Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

SUMMARY RECORD OF THE FOURTEENTH (14th) MEETING OF EXPERT APPRAISAL COMMITTEE HELD ON 22ND – 23RD DECEMBER, 2016FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER EIA NOTIFICATION, 2006.

The fourteenth meeting of the Expert Appraisal Committee (EAC) for Industry-I Sector in terms of the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held on 22nd – 23rd December, 2016in the Ministry of Environment, Forest and Climate Change. Central Pulp and Paper Research Institute, Members of EAC have expressed their inability to attend the meeting due to prior engagements. The list of participants is annexed.

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

Confirmation of the minutes of the 13thMeeting

The minutes of the 13thmeeting, as circulated were confirmed subject to following modifications:

14.3 FURTHER CONSIDERATION

14.3.1 Expansion of manufacturing of Ingots/Billets (from 26000 TPA to 60000 TPA) by **M/s Sri Balaji Forging Pvt. Ltd**, located at RIICO Industrial Area, Bhiwadi, Alwar, Rajasthan, J-11011/138/2015-IA.II(I) [Proposal No. IA/RJ/IND/52912/2015 Date of Submission 15th April, 2016 (Date of ADS reply 22.11.2016 Considered 7th EAC meeting].

The proposal was considered in the 7th meeting of Expert Appraisal Committee held on 30th May to 1st June, 2016. The proposal was discussed at length by the committee and the Committee desired additional information on various issues.

The proponent submitted the requisite information to the Ministry. The Committee deliberated on the additional information as presented by the project proponent. The Committee verified the details submitted by the project proponent and satisfied with the submissions made by the project proponent.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

i. The project proponent shall install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.

ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. bag house, bag filters etc. shall be provided.

iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iv. 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.

v. For the employees working in high temperature zones in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50oC. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc

vi. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored.

vii. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted.

viii. 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, SPCB and CPCB.

ix. A time bound action plan shall be submitted for reduction in solid waste, its proper utilization and disposal.

x. Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project areaand along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.

xi. All the commitments made to the public during Public Hearing/public consultation meeting shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xii. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.

xiii. An amount of Rs 30 laksh of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.

xiv. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to being into focus any 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.

xv. 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.

xvi. The project proponent shall provide for LED lights in their offices and residential areas.

xvii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

xviii. The project proponent shall construct a peripheral road within the industry premises to provide access for emergency services to reach all sections of the plant.

14.3.2 Proposed cement plant with production capacity 2.00 MTPA at Villages Kotda & Bhatakda, Taluka Mahuva, District Bhavnagar, Gujarat by **M/s Ultra Tech Cement Limited** (Mahua Cement Project).[F. No. J-11011/227/2016-IA II (I) Proposal No. IA/GJ/IND/58937/2016 Date of Submission 12th September, 2016. Considered 11th& 12th Meeting.

The proposal wasearlier placed in the agenda of the11th& 12th Meeting however the project proponent requested for deferment.

The proposal is now considered by the Expert Appraisal Committee(Industry-I) to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No.

3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s UltraTech Cement Ltd. proposes to install a new cement plant for cement production. It is proposing to set up the plant for cement production based on pre-heater & pre-calciner technology (dry process). The proposed unit will be located at Villages Kotda & Bhatakda, Taluka Mahuva, District Bhavnagar, Gujarat. The land area required for the integrated cement plant is 127.477 Ha out of which 42 Ha land will be used for green belt development. Total project cost is approx Rs. 2750 Crore rupees. Proposed employment generation from proposed project will be 600 direct employment and indirect employment.The proposed capacity for different products for new site area as below:

Name of Unit	No. of Units	Capacity of each Unit	Production Capacity
Mahuva Cement Works	1	2 MTPA	2 MTPA

The electricity load of 50 MW will be procured from State Electricity Board.

Proposed raw material requirement for project are:

Sl. No.	Name of Raw Material	Requirements in MTPA (With 100% pet coke)	Requirements In MTPA (With 100% Ind. Coal)	Source of Materials
1.	Limestone	2.40	2.25	Captive Limestone Mines
2.	Clay	0.22	0.36	To be purchased nearby leases
3.	Bauxite/ Laterite	0.13	0.11	To be purchased nearby leases
4.	Iron Ore/ Red Ochre	0.014	0.014	To be purchased nearby leases
5.	Gypsum	0.07	0.10	To be purchased nearby leases

Water Consumption for the proposed project will be 600 KLD. Domestic wastewater will be treated in the STP and treated water will be used for greenbelt development/ Plantation. No industrial wastewater will be generated during cement manufacturing process.

PP requested for use of old data

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by Gujarat 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. Village roads to be used by the project proponent for its transport operations shall be maintained by the project proponent.

v. Project proponent shall obtain a certificate from the local forest department authorities to the effect that no national park, wildlife sanctuary or wildlife corridor exist within 10 km of the plant area.

14.3.3 Expansion of Iron Ore Beneficiation plant from the existing capacity of 10.7 MTPA (throughput) to 16.0 MTPA (throughput), Relocation of tailing Dam at Malda, Laying of Tailing Pipeline and Return Water Pipeline from Beneficiation Plant to Tailing Dam & Laying of Water Pipeline and Slurry Pipeline from Beneficiation Plant to Ghoraburhani-Sagasahi Iron Ore Block by **M/s Essar Steel India Ltd.** at Dabuna, Tehsil Barbil, District Kendujhar Odisha.).[F. No. J-11011/222/2016-IA II (I) Proposal No. IA/OR/IND/58662/2016, Date of Submission 29th August, 2016. Considered 11th Meeting (ADS Reply .08.12.2016)

The proposal was earlier considered in the 11th meeting of Expert Appraisal Committee held on held on 26th – 27th September, 2016. Based on the presentation made and discussions held, the Committee desired additional information. The proponent submitted the requisite information to the Ministry. The Committee deliberated on the additional information as presented by the project proponent. The Committee verified the details submitted by the project proponent and satisfied with the submissions made by the project proponent.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted in the 2 districts where the projects is coming up by Odisha 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. Data can be collected for the month of January, 2017 onwards is valid

14.4 ANY OTHER ITEM

14.4.1 Amendemnt in ToR for expansion of our Integrated Steel Plant from 0.60 MTPAto 0.70 MTPA Steel of **M/s Rungta Mines Ltd** located at Village Kamanda, District Sundergarh,Odisha.J-11011/434/2009-IA.II(I)[Proposal No.IA/OR/IND/53279/2016 Date of Submission 15th November, 2016]

ToRs for the expansion of integrated steel plant from 0.6 MTPA to 0.70 MTPA comprising of Manufacturing facilities for Beneficiation plant (1.2 MTPA), Pelletisation plant (0.60 MTPA), Coal washery (0.92 MTPA), Sponge Iron Plant (1.2 MTPA), Sinter plant (0.41 MTPA), Blast furnace (0.66 MTPA), Coke oven plant (0.14MTPA), SMS (0.71 MTPA), Billets/ Slab/ Bloom caster (0.70 MTPA), Flat / round / Structural mill (0.41 MTPA), Ferro manganese plant (54000 TPA), Silico Manganese plant (43200 TPA), Ferro chrome plant (43200 TPA), Ferro Silicon plant (19200 TPA), Captive power plant of 156 MW (80 MW WHRB + 76 MW AFBC), Briquette plant for Ferro chrome (88320 TPA) and Briquette plant for Ferro manganese (111360 TPA) was granted by the Ministry vide letter no. J-11011/434/2009-IA.II (I) dated 03.08.2016.

The project proponent submitted request for amendment to TOR for Expansion of Steel Plant from 0.60 MTPA to 0.75 MTPA. It is now proposed to install additional Pelletisation plant within plant premises as well as enhance the capacity of sinter plant, SMS, Billets Bloom/ slab caster, Flat/ round/ wire rod/ structural/ others and power plant. It has been submitted that there is no change in location of the plant. Due to the capacity enhancement of various sub-units, the steel making capacity also enhances to 0.75 MTPA as against 0.70 MTPA, for which TOR had been granted on 03.08.2016.

