gorakhpur in Uttar Pradesh was initially received in the Ministry on 1st June 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee [EAC(Industry-I)] in its 8th meeting held during 27th– 28 June 2016 and recommended for prescribing ToRs to the above-mentionedproject for undertaking detailed EIA

and EMP study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 11th August 2016 vide Lr. No. J-11011/229/2008 -IA.II(I).

3.0 The present proposal is for expansion of existing Integrated Steel Plant for enhancement of production of Sponge Iron from 198000 TPA to 297000 TPA; Billets from 216000 TPA to 330000 TPA; and CPP from 24 MW to 53 MW. The existing project was accorded environmental clearance vide letter numberJ-11011/229/2008-IA.II(I) dated 2nd February 2009. The Status of compliance of earlier environmental Clearance was obtained from Regional Office, Lucknow, vide Lr. No. IV/ENV/UP/IND-118/303/2009/34 dated 23.05.2017. There are no non-compliances reported by Regional officer. The proposed expansion capacity for different products for existing industry site as below:

Sl. No.	**Particulars**	**Sanctioned capacity as per EC**	**Installed Capacity**	**Proposed expansion**	**Total Capacity (after expansion)**
1	Sponge Iron Plant	198000 TPA	99000 TPA	99000 TPA	297000 TPA (2 X 450 TPD X 330 days - By modification of existing kiln of 300 T/day to 450 T/day and addition of one more kiln with the capacity of 450 T/day in place 300 T/day sanctioned)
2	M. S. Billets via induction Furnace & Caster Machine Route	216000 TPA	216000 TPA	114000 TPA	330000TPA (2 x 20 T + 2 x 30 T X 10 Heat x 330 days - By replacing existing 4 Induction Furnace of 15 T/Heat to 2 Induction furnace of 30 T/Heat and 02 IF of 20 T/Heat along with 01 No IF of 15 T/Heat as standby)
3	Captive Power Plant				
	WHRB	8.0 MW	8.0 MW	10.0 MW	Total: 53.0 MW (24 MW Existing + 29 MW Proposed - to generated 53.0 MW electricity, one number new 110 TPH FBC boiler and 35 TPH WHRB boiler along with existing 50 (01 no) FBC boiler and 35 TPH (01No.) boiler will be utilised.
	AFBC	16.0 MW	10.0 MW	19.0 MW	

4.0 The total land required for the existing plant and proposed project is 40.50 Hectare. This entire land is already acquired and available as there is existing plant operational on the same land. This land is situated in GIDA Industrial Area. No River passes through the project area. It has been reported that no water body / 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 26° 45'26.96" to 26° 45'44.46" N Latitude and 83°11'49.74" to 83°12'15.41" E Longitude in Survey of India Topo Sheet No. 63N/1, 63N/2, 63N/5 & 63N/6 at an elevation of 77 - 78 m AMSL. The ground water table reported to ranges between 3.0 – 4.0 m bgl during the post-monsoon season and 4 – 5 m bgl 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 100.0 m.

6. No National Park/WL etc are in the core and buffer zone of the project. The authenticated list of flora and fauna provided EIA report.

7. Detailed process provided in EIA report and list of raw material given below:

S No	Raw Material	Consumption (TPA)			Source of Supply	Method of Transport
		Existing	Proposed expansion	Total after expansion		
Sponge Iron Plant						
1	Iron Ore	99000	138600	237600	Mines	Rail
2	Pellets	99000	138600	237600	Manufacturer	Rail
3	Coal	99000	138600	267300	Mines	Rail
4	Dolomite	4950	9900	14850	Local Market	Road
Steel Melt Shop Division (Induction Furnace with Continues Caster)						
1	Sponge Iron	198000	99000	297000	In House	Conveyers
2	MS Scraps	72845	36422	109267	Local Market	Road
3	Ferro Alloy	3240	1710	4950	From Local Manufacturer	Road
Captive Power Plant						
1	Coal	38016	86724	124740	Mines	Rail
2	Rice Husk	12672	70488	83160	Local Market	Road
3	Dolochar	26038	15542	41580	In house	Conveyers

8.0 The targeted production capacity of the Sponge Iron from 198000 TPA to 297000.0 TPA; Billets from 216000.0 TPA to 330000.0 TPA; and CPP from 24 MW to 53 MW. Iron ore for the plant would be procured from variousmines from open market / online bidding and transportation will be done through Rail / Road.

9.0 The Fresh water requirement of the project is estimated at4254.0 m^3/day after expansion. Existing fresh water requirement is 1700.0 m^3/day. Fresh water will be met from the ground water.The permission for drawl of groundwater is obtained from CGWA for existing capacity vide Lr. No. 24-4-(161)/CGWA/NR/2008-518 dated5th April 2016. For expansion CGWA application has been already filed and it is under process.

10.0 The power requirement of the project is estimated as 40.0 MW after expansion. Currently, there is a power requirement of 25.0 MW for existing plant. 18 MW captive power is

already installed at site and the company is also having 10.0 MW grid connection from the Poorvanchal Vidyut Nigam Limited.

11.0 Baseline environmental studies were conducted during post-monsoon & partial winter season i.e. from 1st October 2016 to 31st December 2016. Ambient Air Quality monitoring has been carried out at 8 locations during 1st October 2016 to 31st December 2016 and the data submitted indicated: PM_{10} (69.85 µg/m^3 to 85.95 µg/m^3), $PM_{2.5}$(32.43 to 55.95µg/m^3), SO_2 (12.54 to 16.06 µg/m^3) and NOx (14.93 to 22.53 µg/m^3). The results of the modelling study indicate that the maximum increase of GLC for the proposed project is 2.77 µg/m^3 with respect to the PM_{10};7.80 µg/m^3 with respect to the SO_2; and 12.48 µg/m^3 with respect to the NOx.

12.0 Ground water quality has been monitored in 8 locations in the study area and analysed. p^H: 7.4 to 7.77; Total Hardness: 287.17 to 432.55 mg/l; Chlorides: 39.08 to 178.92 mg/l; and Fluoride: 0.86 to 1.08 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 8 locations. p^H: 7.4 to 8.09; DO: 2.2 to 4.0 mg/l; BOD: 3.6 to 10.94 mg/l; and COD from 11.56 to 43.6 mg/l.

13.0 Noise levels are in the range of 50.12 to 60.18 dB(A) for daytime and 44.83 to 50.29 dB(A) for nighttime.

14.0 As the present proposal is for expansion of existing industry and the Industry is situated in GIDA Industrial Area, noR&R is involved.

15.0 It has been reported that a total of 239.0 T/day of ash will be generated from the plant including expansion. Out of this, 20% will be bed ash and 80% will be fly ash. Fly ash will be supplied to cement manufacturers / brick manufacturers. Bed ash will be supplied for road construction. Fly ash will be stored in silos and will be supplied by bulkers. About 111 tons of Slag will be generated from Induction Furnace and 100 % will be used in road construction / civil construction.

16.0 It has been envisaged that an area of 13.36ha has been developed as green belt around the project site 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 Establish and Consent to Operate from the Uttar Pradesh State Pollution Control Board was obtained vide UPPCB Letter No. F-47391/C-6/NOC/36/GKP dated 08thApril, 2009 andF-72759/C-6/Water consent/ 121/2016 dated 21stJanuary 2016,&F-72758/C-6/ Air Pollution/ 121/2016 respectively and consent is valid up to December 2017.

18.0. The Public hearing for the proposed expansion was held on 25.04.2017 at existing industry premises under the chairmanship of Additional District Megistrate, Gorakhpur for expansion of existing integrated steel plant at plot no: AL - 05,Sector : 23, GIDA Industrial Area, Sahjanwa Gorakhpur. The issues raised during public hearing are related to air pollution; dust; noise pollution and fly ash management. An amount of 510.0 Lakhs (2.53 % of project cost) has been earmarked for Enterprise Social Commitment (ESC) based on public hearing issues.

19.0 The capital cost of the project is Rs 201.93 Crores and the capital cost for environmental protection measures is proposed as Rs 866.5 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 85.0 Lakhs. The detailed CSR plan has been provided in the EMP. The employment generation from the proposed expansion is 140 persons.

20.0 Greenbelt has been developed in 13.36 Ha which is about 33 % of the total project area. A 3-tier greenbelt, consisting of at least 30 m wide around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEFCC guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total of 10000 saplings will be planted and nurtured per year for next five years.

21.0 The proponent has mentioned that there are no court cases or violation under EIA Notification, 2006 or directions under Environment (Protection) Act to the project or related activity.

23.0 The project proponent has made detailed presentation along with EIA Consultant M/sGrass Root Research and Creation India (P) Ltd, Noida.

24.0 After detailed deliberations, the committee recommended for grant of environmental clearance with following specific conditions along with any other conditions prescribed by the ministry:

i. Expansion operation shall be carried only after obtaining permission from the CGWA for the additional water required for expansion proposal.

ii. The company shall ensure 100% utilization of the fly generated from the plant. No dumping of fly ash is allowed in the premises.

iii. The project proponent shall address the public hearing issues by carving out projects and ESC funds (Rs. 510 Lakhs @ 2.53% of the project cost) shall be utilized for capital expenditure. The project shall be completed in concurrence with the implementation of the expansion and estimated on the basis of Scheduled Rates.

iv. The PP shall adhere to the ZLD norms.

v. In order to reduce air pollution, additional air pollution control systems viz. Filer bag house designed for 150% of the air flow rate. The filter bag shall be PTFE dipped PPS type.

vi. Mechanical Vacuum Cleaners shall be deployed for cleaning of internal roads for prevention of fugitive dust.

vii. Standard Operating procedures for handling of Hazardous waste.

viii. The PP shall adhere to the standards notified by the ministry dated 7.9.2015 for the Captive power plant.

ix. Plantation shall be carried covering stipulated area of 33% of total project. To achieve this target, the PP shall carryout the plantation in 5 m wide strip along the periphery of the plant.

x. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented

21.8. Proposed expansion of Silica Sand Production (Glass grade) & LPG Storage capacity for Glass manufacturing unit at Village Kondh, Valia Road, Tal: Ankleshwar - 393001, Dist: Bharuch, Gujrat by M/s. Gujarat Guardian Limited. [Online Proposal No. IA/GJ/IND/66896/2017, MoEF&CC File No. J-11011/382/2017-IA.II(I)] – Terms of Reference for expansion.

1.0 The proponent has made online application vide proposal no. **IA/GJ/IND/66896/2017** dated **22nd July 2017** along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 2(b) Mineral beneficiation, under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central Level. The project attracts the general condition since the project is within 5 Km of Critically Polluted area as notified by the Central Pollution Control Board(CPCB) from time to time.

2.0 **M/s. Gujarat Guardian Limited**proposed to install expansion of existing silica sand production (glass grade) & LPG storage capacity for glass manufacturing unitbased on Spiral Technology of sand beneficiationat Village: Kondh, Valia Road, Tal: Ankleshwar - 393001, Dist: Bharuch, Gujarat.

3.0 The existing project was established in 1993 and possess a GPCB NOC vide order no. PC/BRCH-630/2117 dated 23 Feb 1990. Consent to Operate was accorded by Gujarat State Pollution Control Board vide Sr. No. AWH-87334, dated 25th July 2017 and validity of CTO is up to 21 January 2019. The details of existing plant and proposed expansion as given below:

Sl	Name of the Unit	Name of the product	Existing Capacity	Proposed expansion	Total capacity after expansion
1	Glass Manufacturing Unit	Float Glass Mirror Lacquered Glass Coater Glass	2,50,00,000 m^2/Annum	Nil	2,50,00,000 m^2/Annum
2	Silica Sand Production Unit	Silica Sand (Glass Grade)	13,500 TPM		56,225 TPM
		By-Products (Coarse, Fines and rejects)	19,620 TPM		30,275 TPM
5	LPG storage	--	225 MT (4 x	495 MT	*720 MT (6X

			56.25 MT of Length = 16.2 m Diameter = 3200 mm)		120 MT of Design Pressure: 21 Kg/cm$^{2;}$ Overall Length = 24000 mm; Tank ID: 4010 mm; Tank Shell = 28 mm thick; Dished End: 18 mm Thick)
*	The existing and proposed LPG storage yard will be merged and the total capacity (existing + proposed) will be 720.				

4.0 The land area acquired for the expansion plant is 65.59 Ha. No /forestland involved. The entire land has been acquiredfor the existing operation and proposed project. Of the total area 8.09 Ha land is been used for green belt development. The details of land use planning are as follows:

Sl	Purpose	Proposed Area (m2)
1	Production Plants	113311.1
2	Parking	16187.3
3	Security Building	404.6825
4	Effluent Treatment plant	NA
5	Utility + Tank Farm Area	40468.25
6	Raw Material and Finished Products Storage	283277. 8
7	Gas Tonner Storage	40468.25
8	Green Belt	80936.51
9	Road	80936.51
	Total Area	**655990.40**

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

6.0 Total project cost is approx. 624 Crs (584 Crs of existing and 40 Crs for expansion). Manpower deployed in operation and maintenance of existing plant is 34 and no additional man power is required for the proposed expansion.

7.0 The raw material requirement would be fulfilled by suitable supplier. Fuel consumption will be mainly Natural Gas @ 6600 m^3/hr, LPG @ 4 MT/Hr & Diesel @ 1575 Ltrs/Hr (Existing – 1515 Ltrs/Hr + Proposed 60 Ltrs/Hr). The details of raw material requirement are as follows:

Sl. No.	**Raw Material**	**Consumption Quantity Per Month**			
		UOM	**Permitted**	**Proposed Additions**	**Total**
Float Glass					

Sl. No.	Raw Material	Consumption Quantity Per Month			
		UOM	Permitted	Proposed Additions	Total
1	Sand	MT	14,000	0	14,000
2	Soda Ash	MT	4,500	0	4,500
3	Dolomite	MT	3,800	0	3,800
4	Limestone	MT	1,400	0	1,400
5	Feldspar	MT	850	0	850
6	Salt Cake	MT	215	0	215
7	Carbon	MT	21	0	21
8	Cullet	MT	6000	0	6000
Wet Coater					
1	Raw Glass	Sq. Meter	5,83,000	0	5,83,000
2	Washing & Polishing Chemicals	Kg	2,062	0	2,062
3	Tin Sensitizer	Litre	119	0	119
4	Palladium Sensitizer	Litre	45	0	45
5	Silver Solution Silver Nitrate	Litre Kg	2,600 1,088	0	2,600 1,088
6	Reducer/ Silver less solution	Litre Litre	4,830 2,920	0	4,830 2,920
7	GMPA & GMPB	Litre	1,190	0	1,190
8	Paint	MT	68	0	68
9	Ortho-Xylene	Litre	9,971	0	9,971
10	HCL-32%	Litre	11,393	0	11,393
11	Caustic-32%	Litre	13,508	0	13,508
12	Ferric Sulfate	kg	256	0	256
Lacquered Glass					
1	Raw Glass	Sq. Meter	1,50,000	0	1,50,000
2	Washing and polishing chemical	Kg	200	0	200
3	Adhesion Promoter	Litre	50	0	50
4	Paint	MT	10	0	10
A	GLASSOLUX NG 9003 PURE WHITE	Kg	2,500	0	2,500

Sl. No.	Raw Material	Consumption Quantity Per Month			
		UOM	Permitted	Proposed Additions	Total
B	GLASSOLUX NG 2105 Sapphire	Kg	2,500	0	2,500
C	GLASSOLUX NG 3004 Burgundy	Kg	2,500	0	2,500
D	GLASSOLUX NG 6113 Fluo green	Kg	2,500	0	2,500
E	GLASSOLUX NG 9005 Black	Kg	2,500	0	2,500
F	Ivory	Kg	2,500	0	2,500
G	Red	Kg	2,500	0	2,500
5	Ortho-Xylene	Litre	1,000	0	1,000
Sand Beneficiation Plant					
1	Raw Silica Sand	MT	33,120	53,380	86,500

8.0 The electricity load of 6.5 MW is being procured from Gujrat Electricity Board. Company already has installed 4 Nos. of (155 KVA each) & 3 Nos. of (2.5 MW, 2.5 MW & 500 KVA) DG Set.

9.0 Water Consumption for the existing operations and expansion project on cumulative basis would be 1650 KL/Day which is already as per the existing CCA. There will be no increase in Water Consumption as well as Wastewater Generation after proposed expansion. Total waste water generation will be 921 KL/Day. Domestic waste water @ 205 KL/Day will be treated in STP and then reused for land irrigation/gardening and industrial waste water @ 716 KL/Day generated will be corrected for pH whenever needed and reused recycled back to Sand Plant for Sand Washing. Zero Liquid Discharge is adhered to after expansion also.

10.0 All the waste shall be stored in designated place and shall be transported to TSDF site in approved closed vehicles owned by the TSDF authority. Dust from drying will be collected in to dust collector through cyclone separator & recovered powder will be recycled back to process. Air Handling Unit will be provided where ever applicable. All liquid raw materials, chemicals are procured in tankers and are transferred through a closed pipe lines. Solid raw materials (Batch) are feed into furnace through close pipeline/chute/conveyors and the dust collection hoppers are connected to a bag filter and ID fan. Also, all hazardous chemicals (flammable) storage tanks are provided with safety, Excess flow valve & remote operating valve for safety wherever applicable.

11.0 The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.

12.0 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 <u>Annexure I read with additional ToRs at Annexure-2.</u>**

i. Public Hearing to be conducted by the concerned State Pollution Control Board.

ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

iv. Certificate compliance of CtO from the Regional office of SPCB shall be submitted along with EIA/EMP

v. For the LPG storage and handling, a detailed Risk Assessment and Disaster Management Plan shall be prepared. Credible Loss Scenarios shall be clearly incorporated in the studies for the assessment.

vi. A detailed Emergency Response Plan shall be prepared considering onsite and offsite hazards. HAZID/HAZOP shall be in protocol of the safety manual. The storage and handling equipment shall be strictly engineered following the OISD code of practice.

vii. Plantation shall be carried covering stipulated area of 33% of total project area (55000 Plants). To achieve this target, the PP shall carryout the plantation along the periphery of the plant, along all internal roads and around all facilities inside the plant.

viii. The details of cumulative water requirement; power requirement; employment generation; raw material requirement; capital requirement; fund provision of environmental protection measures; mode of transport of fuel; raw material and finished products etc shall be furnished.

ix. The project proponent shall plan for further supplementation with non-conventional energy sources and they should also reduce their power consumption by using LED, energy efficiency appliances, etc. to the maximum possible. They should develop a detailed plan for energy substitution and energy saving as a part of EIA/EMP Report.

x. Management and disposal of hazardous waste such as Xylene, Spent catalyst, Spent ion exchange resins and acids and bases as per the Hazardous and Other Waste Management Rules, 2016 shall be addressed in the EIA/EMP

xi. All the maps and site plans should have proper legends, scale, true north and all necessary explanations.

21.9. Pig Iron Plant (39000 TPA) located at Village: Manjhiladih, Tehsil :Giridih, District: Giridih, State : Jharkhand by M/s Balmukund Sponge & Iron Pvt. Ltd -

[Online Proposal No. IA/JH/IND/66842/2017, MoEF&CC File No. J-11011/870/2008-IA.II(I)] – Terms of Reference for expansion proposal.

1.0 The proponent has made online application vide proposal no. **IA/JH/IND/66842/2017**dated **21st July 2017** along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central Level.

2.0 Balmukund Sponge & Iron Ltd.(BSIPL) is incorporated on 14thJuly 1999 having itsregistered office at 603, Shanti Kunj Apartment, Chajjubagh, Patna – 800 001.The company has commissioned a Metallurgical unit for production of MS Ingot (50TPD), Silico Manganese (35 TPD)and MS Bar/Rod (50 TPD) in the year 2003-2004. In the year 2010, BSIPL has installed Mini Blast Furnace (65 m^3capacity) for production of Pig Iron (110 TPD). Environmental Clearance for pig iron plant was obtained from the ministry vide F. No. J-11011/870/2008-IA.II(I) Dt: 28th July 2010. Consent to Establish (CTE) was grantedby Jharkhand State pollution Control Board vide Memo No. 3576 Dt: 18.07.2008 for the pig iron plant.Further, in the year 2015, BSIPL has dismantled and removed its existing MS Ingot (50 TPD) and Silico Manganeseplant (35 TPD) and new Induction Furnace with 2 strand CCM for production of 102660 TPA (290 TPD) of MS-Billet& Iron Ore Beneficiation plant of 94000 TPA was installed. Environmental Clearance for modernization and expansionproject was obtained from SEIAA, Jharkhand vide letter No. EC/SEIAA/2013-14/297/2014/1525 Dt: 25.08.2015.Consent to Operate was accorded by Jharkhand State Pollution Control Board vide lr. no. JSPCB/HO/RNC/CTO-660978/2016/165 dated 01.07.2016 andvalidity of CTO is up to 30.06.2018.