The configuration in tabular format is given below. The changes are highlighted in yellow:

Sl. No.	**Facility**	**Present capacity as per EC dated 02.02.2015 (TPA)**	**TOR obtained for additional capacity(TPA) dated 03.08.2016**		**TOR Amendment request**	
			Additional Capacity (TPA)	**Total Capacity**	**Additional capacity (TPA)**	**Total capacity after proposed expansion (TPA)**
(a)	**(b)**	**(c)**	**(d)**	**(e) = (c)+(d)**	**(f)= replaces (d), except 10**	**(g) = (c)+(f); replaces (e), except 10**
1	**Beneficiation Plant**	1,100,000	1,00,000	1,200,000	**No change**	1,200,000
2	**Pellet Plant-1**	600,000	0	600,000	**No change**	600,000
	Pellet plant-2	Nil	Nil	Nil	2X1,200,000+ 10% up-gradation (240,000)	2,640,000
	Sub Total	600,000	0	600,000	2,640,000	**3,240,000**
3	**Coal Washery**	924,000	0	924,000	**No change**	924,000
4	**DRI Plant**					
	6X100 TPD	180,000	77,400	257,400	**No change**	257,400

Sl. No.	Facility	Present capacity as per EC dated 02.02.2015 (TPA)	TOR obtained for additional capacity(TPA) dated 03.08.2016		TOR Amendment request	
			Additional Capacity (TPA)	Total Capacity	Additional capacity (TPA)	Total capacity after proposed expansion (TPA)
(a)	(b)	(c)	(d)	(e) = (c)+(d)	(f)= replaces (d), except 10	(g) = (c)+(f); replaces (e), except 10
	1X300 TPD	90,000	38,700	128,700	**No change**	128,700
	3X350 TPD	315,000	100,800	415,800	**No change**	415,800
	2X500TPD	330,000	66,000	396,000	**No change**	396,000
	Sub total	915,000	282,900	1,197,900		1,197,900
5	**Sinter Plant**	240,000 (24 sq.m.)	175,800 18 sqm	415,800 (42 sq.m.)	Capacity enhanced of existing 1X24 sq.m. by 26,112 + Additional 1 X24 sq.m. of 266,112	532,224 2x24 sqm
6	**Mini Blast Furnace**					
	2X262 CUM	382,520	49,780	432,300	75,980	458,500
	1X260 CUM	227,500	0	227,500	**No change**	227,500
	Sub-total	610,020	49,780	659,800		**686,000**
7	Coke Oven (2 batteries of 70,000 TPA)	140,000	0	140,000	**No change**	140,000
8	**SMS**					
	4X15T IF 2x15T LRF	200,000	17,800	217,800	31,000	231,000
	9 X15T IF 5x15T LRF	430,000	60,050	490,050	89,750	519,750
	Sub total	630,000	77,850	707,850	120,750	750,750
9	**Billet/ Slab/**					

Sl. No.	Facility	Present capacity as per EC dated 02.02.2015 (TPA)	TOR obtained for additional capacity(TPA) dated 03.08.2016		TOR Amendment request	
			Additional Capacity (TPA)	Total Capacity	Additional capacity (TPA)	Total capacity after proposed expansion (TPA)
(a)	(b)	(c)	(d)	(e) = (c)+(d)	(f)= replaces (d), except 10	(g) = (c)+(f); replaces (e), except 10
	Bloom Caster					
	0.20 MTPA	200,000	15,000	215,000	26,380	226,380
	0.42 MTPA	420,000	63,000	483,000	**replacing**	**0, as replaced**
	0.20 MTPA	Nil	Nil	Nil	226,380	226,380
	0.22 MTPA	Nil	Nil	Nil	282,975	282,975
	Sub total	**620,000**	**78,000**	**698,000**		**735,735**
10	**Flat/ Round/ Wire Rod/ Structural Mill/ others**	410,000	0	410,000		
	Mill -1	4,10,000 (no split Specified)	0	4,10,000 (no split Specified)	217,325	217,325
	Mill-2				217,325	217,325
	Mill -3				271,656	271,656
	Sub total	**4,10,000**	**0**	**4,10,000**	**706,306**	**706,306**
11	**Ferro Alloy Plant (1x9 MVA+1x18 MVA)**	0				
	Ferro Manganese OR	-	9 MVA= 18,000 18 MVA=36,000	9 MVA= 18,000 18 MVA=36,000	**No change**	54,000
	Silico Manganese OR	-	9 MVA= 14,400 18 MVA=28,800	9 MVA= 14,400 18 MVA=28,800	**No change**	43,200
	Ferro	-	9 MVA=	9 MVA=	**No change**	43,200

Sl. No.	Facility	Present capacity as per EC dated 02.02.2015 (TPA)	TOR obtained for additional capacity(TPA) dated 03.08.2016		TOR Amendment request	
			Additional Capacity (TPA)	Total Capacity	Additional capacity (TPA)	Total capacity after proposed expansion (TPA)
(a)	(b)	(c)	(d)	(e) = (c)+(d)	(f)= replaces (d), except 10	(g) = (c)+(f); replaces (e), except 10
	Chrome OR		14,400 18 MVA=28,800	14,400 18 MVA=28,800		
	Ferro Silicon	-	9 MVA= 6,400 18 MVA=12,800	9 MVA= 6,400 18 MVA=12,800	**No change**	19,200
	Briquette Plant for ferro chrome	-	88,320	88,320	**No change**	88,320
	Briquette Plant for ferro manganese	-	111,360	111,360	**No change**	111,360
12	**Captive Power Plant**	142 MW	14 MW	156 MW	56 MW	198 MW
	WHRB	66 MW	14	80 MW	21 MW	87 MW
	AFBC / CFBC	76 MW	0	76 MW	35 MW	111 MW

The main existing & proposed raw materials required for the units will be Iron Ore (Own mines in Odisha),dolomite (Open market in Odisha), Coal imported from (South Africa/ e-auction) and Quartzite (Chhattisgarh/ open Market).

The proposed project will generate direct employment for 1635. Total estimated water requirement for the existing as well as proposed units will be 2385 m^3/hr. The water will be continued to be sourced from Karo River (page 7 Form I). The power demand for the existing & proposed units will be 177 MW. Total cost of the proposed project will be Rs 2825.68 cr.

During construction, emissions are fugitive in nature due to excavation, soil handling, leveling and similar activities. The content of the emissions will be predominantly SPM, for which dust

mask shall be provided to the workers. Water sprinkling will be done on roads, excavation sites and soil dump yards to reduce fugitive emissions. During operation, air pollution control equipment such as ESPs, bag filters, scrubbers will be provided and the emission of pollutant will be restricted within standards. Used oil and oil from oil traps will be sold to the authorized recycling vendors. The various waste materials arising out of the technological processes would be reutilized to the extent possible. Other waste materials which cannot be reused are planned to be dumped in an environmental friendly manner in separate designated area.

After detailed deliberation the Committee recommended the proposal for amendment of ToR as per the table mentioned above. The Committee also desired that the project proponent will reduce the specific water and power consumption as compared to the present level thereof.

14.4.2 Extension of ToR for Cement Plant of 3500 TPD by**M/s Trumboo Cement Pvt Ltd.** located at Village Khrew, District Pulwama Srinagar, Jammu and Kashmir**. J-11011/349/2009-IA.II (I)**[Proposal No. IA/JK/IND/4412/2009 Date of Submission 5th December, 2016]

Consideration of the proposal was deferred on the request of the Project Proponent.

14.4.3 Augmentation of Screening Plant and associated facilities at Bailadila Deposit-14/11C&11B of Bailadila Iron Ore Project of **M/s. NMDC Limited** at Kirandul complex, South Bastar Dantewada District, Chhattisgarh. **J-11015/320/2015-IA.II (I)**[Proposal No. IA/CG/IND/60888/2013Date of Submission 5th December, 2016]

The environmental clearance for the project was issued by the Ministry vide letter No. J-11015/320/2012-IA.II(M) dated 5.11.2013.

The proposal involves the following area requirement which has been mentioned in EIA/EMP report, Questionnaire, during EAC meeting and also before Public consultation meeting.

S. no	Particulars	Area in Ha	Remarks
1	Bailadila Deposit-14 NMZ Mining Lease area	8.30	Area already under possession with NMDC.
2	Revenue Forest Land (adjacent to existing Bailadila Deposit-14 NMZ M.L. Area)	65.936	Forest land. Forest clearance is under process.
3	TOTAL	74.236	

It has been mentioned that the environmental clearance issued vide letter dated 5.11.2013 by the Ministry indicated the area requirement of 65.936 Ha only. However, the area requirement for the project is 74.236 Ha instead of 65.936 Ha. There is no change in project proposal including capacity of screening plant-III.

The PP has requested for issuance of corrigendum for the area requirement for the project as 74.236 Ha instead of 65.936 Ha.

After detailed deliberation the Committee recommended the proposal for issuance of corrigendum to the environmental clearance.

14.4.4 Expansion of Iron and Steel Plant of **M/s Raipur Power and Steel Limited** located at Plot Nos. 75 & 76, Borai lndustrial Growth Centre, Rasmada, Durg Tehsil & District, Chhattisgarh under clause 7(ii) of EIA Notification **J-11011/545/2010-IA.II(I)**[Proposal No. IA/CG/IND/60774/2016 Date of Submission 30th November, 2016.

The environmental clearance for the project of M/s Raipur Power and Steel Ltd was accorded by the Ministry vide letter dated 23.12.2011.The project is located at Borai Industrial Growth Centre, Village Rasmara, Tehsil and District Durg. The present proposalis for expansion of Steel Plant by adding 2x15 tons Induction Furnace and Rolling Mill to produce 90000 TPA Wire Rods/ TMT Bars / HB Wire and Deleting the 2 x 12 MVA Submerged Arc Furnace for production of 104237 TPA Ferroalloys.

The targeted production capacity of the Induction Furnace is 90000 TPA and Rolling Mill is 90000 TPA. Sponge Iron and Ferroalloys required for Induction Furnace will be sourced from the DRI Plant and Ferroalloy Plant located inside the steel plant. The following table present the existing and the proposed project configuration:

S.N	Name of the Manufacturing Unit	Product	Approved Capacity As per EC	Additions/ Deletions	Total Capacity
1.	I/O Beneficiation & pelletisation plant	Pellets	300000 TPA	**NO CHANGE**	300000 TPA
2.	DRI Kiln	Sponge Iron	180000 TPA	**NO CHANGE**	180000 TPA
3.	Induction Furnace with concast	Ingots/ Billets	2x15 Tons 90000 TPA	**ADDITION** 2x15 Tons 90000 TPA	180000 TPA
4.	Rolling Mill	Rolled Products	90000 TPA	**ADDITION** 90000 TPA	180000 TPA
5.	Submerged Arc Furnaces Fe-Si, Si-Mn, Fe-Mn	Ferro Alloys	2x12 MVA+ 2x9 MVA Fe-Si: 29568 TPA Si-Mn: 66486 TPA Fe-Mn: 86333 TPA Total=182387	**DELETION** 2x12 MVA Fe-Si: 16918 TPA Si-Mn: 37986 TPA Fe-Mn: 49333 TPA Total=104237	2x9 MVA Fe-Si: 12650 TPA Si-Mn: 26500 TPA Fe-Mn: 78150 TPA Total= 78150 TPA
6.	Captive Power Plant				
	Waste Heat Recovery Boilers (WHRB)	Electricity	2x6 MW = 12 MW	**NO CHANGE**	2x6 MW = 12 MW
	Fluidized Bed Combustion Boilers (FBC)		6MW + 30MW = 36 MW	**NO CHANGE**	6MW + 30MW = 36 MW

The capital cost of the new Induction Furnace and Rolling Mill project is Rs 38 Crores and the capital cost for environmental protection measures is Rs 1 crore. The annual recurring cost towards the environmental protection measures is proposed as Rs 20 Lakhs.

The project proponent requested to consider the application and grant environmental clearance to install the Induction Furnace and Rolling Mill and remove the 2 x 12 MVA SAF from environmental clearance dated 23.12.2011 under clause 7(ii) of EIA Notification, 2006, as amended.

The Committee after detailed deliberation is of the view that since the proponent has proposed to add additional units to the existing plant and also proposed to delete some of the component from the existing environmental clearance, the proposal cannot be considered under clause 7(ii) of EIA Notification, 2006, as amended.

14.4.5 Expansion clinker plant from 0.297 MTPA to 0.66 MTPA of **M/s Shri Chakra Cement Ltd.,** located at Village Sri Narashimhapuri, Karampudi Mandal, District Guntur, Andhra Pradesh, Amendment EC Factory land as 79 acres instead of 79HC. J-11011/677/2007-IA.II(I) [Proposal No. IA/AP/IND/6097/2016 Date of Submission 12th December, 2016.

Environmental clearance to the project of 'Expansion of Clinker Plant from 0.297 MTPA to 0.66 MTPAat Sri Narashimhapuri Village, Karampudi Mandal, Guntur District, Andhra Pradesh' by M/s. Sri Chakra Cement Limited was accorded by the Ministry vide letter No. J-11011/677/2007-IA II(I) dated 7th January, 2007. Subsequently the expansion work taken up in August, 2008 and the same has been completed by May, 2012.

It has been mentioned by the proponent that, inadvertently, the total project area for cement plant has been mentioned as 79 Ha instead of 79 Acres in the Environmental Clearance letter.

The mistakewas committed by the proponent during the filing up of application which could not be noticed at the time of appraisal.

The committee recommended for issuance of corrigendum in the matter.

14.5 CASE FOR TERMS OF REFERENCE (TOR)

14.5.1 Proposed expansion of Steel Plant production of MS Billets (69,070 TPA to 1,29,070 PA) production of TMT bars & Structural Steel (60,000 TPA to 1,44,000 TPA) of **M/s Shyam Ferrous Limited** located at Sy No. 67/2, Village Devarapalli, Mandal Hindupur, District Ananthapur, Andhra Pradesh. J-11011/634/2009-IA.II(I) [Proposal No. IA/AP/IND/61022/2016 Date of Submission 10th December, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006.

Shyam Ferrous Ltd. (SFL), is an existing Steel Plant located at located at Sy.No.67/2, Village Devarapalli, Mandal Hindupur, District Ananthapur, Andhra Pradesh. The environmental clearance for the existing project was granted by the Ministry vide F.No. J-11011/634/2009-IA.II (I) dated 23.11.2010.

Now as part of expansion, the PP is planning to enhance the production capacity of MS Billets and TMT bars & Structural Steels as mentioned below:

S.No.	Units	Existing Plant (Prior to 2010 EC)	Permitted Capacity as per 2010 EC	Proposed Expansion	After Expansion
1	Steel Melting Shop (Induction Furnace, Induction casting Moulds, Ladle Refining Furnace, Continuous Casting Machine	* 1 x 4 MT (MS Ingots - 17820 TPA) (In Operation)	* IF - 1 x 15 MT & 1 x 9 MT LRF – 17.5 TPD (MS billets - 51,250 TPA) (1x 9 MT is Under implementation & 1x15 MT is yet to be implemented)	1 x 20 MT (60000 MT)	1,11,250 TPA
2	Rolling Mill (TMT Bars & Structural Steels)	---	60,000 TPA (In Operation)	84,000 TPA	1,44,000 TPA
3	Mould Castings	---	29,700 TPA	---	29,700 TPA

* Existing 1 x 4 MT Induction Furnace will be totally dismantled and replaced with 15 MT Induction Furnace for which EC accorded in November, 2010)

The existing plant is located in 9.9 acres of land. Proposed expansion will be carried out in the existing plant premises only.Estimated project cost for proposed expansion project will be Rs. 25.0 Crores.

Water required for the proposed expansion will be 100 KLD and same will be sourced from Ground water source. Prior permission from CGWA will be obtained.

The Committee is of the opinion that a detailed presentation should be made by the PP in case of the expansion proposal, which focus mainly on the existing resource utilization vis-a-vis proposed requirement of resources. This will mainly constitute of requirement of power and water, effluent generation, air pollution, availability of space, status of green belt development as per existing EC, CSR and ESC implementation status.

The PP should be able to convince the committee that, by implementation of the expansion project, resource utilization has been reducedper unit production of the commodity.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the Andhra Pradesh 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. Compliance of earlier EC to be submitted.
v. Photographs of the existing site to be submitted.

14.5.2 Proposed expansion of Ferro Alloy Plant manufacturing of FeCr (15,000TPA) or FeSi (7000 TPA) in the existing 1x9 MVASEAFA and manufacturing of SiMn (14400TPA) or FeMn (14400 TPA) or FeCr (15000 TPA) or FeSi (7000 TPA) in the new 1x9 mVA SEAFA of **M/s V A Power and Steel Private Limited** located at Plot No. 143, 144 & 145, Sector – E, O.P. Jindal Industrial Park, Village Punjipathra, Tehsil Gharghoda, District Raigarh, Chhattisgarh. J-11011/239/2016-IA.II(I) [Proposal No. IA/CG/IND/61011/2016 Date of Submission 10th December, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006.