3.0 Now, BSIPL intends to remove its existing oil fired rolling mill (50 TPD) with new rolling mill (270 TPD) based on continuous heating process from existing CCM within its existing shed in the premises. The details of existing and proposed expansion/replacement of the different production facilities are as follows:

Sl	Manufacturing facilities	Product	Existing production capacity	Proposed production capacity	Total production capacity
1	Mini Blast Furnace	Pig Iron	39000 TPA (110 TPD)	N.A.	39000 TPA
2	Induction Furnace (SMSwith CCM)	MS Billet	102660 TPA (290 TPD)	N.A.	102660 TPA
3	Iron Ore Beneficiation Plant	Iron Ore Beneficiation	Iron Ore Beneficiation	N.A.	94000 TPA (266 TPD)
4	Rolling Mill	M.S / TMT Rod	16000 TPA (50 TPD) [Will bereplaced with new plant]	**86400 TPA (270 TPD)**	**86400 TPA (270 TPD)**

4.0 BSIPL, is situated at Manjhiladih, P.O. Gadi Srirampur, District Giridih, Jharkhand nearby SH-13 (Koderma-Giridih_Govindpur Road)is situated at having Latitude 24°7'9.36"N& Longitude 86° 21'15.62"E at 290 m AMSL. It is about 8 Km from district head quarter Giridih and is well connected by SH – 13and is about 8 Km in SE from Giridih Railway Station on Giridih–MadhupurSection of Eastern Central Railway.

5.0 BSIPL owns a total land of 26.354 Acres at Mauza Manjhiladih, Khata No. 161, 162, Plot Nos. 940,941, 942, 943, 944, 946. Total land area is 26.354 acres. 33% of total land area (8.7 Acres) is developed as green belt within existing premises. 14 acres of land is being used for existing Pig Iron, SMS Plant & Iron ore beneficiation plant. Out of remaining 3.65 acres, 1.86 acres of land will be utilized for installation of new rolling mill project within existing sheds. Sufficient space available for expansion and setting up of new rolling mill within the existing premises and there will not be any need to purchase additional land. All necessary infrastructures are available in the existing plant premises.

6.0 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported 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 process include raw material is heated deep in the heating furnace. Rolling of steel is a metal forming process in which steel is passed through a pair of rotating rolls for deformation of the steel. Deformation is caused by the compressive forces applied through the rotating rolls. The steel material gets squeezed between the pair of rolls, as a result of which the thickness gets reduced and the length gets increased. To begin with Billets/Ingot is transferred to the Rolling Mill Roughing section. These Billets are rolled several times to &fro. Finished MS/ TMT Rod is taken out of the finishing mill and fed to the TMT line where high pressure water is used for quenching to improve the mechanical properties of the bar. Due to this process the external surface changes to hard due to sudden quenching and the inner core remains soft. From TMT line the bars are transferred to cooling bed where they are appropriately cut into required marketable length and left to cool till the time both the internal and the external surface of the bar reaches to around 600°C. The above bars are then transferred to the finishing bay where bundling and binding takes place.

8.0 Total cost of the proposed modernization and expansion project will be approx. Rs. 1400 Lakhs (14 Crores). No additional manpower is required for operation of proposed expansion project as the existing workforce will be used for operating the proposed project

7.0 Proposed raw material requirement for project are 90000 TPA MS Billet. Requirement would be fulfilled from own production of MS Billet within the premises.In the proposed expansion project, no fuel will be used for heating purposes. Surplus heat from SMS will be utilized for rolling mill heating purposes

8.0 About 2.0 MVA of power will be sourced through DVC for operation of proposed expansion project.

9.0 At present & after expansion in future also, water requirement is fulfilled through bore wells inside premises. 10 KLD water is required for proposed expansion & modernization project. Overall water requirement of the BSIPL project will be apporx. 175 KLD after proposed

expansion. In the proposed expansion no water will be utilized in manufacturing process. No industrial waste water will be generated from the proposed expansion project. Only domestic waste water will be generated which will be disposed of through septic tank followed by soak pits inside the premise (Zero Liquid Discharge).

10.0 3600 TPA of End Cutting and Mill Scale will be generated from the operation ofproposed new rolling mill plant. All the generated solid waste will be reuse as raw material in SMS within the premises of BSIPL.

11.0 The proponent has mentioned that there is no court case or violation under EIA Notification, 2006 to the project or related activity.

12.0 The PP has made detailed presentation on the proposal along with EIA Consultant M/ Global Management & Engineering Consultants International, Jaipur (Sl. No. 78; QCI list of Accredited Consultants, Rev. 55(A) Dt: 11th July 2017).

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

i. Public Hearing to be conducted by the concerned State Pollution Control Board.

ii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

iii. The project proponent should carry out social impact assessment of the project as per the Office Memorandum No. J-11013/25/2014-IA. I dated 11.08.2014 issued by the Ministry regarding guidelines on Environment Sustainability and CSR related issues. The social impact assessment study so carried out should form part of EIA and EMP report.

iv. Certificate compliance of earlier EC from the Regional office of MoEF&CC shall be submitted along with EIA/EMP

v. Consolidated EIA/EMP shall be prepared detailing all the existing facilities under different environmental clearances in order to facilitate grant of single consolidated environmental clearance.

vi. The PP shall adhere to ZLD norms.

vii. The project proponent shall plan for supplementing their energy requirement with solar energy to the maximum possible. A detailed plan for the same shall be submitted.

viii. Management and disposal of hazardous waste as per the Hazardous and Other Waste Management Rules, 2016 shall be addressed in the EIA/EMP

ix. Detailed specification of Air Pollution Control equipment shall be provided in the EIA/EMP. Post project monitoring shall be clearly specified along with number of

stations, location, frequency of monitoring, parameters to be monitored, fund provision, etc.

21.10. Expansion of existing steel plant from 0.1 MTPA billet to 0.26 MTPA billet out of which 0.132 MTPA to be converted to TMT rods at BadtumkelaDist: Sundergarh Odisha by M/s Bhaskar Steel and Ferro Alloy Pvt Ltd-[Online Proposal No. IA/OR/IND/56444/2015, F.No J-11011/491/2008-IA.II(I)]-Modification in terms of Reference for Expansion

1.0 The proponent has made online application vide proposal no. **IA/OR/IND/56444/2015**dated 18th July 2017 for seeking amendment in Terms of Reference granted to the above said project vide event letter number dated 31st July 2015 under the provisions of in EIA notification, 2006.

2.0 M/s Bhaskar Steel and Ferro Alloy Private Limited (BSFAPL) is a running 0.1 MTPA steel billet manufacturing unit. The company obtainedConsent to Establish in the year 2005 and Consent to Operate on 2ndSeptember 2006 and started running the plant.

3.0 M/s. BSFAPL is at present producing 0.096 MTPA Sponge Iron and converting to 0.105 MTPA steel Billets utilizing facilities of 1x300 TPD DRI Kiln, 4x8T IF, 1x20T & 1x15T LRFs with 4/7, 2strand CCM,1x8 MW WHRB, 1x4 AFBC, 1x150 TPH Dry Coal Separator, 1x200 TPH Coal Sizer with Truck Tippler, 1x100 TPH Mobile Crusher & 1x10 TPH Slag Crusher. The company then applied and granted ToR on 17th November 2016 to set up 2x350 TPD & 2x100 TPD DRI kiln, 0.6 MTPA Pellet Plant, 1.2 MTPA IO Beneficiation, 3x20T & 1x3T IF, 25 TPH Rolling Mill, 18 MW WHRB, 20 MW CFBC, 1x9 MVA Fe-Mn in Phase-1 & 2x350 TPD & 2x100TPD DRI kiln, 0.6 MTPA Pellet Plant, 1.2 MTPA IO Beneficiation, 3x20T IF, 25 TPH Rolling Mill, 18 MW WHRB, 20 MW CFBC, 1x9 MVA Si-Mn Plant in Phase-2 to produce 0.424 MTPA Billet out of which 0.264 MTPA to be converted to Rolled products taking existing and expansion together.

4.0 Accordingly, base line study of project area was done and draft EIA/EMP report prepared for submission to SPCB, Odisha, but the proponent couldn't acquire the additional land to accommodate the expansion and did not want to face public hearing for the entire expansion proposed.

5.0 The company now proposes expansion which can be accommodated in the vacant space of existing land on which the plant is running. The facilities for the revised proposal are: 1) 1x350 TPD & 1x100 TPD DRI Kilns; 2) 4x12T IF & 1x3T IF; 3) 6/11, 3 Strand CCM (2 in operation & 1 standby); 4) Matching 1x16T LRF; 5) 25 TPH Rolling mill; 6) 1x10 MW(WHRB) Power Plant; 7) 1x6 MW (AFBC) power Plant

6.0 Therefore the details of the existing plant, proposed faculties in the earlier ToR and modification sought are given below:

Sl.	Facilities under Operation	Facilities for which ToR was obtained (After expansion including existing facilities)	Facilities after proposed Modification in ToR (After Expansion including existing facilities)
1	1x300 TPD DRI	2x350 TPD & 2x100 TPD	1x300 TPD, 1x350 TPD & 1x100

	Kiln	DRI kiln, 0.6 MTPA Pellet Plant, 1.2 MTPA IO Beneficiation, 3x20T & 1x3T IF, 25 TPH Rolling Mill, 18 MW WHRB, 20 MW CFBC, 1x9 MVA Fe-Mn in Phase-1 & 2x350 TPD & 2x100TPD DRI kiln, 0.6 MTPA Pellet Plant, 1.2 MTPA IO Beneficiation, 3x20T IF, 25 TPH Rolling Mill, 18 MW WHRB, 20 MW CFBC, 1x9 MVA Si-Mn Plant in Phase-2	TPD DRI Kilns
2	4x8T IF, 1x20T & 1x15T		4x8T, 1x3T & 4x12T IFs with matching 1x20T, 1x15T & 1x16T LFs
3	LRFs with 4/7, 2strand CCM		4/7 & 6/11, 3-Strand CCM (2 in operation & 1 standby)
4	--		25 TPH Rolling mill
5	1x8 MW WHRB, 1x4 AFBC		1x8 MW & 1x10 MW WHRB Power plant
6	--		1x4 MW & 1x6 MW AFBC/CFBC Power Plant
7	1x150 TPH Dry Coal Separator		1x150 TPH Dry Coal Separator
8	1x200 TPH Coal Sizer with Truck Tippler		1x200 TPH Coal Sizer with Truck Tippler
9	1x100 TPH Mobile Crusher		1x100 TPH Mobile Crusher
10	1x10 TPH Slag Crusher		1x10 TPH Slag Crusher

5.0 The details of the Product and Production Capacity of existing project, proposed expansion and final is given as below:

Facility	**Existing Configuration**	**Existing Capacity in TPA**	**Proposed Configuration**	**Proposed Capacity in TPA**	**Product**	**Final Capacity in TPA**	**End use**
DRI Kilns	1x300 TPD	96,000	1x350TPD 1x100TPD	1,44,000	Sponge iron	2,40,000	IF
Induction Furnace with LF	4x8T IF 1x20T & 1x15T LF	1,02,400	4x12T& 1X3T IF & 1x16T LF	1,63,200	Hot metal	2,65,600	C C M
C C M	4/7, 2 strands	1,00,000	6/11, 3 strands	1,60,000	Billet	2,60,000	RM & Sale
Rolling Mill	Nil	Nil	25 TPH	1,32,000	TMT Rods	1,32,000	Sale
Power Plant(WHRB)	1x8 MW	1,00,000	1x10 MW	10MW	Power	18 MW	Internal use
Power Plant (AFBC)	1x8 MW	4 MW	1x6 MW	6 MW	Power	10MW	Internal use

6.0 After detailed deliberations, the committee recommended for the proposed amendments as per the aforesaid table.

21.11. Expansion cum modification of existing 0.07 MTPA billets, 0.0048 MTPA sections & 0.027 MTPA Ferro alloy plant to 0.054 MTPA TMT bars, 0.020 MTPA GI pipes, 0.040 MTPA sections & 0.046 MTPA Ferro alloy plant of M/s Shivam Iron & Steel Co. Ltd, at Dhukhia Mahadev Temple Road, Jambad, P.O. Udnabad, Giridih District, Jharkhand. Online proposal no. IA/JH/IND/63840/2017; MoEFCC File No. F. No. J-11011/365/2009-IA-II(I) – Corrigendum in Terms of Reference regarding.

1.0 The proponent has made online application vide proposal no. **IA/JH/IND/63840/2017**dated 20th July 2017 for seeking amendment in Terms of Reference granted to the above said project vide event letter number dated 23rd May 2017 under the provisions of in EIA notification, 2006.

2.0 M/s Shivam Iron and Steel Co Ltd, Jambad was granted ToR for its expansion project vide letter no J-11011/365/2019-IA-II(I) dated 23.05.2017 in which existing ferro alloy plant is 3 x 6 MVA and proposed 2 x 6 MVA so final configuration is 6 x 6 MVA. Existing plant is producing two ferro alloys namely ferro-manganese and silico-manganese. The proposal is to produce any one or all of ferro manganese, silico manganese and ferro chrome from all the 6 x 6 MVA ferro alloy plant. So, the annual production capacity will be as follows which is required to be incorporated in the ToR:

Sl	Plant Facilities	Existing Configuration	Existing Capacity	Proposed Configuration	Proposed Capacity	Final Configuration	Production after expansion
3	SAF (Fe-Mn, Si-Mn, Fe-Cr)	3 x 6 MVA	Si Mn& Fe Mn -28,050 TPA	2 x 6 MVA	Fe Mn-8,400 TPA	5 x 6 MVA	Fe Mn -21,000 TPA
					Fe Cr-7,000 TPA		Fe Cr-17,500 TPA
					Si Mn-6,200 TPA		Si-Mn-15,000 TPA

3.0 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

21.12. Expansion of Clinkerization Capacity from 1.98 MTPA to 3.2 MTPA of Cement Plant of **M/s Emami Cement Limited** at Villages – Risda&Dhandhani, Tehsil- Baloda Bazar, District Baloda Bazar- Bhatapara, Chhattisgarh -[Online Proposal No. **IA/CG/IND/20295/2013**; MoEF&CC File No **J-11011/309/2013-IA-II.(I)**]- **Amendment in Environmental Clearance.**

1.0 **M/s Emami Cement Limited** made online application vide proposal no. **IA/CG/IND/20295/2013** dated 8th July 2017 seeking amendment in environmental clearance granted vide MoEFCC letter no. J-11011/309/2013-IA-II.(I) dated 8thSeptember 2016 regarding outsourcing of limestone mine in existing cement plant.

2.0 M/s Emami Cement Limited (ECL) has an existing Integrated Cement Plant having Clinkerproduction capacity of 3.2 MTPA, Cement 2.50 MTPA, CPP 30 MW and WHRB 09

MW alongwith Limestone production capacity 3.17 MTPA at Balodabazar Tehsil of District: Balodabazar-Bhatapara (Chhattisgarh).

3.0 Environmental Clearance for existing capacities has been obtained from MoEFCC, New Delhi vide their letter no. J-11011/372/2007-IA II (I) dated 31st October 2011 and J-11011/309/2013-IA II (I) dated 08thSeptember 2016.Certified Compliance Report from RO, MoEFCC, Nagpur is awaited.

4.0 As per point no. 4 of EC letter dated 08thSeptember 2016 (i.e. for 3.2 MTPA clinker), "The limestone will be sourced from their own limestone mines".

5.0 M/s Emami Cement Limited (ECL) have an existing Captive Limestone Mine (ML Area - 395.05 ha)with production capacity of 3.17 MTPA at Villages: Kukurdih&Risda, Tehsil: Balodabazar, District: Balodabazar- Bhatapara (Chhattisgarh). The capacity of the mine is not sufficient for manufacturing of 3.2 MTPA Clinker (as limestone requirement is 4.99 MTPA); and further expansion of captive mine is under process.

6.0 Therefore, in the meantime, to cater the remaining requirement (i.e. 1.82 MTPA) of Limestone; ECL is proposing for amendment in Environmental Clearance regarding outsourcing of Limestone in existing Cement Plant at Villages: Risda&Dhandhani, Tehsil: Balodabazar, District: Balodabazar - Bhatapara (Chhattisgarh) from limestone mines located in Satna &Katni district of Madhya Pradesh and transported by Rail/Road.

7.0 The PP has made detailed presentation along with EIA Consultant M/s J.M. EnviroNetPvt. Ltd. accredited by QCI. The PP submitted detailed information regarding details of incremental traffic load due to change in the source of raw material which would be required to transported for about 69 Km by road. The PP informed that an estimated number of additional 220 trucks per day would be required. For mitigating the impact of increased traffic on the local villagers and the impact of increased pollution load, the PP has furnished following information:

- The project approach road from the main highway to the plant is for about 900 m and is dedicated two-way road built by the project proponent. Hence, increased traffic load on this section would not interfere with the movement of local people which will continue as usual.

- The project proponent submitted detailed information during course of the meeting regarding impact assessment of the increased traffic due to out sourcing of the raw material which will have to be transported by road from the nearest railway siding which 69 Km from Dadhapara railway siding to the plant site via NH-130, SH 10; 10 MDR and approach road.

- The PP also submitted the mitigation measures to reduce the impact of transportation.

8.0 After detailed deliberations, the committee recommended for out sourcing of the lime stone for existing cement plant for a period of up to 31st March 2019 with following additional conditions:

- Only those vehicles which have valid PUC Certificate will be hired for transporting raw material.

- All transport vehicles used for transporting raw material by road will be covered and not over loaded.

- The PP shall take up periodic maintained of approach road and regular water sprinkling (at least 3 times a day) and road sweeping cleaning (at least once in a day).

- The PP shall take up avenue plantation along the approach road. This plantation will have 2 tier plantation tall trees and medium sized shrubs.

- Water sprinkling and road sweeping is being / will be done on plant approach road to arrest fugitive dust.

Date: 11th August 2017

21.13. Expansion of Integrated Steel Plant (from 10 MTPA to 16 MTPA) along with Captive Power Plant (600 MW) of **M/s JSW Steel Ltd.**, located near village Tornagallu, District **Bellary in Karnataka**. [Online Proposal No**. IA/KA/IND/31502/2010**, MoEF&CC File No. **J-11011/489/2009-IA.II(I)**]- **Amendment in Environment Clearance** regarding optimization of existing facilities in product mix in rolling mill area and other minor changes in the operating units; Cost of CSR Plan; Greenbelt and Partial Transfer EC of some of existing units – **Based on ADS reply.**

1.0 M/s JSW Steel Limited has made online application vide proposal no. **IA/KA/IND/31502/2010**, dated **8th May 2017** seeking amendment in Environment Clearance regarding optimization of existing facilities in product mix in rolling mill area and other minor changes in the operating units.

2.0 Earlier, the proponent has also made an application for partial transfer of 0.3 MTPA Tar Distillation Plant to ECPL vide letter dated 16thAugust 2016 which was examined in the ministry and it was directed to deliberate in the EAC meeting. Further, during the presentation before EAC in the 19thmeeting of EAC held on 9th June 2017, the PP also made a request to transfer 4 MTPA Slag grinding unit to JSW cement; and 1.2 MTPA DRI Plant to JSW Projects.

3.0 The Environmental Clearance for the project was granted by the Ministry vide letter no. J-11011/489/2009-IA.II(I) dated 1stOctober, 2015 for expansion from 10 MTPA to 16 MTPA (with a configuration of 10+3+3 MTPA) and amendment in the EC was accorded by the Ministry vide letter of even no. dated 9thJune, 2016 for change in the configuration as 10+2+4 MTPA Capacity.

4.0 It was informed that, M/s JSW Steel Ltd as commissioned 12 MTPA units on 31stDecember 2016 and achieved 11.05 MT of production during 2016-17. Detailed engineering and ordering is in progress for implementation of remaining expansion of 4 MTPA unit.

5.0 Details of production capacities of various units of Steel Plant as per Environmental Clearance for 16 MTPA is as follows:

Sl No.	Unit Name	At 4 MTPA	4 to 10 MTPA	10 to 16 MTPA	Total Capacity in MTPA
1	Beneficiation Plant	4.5	15	-	19.5
2	Pellet Plant	5	5	-	10
3	Sinter Plant	2.3	8.05	9.8	20.15
4	Coke Oven Non-Recovery	1.28	-	Dismantling of existing NR Coke ovens	0
5	Coke Oven Recovery	0	3.5	4.5	8
6	Hot Metal COREX	1.2	0	0	1.2
7	Hot Metal BF	3.07	6	6	15.07
8	Pig Caster(TPD)	1200	7200	3600	12000
9	SMS (EAF+BOF)	3.8	6	6	15.8
10	Lime Kiln(TPD)	1200	3600	2400	7200
11	Slab Caster	0	6.4	8.4	14.8
12	Billet Caster	-	1.5	1.2	2.7
13	HSM	2	6.2	3.6	11.8
14	WRM	0	0.6	1.2	1.8
15	Rebar Mill	0	1	0	1
16	BRM	0	0	1.2	1.2
17	CRM	0	3	0	3
18	Pipe Mill	0	0.4	-	0.4
19	Galvanizing Line	0	1	-	1
20	Colour coating	0	0.5	-	0.5
21	Captive power plant (MW)	230	600	660	1390
22	Incinerator (Kg/hr)	0	750	250	1000
23	Slag grinding	1.6	2.6	2	6.2
24	Oxygen Plant(TPD)	500	4500	3600	10600
25	Township(Nos)	2	2	1	5

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

Sl No	**Unit Name**	**Existing configuration**			**Total (MTPA)**	**Changes proposed**	**New Total (MTPA)**	**Increase (MTPA)**
		0-4 MTPA	**4-10 MTPA**	**10-16 MTPA**				
1	Sinter Plant	SP1-2.3 MTPA	SP2–2.3 MTPA SP3–5.75 MTPA Total-8.05MTPA	SP4 – 2.3 MTPA **SP5– 7.5 MTPA** Total–9.8 MTPA	**20.15**	SP4–2.3 MTPA **SP5–5.75 MTPA** **SP6–1.75 MTPA** Total–9.8 MTPA	**20.15**	0
2	Hot Metal BF	BF1-0.9 MTPA BF2-2.17 MTPA	**BF3- 3 MTPA** BF4- 3 MTPA Total- 6.0 MTPA	BF1- 2.5 MTPA **BF5- 4.4 MTPA** Total-6.9 MTPA	**15.07**	BF1- 2.5 MTPA **BF3- 4.4 MTPA** **BF5- 3.0 MTPA** Total- 6.9 MTPA	**15.07**	0

		Total-3.07 MTPA						
3	BOF	SMS1 – 3.8 MTPA	SMS2- 6 MTPA	SMS2-6.4 MTPA SMS3-5.6 MTPA (**3X 200 T BOF +1.2 MTPA EAF**) Total – 6 MTPA	**15.8**	SMS2-6.4 MTPA SMS3- 5.6 MTPA (**2X 200 T BOF + 2X1.2 MTPA EAF**) Total – 6 MTPA	**15.8**	0
4	HSM	HSM1- 2 MTPA	HSM1–3.2MTPA HSM2 –5 MTPA Total-8.2 MTPA	HSM3–3.6MTPA	**11.8**	HSM1 - 4 MTPA HSM2-5.2 MTPA HSM-3:3.6MTPA Total–12.8 MTPA	**12.8**	1.0
5	CRM	0	CRM1 – 1 MTPA CRM2 – 2 MTPA Total- 3 MTPA	0	**3**	CRM1-1.8 MTPA CRM2–2.3MTPA Total – 4.1 MTPA	**4.1**	1.1
6	Galvanizing	0	4 X 0.25 MTPA	0	**1.0**	4 X 0.25 to 2 X 0.45	**1.9**	0.9
7	CPP(MW)	100 MW + 130 MW	2 X 300 MW (100% imported coal)	660 MW	**1490**	Amendment in fuel type in 2 x 300MW (50% imported coal + 50% Indian coal)	**1490**	0
8	Township				**5 Nos**	1 with 500 dwellings	**6 Nos**	1 with 500 dwellings

7.0 It was informed that no change in the plant capacity; Coal requirement will increase from existing 1.8 MTPA to 2.5 MTPA; no additional land is required; no additional water is required; and ash generation will increase from existing 0.26 MTPA to 0.625 MTPA.

8.0 It was also informed that about 5.2% of reduction in PM; 11.9% reduction in SO2 and 5.1% reduction in NOx.

9.0 Regional Officer of MoEF&CC visited the project on 17.11.2016 regarding compliance of conditions stipulated in Environmental Clearances granted for various phases of expansion of the Integrated Steel Plant of JSW and the report from RO is expected shortly.

10.0 The proposal was considered in the 19th meeting of EAC held during 8th to 9th June 2017. The PP has made detailed presentation on the proposed change in the configuration of some of the units and mentioned that the overall capacity of the plant remains same as approved earlier i.e. 16 MTPA. After detailed deliberation the committee recommended for proposed changes in the configuration/product mix subject to cap of 16 MTPA of the crude steel production as approved in the earlier EC.

11.0 Regarding partial transfer of units, the committee asked the PP to submit a matrix indicating all the conditions of existing environmental clearance and, and as against each condition, the mutually agreed proposal as to which unit would be responsible for compliance of which condition after the proposed disintegration is permitted (DRI plant; Cement plant and Coke oven plant). This proposed devolution of responsibilities regarding compliance of EC

conditions would be deliberated upon by the Committee which would make suitable recommendations.

12.0 Undertaking of the three companies for which transfer of EC is proposed and parent company shall submit undertaking for abiding the implementation of the Environmental Clearance conditions; no change in the pollution load; and no conflict in sharing in common facilities in day to day operations.Implementation of the Enterprises Social Responsibility (ESR) and CSR shall be responsibility of the parent company i.e. JSW Steel Limited.Therefore, the committee deferred the proposal till the submission of the information by PP.

13.0 The PP submitted reply on 28th June 2017. The reply submitted by the PP was examined and discussed by the Committee during its 20th meeting held during 10th to 12th July, 2017. The Committee was of the view that the information provided by the PP was insufficient and lacking in clarity. The Committee, therefore, asked the PP to submit complete information, as sought earlier, in the form of following two matrices:

i. Against each specific and general conditions imposed in the original EC, the responsibility of the compliance should be clearly indicated against each unit including the original PP and as well as the new companies.

ii. Against each company, including the original company, the split of the facilities/utilities /activities/ancillary unit (as per the original EC) should be clearly indicated. Further, against each company, brief description of nature of operations, raw material required and final products, pollutants, mitigation measures should be indicated.

14.0 The project proponent again submitted the following information as sought in the 20th EAC meeting on 20th July 2017:

14A. Split of the facilities/utilities /activities/ancillary unit in between JSW Steel (Parent company) & New companies JSW Cement Ltd & ECPL, upon Transfer of 4.0 MTPA Slag Grinding & Mixing unit and 0.3 MTPA Tar distillation plant of 10-16 MTPA EC &Amendment JSW Steel, Vijayanagar, Toranagallu, SandurTluk, District Bellary, Karnataka is as follows:

Sl.	Description	Parent Company JSW Steel	New Company-1 JSW Cement	New Company-2 ECPL
	Title of the Project	Expansion of crude steel capacity of JSW Steel to 16 MTPA in phases	Transfer of 4.0 MTPA slag grinding & Mixing unit from the EC accorded to JSW Steel vide Environment Clearance No J-11011/364/2006-IA(II)-I dated 7th May 2007 & amendment vide 3rd July 2008	Transfer of 0.3 MTPA Tar Distillation Plant from the EC accorded to JSW Steel vide Environment Clearance No J-11011/489/2009-IA(II)-I dated 1st Oct 2015 and amendment dated 9th June 2016
	Location	JSW Steel, Vijayanagar, Toranagallu village,	JSW Cement Ltd, Vijayanagar, Toranagallu village, Sandur Taluk,	Epsilon Carbon Limited, near Sultanpur village, Sandur Taluk, Ballari

				Sandur Taluk, Bellary district, Karnataka			Bellary district, Karnataka			district Karnataka		
				Sl.	Latitude	Longitude	Sl.	Latitude	Longitude	Sl.	Latitude	Longitude
				P	15°9’ 58.39 ” N	76°37’ 8.68” E	E	15°11’1.36 ” N	76°42’1 .12” E	K	15°10’1 4.98” N	76°42’5 0.93” E
				Q	15°12 ’2.85” N	76°39’ 0.29” E	F	15°10’57.5 2” N	76°42’4 .45” E	L	15°9’59 .44” N	76°42’5 8.80” E
				R	15°11 ’9.05” N	76°42’ 7.95” E	G	15°10’48.2 3” N	76°42’9 .63” E	M	15°9’55 .49” N	76°42’5 3.99” E
				S	15°9’ 11.53 ” N	76°44’ 0.79” E	H	15°10’39.1 3” N	76°42’1 1.14” E	N	15°9’59 .50” N	76°42’4 2.02” E
				T	15°9’ 12.22 ” N	76°42’ 54.25” E	I	15°10’17.1 5” N	76°41’5 6.34” E			
				U	15°10 ’16.49 ” N	76°41’ 29.67” E	J	15°10’24.5 0” N	76°41’4 3.02” E			
				V	15°9’ 44.23 ” N	76°39’ 35.55” E						

Sl. No	**Name of the Units**	**Total Capacity at 16 MTPA as per EC Amendment date 09.06.2017**	**JSW Steel Final production capacity at 16 MTPA After Concurrence of 19th EAC meeting dated 8th & 9th of June 2017**	**Capacities after Partial transfer of some facilities**		
				JSW Steel 16 MTPA After Concurrence of 19th EAC meeting dated 8th & 9th of June 2017	JSW Cement	ECPL
1	Ore beneficiation Plant product	19.5	19.5	19.5		
2	Pellet Plant	10	10	10		
3	Sinter Plant	20.15	20.15	20.15		

4	Coke Oven – NR	1.28	0	0		
5	Coke Oven – Recovery type	8.0	8.0 After retiring Coke 1 &2	8.0		
6	Tar distillation Plant	0.3	0.3	0		0.3
7	Hot metal – Corex	1.6	1.6	1.6		
8	Hot metal- Blast Furnace	15.07	15.07	15.07		
9	Pig Casting Machines (TPD)	12000	12000	12000		
10	Crude steel - BOF & auxiliaries	15.8	15.8	15.8		
11	Lime Kiln (TPD)	7200	7200	7200		
12	Slab Caster	14.8	14.8	14.8		
13	Billet caster	2.7	2.7	2.7		
14	HSM	11.8	12.8	12.8		
15	Rebar Mill	1	1	1		
16	Plate Mill	0	0	0		
17	Pipe Mill	0.4	0.4	0.4		
18	Wire rod mill	1.8	1.8	1.8		
19	Cold Rolling Mill Complex	3	4.1	4.1		
20	Galvanizing Lines	1	1.9	1.9		
21	Color Coating Line	0.5	0.5	0.5		
22	Power Plant and process steam boilers in MW	1430 (coal+Gas)	1490 (Coal(IMP + IND) +Gas)	1490 (Coal (IMP + IND) +Gas)		
23	Incinerator (kg/hr)	1000	1000	1000		
24	Slag Grinding and mixing unit	6.2	6.2	2.2	4	
25	Oxygen Plant (tpd)	8800	10600	10600		
26	Township (nos)	5	6	6		
	Raw Materials in MTPA			Iron Ore Lumps: 5.8	BF Slag: 4.2	Crude tar:0.3 Mtpa, High QI pitch(40,000), NaOH(9000)
				Iron ore fines: 23.5	Clinker : 1.7	
				Coking Coal: 7.5	Coal : 0.04	

		Injection Coal: 1.4	Gypsum :0.17	
		Boiler Coal: 2.3		
		Corex Coal: 1.7	Oxygen: 1200 Nm3/h	Mixed Gas: 30 Gcal/h
		Lime stone: 5.0	Coke Oven gas: 7500 Nm3/h	
		Dolomite: 3.5		
		Quartzite: 0.75		
		Pet coke: 0.85		
	Major Products	HR coils & Sheets	GBFSS	Coal tar pitch (153,000); De-hydrated tar (291,000); CBO (70,000); Anth oil (45,000); Wash oil (23,000); NSF (33,000); Phenol & light oil (12,000); Naphthalene(18,000)
	Water Consumption in m^3/d	3,30,000 (72.8 MGD)	565	1440
	Power consumption in MW	1600	32	3.5
	Process Description	1. Iron ore fines obtained from the mines is beneficiated to upgrade its quality.	1. The granulated BF slag from JSW Steel is obtained and stored in open area.	1. The crude tar is received in tankers or pipeline and is stored in tanks.
		2.These fines are then agglomerated into pellets and sinter for feeding them into Blast furnace.	2. The wet slag is dried in a drier to remove moisture before grinding in vertical and roller press type grinding machines.	2. The moisture present in crude tar is removed by heating it to a higher temperature and separating the moisture as water.
		3.Coal is carbonized in Coke ovens to produce coke, a reducing agent for reducing iron oxide to molten iron.	3. The ground materials are stored in separate silos.	3. The hot tar is fed to a main distillation column, where different tar fractions are tapped from the column. These include light oil, naphthalene oil, phenolic oil, wash oil, carbon black oil, anthracene oil, soft pitch.
		4. Coke, Sinter, Pellet and lump ore is fed to the blast furnace to produce molten iron.	4. These ground products are then blended in suitable proportions to get OPC, PPC and PSC.	4. These intermediate products are further processed in separate distillation units to obtain different products to meet the requirements of the customers
		5. The carbon content in molten iron is removed in	5. The finished products are dispatched both in bulk	5. The heat required for distillation is

		steel making through BOF and EAF routes to produce liquid steel.	in tankers or in bags.	provided by indirectly thermic fluid, which is heated by gas in furnaces.
		6. Liquid steel is cast in to different shapes viz Slab and Billet in continuous casting units		6. The final products are dispatched to customers either in tankers or in bags.
		7. These are further heated in reheat furnaces and rolled in hot mills to get flat and long finished products.		
		8.The hot rolled coils are further rolled in cold condition to get thinner grade of cold rolled products and processed to meet the requirement of the customers		
	Major Pollutants	Air: Dust, SO2, NOx	Air: Dust - Fugitive & stack emissions	Air: Dust, VOC- Fugitive & stack emissions
		Water: BOD, COD, NH_3, Phenol, CN	Water: BOD	Water: BOD, NH_3
		Noise: From moving machinery	Noise: From moving machinery	Noise: From moving machinery
	Mitigation measures	Air: DSS, Wind fence, Bag filters, Scrubbers, ESPs, DESOX units etc	Air: DSS, Bag filters	Air: Bag filters, Central capture of VOC & scrubbing
		Water: Recirculation systems; ETPs; RO Plants; ZLD	Sewage treatment	ETP - Biological treatment
		Noise: Silencers, low speed fans	Noise: Silencers, low speed fans	Noise: Silencers, low speed fans

14B. Responsibility matrix for transfer of 0.3 MTPA Coal Tar distillation plant to Epsilon Carbon Private Limited (ECPL); transfer of 4.0 MTPA slag grinding and mixing unit to JSW Cement from Environment Clearance vide Environment Clearance No. J-11011/489/2009-IA.II(I) dated 01.10.2015 accorded to JSW Steel, Toranagallu, District Ballari, Karnataka.

Sl.	**Environment Clearance conditions**	**Parent Company**	**New Company-1**	**New Company-2**
		(JSW Steel)	**(JSW Cement)**	**(ECPL)**
A.	Specific Condition			
i	The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.	Applicable	**Partly Applicable** On-line continuous monitors will be installed to monitor particulate matter in the process stacks and air emissions from different sources shall	Not Applicable

			not exceed 150mg/Nm^3. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	
ii	All the conditions stipulated by the Standing Committee of the National Board for Wildlife should be effectively implemented.	Applicable	Not Applicable	Not Applicable
iii	The PP shall participate in a Wildlife Conservation Plan for Sloth Bears and other schedule-l fauna found in the study area and in the Daroji Bear Sanctuary. The Conservation Plan shall be prepared in consultation with the State Wildlife Department. The Plan with various activities including creation of water bodies, elimination of weeds, eco-regeneration plan including regeneration of fruit bearing trees and improvement of ecological habitat and support to the nearby villages to minimize dependency on forest produce for fuel shall contain budgetary support with details of capital and revenue costs for various activities, the details of expenditure made on which shall be regularly submitted as part of the Compliance Report to Regional Office, Bangalore,	Applicable	Not Applicable	Not Applicable
iv	The PP shall obtain assured raw materials (particularly iron ore and coal) from designated sources for long-term supply and shall enter into long-term MOUs with producers/sellers of raw materials used in steel making. Washed coal shall be used.	Applicable	Not Applicable	Not Applicable
v	All the units of the expansion Project shall operate using state-of-art energy efficient technologies, environmental pollution prevention and control technologies and energy efficient measures including the 4Rs shall be implemented at every step of the plant operation. The old design of the existing plant especially old coke ovens needs a scheduled phasing out for which the proponent shall prepare a detailed time-bound Plan and submit it to the Ministry.	Applicable	Applicable	Applicable
vi	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz, Electrostatic	Applicable	Partly Applicable On-line continuous monitors will be installed to monitor particulate matter in	Partly Applicable On-line continuous stack monitoring facilities for all the stacks shall be

	precipitator (ESP) (to sinter plant) and dust catcher followed by venture scrubbers to blast furnace and bag filters etc. shall be provided to keep the emission levels of particulates below 50 mg/Nm3 from stacks and also meet level of the 50 mg/Nm3 in work zone.		the process stacks and air emissions from different sources shall not exceed 150mg/Nm3. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.	provided and sufficient air pollution control devices shall be provided to keep the emission levels of particulates below 50 mg/Nm3 from stacks
vii	Coke oven gases after by-product shall be used as supplementary fuel. Top gases from the blast furnace shall be cleaned by gas cleaning devices. Dust extraction/fume extraction system with ESPs and stack shall be provided to stock house and cast house. Secondary fumes shall be captured by fume extraction system generated during hot metal and liquid steel transfer points. Dust emissions from calcining plant shall be controlled by bag filters. Emissions of SO2, NOx and CO from re-heating furnace shall be controlled. The steam generators shall be provided by low NOx burners to reduce NOx emissions. Dust suppression/dust extraction system shall be provided to control fugitive emissions.	Applicable	Not Applicable	Not Applicable
viii	Air Pollution control measures shall include Pulse Jet Bag Filter of Up flow type, pneumatic conveying of dust, transport of materials in closed conveyors, wind screen in yards, DSS in yards.	Applicable	Air Pollution control measures shall include Pulse Jet Bag Filter &DSS in yards. Vents in storage tanks	Air Pollution control measures shall include Pulse Jet Bag Filter & DSS in yards. Vents in storage tanks
ix	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.	Applicable	Applicable	Applicable
x	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Applicable	Applicable	Applicable
xi	The plant shall develop rail transport or rail-cum-pipeline transport for iron ore and other major raw materials within a	Applicable	Partly Applicable The plant shall develop rail track for	Partly Applicable The plant shall develop pipeline for

	time-bound manner.		conveying slag from JSW Steel to JSW Cement	conveying crude tar from JSW Steel to ECPL
xii	Detailed unit-wise Risk Analysis and Assessment and detailed on-site and off-site Emergency Preparedness and Disaster Management Plan (DMP) linked to District- level DMP shall be prepared in consultation with district authorities and mock drills carried out periodically.	Applicable	Applicable	Applicable
xiii	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.	Applicable	Applicable	Applicable
xiv	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal. These include slag generated during the process of steelmaking - BOF slag shall be used in construction of slime pond, sludge and bag filter dusts shall be recycled in sinter/pellet plant. A 0.3 MTPA briquetting plant 0.6 MTPA micro pellet plant shall be set up for use of dusts. All the BF slag shall be sent to cement units and SMS slag produced for construction material. All the other solid wastes including broken refractory mass shall be properly disposed off in an environmentally friendly manner.	Applicable	Partly Applicable. BF Slag shall be used for cement making	Not Applicable
xv	Backfilling of mine voids with SMS slag shall be appropriately reflected in the Mine Plan and prior approval obtained thereof from Indian Bureau of Mines.	Applicable	Not Applicable	Not Applicable
xvi	All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Bangalore.	Applicable	Not Applicable	Not Applicable
xvii	Total water requirement shall not exceed 29.5MGD to be met from Almatti and Tungabhadra Dam. The water consumption shall not exceed as per the standard prescribed for steel plants. Use of air cooled condensers shall be explored and closed-circuit system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluents shall be treated and used for plant processes/operations, dust suppression and green belt development. No effluents	Applicable	Partly Applicable Total water requirement for the facility shall be provided from JSW Steel Ltd, and shall not exceed 565 m3/day. The blow down from the system shall be used for greenbelt development. The effluent from domestic sources shall also be	Partly Applicable The total water requirement shall not exceed 1440 m3/day and shall be supplied from water network of JSW Steel

	shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.		used for green belt development after treatment in septic tank and soaking pits. No effluent shall be discharged outside the factory premises "Zero discharge" shall be followed strictly as proposed	
xviii	The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the indirect cooling circuit shall be routed through the cooling tower. Coke from the coke oven shall be cooled in dry cooling plant to eliminate use of quenching water. The wastewater of gas cleaning plant (GCP) of blast furnace and steel met shop containing suspended solids shall be clarified in the wastewater treatment plant and recycled to the waste gas cleaning units. Wastewater from the CCM shall be treated to remove scale and oil and treated water shall be recycled after cooling. The domestic wastewater shall be treated in a Sewage Treatments plant (STP) and used for dust suppression and green belt development.	Applicable	Partly Applicable The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the indirect cooling circuit shall be routed through the cooling tower. The domestic wastewater shall be treated in a Sewage Treatments plant (STP) and used for dust suppression and green belt development.	Partly Applicable The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the indirect cooling circuit shall be routed through the cooling tower. The domestic wastewater shall be treated in a Sewage Treatments plant (STP) and used for dust suppression and green belt development.
xix	Efforts shall further be made to use maximum water from the rain water harvesting sources to reduce intake of water from Almatti and Tungabhadra Dam. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	Applicable	Applicable	Applicable
xx	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluents generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.	Applicable	Not Applicable	Applicable
xxi	Green belt shall be developed in 33% of plant area Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO	Applicable	Not Applicable	Not Applicable
xxii	Power from the CPP of 1430 MW	Applicable	Not Applicable	Not Applicable

	capacity shall be entirely utilized for the plant operations only. The 600 MW expansion Unit of the CPP is coal based and any change in configuration or capacity shall be made only with prior approval of this Ministry.			
xxiii	The environment wing of the company and for this Plant as well as of the company shall be strengthened with qualified personnel, state-of-art laboratory, infrastructure, etc and regular records of the environmental data including on-line monitoring-of emissions shall be maintained.	Applicable	Not Applicable	Applicable
xxiv	Company shall develop an HSE Policy. All the permanent workers shall be covered under ESI Scheme. The company shall have the provision for treatment of its workers at the local sub-committee Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test. Audiometry, Spirometry etc. shall be regularly conducted amongst the employees of the Company and records maintained thereof.	Applicable	Applicable	Applicable
xxv	A CSR Plan shall be prepared and implemented in consultation with the local villages and administration. Issues raised/covered during public hearing and incorporated in the EMP and CSR Plan. During construction phase of the expansion project, an expenditure of' about minimum 5% of the capital expenditure shall be earmarked for CSR activity covering the broad areas of education, health, infrastructure, water and power spread over 5 years/period of construction of project. During operation phase of the project, the CSR activity will be funded based on 2% of the profit during operation phase of the project. 70% of the employment shall be made from the local population. The activities shall include skill development, education for the girl child, common infrastructure, alternate livelihood schemes and creation of SHGs, etc. The PP shall as part of the CSR Plan meet the drinking water requirements (pipeline) of neighboring villages from the State authorities. In addition, villages such as Dharmasagara and Bandri, which have a fluoride problem shall also be provided drinking water. All the commitments	Applicable	Applicable	Applicable

	made to the public during the Public Hearing/Public Consultation meeting held on 30.12.2010 shall be satisfactorily implemented and details of which shall be furnished as part of CSR. A separate budget for implementing the same shall be allocated made. The annual capital and recurring expenditure on CSR - village-wise and activity-wise shall be uploaded on the company website and also included in the Annual Report of the company to the Ministry's Regional Office at Bangalore.			
xxvi	The Company shall submit within three months its policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus a infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	Applicable	Not Applicable	Not Applicable
xxvii	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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Applicable	Applicable	Applicable
B. GENERAL CONDITIONS:				
i.	No further expansion or modifications in the plant will be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEFCC).	Applicable	Applicable	Applicable
ii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and the SPCB/CPCB once in six months.	Applicable	Not Applicable	Not Applicable
iii	Industrial wastewater shall be properly	Applicable	Applicable	Applicable

	collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.			
iv	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz, 75 dBA (daytime) and 70 dBA (nighttime).	Applicable	Partly Applicable The overall noise levels in and around the plant area shall be kept well within the standards (85 dB A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.	Partly Applicable The overall noise levels in and around the plant area shall be kept well within the standards (85 dB A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
v	Vehicular transportation of raw materials and finished products shall be kept to minimum. Dust suppression systems shall be in place at transfer points. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads.	Applicable	Applicable	Applicable
vi	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.	Applicable	Applicable	Applicable
vii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Applicable	Applicable	Applicable
viii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on	Applicable	Applicable	Applicable

	their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Bangalore. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10 SO2,NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.			
ix	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by-mail) to the Regional, Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore / CPCB / SPCB shall monitor the stipulated conditions.	Applicable	Applicable	Applicable
x	The environmental statement for each financial year ending 31st(March in Form-Vas is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Bangalore by-mail.	Applicable	Applicable	Applicable
xi	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEFCC) at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bangalore.	Applicable	Applicable	Applicable
xii	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned	Applicable	Applicable	Applicable

	authorities and the date of commencing the land development work.			
10	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Applicable	Applicable	Applicable
11	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Applicable	Applicable	Applicable
12	The above conditions shall he 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 Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	Applicable	Applicable	Applicable
2. Ref: Environment Clearance EC No.J-11011/489/2009-IA.II(I) dated 09.06.2016				
Sl. No	**Environment Clearance conditions**	**Parent Company**	**New Company-1**	**New Company-2**
		(JSW Steel)	**(JSW Cement)**	**(ECPL)**
1	This has reference to your letter No. EMD/GOVIF01612758 dated 6th November, 2015 seeking amendment in Environment Clearance regarding project mentioned above. It has been noted that the Environment Clearance for expansion of Integrated Steel Plant (from 10 MTPA to 16 MTPA) along with Captive Power Plant (600 1v1W) of M/s JSW Steel Limited located near Village Tornagallu, District Bellary in Karnataka was accorded by the Ministry vide letter No. J-110111489/2009-lA.IT(T) dated 01st October 2015.	Applicable	Not Applicable	Not Applicable
2	The project proponent has requested that due to changes in the market situation for steel products and to exploit the potential benefits of new technologies developed over the period, it is proposed to slightly alter the process configuration by modernizing some of the existing units and installing larger capacity "state of the art" equipment without any increase in the approved overall crude steel capacity of 16 MTP A. The changes proposed from the earlier proposal as given in the EC	Applicable	Not Applicable	Not Applicable
3	It has been envisaged that the revised capital cost of the project is Rs 17, 500 Crores as against 15,130 Crores for the original proposal. This includes	Applicable	Not Applicable	Not Applicable

	additional expenditure of Its 800 Crores towards additional EMP proposed.			
4	It has been mentioned that there will be no change in plant capacity for crude steel production. There will be a marginal decrease (-1040 m3/day) in overall water requirement. Additional row material is required due to the modifications. Around 242.6 Gcal/hr of Surplus energy will be available to power plant, which will save about 1000 tonnes of coal per day. Generation of power from TRT, CPP and CDQ will increase with reduction in power requirement by 89 MW.'. There will be a reduction in pollution load in respect of PM, S02 and NOx in the overall air emissions to the atmosphere, improving surrounding air quality	Applicable	Not Applicable	Not Applicable
7	The company shall obtain fresh environment clearance in case of any change in the scope of the project	Applicable	Not Applicable	Applicable

14C. Responsibility matrix for transfer of 1.2 MTPA DRI Plant to JSW Projects Limited (JSWPL) from Environment Clearance vide File No J11011/489/2009 IA II (I) dated 13th January 2012 accorded to JSW Steel, Toranagallu, District Ballari, Karnataka.

Sl. No.	**Environment Clearance Conditions**	**Parent company**	**New Company**
		(JSW Steel)	**(JSW Projects)**
A	**Specific Conditions**		
i	Environmental clearance is subject to obtaining clearance under Wildlife (Protection) Act, 1972 from National Board for Wildlife. Further, grant of environmental clearance does not necessarily imply that wildlife clearance shall be granted to the project and the proposal shall be considered by National Board for Wildlife based on merits. The investment made in the project, if any, based on the environmental clearance so granted, in anticipation of clearance from wildlife angle shall be entirely at the cost and risk of the company and MoEF in this regard shall not be responsible in any matter.	Applicable	Applicable
ii	Environmental clearance is subject to final order of the Honourable Supreme Court of India in the matter of Goa Foundation vs. Union of India in writ petition (civil no 460 of 2004, as may be applicable to this project.	Applicable	Applicable
iii	Compliance to all the specific and general conditions stipulated for the existing plant by the Central /State Government shall be ensured and regular reports submitted to the Ministry's Regional Office at Bangalore /SPCB.	Applicable	Applicable
iv	Online ambient air quality monitoring and continuous stack monitoring will be provided for all stacks should be provided and sufficient air pollution devices viz. electrostatic precipitator (ESP) and bag filters etc	Applicable	Applicable

	shall be provided to keep the emission levels below 50mg/Nm^3 by installing energy efficient technology		
v	NAAQ Standards issued by Ministry vide G.S.R No. 826 (E) dated16th November, 2009 should be followed.	Applicable	Not Applicable
vi	Gaseous emissions levels including secondary fugitive emissions from all sources should be controlled within the latest permissible limits issued by Ministry vide G.S.R No. 141 (E) dated 30thMay, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	Applicable	Applicable
vii	DSS and Bag filters to be installed to control the fugitive dust emission at conveyor and transfer points, product handling, loading and unloading points.	Applicable	Applicable
viii	Hot gases from DRI kiln shall pass through Dust Settling Chamber to remove coarse solids and After Burning Chamber to burn CO and used in Waste Heat Recovery Boiler. ESP shall be installed to control the particulate emissions from WHRB.	Applicable	Applicable
ix	Total water requirement shall not exceed 225 m^3/hr. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants.	Applicable	Applicable
x	Efforts shall be made to use maximum water from rain water harvesting sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.	Applicable	Applicable
xi	Char from DRI plant shall be utilized in FBC boiler of power plant. FBC to be simultaneously installed along with DRI to ensure full utilization of char from the beginning.	Applicable	Applicable
xii	Risk and Disaster management plan along with mitigation measures should be prepared and a copy submitted to Ministry's Regional Office at Bangalore, SPCB and CPCB within three months of issue of environmental clearance.	Applicable	Applicable
Xiii	Green belt shall be developed in 33% of plant area; selection of plant species as per CPCB guidelines in consultation with the DFO.	Applicable	Not Applicable

Xiv	Recommendations made in CREP should be implemented.	Applicable	Applicable
Xv	Commitments made to public during public hearing held on 6.7.2011 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to Ministry's Regional Office at Bangalore.	Applicable	Not Applicable
Xvi	b) 5% of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on PH issues and item wise details along with time bound action plan should be prepared and submitted to Ministry's Regional Office at Bangalore. Implementation of such a program should be ensured accordingly in a time bound manner.	Applicable	Applicable
Xvii	Company shall provide housing along 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 from of temporary structures to be removed after completion of the project.	Applicable	Applicable
B	**General Conditions**		
i	The project authorities must strictly adhere to the stipulations made by the KSPCB and the State Government.	Applicable	Applicable
ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Applicable	Applicable
iii	The Gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of industry and it size and location	Applicable	Applicable
iv	At least four AAQ stations should be established in downward direction as well as where maximum GLC of PM10, PM2.5, SO_2, NO_X are anticipated in consultation with KSPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Bangalore and SPCB/CPCB once in six months	Applicable	Not Applicable

v	Industrial Wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR-422 dated 19th May 1993 and 31st Dec 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Applicable	Applicable
vi	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic silencers, enclosures etc on all sources of noise generation. The ambient noise levels should conform to the standards namely 75dBA (daytime) and 70dBA (night time).	Applicable	Applicable
vii	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per Factories Act.	Applicable	Applicable
viii	Company shall develop surface water harvesting structures to harvest rain water for utilization in lean season besides recharging the ground water table shall be done.	Applicable	Applicable
ix	The project proponent shall also comply with all the environmental protection measures and safeguard recommended in the EIA/EMP report. Further, the Company must undertake socio-economic development activities in surrounding villages like community development programs, educational programs drinking water supply and health care etc.	Applicable	Applicable
x	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the MoEF as well as State Government. An Implementation schedule shall be submitted to R.O, MoEF at Bangalore. The funds so provided shall not be diverted for any other purposes.	Applicable	Applicable
xi	A copy of the clearance letter shall be sent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the Local NGO, from whom suggestions if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Applicable	Applicable
xii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update periodically. It shall be sent to RO, MoEF at Bangalore, Zonal office of CPCB & SPCB. The criteria pollutant levels namely PM10, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Applicable	Applicable
xiii	The project proponent Shall also submit six monthly compliance reports on status of the compliance of the stipulated environmental conditions including results of monitored data (hard copy and through e-mail) to RO, MoEF, Zonal Office of CPCB& SPCB. The Regional office of the Ministry at Bangalore/CPCB/SPCB shall monitor the stipulated conditions.	Applicable	Applicable

xiv	Environmental Statement for each financial year ending 31st March in Form-V should be submitted to SPCB and to be put up on website of company along with the status of compliance of environmental conditions. The same to be also sent to RO, MoEF at Bangalore by e-mail.	Applicable	Applicable
xv	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with KSPCB and may also be seen at the Website of the MoEF at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the regional office at Bangalore.	Applicable	Applicable
xvi	Project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Applicable	Applicable
8	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Applicable	Applicable
9	The Ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	Applicable	Applicable
10	The above conditions shall be enforced inter-alia under the provisions of Water (P&CP) -1974 and Air(C&CP) Act of 1981, Environment (P) 1986, Hazardous wastes (M,H and transboundary movement Rules) 2008 and PLI-1991along with their amendments and Rules	Applicable	Applicable

15.0 After detailed deliberations, the committee recommended for the transfer of EC between JSW Steel (parent company) and JSW Cement; and ECPL with following mutually agreed responsibility matrix for transfer of 4.0 MTPA Slag Grinding and Mixing unit to JSW Cement Limited and 0.3 MTPA Tar Distillation unit to Epsilon Carbon Private Limited:

Sl.	**Environment Clearance conditions**	**Parent Company**	**New Company-1**	**New Company-2**
		(JSW Steel)	**(JSW Cement)**	**(ECPL)**
A.	Specific Condition			
i	The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.	Applicable	**Applicable**	Applicable
ii	All the conditions stipulated by the Standing Committee of the National Board for Wildlife should be effectively implemented.	Applicable	Applicable	Applicable
iii	The PP shall participate in a Wildlife Conservation Plan for Sloth Bears and other schedule-l fauna found in the study area and in the Daroji Bear Sanctuary. The Conservation Plan shall be prepared in	Applicable	Applicable	Applicable

	consultation with the State Wildlife Department. The Plan with various activities including creation of water bodies, elimination of weeds, eco-regeneration plan including regeneration of fruit bearing trees and improvement of ecological habitat and support to the nearby villages to minimize dependency on forest produce for fuel shall contain budgetary support with details of capital and revenue costs for various activities, the details of expenditure made on which shall be regularly submitted as part of the Compliance Report to Regional Office, Bangalore,			
iv	The PP shall obtain assured raw materials (particularly iron ore and coal) from designated sources for long-term supply and shall enter into long-term MOUs with producers/sellers of raw materials used in steel making. Washed coal shall be used.	Applicable	Applicable (for coal only)	Applicable (for coal-tar only)
v	All the units of the expansion Project shall operate using state-of-art energy efficient technologies, environmental pollution prevention and control technologies and energy efficient measures including the 4Rs shall be implemented at every step of the plant operation. The old design of the existing plant especially old coke ovens needs a scheduled phasing out for which the proponent shall prepare a detailed time-bound Plan and submit it to the Ministry.	Applicable	Applicable	Applicable
vi	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz, Electrostatic precipitator (ESP) (to sinter plant) and dust catcher followed by venture scrubbers to blast furnace and bag filters etc. shall be provided to keep the emission levels of particulates below 50 mg/Nm3 from stacks and also meet level of the 50 mg/Nm3 in work zone.	Applicable	Applicable	Applicable
vii	Coke oven gases after by-product shall be used as supplementary fuel. Top gases from the blast furnace shall be cleaned by gas cleaning devices. Dust extraction/fume extraction system with ESPs and stack shall be provided to stock house and cast house. Secondary fumes shall be captured by fume extraction system generated during hot metal and liquid steel transfer points. Dust emissions from calcining plant shall be controlled by bag filters. Emissions of SO2, NOx and CO from re-heating furnace shall be controlled. The steam generators shall be provided by low NOx burners to reduce	Applicable	Not Applicable	Not Applicable

	NOx emissions. Dust suppression/dust extraction system shall be provided to control fugitive emissions.			
viii	Air Pollution control measures shall include Pulse Jet Bag Filter of Up flow type, pneumatic conveying of dust, transport of materials in closed conveyors, wind screen in yards, DSS in yards.	Applicable	Applicable (Air Pollution control measures shall include Pulse Jet Bag Filter &DSS in yards. Vents in storage tanks)	Applicable (Air Pollution control measures shall include Pulse Jet Bag Filter & DSS in yards. Vents in storage tanks)
ix	In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.	Applicable	Applicable	Applicable
x	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.	Applicable	Applicable	Applicable
xi	The plant shall develop rail transport or rail-cum-pipeline transport for iron ore and other major raw materials within a time-bound manner.	Applicable	Applicable (The plant shall develop rail track for conveying slag from JSW Steel to JSW Cement)	Applicable (The plant shall develop pipeline for conveying crude tar from JSW Steel to ECPL)
xii	Detailed unit-wise Risk Analysis and Assessment and detailed on-site and off-site Emergency Preparedness and Disaster Management Plan (DMP) linked to District-level DMP shall be prepared in consultation with district authorities and mock drills carried out periodically.	Applicable	Applicable	Applicable
xiii	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.	Applicable	Applicable	Applicable
xiv	A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal. These include slag generated during the process of steelmaking - BOF slag shall be used in construction of slime pond, sludge and bag filter dusts shall be recycled in sinter/pellet plant. A 0.3 MTPA briquetting plant 0.6 MTPA micro pellet	Applicable	Applicable. (BF Slag shall be used for cement making)	Not Applicable

	plant shall be set up for use of dusts. All the BF slag shall be sent to cement units and SMS slag produced for construction material. All the other solid wastes including broken refractory mass shall be properly disposed off in an environmentally friendly manner.			
xv	Backfilling of mine voids with SMS slag shall be appropriately reflected in the Mine Plan and prior approval obtained thereof from Indian Bureau of Mines.	Applicable	Not Applicable	Not Applicable
xvi	All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Bangalore.	Applicable	Not Applicable	Not Applicable
xvii	Total water requirement shall not exceed 29.5MGD to be met from Almatti and Tungabhadra Dam. The water consumption shall not exceed as per the standard prescribed for steel plants. Use of air cooled condensers shall be explored and closed-circuit system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluents shall be treated and used for plant processes/operations, dust suppression and green belt development. No effluents shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.	Applicable	Applicable (Total water requirement for the facility shall be provided from JSW Steel Ltd, and shall not exceed 565 m3/day. The blow down from the system shall be used for greenbelt development. The effluent from domestic sources shall also be used for green belt development after treatment in septic tank and soaking pits. No effluent shall be discharged outside the factory premises. "Zero Liquid Discharge" shall be followed strictly as proposed)	Applicable (The total water requirement shall not exceed 1440 m3/day and shall be supplied from water network of JSW Steel)
xviii	The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the indirect cooling circuit shall be routed through the cooling tower. Coke from the coke oven shall be cooled in dry cooling plant to eliminate use of quenching water. The wastewater of gas cleaning plant (GCP) of blast furnace and steel met shop containing suspended solids shall be clarified in the wastewater treatment plant and recycled to the waste gas cleaning units. Wastewater from the CCM shall be treated to remove	Applicable	Applicable (The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the indirect cooling circuit shall be routed through the cooling tower. The domestic wastewater	Applicable (The proponent shall adopt water conservation measures to reduce requirement of make-up water. The wastewater generated from the indirect cooling circuit shall be routed through the cooling tower. The domestic wastewater shall be treated in a

	scale and oil and treated water shall be recycled after cooling. The domestic wastewater shall be treated in a Sewage Treatments plant (STP) and used for dust suppression and green belt development.		shall be treated in a Sewage Treatments plant (STP) and used for dust suppression and green belt development.)	Sewage Treatments plant (STP) and used for dust suppression and green belt development.)
xix	Efforts shall further be made to use maximum water from the rain water harvesting sources to reduce intake of water from Almatti and Tungabhadra Dam. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	Applicable	Applicable	Applicable
xx	Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluents generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.	Applicable	Applicable	Applicable
xxi	Green belt shall be developed in 33% of plant area Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO	Applicable	Applicable	Applicable
xxii	Power from the CPP of 1430 MW capacity shall be entirely utilized for the plant operations only. The 600 MW expansion Unit of the CPP is coal based and any change in configuration or capacity shall be made only with prior approval of this Ministry.	Applicable	Applicable	Applicable
xxiii	The environment wing of the company and for this Plant as well as of the company shall be strengthened with qualified personnel, state-of-art laboratory, infrastructure, etc and regular records of the environmental data including on-line monitoring-of emissions shall be maintained.	Applicable	Applicable	Applicable
xxiv	Company shall develop an HSE Policy. All the permanent workers shall be covered under ESI Scheme. The company shall have the provision for treatment of its workers at the local sub-committee Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test. Audiometry, Spirometry etc. shall be regularly conducted amongst the employees of the Company and records maintained thereof.	Applicable	Applicable	Applicable
xxv	A CSR Plan shall be prepared and	Applicable	Applicable	Applicable

	implemented in consultation with the local villages and administration. Issues raised/covered during public hearing and incorporated in the EMP and CSR Plan. During construction phase of the expansion project, an expenditure of' about minimum 5% of the capital expenditure shall be earmarked for CSR activity covering the broad areas of education, health, infrastructure, water and power spread over 5 years/period of construction of project. During operation phase of the project, the CSR activity will be funded based on 2% of the profit during operation phase of the project. 70% of the employment shall be made from the local population. The activities shall include skill development, education for the girl child, common infrastructure, alternate livelihood schemes and creation of SHGs, etc. The PP shall as part of the CSR Plan meet the drinking water requirements (pipeline) of neighboring villages from the State authorities. In addition, villages such as Dharmasagara and Bandri, which have a fluoride problem shall also be provided drinking water. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 30.12.2010 shall be satisfactorily implemented and details of which shall be furnished as part of CSR. A separate budget for implementing the same shall be allocated made. The annual capital and recurring expenditure on CSR -village-wise and activity-wise shall be uploaded on the company website and also included in the Annual Report of the company to the Ministry's Regional Office at Bangalore.			
xxvi	The Company shall submit within three months its policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/ procedure to being into focus a infringement/deviation/violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.	Applicable	Applicable	Applicable
xxvii	Provision shall be made for the housing of	Applicable	Applicable	Applicable