V A Power & Steel Pvt. Ltd. is existing ferro alloys plant manufacturing Silico Manganese and Ferro Manganese of capacity 14400 TPA at Plot No. 143, 144 & 145, Sector-E, O.P. Jindal Industrial Park, Punjipathra Village, Gharghoda Tehsil, Raigarh District, Chhattisgarh. The existing plant has obtained Consent to Establishment (CTE) vide letter no. 1779/TS/CECB/2006 dated 07.04.2006 and Consent to Operate vide letter No 4067/TS/CECB/2006 dated 17.08.2006, i.e. prior to EIA notification 14th September 2016. Hence Environment Clearance is not applicable for existing plant. Total land in possession of management of 4.88 Ha. (12.05 Acres). Proposed expansion will be carried out in the existing plant premises only.

Now as part of expansion, the PP has planned to manufacture FeCr (15,000 TPA) or FeSi (7,000 TPA) along with existing products of SiMn -14,400 TPA (or) FeMn -14,400 TPA in the existing 1 x 9 mVA SEAF & Manufacturing of SiMn (14,400 TPA) or FeMn (14,400 TPA) or FeCr (15,000 TPA) or FeSi (7,000 TPA) in the proposed 1 x 9 mVA SEAF in the existing plant premises. Following is the plant configuration and production capacity existing & proposed:

S.No.	Product	Plant Configuration & Production Capacity		
		Existing (1 x 9 mVA SEAF)	**Proposed Expansion (1 x 9 mVA SEAF)**	**After expansion (2 x 9 mVA SEAF)**
1.	SiMn	14400 TPA (In Operation)	14400 TPA	28800 TPA / 96 TPD
		or		
2.	FeMn	14400 TPA (In Operation)	14400 TPA	28800 TPA / 96 TPD
		or		

3.	FeCr	15000 TPA (Proposed Now)	15000 TPA	30000 TPA / 100 TPD
		or		
4.	FeSi	7000 TPA (Proposed Now)	7000 TPA	14000 TPA / 47 TPD

Estimated project cost for proposed expansion project will be Rs. 13.0 Crores.

Water requirement after the implementation of the project will be 60 KLD (after Expansion) and same will be sourced from Ground water source. Prior permission from CGWA will be obtained. There will be no effluent generation in the Ferro alloys units as closed circuit cooling system will be adopted. The sanitary wastewater will be treated in septic tank followed by subsurface dispersion trench.

Slag from FeMn will be reused in manufacture of SiMn as it contains high SiO_2 and Silicon. Slag from FeSi will be given to Cast iron foundries. Slag from SiMn will be used for Road construction / will be given to slag cement manufacturers. Slag from FeCr will be processed in Zigging plant for Chrome recovery and TCLP test will be performed, accordingly output will be secured land filled as per the CPCB guidelines.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the ChhattisgarhPollution 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. Project proponent will give the pollution load separately and individually for all products, viz., SiMn, FeMn, FeCr and FeSi.
v. Project proponent will reduce the specific water consumption and bring it down below the present level of 580 lit/tonne.

14.5.3 Expansion project of **M/s KIC Metaliks Ltd** located at Raturia Industrial Area, Angadpur, Durgapur, Tehsil Kanksa, District Burdwan, West Bengal. J-11011556/2009-IA.II(I) [Proposal No. IA/WB/IND/60981/2016 Date of Submission 10th December, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006.

M/s.KIC Metaliks.Ltd has proposed toexpand its existing 0.210 MTPA Pig Iron Plantto 0.578 MTPA Integrated Steel Plant. M/s KIC Metaliks Ltd. has its existing Steel Plant at Rauria Industrial Area, Durgapur in the district of Burdwan, West Bengal. The project is located at latitude: 23^0 30' 32'' N and longitude 87^0 16' 39.89'' E, with 450m AMSL.The environmental clearance for the existing plant was accorded by the Ministry vide letter No. J-11011/556/2009-IA.II(I) dated 24.5.2011.

Itisproposedtoset uptheplantfor MBF, IF & DRI basedon Indigenous Lurgi Coal Based Technology.Theproposedunitwillbelocated at Village Raturia,Taluka Kanksa,DistrictBurdwan, West Bengal.Thelandarea acquiredfortheintegratedsteelplantis 34.80 Haoutofwhich11.40Halandwillbeusedfor green belt development. Total project cost is approx 750 Crore rupees. Proposed employmentgenerationfromproposedprojectwillbe192directemploymentsand300 indirect employments.The proposed capacity for different products for new siteareaas following:

Sl. No.	Item	E C implementation status	Facilities Proposed in this ToR	Final Configuration After expansion	Final Capacity in TPA	Product
1	Modernisation of existing MBF to enhance capacity of 1x215 m^3 to 0.210 MTPA Pig	Implemented	Nil	1x215 m^3 MBF	2,10,000	Hot metal/Pig
2	-	NA	2x350 DRI Kilns	2x350 DRI Kilns	2,24,000	Sponge Iron
3	Steel Melting shop 1x50T EAF, 1x50 T LRF,1x50 T VD With Matching C C M	Not Implemented	• 1x30 T EAF • 4x15 T IF • With LF & V D • 1200 TPD CCM	• 1x30 T EAF • 4x15 T IF • With LF & V D • 1200 TPD CCM	3,84,000	Liquid metal for manufacture of billets
4	-	NA	1200 TPD R M	➢ 1200 TPD R M	3,78,000	TMT rods, angles etc.
5	Ferro Alloy plant 2x9 MVA (Fe-Cr, Fe-Mn & Si-Mn)	Not Implemented	Nil	Nil	Nil	Nil
6	Sinter Plant 1x25 m^2	Implemented	Nil	1x25 m^2Sinter Plant	4,20.000	Sinter agglomerates
7	BF gas based CPP 5 MW	Implemented	14 MW (DRI WHRB)	5 MW CPP 14 MW CPP	19 MW CPP	Electric power
8	Spun pipe 24,000 TPA	Not Implemented	2x20 T IF 2x0.11 MTPA C C M (centrifugal	2x20 T IF 2x0.11 MTPA C C M (centrifugal)	2,00,000	D I spun pipe

			)			
9	Cement Grinding Capacity increase to 1,00,000 TPA	In Progress	Nil	Nil	1,00,000	Cement
10	-	NA	1x50T & 1x100T Oxygen Plant	1x50T & 1x100T Oxygen Plant	2,80,000N m^3 /day	Oxygen gas
11	-	NA	1x50T Nitrogen Plant	1x50T Nitrogen Plant	80,000Nm ^{3} /day	Nitrogen gas
12	-	NA	1x100 TPD PCI P	1x100 TPD PCI P	32,000	Pulverised Coal

The electricity load of 32 MWwill be procured fromState Supply and 14 MW will be from CPP.WaterConsumptionfortheproposedprojectwillbe4944 m3/dayandwastewaterwill be primary & secondary treated and reused.

Proposed raw materialand fuelrequirement for project are .3,22,000 TPA Hematite Ore lumps, 1,77,000 TPA Coal , 8,960 Lime Stone & 1,30,000 TPA Scrap. Raw Material Requirement would be procured from Odisha/ Jharkhand/Local Market

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the Chhattisgarh 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. At the time of EC presentation, the PP will show the photograph and video-graph of plantation activity taken up at the site on 33% of the plant area.

14.5.4 Proposed expansion of Steel Plant of **M/s Shree Shyam Sponge and Power Limited** located at Village Bachhera, Post Damakhera, Tehsil Simga, District Baloda Bazaar, Chhattisgarh. J-11011/241/2016-IA.II(I) [Proposal No. IA/CG/IND/60971/2016 Date of Submission 10th December, 2016]

Vide letter dated 21.12.2016, the proponent has shown their inability to attend the meeting. The consideration of the proposal is therefore deferred.

14.6 FURTHER CONSIDERATION

14.6.1 Environmental Clearance of Silica Sand Beneficiation Plant of **M/s Mangalore Minerals (P) Ltd.** (0.6 MTPA; 6.91 ha.), located at village Aswan (near Chhattara) Allahabad, Uttar Pradesh. J-11015/188/2011-IA.II(I)[Proposal No. IA/UP/IND/59480/2011 Date of Submission 6th October, 2016]

The proposal was earlier considered in the 12th meeting of Expert Appraisal Committee (Industry - I) held during 27th– 28thOctober, 2016. Based on the presentation made and discussions held, the Committee additional information for further consideration of the project.

The proponent submitted the requisite information to the Ministry. The Committee deliberated on the additional information as presented by the project proponent. The Committee verified the details submitted by the project proponent.

After detailed deliberation, it has been observed by the Committee that the ambient air quality of the area, especially the PM_{10} levels have already crossed the permissible limits. Therefore, the PP has to conduct a study for 'post measures AAQ assessment'. The proposal shall be further considered once the detailed analysis of the present scenario vis-a-vis measures proposed to control the emissions generated from the project are worked out and presented before the committee along with the detailed EMP report. The PP will also provide the following information to be considered by the EAC for appraisal of the project.

a) A report from the MNIT, Allahabad about the feasibility of use of clay waste generated from the beneficiation plant, as building material.

b) Estimates of total length and width of roads to be metalled to check dust pollution.

14.6.2 Bangur Cement Unit at capacity of Clinker 3.0 Million TPA (Unit-XI), 23 MW WHRS and Cement 4-4 Million TPA at Village- Bhivgarh, Jawangarh & Ras-II, Tehsil Jaitaran, Dist Pali (Rajasthan) by **M/s Shree Cement Ltd.** [F.No-J-11011/212/2016-IA.II(I)]. Proposal No IA/RJ/IND/58395/2016 Date of Submission 13th August, 2016. Considered 10th Meeting (absent)

The consideration of the proposal was deferred on the request of the project proponent

14.6.3 Proposed expansion of existing 2X100 TPD Sponge Iron Plant by installing 08 MW CPP based on 2X11 TPH Boiler (Waste Gases) and 30 TPH AFBC Boiler (Firing Mixed Fuel) located at Tuidungri, Chowka Panchayat, Chandil Tehsil, Sarakela Kharsawan District, Jharkhand of **M/s Emaar Alloys Pvt Ltd.** J-11011/243/2015-IA.II(I)

The consideration of the proposal was deferred on the request of the project proponent

14.7 ANY OTHER ITEM

14.7.1 Amendment in ToR of proposed Expansion by installation of 1.0 MTPA Steel Plant, 40 MW (2 x 20 MW) WHRB, 40 MW coal based CPP & 500TPD air separation plant in the existing Ferro Alloys Plant of **M/s The Sandur Manganese Iron Ores Limited** [**J-**

11011/205/2014-IA.II(I)][Proposal No. IA/KA/IND/23395/2014 Date of Submission 24th November, 2016]

M/s The Sandur Manganese & Iron Ores Limited currently operating a Ferro Alloy plant (3 Submerged Arc Furnaces with total capacity 55 MVA, 1 Sintering plant of 1.5 MT, Manganese Ore Beneficiation Plant 2 TPH throughput and 32 MW Coal based CPP) at Hanumanhalli village, Danapur Mandal, Hospet Taluk, Bellary District of Karnataka State. PP proposed expansion by installation of 1.0 MTPA Steel Plant, 40MW (2X20 MW) Waste Heat Recovery power plant, 40 MW coal based captive power plant & 500 TPD Air Separation plant in the existing ferro alloy plant for which the ToRs were granted vide F. No.J-11011/205/2014-IA-II (I) dated 24.03.2015.

Now the PPis proposing for amendment of TOR issued vide F. No.J-11011/205/2014-IA-II (I) dated 24.03.2015 for expansion of its existing Ferro Alloys Plant to 1.0 MTPA Integrated Steel Plant in 3 Phases comprising of following units At- Danapur & Danayakanakere villages Hospet Taluk, Bellary District of Karnataka State:-

Sl. No.	**Plant/Unit Name**	**Configuration**			**Final Annual Production**	**Final Capacity in MTPA**
		Phase-I	**Phase-II**	**Phase III**		
1	Blast Furnace	1x 0.4MTPA BF (Size 350-400m3) ≃ 1200 TPD	-	1x 0.4MTPA BF (Size 350-400m3) ≃ 1200 TPD	2 x 400000 TPA	**0.800**
	Pig Casting Machine	1212.12 TPD	-	-	1 x 400,000 TPA	**0.400**
2	Coke Oven Plant and WHRB	0.4MTPA ≃ 1200 TPD WHRB - 130TPH Steam Generation	-	-	1 x 400,000 TPA	**0.400**
3	Sinter Plant	1 x 50 m² ≃1600 TPD	-	1 x 50 m² ≃1600 TPD	2 x 528,000 TPA	**1.056**
4	Energy Optimization Furnace (EOF)	-	1 X 50 T ≃1600TPD	1 X 50 T ≃1600 TPD	2 x 528,000TPA	**1.057**
5	Ladle Refining Furnace (LRF) & Vacuum Degasser (VD)	-	1 X 50 T ≃1600 TPD	1 X 50 T ≃1600TPD	2 x 528,000 TPA	**1.057**
6	Continuous Casting machine	-	1 X 4 Strand 9/16 m	1 X 4 Strand 9/16 m radius ≃1570 TPD	2 x 518,135 TPA	**1.036**

	(CCM)		radius ~1570 TPD			
7	Rolling (Rebar Mill)	-	1 X 100 TPH ~1515 TPD	1 X 100 TPH ~1515 TPD	2 x 500,000 TPA	**1.0**
8	Oxygen Plant	1 X 70 TPD	1 X 200 TPD	-	1 x 23100 TPA + 1 x 66000 TPA	-
Maximum No. of Working Days considered for all units - 330						

Total Water requirement after expansion will be 685 m³/hr and sourced from Tungabhadra Dam & Bore wells. Total Power requirement will be 92 MW will be sourced from CPP. Major raw materials are Iron Ore Fines, Coke, Coal, Lime Stone and Dolomite.

The proposed expansion will provide direct & indirect employment opportunities to the local people of the area. Further, the project will also improve the socio-economic conditions of the people living in the vicinity of the project.

The Committee after detailed deliberation recommended the proposal for amendment of ToRs as mentioned in the above table.

14.7.2 Amendment in EC for use of "Pet Coke and Other approved Hazardous and Non Hazardous Waste" as additional fuels / Raw Materials in our cement plant of **M/s Bharathi Cement Corporation Private Limitedlocated at** Kamalapuram Mandal, Yerraguntla, District Kadapa, Andhra Pradesh.J-11011/379/2008-IA.II(I)[Proposal No. IA/AP/IND/4636/2008 Date of Submission 24th November, 2016]

The environmental clearance for the projectswere accorded by the Ministry vide letter No. J-11011/360/2006-IA.II (I) dated 13.03.2007 and letter No- J-11011/379/2008- IA.II (I) dated 10.12.2008. The PP has now requested for amendment in theexisting environmental clearance for usage ofvarious type of hazardous waste, non-hazardous waste and pet-coke in cement kin as an alternatefuels and pet coke usage in 30 MW captive Power plant.

Regarding the use of pet-coke in the captive power plant, the Ministry has recently decided that it may not be suitable to allow the use of pet-coke in the captive power plant without detailed study of the subject. As far as use of pet-coke, coal, lignite, hazardous waste, non-hazardous water etc in the cement kiln is concerned, the Ministry has issued an amendment Notification S.O.3518(E) dated 23.11.2016. The Committee refered the matter to the Ministry for further necessary action.

14.7.3 Capacity Enhancement of Existing Pellet Plant Capacity Expansion from 1.2 MTPA to 1.5 MTPA of **M/s Jindal Saw Ltd.,** located at Pur, Tehsil and District Bhilwara, Rajasthan under clause 7(ii) EIA Notification of J-11011/371/2014-IA II(I) [Proposal No. IA/RJ/IND/60496/2016 Date of Submission 29th November, 2016.

M/s Jindal Saw Limited had initially applied to the Ministry for regularization of 1.2 MTPA pellet plant and increasing its capacity for production of 1.5 MTPA of Pellets (expansion by operating the plant for 330 days instead of 300 days and process optimization)located in Village Pur, Tehsil and District Bhilwara. The total land required for the project is 40.76 acres, which has been acquired for the project.

The proposal was considered in the 8th meeting of EAC (Industry-I) held during 27th – 28th June, 2016 and the Committee after detailed deliberation decided that since the NGT order pertains to regularization of the existing pellet plant, therefore, the proposal for environmental clearance of the existing capacity of pellet plant of 1.2 MTPA capacity can be considered for appraisal. Proponent has to apply afresh for the expansion of the pellet plant as per the requirement.The Ministry had issued environmental clearance to the 1.2 MTPA project on 23rd September 2016.

The PP has now applied for the capacity expansion of existing Pellet Plant from 1.2 MTPA to 1.5 MTPA of M/s Jindal Saw Limited located in Village Pur Tehsil and District Bhilwara State Rajasthan on 29.11.2016 under clause 7(ii) of EIA Notification, 2006.

The total land required for the project is 40.76 acres, out of which the entire land is barren industrial land (100% Government Land owned by JSL). No forestland is involved. 40.76 acres land has been acquired for the project. No additional land is required for Expansion. No river or stream passes through the project area. It has been reported that no water body exist around the project and modification / diversion in the existing natural drainage pattern at any stage has not been proposed.The topography of the area is flat and reported to lies between Latitude $25^0$18'56.32" to $25^0$19'13.7"N and Longitude 74^0 32' 16.07" to 74^o33'29.93" E at an elevation of 440 m AMSL. Groundwater will not be taken for the project.