	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, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.			
B. GENERAL CONDITIONS:				
i.	No further expansion or modifications in the plant will be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEFCC).	Applicable	Applicable	Applicable
ii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO2 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and the SPCB/CPCB once in six months.	Applicable	Applicable	Applicable
iii	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	Applicable	Applicable	Applicable
iv	The overall noise levels in and around the plant area shall be kept well within the standards (85 dB A) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz, 75 dBA (daytime) and 70 dBA (nighttime).	Applicable	Applicable	Applicable
v	Vehicular transportation of raw materials and finished products shall be kept to minimum. Dust suppression systems shall be in place at transfer points. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads.	Applicable	Applicable	Applicable
vi	Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State	Applicable	Applicable	Applicable

	Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.			
vii	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Applicable	Applicable	Applicable
viii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Bangalore. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10 SO2,NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Applicable	Applicable	Applicable
ix	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by-mail) to the Regional, Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore / CPCB / SPCB shall monitor the stipulated conditions.	Applicable	Applicable	Applicable
x	The environmental statement for each financial year ending 31st(March in Form-Vas is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the	Applicable	Applicable	Applicable

	MOEFCC at Bangalore by-mail.			
xi	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forest and Climate Change (MoEFCC) at http://envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bangalore.	Applicable	Applicable	Applicable
xii	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Applicable	Applicable	Applicable
10	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Applicable	Applicable	Applicable
11	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Applicable	Applicable	Applicable
12	The above conditions shall he 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 Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.	Applicable	Applicable	Applicable
2. Ref: Environment Clearance EC No.J-11011/489/2009-IA.II(I) dated 09.06.2016				
Sl.No	**Environment Clearance conditions**	**Parent Company**	**New Company-1**	**New Company-2**
		(JSW Steel)	**(JSW Cement)**	**(ECPL)**
1	This has reference to your letter No. EMD/GOVIF01612758 dated 6th November, 2015 seeking amendment in Environment Clearance regarding project mentioned above. It has been noted that the Environment Clearance for expansion of Integrated Steel Plant (from 10 MTPA to 16 MTPA) along with Captive Power Plant (600 1v1W) of M/s JSW Steel Limited located near Village	Applicable	Applicable	Applicable

	Tornagallu, District Bellary in Karnataka was accorded by the Ministry vide letter No. J-110111489/2009-lA.IT(T) dated 01st October 2015.			
2	The project proponent has requested that due to changes in the market situation for steel products and to exploit the potential benefits of new technologies developed over the period, it is proposed to slightly alter the process configuration by modernizing some of the existing units and installing larger capacity "state of the art" equipment without any increase in the approved overall crude steel capacity of 16 MTP A. The changes proposed from the earlier proposal as given in the EC	Applicable	Not Applicable	Not Applicable
3	It has been envisaged that the revised capital cost of the project is Rs 17, 500 Crores as against 15,130 Crores for the original proposal. This includes additional expenditure of Its 800 Crores towards additional EMP proposed.	Applicable	Applicable (Capital cost of the project Rs 600 Crs including Rs 20 Crs towards environmental protection)	Applicable (Capital cost of the project Rs 350 Crs including Rs 8.5 Crs towards environmental protection)
4	It has been mentioned that there will be no change in plant capacity for crude steel production. There will be a marginal decrease (-1040 m3/day) in overall water requirement. Additional row material is required due to the modifications. Around 242.6 Gcal/hr of Surplus energy will be available to power plant, which will save about 1000 tonnes of coal per day. Generation of power from TRT, CPP and CDQ will increase with reduction in power requirement by 89 MW.'. There will be a reduction in pollution load in respect of PM, S02 and NOx in the overall air emissions to the atmosphere, improving surrounding air quality	Applicable	Not Applicable	Not Applicable
5	The company shall obtain fresh environment clearance in case of any change in the scope of the project	Applicable	Not Applicable	Applicable

16.0 After detailed deliberations, the committee recommended for the transfer of EC from JSW Steel (parent company) to JSW Projects with following mutually agreed responsibility matrix for transfer of 1.2 MTPA DRI unit to JSW Projects:

Sl. No.	**Environment Clearance Conditions**	**Parent company**	**New Company**
		(JSW Steel)	**(JSW Projects)**
A	**Specific Conditions**		

i	Environmental clearance is subject to obtaining clearance under Wildlife (Protection) Act, 1972 from National Board for Wildlife. Further, grant of environmental clearance does not necessarily imply that wildlife clearance shall be granted to the project and the proposal shall be considered by National Board for Wildlife based on merits. The investment made in the project, if any, based on the environmental clearance so granted, in anticipation of clearance from wildlife angle shall be entirely at the cost and risk of the company and MoEF in this regard shall not be responsible in any matter.	Applicable	Applicable
ii	Environmental clearance is subject to final order of the Honourable Supreme Court of India in the matter of Goa Foundation vs. Union of India in writ petition (civil no 460 of 2004, as may be applicable to this project.	Applicable	Applicable
iii	Compliance to all the specific and general conditions stipulated for the existing plant by the Central /State Government shall be ensured and regular reports submitted to the Ministry's Regional Office at Bangalore /SPCB.	Applicable	Applicable
iv	Online ambient air quality monitoring and continuous stack monitoring will be provided for all stacks should be provided and sufficient air pollution devices viz. electrostatic precipitator (ESP) and bag filters etc shall be provided to keep the emission levels below 50mg/Nm^3 by installing energy efficient technology	Applicable	Applicable
v	NAAQ Standards issued by Ministry vide G.S.R No. 826 (E) dated16th November, 2009 should be followed.	Applicable	Applicable
vi	Gaseous emissions levels including secondary fugitive emissions from all sources should be controlled within the latest permissible limits issued by Ministry vide G.S.R No. 141 (E) dated 30thMay, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	Applicable	Applicable
vii	DSS and Bag filters to be installed to control the fugitive dust emission at conveyor and transfer points, product handling, loading and unloading points.	Applicable	Applicable
viii	Hot gases from DRI kiln shall pass through Dust Settling Chamber to remove coarse solids and After Burning Chamber to burn CO and used in Waste Heat Recovery Boiler. ESP shall be installed to control the particulate emissions from WHRB.	Applicable	Applicable
ix	Total water requirement shall not exceed 225 m^3/hr. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants.	Applicable	Applicable
x	Efforts shall be made to use maximum water from rain water harvesting sources.	Applicable	Applicable

	Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit.		
xi	Char from DRI plant shall be utilized in FBC boiler of power plant. FBC to be simultaneously installed along with DRI to ensure full utilization of char from the beginning.	Applicable	Applicable
xii	Risk and Disaster management plan along with mitigation measures should be prepared and a copy submitted to Ministry's Regional Office at Bangalore, SPCB and CPCB within three months of issue of environmental clearance.	Applicable	Applicable
xiii	Green belt shall be developed in 33% of plant area; selection of plant species as per CPCB guidelines in consultation with the DFO.	Applicable	Applicable
Xiv	Recommendations made in CREP should be implemented.	Applicable	Applicable
Xv	Commitments made to public during public hearing held on 6.7.2011 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to Ministry's Regional Office at Bangalore.	Applicable	Applicable
Xvi	b) 5% of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on PH issues and item wise details along with time bound action plan should be prepared and submitted to Ministry's Regional Office at Bangalore. Implementation of such a program should be ensured accordingly in a time bound manner.	Applicable	Applicable
Xvii	Company shall provide housing along 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 from of temporary structures to be removed after completion of the project.	Applicable	Applicable
B	**General Conditions**		
i	The project authorities must strictly adhere to the stipulations made by the KSPCB and the State Government.	Applicable	Applicable

ii	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Applicable	Applicable
iii	The Gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May 1993 and standards prescribed from time to time. The state Board may specify more stringent standards for the relevant parameters keeping in view the nature of industry and it size and location	Applicable	Applicable
iv	At least four AAQ stations should be established in downward direction as well as where maximum GLC of PM10, PM2.5, SO_2, NO_X are anticipated in consultation with KSPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional office at Bangalore and SPCB/CPCB once in six months	Applicable	Applicable
v	Industrial Wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR-422 dated 19th May 1993 and 31st Dec 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Applicable	Applicable
vi	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic silencers, enclosures etc on all sources of noise generation. The ambient noise levels should conform to the standards namely 75dBA (daytime) and 70dBA (night time).	Applicable	Applicable
vii	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per Factories Act.	Applicable	Applicable
viii	Company shall develop surface water harvesting structures to harvest rain water for utilization in lean season besides recharging the ground water table shall be done.	Applicable	Applicable
ix	The project proponent shall also comply with all the environmental protection measures and safeguard recommended in the EIA/EMP report. Further, the Company must undertake socio-economic development activities in surrounding villages like community development programs, educational programs drinking water supply and health care etc.	Applicable	Applicable
x	Requisite amount shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the MoEF as well as State Government. An Implementation schedule shall be submitted to R.O, MoEF at Bangalore. The funds so provided shall not be diverted for any other purposes.	Applicable	Applicable

xi	A copy of the clearance letter shall be sent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the Local NGO, from whom suggestions if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	Applicable	Applicable
xii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update periodically. It shall be sent to RO, MoEF at Bangalore, Zonal office of CPCB & SPCB. The criteria pollutant levels namely PM10, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Applicable	Applicable
xiii	The project proponent Shall also submit six monthly compliance reports on status of the compliance of the stipulated environmental conditions including results of monitored data (hard copy and through e-mail) to RO, MoEF, Zonal Office of CPCB& SPCB. The Regional office of the Ministry at Bangalore/CPCB/SPCB shall monitor the stipulated conditions.	Applicable	Applicable
xiv	Environmental Statement for each financial year ending 31st March in Form-V should be submitted to SPCB and to be put up on website of company along with the status of compliance of environmental conditions. The same to be also sent to RO, MoEF at Bangalore by e-mail.	Applicable	Applicable
xv	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with KSPCB and may also be seen at the Website of the MoEF at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the regional office at Bangalore.	Applicable	Applicable
xvi	Project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Applicable	Applicable
8	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Applicable	Applicable
9	The Ministry reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	Applicable	Applicable
10	The above conditions shall be enforced inter-alia under the provisions of Water (P&CP) -1974 and Air(C&CP) Act of 1981, Environment (P) 1986, Hazardous wastes (M,H and transboundary movement Rules) 2008 and PLI-1991along with their amendments and Rules	Applicable	Applicable

17.0 The committee also opined that the amendments requested by PP regarding optimization of the existing facilities in product mix in rolling mill area and other minor changes in the

operating units; cost of CSR plan; and green belt may be taken up separately thorugh fresh application by the PP.

21.14. Expansion of integrated Steel Plant from 5 MTPA to 10 MTPA and Power Plant from 300 MW to 600 MW (Gas Based) at Geethapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra by M/s JSW Steel Limited. [F. No. J-11011/76/2013-IA.II(I)]. [Online Proposal No. **IA/MH/IND/18771/2012** for Partial transfer of clinker grinding unit to **M/s JSW Cement Ltd**.; Proposal No. **IA/MH/IND/41055/2015for Partial transfer of Coke Plant M/s Dolvi Coke Projects Ltd.**

1.0 M/s JSW Steel Ltd. has made online application vide proposal no. **IA/MH/IND/41055/2015** dated 15thJanuary, 2016 for partial transfer of 1.0 MTPA Coke-Oven Plant and 2.5 MTPA 'Coke-Oven including by-product plant' from M/s JSW Steel Ltd to M/s Dolvi Coke Projects Ltd and amendment in EC regarding Greenbelt Development and Cost of CSR Plan.

2.0 M/s JSW Steel Ltd. has also made online application vide proposal no. **IA/MH/IND/18771/2012**, dated 10thAugust 2016 seeking partial transfer of 10 MTPA Slag & Clinker Grinding unit' from M/s JSW Steel Ltd to M/s JSW Cement Ltd.

3.0 The proponent has also made application for use of pet coke as a raw material in the coke making for use in blast furnaces vide Lr. No. EMD/GOV/F016/2959 dated 23rd May 2017.

4.0 The Environmental Clearance to the project of 3.0 MTPA to 5.0 MTPA Integrated Steel plant at Village Dolvi, Taluka Pen, District Raigad in Maharashtra was accorded vide letter J-11011/166/2011-IA-II (I) dated 21stNovember 2012 to M/s JSW Steel Ltd and further expansion of its project up to 10 MTPA was accorded environmental clearance vide letter J-11011/76/2013-IA II (I) dated 25thAugust 2015.

5.0 It has been explained by the project proponent that the expansion projects up to 5 MTPA have been established. The existing steel plant is based on the Direct Reduced Iron (DRI) - Blast Furnace-CONARC - Continuous Casting – Rolling Mill (CSP) route. The expansion is based on proven BF - EAF route.

6.0 The project proponent mentioned that the environment clearance for steel plant up to 5 MTPA includes 1.0 MTPA recovery type Coke Oven. Further, the environment clearance up to 10 MTPA plant includes 2.5 MTPA recovery type coke oven plant. It is proposed to combine the Coke Ovens of 1.0 MTPA and 2.5 MTPA, which are part of the earlier ECs as mentioned above into a single 3.5 MTPA Coke Oven plant in same location under 5 MTPA to 10 MTPA expansion project. By combining both the Coke Ovens into one the pollution load and other resource requirement like water will not increase; however, the land requirement and Capital Cost will be optimized for setting up a single Coke oven in-place of setting up two small and separate coke ovens. Also, this will have varied and distinct advantages in terms of lower land foot print with compact design for better operational and maintenance practices and logistics for handling coal and coke.

7.0 Total project cost of the coke oven plant of 3.5 MTPA will be Rs 2520 Crores. In order to optimize the capital expenditure, it is proposed to outsource the establishment and operations of the Coke Oven facility. The 3.5 MTPA Coke Oven will be established and operated by an Associate Company, called Dolvi Coke Projects Limited and JSW Steel will be the largest shareholder of the SPV. JSW Steel Ltd. will sign the take or pay agreement from the associate company. This arrangement will help JSW to optimize the requirement of capital expenditure for setting up 10 MTPA capacity at Dolvi Works.

8.0 The project proponent further mentioned that while granting the environmental clearance for the expansion project, Ministry vide its specific condition No (iii) stipulated that 'The commitment made by the PP for plantation of the green belt to the tune of 655 acres should be expedited. Three rows of green belt, 12-15 meters wide, all along the periphery of the plant should be planted'. The project proponent mentioned that they are in the process of developing green belt with three tier plantations along the periphery and avenue plantation along the internal roads inside the premises. JSW Steel Ltd. is fully committed to comply with the 33% green belt requirement. However, it is becoming difficult to get continuous land at Dolvi, Taluka Pen, District Raigad to comply with 33% green belt cover along the periphery premises. Therefore, the project proponent requested to grant permission for plantation in nearby areas in degraded private/ Government land outside the plant premises in coordination with District Revenue/ Forest Department, Raigad, Maharashtra or plantation in line with the condition stipulated by the Maharashtra Pollution Control Board in its Consent to Operate, which states "The applicant shall bring minimum 33% of the available open land under green coverage / plantation".

9.0 Regarding CSR related activity the project proponent mentioned that EAC on 26th March 2015, directed to allocate 2.5% of the total project cost to be spent on CSR activities, which includes 2% of the annual profit as provided in clause No 135 of the Companies Act 2013. Accordingly, the CSR plan of 10 years was submitted to MoEFCC and was accepted. However, while granting the environmental clearance, an amount equivalent to 5% of the total cost of the project to be earmarked towards the Enterprise Social Commitment (ESC) based on local needs, has been mentioned as per the specific conditions, point no (v), of the EC dated 25.08.2015. The project proponent requested to consider the CSR plan of 2.5% of the project cost as submitted.

10.0 The proposal was considered in 4th meeting of Expert Appraisal Committee [EAC (Industry-I) held during 25th -26th February 2016. Based on the presentation made and discussions held in detail, the Committee opined as under:

a) Regarding combining of the two Coke Oven plants of 1.0 MTPA and 2.5 MTPA, which were part of earlier ECs, into a single 3.5 MTPA Coke Oven plant in the same location under 5 MTPA to 10 MTPA expansion project to be operated by their Associate Company, called Dolvi Coke Projects Limited is an administrative decision to be taken by the Ministry. However, as there is no provision in the notification for partial transfer of the environment clearance, the Committee has; therefore, deferred decision in the matter and referred matter to Ministry.

b) Regarding plantation, the Committee agreed to the submission of the project proponent and recommended the proposal of plantation in nearby areas in degraded private/ Government land outside the plant premises in consultation and coordination with District Revenue/ Forest Department, Raigad, Maharashtra.

c) With regard to reconsideration of CSR budget, the Committee recommended to revise the condition for 2.5% of the total cost of the project for CSR instead of 5%.

11.0 In view of the Committee's decision, the proposal for partial transfer of coke oven plant, Clinker and grinding units were processed in the Ministry for consideration. Ministry decided to refer to the EAC again for detailed deliberation on the environmental implications of the partial transfer of units and clear recommendation on the percentage of the proposal of plantation in nearby areas in degraded private/ Government land outside the plant premises.

12.0 Therefore, the proposal was again considered in the 19th Expert Appraisal Committee meeting [EAC(Industry-I)] held during 8th – 9th June, 2017. After detailed deliberation the committee recommended:

- CSR cost as decided in the earlier EAC.

- Regarding proposal of plantation in nearby areas in degraded private/ Government land outside the plant premises, the committee recommended for 50% of the mandated plantation (33% of the total project area) shall be carried within the premises and for remaining 50% of the plantation, the committee asked the PP to explore the double the area around the project within 10 Km from the project. It was decided that the extent of plantation outside the project will be deliberated in the EAC meeting along partial transfer of units.

- Regarding partial transfer of units, the committee asked the PP to submit a matrix indicating all the conditions of existing environmental clearance and, and as against each condition, the mutually agreed proposal as to which unit would be responsible for compliance of which condition after the proposed disintegration is permitted (Slag and Clinker grinding unit; Cement plant and Coke oven plant). This proposed devolution of responsibilities regarding compliance of EC conditions would be deliberated upon by the Committee which would make suitable recommendations.

- Undertaking of the three companies for which transfer of EC is proposed and parent company shall submit undertaking for abiding the implementation of the Environmental Clearance conditions; no change in the pollution load; and no conflict in sharing in common facilities in day to day operations.

- Implementation of the Enterprises Social Responsibility (ESR) and CSR shall be responsibility of the parent company i.e. JSW Steel Limited.

- Therefore, the committee deferred the proposal till the submission of the information by PP.

13.0 The PP submitted reply on 28th June 2017. The reply submitted by the PP was examined and discussed by the Committee in its 20th Expert Appraisal Committee [EAC (Industry-I)] meeting held during 10th – 12th July, 2017. The Committee was of the view that the information provided by the PP was insufficient and lacking in clarity. The Committee, therefore, asked the PP to submit complete information, as sought earlier, in the form of following two matrices:

i. Against each specific and general conditions imposed in the original EC, the responsibility of the compliance should be clearly indicated against each unit including the original PP and as well as the new companies.

ii. Against each company, including the original company, the split of the facilities/utilities /activities/ancillary unit (as per the original EC) should be clearly indicated. Further, against each company, brief description of nature of operations, raw material required and final products, pollutants, mitigation measures should be indicated.

14.0 The project proponent again submitted the reply as desired in the 20th EAC meeting on 20th July 2017

15.0 Split of the facilities / utilities / activities/ ancillary units in between Parent Company & New companies for transfer of 1.0 MTPA and 2.5 MTPA Coke Oven & by-product plant to Dolvi Coke Projects Ltd (DCPL); 10 MTPA slag & clinker grinding unit to JSW Cement Ltd from Environment Clearance grated vide File No J-11011/76/2013-IAII.(I) dated 25th August 2015 M/s JSW Steel Limited at Geethapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra

Sl No	**Item**	**Total Capacity at 10 MTPA stage as per EC dated 25th Aug 2015**	**Facilities/ Utilities after Transfer of Units from EC of Parent Company (JSW Steel Ltd) to New Companies**		
			Parent Company (JSW Steel Ltd)	**New Company 1** (Dolvi Coke Projects Ltd)	**New Company 2** (JSW Cement Ltd)
A	**Title of the Project**	Expansion of Integrated Steel Plant from 5 MTPA to 10 MTPA and Power Plant from 300 MW to 600 MW (Gas Based) of M/s JSW Steel Limited at Geetapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra	Expansion of Integrated Steel Plant from 5 MTPA to 10 MTPA and Power Plant from 300 MW to 600 MW (Gas Based) of M/s JSW Steel Limited at Geetapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra	Transfer of 1.0 MTPA Coke Oven and by-product plant from EC of 3 to 5 MTPA and 2.5 MTPA Coke Oven with by-product plant from EC of Expansion of Integrated Steel Plant from 5 to 10 MTPA and Power Plant from 300 MW to 600 MW (Gas Based) of M/s JSW Steel Limited at Geetapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra to Dolvi Coke Projects Limited	Transfer of 10 MTPA Slag and Clinker grinding unit from EC of Expansion of Integrated Steel Plant from 5 MTPA to 10 MTPA and Power Plant from 300 MW to 600 MW (Gas Based) of M/s JSW Steel Limited at Geetapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra to JSW Cement Limited

Sl No	Item	Total Capacity at 10 MTPA stage as per EC dated 25th Aug	Facilities/ Utilities after Transfer of Units from EC of Parent Company (JSW Steel Ltd) to New Companies		
B	**Location**	Geethapuram, Village Dolvi, Taluka Pen, District Raigad, Maharashtra Latitude- 18^0 39'00'' - 18^0 45'00'' N Longitude- 73^0 00'00'' - 73^0 05'00'' E	Geethapuram, Village Dolvi, Taluka Pen, District Raigad, Maharashtra Latitude- 18^0 39'00'' - 18^0 45'00'' N Longitude- 73^0 00'00''- 73^0 05'00'' E	Geethapuram, Village Dolvi, Taluka Pen, District Raigad, Maharashtra 1 MTPA Coke Oven Latitude- 18^0 40'55'' -18^0 41'03'' N Longitude- 73^0 01'55''-73^0 02'09'' E 2.5 MTPA Coke Oven Latitude- 18^0 40'50'' - 18^0 40'55'' N Longitude- 73^0 01'52''- 73^0 02'24'' E	Geethapuram, Village Dolvi, Taluka Pen, District Raigad, Maharashtra Latitude- 18^0 40'19'' - 18^0 40'22'' N Longitude- 73^0 03'05''- 73^0 03'08'' E
C	**Units/Facilities**				
1	DRI (Gas based Mega Module)	4.0 MTPA	4.0 MTPA	-	-
2	Pellet Plant	8.0 MTPA	8.0 MTPA	-	-
3	**Coke Oven including By-product plant**	**4.5 MTPA**	**1.0 MTPA (under ARCL)**	**3.5 MTPA (1.0 + 2.5 MTPA)**	**-**
4	Sinter Plant	14 MTPA	14 MTPA	-	-
5	Blast furnace including pig casting	8.1 MTPA	8.1 MTPA	-	-
6	SMS (CONARC)	5.2 MTPA	5.2 MTPA	-	-
7	SMS-BOF	6.0 MTPA	6.0 MTPA	-	-
8	Ladle Furnace (LF)	2X200t+250t +2X300t	2X200t+250t +2X300t	-	-
9	VD/VOD & RH-TP	1X200t+1X205t +2X300t	1X200t+1X205t +2X300t	-	-

Sl No	Item	Total Capacity at 10 MTPA stage as per EC dated 25th Aug	Facilities/ Utilities after Transfer of Units from EC of Parent Company (JSW Steel Ltd) to New Companies		
10	CSP (HRC Coil) Thin Caster-cum-Hot Strip Finishing Train	3.5 MTPA	3.5 MTPA	-	-
11	Conventional Slab Caster	Total 6 strands (9.4 MTPA)	Total 6 strands (9.4 MTPA)	-	-
12	Billet Caster	6 strands (1.5 MTPA)	6 strands (1.5 MTPA)	-	-
13	Plate Mill	1.5 MTPA	1.5 MTPA	-	-
14	CRM	2.5 MTPA	2.5 MTPA	-	-
15	Galvanizing Line	0.6 MTPA	0.6 MTPA	-	-
16	Electrical Steel CRGO Line	0.4 MTPA	0.4 MTPA	-	-
17	Tin Plate Mill	0.4 MTPA	0.4 MTPA	-	-
18	Colour Coating line	0.5 MTPA	0.5 MTPA	-	-
19	Lime/doloPlant	3600 tpd	3600 tpd	-	-
20	Oxygen Plant	7600 tpd	7600 tpd	-	-
21	Hot Rolling Mill	5.0 MTPA	5.0 MTPA	-	-
22	Bar Mill	1.4 MTPA	1.4 MTPA	-	-
23	**Slag & Clinker grinding unit**	**10 MTPA**	-	-	**10 MTPA**
24	Captive Power Plant	600 MW	600 MW	-	-
25	Township (Area)	150 Acres	150 Acres	-	-

Sl No	Item	Total Capacity at 10 MTPA stage as per EC dated 25th Aug	Facilities/ Utilities after Transfer of Units from EC of Parent Company (JSW Steel Ltd) to New Companies		
		Other Facilities/ Utilities			
D	**Raw material**	A) Iron Bearing Raw Material – 20.1 MTPA 1- C.L.O – 0.38 MTPA 2- Iron Ore Fines – 19.72 MTPA B) Fluxes – 0.42 MTPA 1- Lime Stone – 2.01 MPTA 2- Dolomite – 2.27 MTPA 3- Quartzite – 0.24 MTPA C) Carbon Bearing Raw Material – 8.02 MTPA 1- Hard Coking Coal – 3.72 MTPA 2- Semi hard Coking Coal – 2.59 MTPA 3- PCI Coal – 1.25 MTPA 4- Anthracite – 0.23 MTPA D) Clinker – 5.0 MTPA	A) Iron Bearing Raw Material – 20.1 MTPA 1- C.L.O – 0.38 MTPA 2- Iron Ore Fines – 19.72 MTPA B) Fluxes – 0.42 MTPA 1- Lime Stone – 2.01 MPTA 2- Dolomite – 2.27 MTPA 3- Quartzite – 0.24 MTPA C) Carbon Bearing Raw Material – 8.02 MTPA 1- Hard Coking Coal – 3.72 MTPA 2- Semi hard Coking Coal – 2.59 MTPA 3- PCI Coal – 1.25 MTPA 4- Anthracite – 0.23 MTPA	1. Hard Coking Coal – 3.72 MTPA 2. Semi hard Coking Coal – 2.59 MTPA	1. Clinker – 5.0 MTPA 2. Granulated Blast Furnace Slag – 5.0 MTPA
E	**Water requirement**	The total water requirement for the 10 MTPA Steel Plant, 600 MW Power Plant and township will be about 116 MLD (4833.3 m^3/hr). Required water will be sourced from the State Water Resources Dept from Nagothane Dam at K T Bhandara.	The total water requirement for the 10 MTPA Steel Plant, 600 MW Power Plant and township will be about 116 MLD (4833.3 m^3/hr). Required water will be sourced from the State Water Resources Dept from Nagothane Dam at K T Bhandara.	The total water requirement for the 3.5 MTPA Coke Oven with by-product plant is 717.5 m3/hr. Required water will be sourced from JSW Steel Limited out of the total water requirement of 4833.3 m^3/hr	The total water requirement for the 10 MTPA Slag & Clinker Grinding Unit is 58.5 m3/hr. Required water will be sourced from JSW Steel Limited out of the total water requirement of 4833.3 m3/hr
F	**Power requirement**	900 MW	752 MW	28 MW (20 MW+8 MW)	120 MW
G	**Final**	Crude steel- 10 MTPA	Crude steel- 10	Coke – 3.5 MTPA	Ordinary Portland

Sl No	Item	Total Capacity at 10 MTPA stage as per EC dated 25th Aug	Facilities/ Utilities after Transfer of Units from EC of Parent Company (JSW Steel Ltd) to New Companies		
	major Products	Hot Rolled Coils, Billet and Bars	MTPA Hot Rolled Coils, Billet and Bars	By-products- Coke Oven Gas – 182000 Nm3/hr Tar – 383.25 TPD Sulphur – 11.2 TPD Crude BTX – 114.8 TPD CBO/Pitch – 287 TPD Anthracite/Heavy oil – 21 TPD Light oil – 10.5 TPD Three Mix Oil – 70 TPD	Cement – 1.75 MTPA Portland Slag Cement – 1.75 MTPA Portland Pozzolana Cement – 1.5 MTPA Composite Cement – 2.5 MTPA Ground Granulated Blast Furnace Slag – 2.5 MTPA
H	**Pollutants**	a) Air Pollutants - Particulate Matter Sulphur Dioxide Oxides of Nitrogen b) Water Pollutants- TSS, COD, BOD, Phenol, Cyanide, Ammonical-N, Oil & Grease, Nitrate-N	a) Air Pollutants - Particulate Matter Sulphur Dioxide Oxides of Nitrogen b) Water Pollutants- TSS, Oil & Grease, Cyanide, Ammonical-N	a) Air Pollutants - Particulate Matter Sulphur Dioxide Oxides of Nitrogen Benzo-α-pyrene b) Water Pollutants- TSS, COD, BOD, Phenol, Cyanide, Ammonical-N, Oil & Grease, Nitrate-N	a) Air Pollutants - Particulate Matter b) Water Pollutants only from domestic waste- TSS, COD, BOD,
I	**Mitigation Measures**	a) Air Pollutants – 1) Dust Extraction - Bag Filters, Electrostatic Precipitators, Scrubbers 2) Dust Suppression - Chemical & Dry Fog, Water Sprinklers 3) Other – Charge Gas transfer with High Pressure Liquor Ammonia, Use of Lean gases as fuel, Use of low sulphur gases, Low NOx burners, Dry and wet	a) Air Pollutants – 1) Dust Extraction - Bag Filters, Electrostatic Precipitators, Scrubbers 2) Dust Suppression - Chemical & Dry Fog, Water Sprinklers 3) Other – Use of Lean gases as fuel, Use of low sulphur gases, Low NOx burners b) Water Pollutants – ETP, STP	a) Air Pollutants – 1) Dust Extraction - Bag Filters 2) Dust Suppression - Chemical &Dry Fog, Water Sprinklers 3) Other – Charge Gas transfer with High Pressure Liquor Ammonia, Use of Lean gases as fuel, Low NOx burners, Dry and wet quenching b) Water Pollutants –	a) Air Pollutants – 1) Dust Extraction - Bag Filters 2) Dust Suppression - Water Sprinklers 3) Other- Covered Shed for Material Storage b) Water Pollutants – STP

Sl No	Item	Total Capacity at 10 MTPA stage as per EC dated 25th Aug	Facilities/ Utilities after Transfer of Units from EC of Parent Company (JSW Steel Ltd) to New Companies		
		quenching b) Water Pollutants – ETP, STP, Biological Oxidation and Dephenolization Plant		ETP-Biological Oxidation and Dephenolization Plant and STP	
J	**Process description**	The production process of steel at this stage is through coke oven-pelletization-Sintering-BF-BOF–LF–VD/VOD degasser-slab/billet caster-HSM/Plate mill/Bar Mill/ CRM route. The plant is proposed to be equipped with coke oven complex, pellet plant complex, sinter plant, blast furnace, CONARC, BOF, ladle furnace, vacuum degasser, continuous casting facility, plate mill for the production of hot rolled plates, CRM for value addition and 300 MW Captive Power Plant. Supporting facilities up to production of finished products will also be set up in the plant based on the state-of-the-art clean technology.	The production process of steel at this stage is through coke oven-pelletization-Sintering-BF-BOF–LF–VD/VOD degasser-slab/billet caster-HSM/Plate mill/Bar Mill/CRM route. The plant is proposed to be equipped with pellet plant complex, sinter plant, blast furnace, CONARC, BOF, ladle furnace, vacuum degasser, continuous casting facility, plate mill for the production of hot rolled plates, CRM for value addition and 300 MW Captive Power Plant. Supporting facilities up to production of finished products will also be set up in the plant based on the state-of-the-art clean technology.	In the proposed recovery type coke oven battery of 1.0 MTPA will be twin flue, under jet, regenerative design with fireclay and silica construction. The recovery type coke oven battery complex broadly consists of the following units: • Coal preparation Plant • Coke oven battery • Wet Quenching / Coke Dry Quenching (CDQ) Plant • Coke Handling plant • By-Product Plant • Effluent treatment (BOD) Plant	Manufacture of Ordinary Portland Cement (OPC)- the stored clinker and gypsum will be ground using the roller press mills and then stored in silos and packed for delivery. Portland Slag Cement (PSC)- Granulated Blast Furnace slag (GBFS), sourced from JSW Steel Ltd, will be ground using the Roller Press Mills and stored in silos and then from the silos will be directed to Paddle Mixer along with OPC using weigh feeders to form Portland Slag Cement (PSC) and stored in product PSC Silos and then to packaging units for delivery.

16.0 Responsibility matrix between Parent Company & New companies for transfer of 1.0 MTPA and 2.5 MTPA Coke Oven & by-product plant to Dolvi Coke Projects Ltd (DCPL); 10 MTPA slag & clinker grinding unit to JSW Cement Ltd from Environment Clearance grated vide File No J-11011/76/2013-IAII.(I) dated 25th August 2015 M/s JSW Steel Limited at Geethapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra

B. Responsibility Matrix:

Sr. No.	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company (JSW Steel Ltd)	New Company (Dolvi Coke Projects Ltd)	New Company (JSW Cement Ltd)

A) Specific Conditions				
i	The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.	Applicable	Applicable	Applicable
ii	The PP should ensure treatment of effluent particularly from Blast Furnace (BF) and Coke Oven plant. The plant should be designed to meet the cyanide standards stipulated by MoEF&CC under EPA Act 1986.	Applicable	Partly Applicable The PP should ensure treatment of effluent from Coke Oven plant. The plant should be designed to meet the cyanide standards stipulated by MoEF&CC under EPA Act 1986.	Partly Applicable The PP should ensure treatment of effluent from Cement plant.
iii	The commitment made by the PP for plantation of the green belt to the tune of 655 acres should be expedited. Three rows of green belt, 12-15 meters wide, all along the periphery of the plant should be planted.	Applicable	Not Applicable	Not Applicable
iv	The CSR plan as submitted by the PP in the area of health care, rural infrastructure development, education, sports and cultural activity, Swachh Bharat Abhiyan with respect to the earlier projects and the ongoing project at Dolvi site are very slow in implementation. The CSR activities should be implemented expeditiously and simultaneously with the implementation of the project, and annual report on CSR activity should be submitted to the Ministry.	Applicable	Applicable	Applicable
v	At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent should prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector- wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of	Applicable	Applicable	Applicable

	previous 3 years towards CSR activities for life of the project. A separate budget head should be created and the annual capital and revenue expenditure on various activities of the Plan should be submitted as part of the Compliance Report to RO, at Bhopal. The details of the CSR Plan should also be uploaded on the company website and should also be provided in the Annual Report of the company.			
vi	No development should be done on the creek-ward side of the land. Land area between HTL to 100 mts or width of the creek, whichever is less, on the landward side should be kept free from any type of development.	Applicable	Applicable	Applicable
vii	Full utilization of slag both BF and SMS should be implemented. The details should be submitted along with 6 monthly compliance reports.	Applicable	Not Applicable	Partly Applicable Full utilization of slag both BF and SMS should be implemented. The details should be submitted along with 6 monthly compliance reports.
viii	No waste water will be discharged outside the plant boundary during normal operation. In case it become necessary to discharge effluent meeting norms fit to the marine environment, permission of the relevant authority should be obtained.	Applicable	Applicable	Applicable
ix	No untreated effluent should be reused for any process.	Applicable	Applicable	Applicable
x	Measures should be taken to reduce PM levels in the ambient air. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. should be provided to keep the emission levels below 50mg/Nm3 and installing energy efficient technologies in the Plant	Applicable	Applicable	Applicable
xi	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E)	Applicable	Partly Applicable Continuous stack monitoring facilities for all the stacks	Partly Applicable Continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control

	dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.		should be provided and sufficient air pollution control devices. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	devices. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.
xii	Dust suppression system and bag filters should be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.	Applicable	Applicable	Applicable
xiii	Water consumption should not exceed as per the CREP standard prescribed for the steel plants. Additional water, if any, required for the plant project operations. Should be met form rainwater stored in rainwater harvesting structures.	Applicable	Applicable	Applicable
xiv	Rainwater harvesting scheme should be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains should be de-silted and regular supervision of the areas should be carried out so that blocking of drains may be avoided for quick discharge of rainwater. Efforts should further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement.	Applicable	Applicable	Applicable
xv	All the effluents should be treated and reused for dust suppression/green belt development. No effluent should be discharged and 'zero' discharge should be adopted.	Applicable	Applicable	Applicable

xvi	Full utilization of fly ash should be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2010. All the fly ash should be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding should be submitted to the Ministry's Regional Office at Bhopal.	Not Applicable	Not Applicable	Not Applicable
xvii	Hazardous materials required during construction phase and in plant operations should be stored properly as per the regulations and reused/recycled as per the E(P)A Rules.	Applicable	Applicable	Applicable
xviii	Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.	Applicable	Applicable	Applicable
xix	Risk and Disaster Management Plan along with the mitigation measures should be prepared and implemented.	Applicable	Applicable	Applicable
xx	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.	Applicable	Applicable	Applicable
xxi	All the commitments made to the public during public hearing/public consultation should be satisfactorily implemented and adequate budget provision should be made accordingly.	Applicable	Not Applicable	Not Applicable
xxii	All the permanent workers should be covered under ESI Scheme. The company should hive the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company.	Applicable	Applicable	Applicable
B) General Conditions				
i	The project authorities must strictly adhere to the stipulations made by the Maharashtra Pollution Control Board and the State Government.	Applicable	Applicable	Applicable
ii	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Applicable	Applicable	Applicable
iii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, S02 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Nagpur and the SPCB/CPCB once in six	Applicable	Partly Applicable Data on stack emission should be regularly submitted to this Ministry including its	Partly Applicable Data on stack emission should be regularly submitted to this Ministry including its Regional Office at Nagpur and the SPCB/CPCB

	months.		Regional Office at Nagpur and the SPCB/CPCB once in six months.	once in six months.
iv	Industrial wastewater should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 313' December, 1993 or as amended from time to time. The treated wastewater should be utilized for plantation purpose.	Applicable	Applicable	Applicable
v	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	Applicable	Applicable	Applicable
vi	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Applicable	Applicable	Applicable
vii	The company should develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Applicable	Applicable	Applicable
viii	The project proponent should also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Applicable	Applicable	Applicable
ix	Requisite funds should be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forests and Climate Change (MoEF&CC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein should be submitted to the Regional Office of the Ministry at Nagpur. The funds so provided should not be diverted for any other purpose.	Applicable	Applicable	Applicable
x	A copy of clearance letter should be sent by the proponent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The	Applicable	Applicable	Applicable

	clearance letter should also be put on the web site of the company by the proponent.			
xi	The project proponent should upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and should update the same periodically. It should simultaneously be sent to the Regional Office of the MOEFCC at Nagpur. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects should be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Applicable	Applicable	Applicable
xii	The project proponent should also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Nagpur / CPCB / SPCB should monitor the stipulated conditions.	Applicable	Applicable	Applicable
xiii	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, should also be put on the website of the company along with the status of compliance of environmental conditions and should also be sent to the respective Regional Office of the MOEFCC at Nagpur by e-mail.	Applicable	Applicable	Applicable
xiv	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one should be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Nagpur.	Applicable	Applicable	Applicable
xv	Project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the	Applicable	Applicable	Applicable

	project by the concerned authorities and the date of commencing the land development work.			