No national park / wildlife sanctuary / biosphere reserve / tiger reserve / elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. PP has obtained Certificate from Forest Department for confirming the same.

The targeted production capacity of the pellet plant is 1.5 MTPA. The iron ore fines for the pellet plant are procured from adjacent mines owned by Jindal Saw Limited. The iron ore fines is converted to iron ore concentrate inside the mines. The iron ore concentrate transportation is done through conveyors.

The industrial water requirement of the project is estimated as 250 kl/day. Jindal Saw Limited will use treated Sewage water of Bhilwara town. No freshwater will be used in the project. 14 kl/day of groundwater is used for domestic purpose including drinking purpose. No additional water will be required for the proposed expansion.The power requirement of the project is estimated as 5.6 MW which is obtained from grid.No extra power is required for capacity enhancement.

Ambient air quality monitoring has been carried out at 8 locations during October 2014 to December 2014 and the data submitted in EIA Report prepared by NABET Accredted EIA Consultant (EMTRC Consultants Pvt Ltd. Delhi) indicated: PM10 (44 $\mu g/m^3$ to 68 $\mu g/m^3$), PM 2.5 (15 $\mu g/m^3$ to 29 $\mu g/m^3$), SO_2(4.0 $\mu g/m^3$ to 8.8 $\mu g/m^3$) and NO_2(9.0 $\mu g/m^3$ to 21.8 $\mu g/m^3$). The results of the modeling study indicate that the maximum increase of GLC for the proposed

project is 4.9 $\mu g/m^3$ with respect to the PM_{10}, 14.4 $\mu g/m^3$ with respect to the $SO_2$and 7.7 $\mu g/m^3$ with respect to the NO_x.

It has been reported that 2000 tons/month dust from ESP and Bag Filters shall be reused for pellet making. It has been envisaged that an area of 13.5 acres (33% of 40.76 acres) is under greenery development to attenuate the noise levels and trap the dust generated due to the project development activities.

The Public hearing of the project (Combined Project that is the proposed Integrated Steel Plant and Installed & Commissioned 1.5 MTPA Pellet Plant (1.2 MTPA existing + 0.3 MTPA expansion) was held on 19.01.2016, under the chairmanship of ADM. The issues raised during public hearing are related to employment in the project and infrastructure development in nearby villages.

The capital cost of the existing Pellet Plant project is Rs. 324.27 Crores and the capital cost for environmental protection measures is proposed as Rs 15 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 40 Lakhs**.** No additional capital cost is envisaged for capacity enhancement.

Based on the presentation made and discussions held, the Committee recommended the project for environment clearance subject to stipulation of the following specific conditions and any other mitigative measures, as prescribed by the Ministry for environmental protection:

i. The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office.

ii. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 and installing energy efficient technology.

iii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iv. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

v. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

vi. 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 Environment (Protection) Act whichever are more stringent.

vii. 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, SPCB and CPCB.

viii. A time bound action plan shall be submitted to reduce solid waste generated due to the project related activity, its proper utilization and disposal.

ix. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office, SPCB and CPCB within 3 months of issue of environment clearance letter.

x. Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines.

xi. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall inter-alia address (i) Standard operating process/procedure to bring into focus any 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.

xii. 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.

xiii. The project proponent shall provide for LED lights in their offices and residential areas.

xiv. At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office.

xv. In addition to the above provision of ESC, the proponent shall prepare a detailed CSR Plan for the next 5 years including annual physical and financial targets for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Skill Development and infrastructure 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 shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.

xvi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities mandatorily such as LPG for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

14.7.4 Expansion of Sponge Iron Unit (2x100 TPD) to Integrated Steel Plant (Sponge Iron Plant (2x100TPD), Steel melting Shop (Billets 300 TPD), Rolling Mill (TMT Bars 300 TPD), Ferro Alloy Plant (100 TPD), Coal Washery (1MTPA), and Captive Power Plant (WHRB 8MW, FBC 46MW) of**M/s Raigarh Ispat & Power (P)Ltd.** located at Village Delari, Tehsil Raigarh, District Raigarh, Chhattisgarh – Environmental Clearance Regarding. J-11011/1040/2007-IA.II(I) [Proposal No. IA/CG/IND/2208/2016 Date of Submission 8th December, 2016.

Raigarh Ispat & Power Pvt. Ltd. has obtained Environmental Clearance vide letter F. No. J-11011/1040/2007–IA.II(I) dated 27.01.2010 for below mentioned plant configuration and production capacity:

S.No.	**Products**	**Existing**	**Expansion (EC obtained on January 2010)**	**After expansion**
1	Sponge iron	60,000 TPA (2 x 100 TPD)	60,000 TPA (2 x 100 TPD)	1,20,000 TPA
2	MS Billets	--	90,000 TPA (3 x 10 MT IF)	90,000 TPA
3	TMT Bars	--	90,000 TPA (1 x 300 TPD)	90,000 TPA
4	Ferro alloys	--	30,000 TPA (2 x 9 MVA)	30,000 TPA
5	Washed coal	--	1.0 MTPA	1.0 MTPA
6	Power WHRB AFBC	-- -- --	54 MW 8 MW (4 x 2 MW) 46 MW	54 MW

It has been mentioned by the PP that they were not in a position to go ahead with the implementation of the units for which EC has been accorded due to the following reasons:

i. Awaited for Final verdict from Hon'ble High Court of Chhattisgarh with reference to Writ Petition (Civil) 2662/2009 dated 19th May 2009 (as per EC condition).
ii. Final Verdict from Hon'ble High court of Chhattisgarh has been issued on 05.10.2016. The writ petition has been with drawn by the petitioner. Hence the Writ Petition (Civil) 2662/2009 dated 19th May 2009 has been dismissed.
iii. Immediately after the dismissal of writ petition, work has been initiated pertaining to some of the units.

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

S.No.	Products	Existing	Expansion (EC obtained on January 2010)	After expansion	Implementation status
1	Sponge iron	60,000 TPA (2 x 100 TPD)	60,000 TPA (2 x 100 TPD)	1,20,000 TPA	1 x 100 TPD kiln civil & mechanical works are in progress Construction of another 1 x 100 TPD kiln work is just initiated
2	MS Billets	--	90,000 TPA (3 x 10 MT IF)	90,000 TPA	Implementation of 2 x 10 MT IF has been initiated
3	TMT Bars	--	90,000 TPA (1 x 300 TPD)	90,000 TPA	Implementation of 300 TPD Rolling Mill has been initiated
4	Ferro alloys	--	30,000 TPA (2 x 9 MVA)	30,000 TPA	Yet to commence
5	Washed coal	--	1.0 MTPA	1.0 MTPA	Yet to commence
6	Power WHRB AFBC	-- -- --	54 MW 8 MW (4 x 2 MW) 46 MW	54 MW	Initiated work pertaining to WHRB – 8 MW & AFBC - 4 MW

It has been noted by the Committee that the proposal was accorded environmental clearance vide letter No. J-11011/1040/2007–IA.II(I) dated 27.01.2010. As per amendment Notification dated 29.04.2015, the environmental clearance is valid till 26.01.2017 and the PP has applied in time.

The Committee after detailed deliberations recommended the proposal for extension of validity of environmental clearance No. J-11011/1040/2007–IA.II(I) dated 27.01.2010 for further period upto 26.01.2020. The proponent should adhere to the timeline as proposed during the meeting and submitted to the Ministry.

14.7.5 Amendment of EC for Use of Pet Coke, Rice Husk as fuel in addition to coal 2.50 MTPA Cement Plant Kiln and 2 X 15 MW Boiler of Captive Power Plant at ACC Ltd, Cement Nagar, Bardol, Kaliapali, Bargarh, Orissa by ACC Ltd – Bargarh Cement Works [Proposal No. IA/OR/IND/4503/2007 Date of Submission 10th October, 2016]

The environmental clearance for the expansion of Cement Plant (Cement 0.96 MTPA to 2.50 MTPA alongwith Captive power Plant (2x15 MW) and Coal Washery (100 TPM) was accorded by the Ministry vide letter No. J-11011/36/2007-IAII(I) dated 18.05.2007.