17.0 After detailed deliberations, the committee recommended for the transfer of EC between JSW Steel (parent company) and Dolvi Coke projects limited; and JSW cements limited with following mutually agreed responsibility matrix for transfer of 3.5 MTPA Coke Oven and by-product plant to Dolvi Coke projects Limited and 10 MTPA Slag Grinding and Clinker Grinding Unit to JSW Cement Limited and to Epsilon Carbon Private Limited:

Sr. No.	**ENVIRONMENTAL CLEARANCE CONDITIONS**	**Parent Company** (JSW Steel Ltd)	**New Company** (Dolvi Coke Projects Ltd)	**New Company** (JSW Cement Ltd)
	A) Specific Conditions			
i	The project proponent should install 24x7 air and water monitoring devices to monitor air emission and effluent discharge, as provided by CPCB and submit report to Ministry and its Regional Office.	Applicable	Applicable	Applicable
ii	The PP should ensure treatment of effluent particularly from Blast Furnace (BF) and Coke Oven plant. The plant should be designed to meet the cyanide standards stipulated by MoEF&CC under EPA Act 1986.	Applicable	Applicable (The PP should ensure treatment of effluent from Coke Oven plant. The plant should be designed to meet the cyanide standards stipulated by MoEF&CC under EPA Act 1986.)	Applicable (The PP should ensure treatment of effluent from Cement plant.)
iii	The commitment made by the PP for plantation of the green belt to the tune of 655 acres should be expedited. Three rows of green belt, 12-15 meters wide, all along the periphery of the plant should be planted.	Applicable	Applicable (The commitment made by the PP for plantation of the green belt over 33% of project area should be expedited. Three rows of green belt, 12-15 meters wide, all along the periphery of the plant should be planted.)	Applicable (The commitment made by the PP for plantation of the green belt over 33% of project area should be expedited. Three rows of green belt, 12-15 meters wide, all along the periphery of the plant should be planted.)
iv	The CSR plan as submitted by the PP in the area of health care, rural infrastructure	Applicable	Applicable	Applicable

	development, education, sports and cultural activity, Swachh Bharat Abhiyan with respect to the earlier projects and the ongoing project at Dolvi site are very slow in implementation. The CSR activities should be implemented expeditiously and simultaneously with the implementation of the project, and annual report on CSR activity should be submitted to the Ministry.			
v	At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs. The proponent should prepare a detailed CSR Plan for every next 5 years for the existing-cum-expansion project, which includes village-wise, sector- wise (Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head should be created and the annual capital and revenue expenditure on various activities of the Plan should be submitted as part of the Compliance Report to RO, at Bhopal. The details of the CSR Plan should also be uploaded on the company website and should also be provided in the Annual Report of the company.	Applicable	Applicable	Applicable
vi	No development should be done on the creek-ward side of the land. Land area between HTL to 100 mts or width of the creek, whichever is less, on the landward side should be kept free from any type of development.	Applicable	Applicable	Applicable
vii	Full utilization of slag both BF and SMS should be implemented. The details should be submitted along with 6 monthly compliance reports.	Applicable	Not Applicable	Applicable (Full utilization of BF slag should be implemented. The details should be submitted along with 6 monthly compliance reports.)
viii	No waste water will be discharged outside the plant boundary during normal operation. In case it become necessary to discharge effluent meeting norms fit to the marine environment, permission of the relevant authority should be obtained.	Applicable	Applicable	Applicable

ix	No untreated effluent should be reused for any process.	Applicable	Applicable	Applicable
x	Measures should be taken to reduce PM levels in the ambient air. Stack of adequate height & diameter with continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. should be provided to keep the emission levels below 50mg/Nm3 and installing energy efficient technologies in the Plant	Applicable	Applicable	Applicable
xi	On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks should be provided and sufficient air pollution control devices. Gaseous emission levels including secondary fugitive emissions from all the sources should be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.	Applicable	Applicable	Applicable
xii	Dust suppression system and bag filters should be installed to control the fugitive dust emissions at conveyor and transfer points, product handling, loading and unloading points.	Applicable	Applicable	Applicable
xiii	Water consumption should not exceed as per the CREP standard prescribed for the steel plants. Additional water, if any, required for the plant project operations. Should be met form rainwater stored in rainwater harvesting structures.	Applicable	Applicable	Applicable
xiv	Rainwater harvesting scheme should be prepared so that the rainwater can be collected, re-used and may be used for ground water recharge. The concrete drains should be de-silted and regular supervision of the areas should be carried out so that blocking of drains may be avoided for quick discharge of rainwater. Efforts should further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement.	Applicable	Applicable	Applicable
xv	All the effluents should be treated and reused for dust suppression/green belt development. No effluent should be discharged and 'zero' discharge should be adopted.	Applicable	Applicable	Applicable
xvi	Full utilization of fly ash should be ensured as per Fly Ash Notification, 1999 and subsequent	Applicable	Applicable	Applicable

	amendment in 2003 and 2010. All the fly ash should be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding should be submitted to the Ministry's Regional Office at Bhopal.			
xvii	Hazardous materials required during construction phase and in plant operations should be stored properly as per the regulations and reused/recycled as per the E(P)A Rules.	Applicable	Applicable	Applicable
xviii	Vehicles and construction machinery are properly maintained to minimize the exhaust emission as well as noise generation to meet prescribed standards.	Applicable	Applicable	Applicable
xix	Risk and Disaster Management Plan along with the mitigation measures should be prepared and implemented.	Applicable	Applicable	Applicable
xx	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.	Applicable	Applicable	Applicable
xxi	All the commitments made to the public during public hearing/public consultation should be satisfactorily implemented and adequate budget provision should be made accordingly.	Applicable	Applicable	Applicable
xxii	All the permanent workers should be covered under ESI Scheme. The company should hive the provision for treatment of its workers at the local Nursing Homes & Hospitals in case of emergency. Annual Medical Check-up on some medical parameters like Blood test, Chest X-Ray, Eye test, Audiometry, Spirometry etc. should be conducted amongst the employees of the Company.	Applicable	Applicable	Applicable
B) General Conditions				
i	The project authorities must strictly adhere to the stipulations made by the Maharashtra Pollution Control Board and the State Government.	Applicable	Applicable	Applicable
ii	No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Applicable	Applicable	Applicable
iii	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, S02 and NOx are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Nagpur and the SPCB/CPCB once in six months.	Applicable	Applicable	Applicable

iv	Industrial wastewater should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 313' December, 1993 or as amended from time to time. The treated wastewater should be utilized for plantation purpose.	Applicable	Applicable	Applicable
v	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time).	Applicable	Applicable	Applicable
vi	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	Applicable	Applicable	Applicable
vii	The company should develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Applicable	Applicable	Applicable
viii	The project proponent should also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	Applicable	Applicable	Applicable
ix	Requisite funds should be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forests and Climate Change (MoEF&CC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein should be submitted to the Regional Office of the Ministry at Nagpur. The funds so provided should not be diverted for any other purpose.	Applicable	Applicable	Applicable
x	A copy of clearance letter should be sent by the proponent to concerned Panchayat, ZilaParishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter should also be put on the web site of the company by the proponent.	Applicable	Applicable	Applicable
xi	The project proponent should upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and should	Applicable	Applicable	Applicable

	update the same periodically. It should simultaneously be sent to the Regional Office of the MOEFCC at Nagpur. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects should be monitored and displayed at a convenient location near the main gate of the company in the public domain.			
xii	The project proponent should also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Nagpur / CPCB / SPCB should monitor the stipulated conditions.	Applicable	Applicable	Applicable
xiii	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, should also be put on the website of the company along with the status of compliance of environmental conditions and should also be sent to the respective Regional Office of the MOEFCC at Nagpur by e-mail.	Applicable	Applicable	Applicable
xiv	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEF&CC) at http:/envfor.nic.in. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one should be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Nagpur.	Applicable	Applicable	Applicable
xv	Project authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Applicable	Applicable	Applicable

18.0 The committee also opined that the amendments requested by PP regarding cost of CSR plan; and green belt may be taken up separately through fresh application by the PP.

21.15. Expansion of Integrated Steel Plant from 0.5 MTPA to 0.7 MTPA by M/s Rungta Mines Limited located at Village Chaliyama in SaraikelaDistrictKharswan of Jharkhand. [Online Proposal No. IA/JH/IND/56904/2016; MoEF&CC File No. J-11011/305/2012-IA-II(I)] – Environmental Clearance based on ToR.

1.0 The proponent has made online application vide proposal no. **IA/JH/IND/56904/2016**, dated 25th May 2017 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006 and is appraised at the Central Level.

2.0 The proposal for expansion of Integrated Steel Plant from 0.5 MTPA to 0.7 MTPA by **M/s Rungta Mines Limited** located at Village Chaliyama in SaraikelaDitrictKharswan of Jharkhand was initially received in the Ministry on 30th June 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The proposal was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 9th meeting held on 27th to 29th July 2016 and recommended for grant of prescribing ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry had prescribed ToRs to the project on 18th October 2016 vide File No. J-11011/305/2012-IA-II(I).

3.0 M/s Rungta Mines Limited (RML) operating Sponge Iron Unit at Village Chaliyama in Saraikela District Kharswan of Jharkhand since 2007 comprising of 7 Nos. X 100 TPD DRI Kilns with No Objection Certificate (NoC) vide letter no. N-346 dated 25.05.2005 from Jharkhand State Pollution Control Board. Thereafter, RML obtained Environmental Clearance from Ministry vide J-11011/305/2012-IA-II(I) dated 4th November 2008 and further commissioned 2,00,000 TPA Steel Melting Plant and Captive Power Plant of 39 MW capacity. From total capacity of CPP, 14 MW CPP is utilizing the heat energy of the flue gas for steam generation by installing Waste Heat Recovery Boiler (WHRB) for each Kiln replacing the Heat Exchanger and 25 MW coal based AFBC which is under operation. Further, M/s RML was proposed for expansion of Integrated Steel plant from 0.2 MTPA to 0.5 MTPA and obtained prior environmental clearance on 1st April 2016. It was reported that some of the facilities which were envisaged in the EC were under construction and some are yet to start.The status of compliance of earlier environmental compliance was obtained from Regional Office Ranchi vide letter no. 103-498/ROR-2016/1375 dated 24.07.2017.

4.0 Now, it is again proposed to expand the Integrated Steel Plant from 0.5 MTPA to 0.7 MTPA in the existing premises. The details of the existing plant, proposed expansion is given below:

Sl. No.	**Plant/ facility**	**Units**	**Present sanctioned capacity as per EC dated 01.04.2016**	**Additional Proposed Capacity**	**Total Capacity**
1	DRI plant	MTPA	0.450	0.17	0.62
2	Mini blast furnace	MTPA	0.383	0.075	0.458
3	Steel melting shop,	MTPA	0.50	0.193	0.693

Sl. No.	Plant/ facility	Units	Present sanctioned capacity as per EC dated 01.04.2016	Additional Proposed Capacity	Total Capacity
	IF (15T x 8 nos.) LRF (20T x 1 nos.,30 T X 2 no.) EAF (30 T X 1 no.)				
4	Billets/ Slab/ Bloom caster	MTPA	0.30	0.379	0.679
5	Continuous Casting Machine		3x3 strand	1 strand	3X4 strand
6	Rolling Mill (TMT/ Flat/ Round/ Wire Rod/ Structural Mill/ others)				
a	Mill-1	MTPA	0.20	0.02	0.22
b	Mill-2	MTPA	0.30 (Flat/ Round/ Structural)	0 (adding facility for TMT/ wire rod/ other)	0.22
c	Mill-3	MTPA	0	0.22	0.22
7	Captive power plant	MW	119	39	158
a	WHR based CPP	MW	32	21	53
b	AFBC/CFBC based CPP	MW	87	18	105
8	Pelletisation Plant	MTPA	2 nos. X 1.2	0.24	2.64
9	Coal Washery	MTPA	1.26	No change	1.26
10	Oxygen Plant (1x30 T)	m^3/annum	69,30,000	4,20,000	7,350,000
11	Lime Plant (1X90 T)	m^3/annum	29,700	1,800	31,500
12	Vacuum Degassing	Tonnes	30	No change	30
13	Ferro Alloy Plant (9MVA+ 18 MVA)				
a	Ferro Manganese OR	MTPA	-	9 MVA =0.018 18 MVA= 0.036	0.054
b	Silico Manganese OR	MTPA	-	9 MVA = 0.0144 18 MVA= 0.0288	0.0432
c	Ferro Chrome OR	MTPA	-	9 MVA = 0.0144 18 MVA= 0.0288	0.0432
d	Ferro Silicon	MTPA	-	9 MVA = 0.0064	0.0192

Sl. No.	Plant/ facility	Units	Present sanctioned capacity as per EC dated 01.04.2016	Additional Proposed Capacity	Total Capacity
				18 MVA= 0.0128	
14	Briquette Plant				
	For ferro chrome OR	MTPA	-	0.088	0.088
	For ferro manganese	MTPA	-	0.112	0.112
15	Sinter Plant (2X24 sq.m)	MTPA	-	0.532	0.532
16	Coke Oven plant (4 batteries X 70,000 TPA)	MTPA	0	0.28	0.28
17	Producer Gas Plant	NM3/hr	0	51,000	51,000

5.0 The total land required for the expansion project is 592.16 acres (239.643 ha), out of which 173.33 acres (70.149 ha) is government land and 418.83 acres (169.498 ha) is Private Land. No forestland is involved. The entire land has not been acquired for the project. 294.175 acres (119.05 ha) private land has been purchased. 63.14 acres (25.55 ha) Government land in Chaliyama and Bankasai village has been acquired. Private land of 124.655 acres ((50.447 ha) is under process of purchase and Government land 110.19 acres (44.593 ha) in Chaliyama, Banksai and Kuju village is pending in various Govt. offices. No river passes through the project area. It has been reported that natural water body exist around the project and modification/ diversion in the existing natural drainage pattern at any stage has not been proposed.

6.0 The topography of the area is flat and reported to lie between 22°34'17" to 22°35'49" N Latitude and 85°53'07" to 85°54'49" E Longitude in Survey of India topo sheet No. 73 F/14 15 73-J/2 &3, at an average ground elevation of 198 m above mean sea level. The ground water table reported during post monsoon season and 6 to 10 m below ground during pre-monsoon season. Further, the stage of groundwater development is reported to be 8.40 % in study area and thereby this is designated as safe area.

7.0 Dalma Wildlife Sanctuary located at a distance of 49 km in NE and Simpli Pal National Park is at 83 km in SSE from the site. No national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. are reported in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. List of flora and Fauna is provided through site Specific Conservation plan prepared and submitted to Divisional Forest Officer, Saraikela –Kharsawan who forwarded it to Conservator of Forest, Jamshedpur vide letter no. 1717 dated 12.07.2017.

8.0 The process of manufacturing will be steel through the pelletisation /DRI –IF-EAF as well as Blast Furnace route. There will be installation of Blast furnace (0.458 MTPA), expansion of sponge iron plant (from 0.45 to 0.62 MTPA), sinter plant (0.532 MTPA), coke oven plant (0.28 MTPA), SMS (0.50 to 0.693 MTPA), Billet caster (0.3 MTPA to 0.679 MTPA), CCM (3x3 strand to 3x4 strand), Rolling mill (0.50 to 0.66 MTPA with revised configuration), WHRB based CPP (32 to 53 MW), AFBC/CFBC based CPP (87 to 105 MW), producer gas (51000 NM3/hr) Oxygen plant (6930000 to 7350000 Nm3/annum), Lime plant (29700 to 31500

m3/annum), Pelletisation Plant (2.64 MTPA), Coal washery (1.26 MTPA), Ferro Alloys Plant (9MVA+ 18 MVA). The major raw materials to be used for existing as well as expansion phase will be 3.35 million TPA iron ore, 1.26 million TPA coal. Of the various solid wastes generated in the plant, 100% recycling/ reusing will be done for sponge iron plant dust, char, sinter plant dust, blast furnace slag, blast furnace sludge & flue dust, SMS slag & flue dust, rolling mill rejects & mill scales and coke oven dust. Ash will be generated from producer gas plant and captive power plant which will be disposed as per Fly Ash Notification.

9.0 The targeted production capacity of the crude steel from SMS is 0.70 million TPA. The iron ore for the plant would be procured from company's own mines located in Odisha/ Jharkhand. Limestone, quartzite, dolomite will be purchased from Raurkela and manganese ore will be sourced from own mines located in Odisha. The ore transportation will be done through rail followed by road.

10.0 The water requirement for the expansion project is estimated to be 1778 m^3/hr and sourced from Kharkai River. The permission for drawl of water from Kharkai River for 5000 m^3/day from River Kharkai and additional quantity 432 m^3/day through an agreement made on 11.05.2016.

11.0 The power requirement for the expansion project is estimated to be around 143 MW and the total requirement including expansion will be met from the captive power plant comprising of WHRB (53 MW) and AFBC/CFBC (105 MW). Balance power will be sold through grid.

12.0 Baseline Eenvironmental studies were conducted during post monsoon season i.e. from October to December 2016. Ambient Air Quality monitoring has been carried out at 8 locations during October to December 2016 and the data submitted indicated: PM_{10}(40.2 to 83.4 µg/m^3), $PM_{2.5}$ (22.1 to 48.9 µg/m^3), SO_2(BDL to 20.0 µg/m^3) and NO_x(BDL to 29.8 µg/m^3). The results of the modeling study indicated that the maximum increase of GLC for the proposed expansion project is 1.49 µg/$m^3$with respect to PM10, 0.27 µg/m^3 for PM2.5 and 6.6 µg/m3 for SO_2.

13.0 Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.2-7.8;Total hardness: 160 - 464 mg/l; Chloride: 29-116 mg/l; Fluoride: 0.71- 1.86 mg/l; Heavy metal are well within the limits. Surface water samples have been monitored in 8 locations in the study area. pH: 7.4-8.1, DO: 6.8 to8.5 mg/l, BOD: 5-10 mg/l and COD: 10-23 mg/l.

14.0 Noise level are in the range of 50.7 dB(A) to61.68 dB(A) for day time and 39.88 to 58.68 dB(A) for night time.

15.0 It has been reported that there are no people in the core zone of the project. No R&R is involved. No family is to be rehabilitated. Land losers will be given preference in employment.

16.0 It has been reported that a total of 1.2 million tons of waste will be generated due to the existing and expansion phase of the project, out of which 0.31 million tons will be reused used in sinter plant, 0.11 million tons per annum char shall be used in AFBC based power generation. 0.40 MTPA fly ash will be utilize in cement plant/ Brick manufacturing unit, 0.12 million tons per annum BF Slag will be utilized in cement manufacturing, 0.093 million tones ash will be utilized in low land filling, 0.094 MTPA reject shall be backfilled in mines and balance 0.073

million tons per annum will be land filled. It has been envisaged that an area of 195.41 acres (33%) will be developed as green belt/plantationin/around project site 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 Jharkhand State Pollution Control Board has been obtained vide letter No. JSPCB/HO/RNC/CTO-1047382/2017/154 dated 20.02.2017 and consent is valid upto 31.03.2020.

18.0 The Public Hearing of the project was held on 14.06.2017 at the ground of Utkramit Madhya Vidyalya, Village Chaliyama under the Chairmanship of Shri Kunj Bihari Pandey (Additional District Magistrate, District SaraikelaKharswan) for expansion of integrated steel plant from 0.50 to 0.70 million TPA. The issues raised during public hearing are employment opportunity; provision of health care & water supply facility; pollution control measures; etc.An amount of 4 crores and recurring expenditure during the Steel production is Rs. 53.55 lakhs/year.

19.0 The capital cost of the project is Rs. 2189.97 Crores and the capital cost for environmental protection measures is proposed as Rs. 35.34 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs. 7.31 Cr. per annum. The detailed CSR plan has been provided in the EMP in its page No. 8-9 to 8-11, chapter 8. The total employment generation from the existing and proposed project / expansion is 1830.

20.0 Green belt will be developed in 195.41 acres (79.08 ha) which is about 33 % of the total area. A 10-m wide green belt, consisting of at least 3 tiers around boundary will be developed as green belt and green cover as per CPCB/MOEF&CC guidelines. Local and native species will be planted with a density of 2500 trees per ha. Till date, the company has planted about 42,700 trees covering trees, shrubs, herbs etc. in and around the plant area. These are Haldu, Bull Oak, Shisham, Gulmohar, Jasmine, Mango, Karanj, Siris, Jamun, China Rose, etc.

21.0 The proponent has mentioned that there is no court case or litigation pending on the project or related activity.

22.0 The EIA consultant for the present proposal is M/s Min Mec Consultancy Private Limited. It was reported that the M/s Min Mec is preparing and presenting reports as per the High Court of Delhi orders in LPA 110/2014 and CM No.2175/2014 (stay) and W.P.(C) 3665/2016.

23.0 The committee observed several non-compliances in compliance of earlier EC conditions; encircling of Chailama village by proposed expansion; thoroughfare access to river from the Bankasite Village; air pollution; increase in traffic load; fly ash management; in adequate green belt development etc.

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

i. The PP shall clarify in writing that there is no court case or litigation is pending against the project.

ii. Certificate of closure of non-compliances of the earlier EC conditions from the Regioanl office of MoEFCC.

iii. Site plan design for the proposed expansion should be reviewed and amended considering the likely impacts on the nearby villages, Chaliyama and Banksia villages.

iv. Standard operating procedures for the Environmental Monitoring and regular calibration of monitoring equipment shall be included in the Environmental Management Plan.

v. System for reporting of non-compliance of EC conditions to the Board of Directors as a part of Corporate Environmental Policy including periodicity, hierarchical system of reporting of non-compliance to the board of directors; board resolution for environmental policy of the company.

vi. Time bound action plan for flyash utilisation.

vii. Green belt should be completed within the current planting season. The green belt should have atleast three rows trees along the boundaries of the plant.

viii. PP shall use large capacity trucks (30Tonnes) for transportation of raw material and finished products.

ix. PP shall construct a dedicated road from National Highway to the Plant.

x. Existing approach road to the Plant premises shall be widened to double of its present width.

xi. In addition to the existing gate, additional gates shall be provided. Further traffic should be arranged in such a way that the traffic in the village shall be normalised.

xii. The natural drainage within plant premises should not be disturbed.

xiii. All the points raised in the Public Hearing by the locals should be considered and addressed appropriately by the project proponent. The PP shall formulate an action plan giving details of activities, financial outlays and time lines for completion of each activity in the form of a project. The PP shall specifically respond to the request of the locals for providing access from Banksia village to the River.

xiv. Reasons for high fluoride levels in the base line data.

xv. Detailed plan of action for mitigating the impact of increased traffic density due to proposed expansion.

21.16. Environmental Clearance for 1000 TPD of Gold ore processing plant by M/s Deccan Exploration Services Private Limited (DESPL), located at Village Ganajur of Haveri District in Karnataka [Online proposal No. IA/KA/IND/41833/2016; MoEF&CC File No J-11011/03/2016-IA.II(I)] -Amendment in Terms of Reference.

1.0 The proponent has made online application vide proposal no. **IA/KA/IND/41833/2016** dated 21st June 2017 for seeking amendment in Terms of Reference granted to the above said project on 7th April, 2016 under the provisions of in EIA notification, 2006.

2.0 M/s Deccan Exploration Services Private Limited (DESPL) has proposed to establish a new 1000 TPD gold ore processing andbeneficiation plant at a distance of 1.5Km south of the Ganajur Main Gold Mine site near Ganajur Village. The Terms of reference were obtained vide vide letter no. J-11011/03/2016-IA.II (I), dated 07.04.2016for setting up of processing plant in an area of 38.45 ha.

3.0 It was reported that, M/s DESPL has carried out a detailed definitive feasibility studies for the Ganjur Gold mining Project through an Internationally reputed independent organization, M/s Snowden Mining Industry Consultants Private Limited, Perth. The studies recommended certain modifications in the process design; flow sheet; tailing storage facility (TSF); water storage dam; ROM Pad which in more environmental friendly. In order to adopt suggested modifications in the proposed processing plant, the requirement of land will increase from 38.45 ha to 56.67 ha. The detail of land requirement is as follows:

SL	Particulars	Land requirement (earlier proposal) in Ha	Land requirement (Present proposal) in Ha
1	Mineral ore Storage –ROM pad	8.0	7.66
2	Mineral Processing Plant	7.0	5.27
3	ETP	0.7	0.7
4	Roads and Infrastructure	2.35	2.28
5	Tailings Dump (TSF)	8.4	20.28
6	Others such as office, substation, soil stockpile etc	1.0	3.49
7	Water Reservoir	6.0	4.24
8	Greenbelt	5.0	12.75
	Total	**38.42**	**56.67**

4.0 The land area of proposed processing plant is 56.67 Ha is private agricultural land. No forestland is involved. The land is yet to be acquired. However, the application was submitted to Karnataka Industrial Area Development Board (KIADB) for acquiring the land. Of the total area 12.75 Ha plus 20.28 Ha (TSF) of land will be used for green belt development. Overall land for green belt will be nearly 50% of the total area of the proposed processing plant

5.0 The project proponent along with EIA consultant M/s B.S.Enviro Tech Pvt Ltd. made detailed presentation on the proposed amendments.

6.0 After detailed deliberations, the committee recommended for the proposed amendments in respect of increase in land requirement from 38.45 ha to 56.67 ha.

21.17. Integrated cement project Clinker (2MTPA), Cement (3MTPA), Captive Power Plant (35 MW) and WHRB (8 MW) of M/s Talvadi Cements Ltd at Village Bari Puraini, Tehsil Raghuraj Nagar, Dist Satna, Madhya Pradesh [Online Proposal No. IA/MP/IND/25769/2014;MoEF&CC File No. J-11011/142/2014IA.II(I)] – Extension of Validity of ToR granted on 2nd December 2016.

1.0 The proponent has made online application vide proposal no. **IA/MP/IND/25769/2014** dated **16th June 2017** for seeking extension of validity of Terms of Reference prescribed Ministry letter no. **J-11011/142/2014IA.II(I)**to the above said project on 11thAugust, 2014 under the provisions of in EIA notification, 2006.

2.0 M/s. Talavadi Cements Limited has proposed Integrated Cement Project - Clinker (2.0 MTPA), Cement (3.0 MTPA), Captive Power Plant (35 MW) & WHRB (8.0 MW) at Villages: Bari &Puraini, Tehsil- Raghuraj Nagar, District: Satna (Madhya Pradesh) and obtained ToR on 11thAugust 2014 and get extended vide MoEFCC letter dated 2ndDecember 2016 for one year.

3.0 It was reported that baseline study for the project has already been conducted during Post-Monsoon Season (October to December 2014); and Draft EIA / EMP Report has also been prepared except for a few ToR points (related to land, authentication of map from State Forest Dept. etc.), whose compliance is under progress; due to which Draft EIA / EMP Report has not been finalized for submission to SPCB for conduction of Public Hearing for this project.

4.0 It was also informed that submission of Draft EIA/EMP Report to SPCB for the proposed project may still take some more time for submission. Since, ToRs prescribed for the project is valid for a period of three years (i.e. till 10th August 2017), therefore, requested for extension of validity of ToR for further one year.

4.0 After detailed deliberation, the committee recommended for extension of validity of amended ToR for further one year i.e. up to 10th August 2018 with following additional ToRs:

i. In case of any change in the scope of the approved ToR, the PP shall obtain fresh Terms of Reference.

ii. The baseline data shall not be older than 3 years used for preparation of EIA and EMP conduct of Public Hearing and submission of application for EC to the ministry.

iii. The details of Corporate Environment Policy including its approval in the Board of directors; standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions; hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions; 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 shall be provided in the EIA/EMP Report.

21.18. Expansion of Clinker/Cement Production (3 MTPA to 4 MTPA) at Manoharpura village, Kotputly, Rajasthan by M/s Grasim Cement Limited [Online proposal No. IA/RJ/IND/6902/2007; MoEF&CC File No. J-11011/971/2007-IA.II(I)] - Amendment in Environmental Clearance for construction of Raw material Silo in the existing Cement Plant.

1.0 The proponent has made online application vide proposal no. **IA/RJ/IND/6902/2007**, dated **21st July 2017** seeking **amendment in environmental clearance for construction of raw material Silo in the existing Cement Plant** 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.

2.0 The environmental clearance to the project was granted by the Ministry vide letter no. J-11011/301/2005-IA II (I) dated 18.11.2005 for Cement plant (3.0MTPA and 30 MW Captive Power Plant). Further an environmental clearance was granted by the Ministry for the expansion project vide letter no. J-11011/971/2007-IA II (II) dated 27.02.2008 for Cement plant (4.0MTPA and 46 MW Captive Power Plant).

3.0 The Status of compliance of earlier EC has been obtained from Regional Office, MoEFCC, Lucknow vide Lr. No. F.No. IV/ ENV/R/ Ind-49/ 380/2005/94 dated 28.07.2017. There are no non-compliances reported by Regional Officer.

4.0 Unit is spread over in area of 710.65 hectares consisting of plant & colony area of 161.87 hectares and Mines area of 548.78 hectares. No forestland involved. There is no additional land requirement for the project.

5.0 **M/s Grasim Cement Limited** is planning to construct 18000 MT capacity Raw Material Silo as it is unable to utilize 100% capacity of the existing raw material silo. The existing capacity of the raw meal silo is 36000 MT. Rajasthan State Pollution Control Board (RSPCB) has granted the Consent to Establish for the same subject vide letter no. F(Tech) /Jaipur(Kotputli)/ 4(1) /2008-2009 /7652-7654 dated 06.10.2016 subject to obtaining clarification in EC in this regard.

6.0 After construction of silo, the existing silo (of capacity 36,000 MT) will be modified such that its storage capacity is capped at 18000 MT. The project cost would be around Rs. 45.00 Crores.

7.0 It has been mentioned by the PP that no additional land required for proposed raw material silo construction, no change in original production capacity, no change in fuel, no Change in product mix, no change in raw material, no additional pollution load beyond the earlier approved limit envisaged.

8.0 PP mentioned that as per the EIA Notification, 2006, Amendment Notification dated 23.11.2016, since there is no increase in the production capacity of the cement plant and no additional pollution load beyond the earlier approved limit envisaged, construction of the Raw Meal Silo may be exempted from separate Environment Clearance.

9.0 The proposal was considered in the 15th meeting of Expert Appraisal Committee [EAC(Industry-I)] held during 2nd – 3rd February 2017. The Committee after detailed deliberations, reached the opinion that the PP should apply directly to the Ministry along with a certificate from the State Pollution Control Board as per the amendment Notification. A compliance report from the Regional Office of the Ministry should also be submitted.

10.0 It is observed that, the proponent has again made online application vide proposal no. **IA/RJ/IND/6902/2007**, dated **21st July 2017** with compliance report from the Regional Office of the Ministry.

11.0 After detailed deliberation, the committee agreed to the proposal of the PP for construction of additional silo.

21.19. Expansion of Steel Plant for production of 2,30,000 TPA of TMT Bars and other Steel items by installing Induction Furnace (2X15 MT); Laddle Refining Furnace (LRF, 1x30 MT), Ferro Alloys Unit (2x9 MVA), Electric Arc Furnace (EAF, 1x30 MT) with one Billet Concaster (2x3 stands) and Rolling Mill (1x30 TPH) at Gopalpur (Unit -2),Bamunara, Durgapur, District Burdwan, West Bengal by M/s Shyam Steel Industries Limited. [Online proposal No. IA/WB/IND/4612/2010; MoEF&CC File No. J-11011/375/2008-IA.II(I)] – Extension of validity of EC and Amendment in EC.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/4612/2010**, dated **18th July 2017** seeking **extension of validity and amendments in the environmental clearance**granted vide letter no. J-11011/375/2008-IA.II(I) dated 30th September, 2010 for the project mentioned aboveunder the provisions of the EIA Notification, 2006. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous),Category "A" EIA Notification 2006.

2.0 M/s Shyam Steel Industries Ltd. [Gopalpur – Unit – II]has obtained Environmental Clearance vide no. F. No. J-11011 / 375 / 2008 – IA II (I) dated 30thSeptember 2010 for the following is the plant configuration:

S.No.	Unit	Existing plant capacities prior to issue of EC	Expansion capacities	Total production capacities after the proposed expansion
1.	Induction Furnace for production of Billets	79,820 TPA	1,05,600 TPA (2 x 15 MT)	1,85,420 TPA (2x12 MT& 2 x 15 MT)
2.	Electric Arc Furnace for production of Billets/Blooms	---	2,11,200 TPA (1 x 30 MT)	2,11,200 TPA (1 x 30 MT)
3.	Laddle Refining Furnace	---	2,11,200 TPA (1 x 30 MT)	2,11,200 TPA (1 x 30 MT)
4.	Caster CCM	---	2,07,360 TPA (2 x 3 Strands)	2,07,360 TPA (2 x 3 Strands)
5.	Rolling Mill for production of TMT bars/structural steels/wire rods	1,21,800 TPA	2,30,000 TPA	3,51,800 TPA
6.	Ferro Alloys (Fe-Si/Fe-Mn)	---	32,000 TPA (2 x 9 MVA)	32,000 TPA (2 x 9 MVA)

3.0 The PP has made request for modification in the configuration and production capacity of Induction Furnace and product mix in Hot Rolled Steel Products as per the details given below:

- **Modification in the configuration and production capacity of Induction Furnace**:EC has been accorded for establishment of 2 x 15 MT Induction Furnace units.PP has installed One lower capacity 1 x 12 MT Induction Furnace in place of 1 x 15 MT and obtained CTO from WBPCB and is valid till 31/01/2019.PP has requestedfor modification in configuration to install another 1 x 12 MT induction furnace unit in place of another unimplemented 1 x 15 MT Induction Furnace unit for which EC has been granted.With the proposed change in the configuration of Induction Furnace units mentioned will be 2x 12 MT Induction Furnace units to produce Billets of **79,992 TPA instead of 1,05,600 TPA** with 2 x 15 MT induction furnaces. Hence total production capacity of Billets, after expansion with lower capacity Induction Furnaces (i.e. 2 x 12 MT) will be **1,59,812** TPA (i.e. 79,820 TPA + 79,992 TPA) instead of 1,85,420 TPA as permitted in EC. The emission loads also will reduce accordingly.

- **Change in product mix**:EC has been accorded for manufacturing of Hot Rolled Steel Products.PP has requested to manufacture Hot Rolled TMT Bars / Wire Rods also apart from Hot Rolled Steel product in the Rolling Mill for EC which has been granted. It was confirmed that only one of these products will be manufactured at any given time and there will not be any change in the production capacity for which EC has been granted (i.e. 2,30,000 TPA).

4.0 The PP has reported the implementation status of the EC is as follows:

Sl.	Unit	Existing plant capacities prior to issue of EC	Expansion project production capacities	Total capacities after expansion	Status of Implementation of Expansion
1	Induction Furnaces (To produce Billets/Ingots)	79,820 TPA	1,05,600 TPA (2 x 15 MT)	1,85,420 TPA	• Installed lower capacity 1 x 12 MT IF instead of 1 x 15 MT IF to produce Billets of 39,996 TPA & obtained CTO from SPCB. The unit is having CTO issued by WBPCB which is valid till 30/01/2019. • Remaining 1 x 15 MT is yet to be implemented. • Now Instead of 1 x 15 MT Induction Furnace , it is proposed to install lower capacity induction furnace unit of 1 x 12 MT. • Production Capacity with 2 x 12 MT will be 79,992 TPA. • Total production

					capacity after expansion will be 1,59,812 TPAinstead of EC permitted capacity of 1,85,420 TPA.
2	Electric Arc Furnace	---	2,11,200 TPA (1 x 30 MT)	2,11,200 TPA (1 x 30 MT)	Yet to be implemented
3	Laddle Refining Furnace	---	2,11,200 TPA (1 x 30 MT)	2,11,200 TPA (1 x 30 MT)	Yet to be implemented
4	Caster CCM	---	2,07,360 TPA (2 x 3 Strands)	2,07,360 TPA (2 x 3 Strands)	Yet to be implemented
5	Rolling Mill	1,21,800 TPA	2,30,000 TPA	3,51,800 TPA	Yet to be implemented
6	Ferro Alloys	---	32,000 TPA (2 x 9 MVA)	32,000 TPA (2 x 9 MVA)	Yet to be implemented

5.0 PP informed that some of the components were could not be implemented due to delay in availability of requisite power from Damodar Valley Corporation and Sluggish market condition and tough financial situation. With the improvement in market condition & improvement in cashflow, will be implemented in the next three years.

6.0 In view of the above, PP requested for:

i. Change in the configuration of the Induction Furnace as **2x 12 T** for production capacity **1,59,812** TPA instead of **2 x 15 T** for production capacity **1,85,420 TPA**.

ii. Change in the product mix from Hot rolling Mill for manufacturing of TMT Bars / Wire Rods additionally along with Hot Rolled Steel within the permitted production capacity of 2,30,000 TPA.

iii. Extend the validity of the Environmental Clearance for further period of 3 years i.e. upto 29th September 2020

7.0 The PP has made presentation along with EIA Consultant

8.0 After detailed deliberations, the Committee recommended for change in the configuration and extension of validity of EC as specified in the pre-Para (6).

21.20. Steel Plant (500,000 TPA, MBF, &SMS) at Shyamraipur, Gokulpur, Khargpur, Paschim Midnipur, West Bengal by M/s Orissa Metaliks Ltd. [Online Application No. IA/WB/IND/66013/2017; MoEF&CC File No. J-11011/227/2008-IA.II(I)] – Amendment in EC under clause 7(ii) of EIA Notification, 2006.

1.0 The proponent has made online application vide proposal no. **IA/WB/IND/66013/2017**dated 8thJuly 2017 seeking amendments in environmental clearance granted vide letter No. J-11011/227/2008-IA.II(I), dated 6th January, 2017 for chance in

configuration of the plant . The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous), under category 'A' of the Schedule of EIA Notification, 2006.

2.0 Environmental Clearance for the Steel Plant (500,000 TPA, MBF, &SMS) at Shyamraipur, Gokulpur, Khargpur, Paschim Midnipur, West Bengal was granted to M/s Rashmi Metaliks Limited vide even letter number dated 12th June 2008. The validity of environmental clearance was extended for five years from 11th June 2013 vide letter dated 12th February 2015. Then, the environmental clearance was transferred from M/s Rashmi Metaliks Limited to M/s Orissa Metaliks Limited under clause 11 of EIA Notification, 2006 vide letter dated 6th January 2017. M/s Orissa Metaliks limited has obtained Consent to Establishment from West Bengal pollution Control Board vide letter no. 624-2N-76/2015€, dated 23rd September 2016.

3.0 It is reported that 4X100 TPD; 2X 350 TPD DRI Kiln and 22 MW WHRB based Power Plant is yet to be implemented from the envisaged unit of approved EC. Now, it is proposed change the configuration of DRI Kiln and prosed to establish 1X600 TPD + 1X500 TPS DRI Kiln in place of 4X100 TPD + 2X 350 TPD.

4.0 The PP has made presentation along with EIA Consultant. After detailed deliberations, the Committee referred the proposal to the Ministry.

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 equipments 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 Cahnge as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
     - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details

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

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

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

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

6. **Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

7. Impact Assessment and Environment Management Plan

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

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

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport

of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

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

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

8. Occupational health

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

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

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

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

9. Corporate Environment Policy

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

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

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

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

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Commitment (ESC)

i. To address the Public Hearing issues, 2.5% of the total project cost of (Rs. .....crores), amounting to Rs. .....crores, shall be earmarked by the project proponent, towards Enterprise Social Commitment (ESC). Distinct ESC projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These ESC projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat & District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above ESC budget

12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13. A tabular chart with index for point wise compliance of above ToRs.

14. The ToRs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCBshall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

****

ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

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

--

ADDITIONAL ToRS FOR PELLET PLANT

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

7. Plan for slag utilization
8. Plan for utilization of energy in off gases (coke oven, blast furnace)
9. System of coke quenching adopted with justification.
10. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
11. Trace metals in waste material especially slag.
12. Trace metals in water

--____

ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

i. A note on pulp washing system capable of handling wood pulp shall be included.

ii. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln

iii. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for *Eucalyptus/Casuarina* to produce low kappa (bleachable) grade of pulp.

iv. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.

v. A commitment that no extra chlorine 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 sulfides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, *etc.*, along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.

--

COKE OVEN PLANT

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

--

ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS

1. Type of the project – new/expansion/modernization
2. Type of fibres used (Asbestos and others) and preference of selection from 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.

INDUCTION/ARC FURNACES/CUPOLA FURNACES 5TPH OR MORE

1. Details of proposed layout clearly demarcating various units within the plant.
2. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
3. Details on design and manufacturing process for all the units.
4. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
5. Details on requirement of raw materials, its source and storage at the plant.
6. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content (TCLP), composition and end use of chrome slag. Details on the recovery of the Ferro chrome from the slag and its proper disposal.

--

METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)

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

--

Executive Summary

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

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

ANNEXURE-3

Air Pollution

Plant /Unit	**Pollutants**	**Qty generated**	**Method used to Control/ and specifications/attach Separate Sheet to furnish Details**	**Number of units planned & Capacity**	**Budget**	**Estimated Post Control Qty of Pollutant**	
						Per Unit	Per Day

LIST OF PARTICIPANTS OF EAC (I) IN 21th MEETING OF EAC (INDUSTRY-I) HELD ON 10th – 11th August, 2017

S. No	Name and Address	Position	Attendance		Signature
			10th	11th	
1	Dr.Chhavi Nath Pandey, IFS(Retired)	Chairman	P	P	
Members					
2.	Dr.Shivakar Misra 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	A	A	
12.	Shri Ashok Upadhyay	Member	P	P	
13.	Shri Sharath Kumar Pallerla, Scientist 'F' / Director, MoEF&CC	Member Secretary	P	P	
14.	Shri RajasekharRatti, Scientist 'C', MoEF&CC	Dy. Director	P	P	

****