The PP has proposed the following

a. Use of Pet Coke and Rice husk (to the extent available) In Addition To Coal In Cement Plant.
b. Use of Pet Coke and Rice husk (to the extent available) In Addition To Coal In Captive Power Plant

Regarding use of pet-coke in the captive power plant, the Ministry has recently decided that it may not be suitable to allow the use of pet-coke in the captive power plant without detailed study of the subject. As far as use of pet-coke, coal, lignite, hazardous waste, non-hazardous water etc in the cement kiln is concerned, the Ministry has issued an amendment Notification S.O.3518(E) dated 23.11.2016. The use of rice-husk in the CPP need to be further examined with CPCB/other agencies. The Committee refered the matter to the Ministry for further necessary action.

14.7.6 Amendment of EC for Use of PetCoke as fuel in addition to coal in 25 MW Boiler of Captive Power Plant at Jamul Village, Jamul Taluka, Durg District Chhattisgarh by ACCLtd- Jamul CementWorks [Proposal No. IA/CG/IND/3715/2012 Date of Submission10th October, 2016]

Jamul Cement Works (JCW) has been granted Environmental Clearance vide letter No. J-11011/251/2008-IAII(I) dated 13.05.2009 & 11.01 2013for installation of new plant of 3.0 MTPA clinkerisation unit with cement production of 3.0 MTPA & 25 MW captive power plant.

Regarding use of pet-coke in the captive power plant the Ministry has recently decided that it may not be suitable to allow the use of pet-coke in the captive power plant without detailed study of the subject. The use of biomass along with coal in the CPP need to be further examined with CPCB/other agency. The Committee refered the matter to the Ministry for further necessary action.

14.8 CASE FOR TERMS OF REFERENCE (TOR)

14.8.1 Cement Production Capacity (1.5 MTPA to 1.86 MTPA) of Existing Stand-alone Grinding Unit by Process Optimization at Village- Navagraon, P.O. - Jajhra, Tehsil - Nalagarh, District - Solan (Himachal Pradesh) by **M/s. Ambuja Cements Limited** (Unit: Nalagarh) – Regarding Submission of Application under Section 7(ii)of EIA Notification, 2006. J-11011/173/2008-IA.II(I) [Proposal No. IA/HP/IND/60625/2016 Date of Submission 24th November, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. Ambuja Cements Limited (Unit: Nalagarh) has an existing stand-alone Cement Grinding Unit of 1.5 MTPA capacity (commissioned in 2010) at Village - Navagraon, P.O. - Jajhra, Tehsil - Nalagarh, District - Solan (Himachal Pradesh).Environmental clearance for the existing Grinding Unit was issued by MoEF, New Delhi vide their letter no. J-11011/173/2008-IA II (I) dated 22nd Aug., 2008.

Ambuja Cements Limited (ACL) has found that the cement production capacity of existing cement mill could be enhanced by 0.36 MTPA by process optimization.In this regard, ACL is now proposing for only 24% enhancement in cement production capacity from 1.5 MTPA to 1.86 MTPA by Process Optimization in existing cement mill.The existing and proposed enhancement capacity is as follows:

S. No.	Product	Existing Capacity (MTPA)	Additional Capacity (MTPA)	Total capacity after proposed enhancement (MTPA)
1.	Cement	1.5	0.36	1.86

The total existing plant area is 29.09 ha; proposed enhancement will be done within the existing premises by process optimization.No additional land is required, no additional water requirement, no additional manpower (regular) requirement, no additional storage area is required.

The raw material requirement are Clinker which is being / will be sourced from Captive Plants at Darlaghat (Himachal Pradesh), Gypsum from Bikaner - Rajasthan, Fly ash from Guru Govind Singh Thermal Power Plant, Ropar / Other TPP at Rajpura / Bathinda / Talwandi Sabo.

All major sources of air pollution are being provided with Bag House / Bag filters, to maintain the PM emission level below permissible limit. Ambient air quality and stack emission is being / will be regularly monitored to ensure that ambient air quality standards are being met all the time. Domestic wastewater generated from plant & guest house is being / will be treated in STP and treated water is being / will be utilized in greenbelt development. Out of the total plant area (29.09 ha), 10.3 ha i.e. 35% of the total plant area has already been developed under greenbelt / plantation; same will be maintained in future.

The PP has requested to grant the environmental clearance for the above expansion project under clause 7(ii) of EIA Notification, 2006, however the Committee observed that earlier also no public hearing was conducted for the project. Therefore, the Committee decided to prescribe ToRs for the project and decided that the PP should conduct PH for the project. On request of the PP, the committee agreed that one month data can be collected for the month of January, 2017 and that data should be compared with the old data and EIA/EMP report can be prepared and presented during the meeting. The compliance report of 6.9.2016 stands valid for the project.

After detailed deliberations, the Committee prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the Himachal Pradesh 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.

14.8.2 Expansion of manufacturing of MS Expansion of Manufacturing of M. S. Billets of **M/s A One Steel and Alloy Pvt Ltd.,** located at Gowribidanur, Tehsil & District Chikkballapura, Karnataka. J-11011/244/2016[Proposal No. IA/KA/IND/60536/2016 Date of Submission 25th November, 2016]

The consideration of the proposal was deferred as the PP did not attend the meeting

14.8.3 Proposed expansion of Steel Plant installing lnduction Furnace - 3 x 10 MT (90,000 TPA) & Submerged Electric Arc Furnace - 2 x 5 mVA (FeMn - 88.7 TPD /25,500 TPA or SiMn - 62.LTPD I L8,62A TPA or FeSi - 33.2 TPD / 9,975 TPA or FeCr - 66.67 fPD I 20,000 TPA) by **M/s Shri Shyam Ispat India Pvt. Ltd.,**located at Village Taraimal, Tehsil Tamnar (Formerly Gharghoda), District Raigarh, Chhattisgarh **J-11011/161/2009-IA.II(I)**[Proposal No. IA/CG/IND/60729/2016 Date of Submission 29th November, 2016]

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

Shri Shyam Ispat (India) Pvt. Ltd. (SSIIPL), is an existing Steel Plant located at located at Taraimal Village, Tamnar Tehsil (Formerly Gharghoda), Raigarh District, Chhattisgarh. Existing plant has obtained Environment Clearance vide No. J-11011/161/2009 IA-II (I) dated 15/09/2009. Now, as part of expansion, company proposed to expand the existing plant as mentioned below;

S.No.	**Units**	**Existing / Consented Capacities**	**Proposed Expansion**	**Total Capacity After Expansion**
1	Sponge Iron through DRI process	90,000 TPA (2 x 50 TPD & 2 x 100 TPD) Implemented and in operation and having valid CTO from CECB 30,000 TPA (1 x 100 TPD) (under implementation)	---	1,20,000 TPA
2	M.S. Billets	60,000 TPA (in operation)	90,000 TPA (3 x 10 MT)	1,50,000 TPA
3	Rolled Products	60,000 TPA (under implementation)	---	60,000 TPA

4	Ferro alloys	--	2 x 6 mVA FeMn – 89 TPD (26,600 TPA) / SiMn – 62 TPD (18,620 TPA) / FeSi – 33 TPD (9,975 TPA) / FeCr – 67 TPD (20,000 TPA)	2 x 6 mVA FeMn – 89 TPD (26,600 TPA) / SiMn – 62 TPD (18,620 TPA) / FeSi – 33 TPD (9,975 TPA) / FeCr – 67 TPD (20,000 TPA)
5	Power Generation	**18 MW**	--	18 MW
	WHRB	6 MW	--	6 MW
	FBC	12 MW* **It is requested to drop 6 MW FBC based power plant. Hence FBC power reduced fro 18 MW to 12 MW. The same has been presented during 10th EAC meeting held during 29th – 31st August 2016*	--	12 MW

Total land in possession of management is 70.0 acres. Proposed expansion will be carried out in the existing plant premises only. Estimated project cost for proposed expansion project will be Rs. 30.0 Crores.Water required for the proposed expansion will be 135 KLD and same will be sourced from Banjari Nallah (a tributary of Kelo river).

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the Rajasthan 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. The project proponent will reduce specific water consumption from 350 lit/tonne to 325 lit/tonne. Similarly, specific power consumption will also be reduced.

14.8.4 Proposed Expansion of Integrated Cement Plant – Clinker, Cement, CPP and WHRB. Having production capacity from Clinker 2.8 MMTPA to 5.0 MMTPA, Cement 3.6 MMTPA to 6.5 MMTPA, CPP 22 MW to 47 MW, WHRB 13.2MW to 15 MW of **M/s J.K Cement Works** located at Kailash Nagar, Tehsil - Nimbahera, District –

Chittorgarh, Rajasthan. **J-11011/243/2016** [Proposal No. IA/RJ/IND/60653/2016 Date of Submission 25th November, 2016.

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(b), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s. J. K. Cement Works, Nimbahera proposes an expansion of existing clinker manufacturing capacity from 2.8 MMTPA to 5.0 MMTPA and Cement manufacturing capacity from 3.6 MMTPA to 6.5 MMTPA and Coal based power plant from 22 MW to 47 MW and waste heat recovery boiler from 13.2 MW to 15.0 MW. The proposed units will be located in the same premises of Nimbahera Cement plant, Tehsil – Nimbahera, District – Chittorgarh (Raj.).

The land area acquired for integrated cement Plant is 170.27 Ha. (Including Residential Colony) which is already acquired. The proposed expansion is coming up within existing plant area 170.27 ha. (Including plant and residential). No additional land is required for the proposed expansion. Out of which 57.772 ha land will be used for green belt development. The total project cost is approx 2,667.51 Crore rupees (Existing: - Rs. 997.51 Crore; Proposed: -Rs. 1,670.00 Crore;). Proposed employment generation from proposed project will be125 direct employments and 50 indirect employments.The details of existing and proposed production capacity are given below:-

	Production capacity MMTPA					
	Existing				**Proposed (line 4)**	**After Expansion(line 1,2,3,and 4)**
Product	**Line-1**	**Line-2**	**Line-3**	**Total Existing**		
Clinker	1,175	1,675	5,500	2.8	2.2	5.0
Cement	1,509	2,152	7,067	3.6	2.9	6.5
Power Generation (MW)						
	Existing				**Proposed**	**After Expansion**
CPP	22				25	47
WHRB	13.2				1.8	15.0

The electricity demand of 61.5 MW will be met from existing CCP, WHRB and proposed CPP and state grid. No DG set is proposed to install.

Proposed raw material and fuel requirement for project are Limestone (7.28 MMTPA), Red Ochre(0.537 MMTPA), Laterite (0.33MMTPA), Gypsum(0.387 MMTPA), Dry Fly ash (0.888 MMTPA), wet fly ash (0.072 MMTPA), Indian coal for CPP(650 TPD)/Pet coke for CPP(465 TPD), Indian Coal for Cement Plant(3099TPD)/ Pet coke for Cement Plant(1697 TPD)/ Imported Coal for Cement Plant(2498 TPD). Coal requirement would be fulfill by Indian as well as imported Fuel. The fuel will be mainly coal and pet coke. Partially AFR fuel will be co-processed to minimize hazardous and other waste, generating from various industries and to minimize adverse effect on Environment.

One time Water Consumption after proposed expansion project will be– 4,071 KLD, Daily water requirement – 3,301 KLD; Recycled Water – 770 KLD which will be sourced from Gambhiri Dam and nearby existing mine pit. The Domestic waste water generation will be 370 KLD and treated in STP and no industrial waste water will be generated during cement manufacturing process. Cooling tower blow-down from CPP will be neutralized in the neutralization tank. Then the treated effluent will be used in cement plant for further use.

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the Rajasthan 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. Green belt over an additional area of 15 ha will be established by the project proponent by using local plant species.

14.8.5 Proposed Expansion of existing Steel Plant by installing 1x350 TPD Sponge Iron Plant, (2x15 T + 2x20 T) Induction Furnaces, 1,20,000 TPA capacity Rolling Mill along with 27 MW capacity Captive Power Plant (12 MW WHRB + 15 MW AFBC utilising waste heat & dolochar from existing (2x100 TPD) & proposed Sponge Iron Plants of **M/s Ma Amba Sponge Iron Limited** located at Village Jemua, P.O. Mejia, District Bankura, West Bengal. **J-11011/242/2016-IA.II(I)**[Proposal No. IA/WB/IND/60818/2016 Date of Submission 2nd December, 2016.

The proposal was considered by the Expert Appraisal Committee to determine Terms of Reference (TORs) for undertaking detailed EIA and EMP study for the purpose of obtaining Environment Clearance in accordance with the provisions of EIA Notification, 2006, as amended. For this purpose, the project proponent submitted information in prescribed format (Form-I) along with the pre-feasibility report. The proposed project activity is listed at S.No. 3(a), under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

M/s Ma Amba Sponge Iron Limited is presently operating a Sponge Iron Plant (2x100 TPD Kilns) for production of 72,000 TPA Sponge Iron at village Jemua, P.O. Mejia, Dist. Bankura in West Bengal.

Now, the company intends to install 1x350 TPD capacity Sponge Iron Plant, (2x15 T + 2x20 T) Induction furnaces, 1,20,000 TPA capacity Rolling Mill along with 27 MW capacity Captive Power Plant (12 MW WHRB based & 15 MW AFBC based utilising waste heat & dolochar from existing (2x100 TPD) & proposed Sponge Iron Plants within the premises of the existing Steel Plant. The existing as well as proposed units along with their capacities are presented below:

EXISTING PROJECT

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Sponge Iron Plant (2x100 TPD Kilns)	2	100 TPD	72,000 TPA Sponge Iron

PROPOSED PROJECT

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Sponge Iron Plant (1x350 TPD Kilns)	1	350 TPD	1,26,000 TPA Sponge Iron
Induction Furnaces with matching LRF	4	2x15 T + 2x20 T	2,31,000 TPA Liq. Steel
Continuous Casting Machine	1	2,26,000 TPA	2,26,000 TPA Billets
Rolling Mill	1	1,20,000 TPA	1,20,000 TPA TMT Bars
Captive Power Plant	1	27 MW	27 MW (12 MW WHRB based & 15 MW AFBC based)

The proposed expansion project will be installed on 9.42 hectares (23.28 acres) of land within the existing plant premises. Proposed employment generation from proposed project will be 450 (direct employment).The electricity load of 39 MW required for the proposed project will be sourced from proposed 27 MW capacity CPP and WBSEB supply system.

Proposed raw material and fuel requirement for project are Iron Ore, imported coal, Lime Stone, ferro alloys, scraps, pig iron etc.. Most of the Raw materials will be fulfilled from local market. However, Coal will be imported from South Africa. Coal consumption will be mainly for Sponge Iron Plant & Captive power plant.

As per an initial estimate, water to the tune of 997 cu.m/day will be required for the proposed project. The raw water will be sourced from DVC supply. The plant will be designed as a zero discharge plant. The water will be recirculated through cooling and treatment. The entire wastewater will be recycled for various purposes inside the plant. Domestic wastewater will be treated in Septic tank - Soak pit system.

Dolochar from DRI Plant will be used in AFBC Boiler for captive power generation. Slag from IF furnaces will be used for road construction / land filling / paver block making. Solid wastes from CCM (viz, scales) and rolling mill (end cuts and miss rolls) will be used in Induction Furnaces. Fly ash from CPP will be used in brick making / cement plant.

There will be adequate control measures like installation of Electrostatic Precipitator (ESP), bag filters, dust suppression system and stacks of adequate height at relevant points .

After detailed deliberations, the Committee recommended the issue of TOR and prescribed following specific TORs, in addition to the standard TOR, for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Public Hearing to be conducted by the West Bengal 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. Green belt over an additional area of 3 ha will be established by the project proponent by using local plant species.
v. A concise plan elucidating measures for saving energy, and for use of alternate energy shall be prepared and implemented by the project proponent.

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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 –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/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests 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 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. **<u>Forest and wildlife related issues (if applicable):</u>**

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

6. **Environmental Status**

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

ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, 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. Adequate funds (Atleast 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.

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

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

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

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

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF 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 vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their

status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

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

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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. Post process control system for control of SOx
12. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
13. Trace metals in waste material especially slag.
14. 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.

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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 aluminum, 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

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 14th MEETING OF EAC (INDUSTRY-I) HELD ON 22nd – 23rd December, 2016

S.No	Name and Address	Position	Attendance		Signature
1	Dr.Chhavi Nath Pandey, IFS(Retired)	Chairman	P	P	
Members					
2.	Director, Central Pulp and Paper Research Institute	Member	A	A	
3.	Director, Central Leather Research Institute	Member	A	A	
4.	Representative of Indian Meteorological Department	Member	P	P	
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	P	P	
11.	Shri Santosh Raghunath Gondhalekar	Member	P	P	
12.	Shri Ashok Upadhyay	Member	P	P	
13.	Shri Vijay Prakash Saha	Member	A	A	
14.	Dr.Satish C.Garkoti, Scientist'F', MoEFCC	Member Secretary	P	P	
15.	Shri Amardeep Raju, Scientist 'D', MoEFCC	MoEFCC	P	P	

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