MINUTES OF 25th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY) HELD ON 13th and 14th OCTOBER 2014

25.1 Opening Remarks of the Chairman

25.2 Confirmation of the Minutes of the 23rd Reconstituted Expert Appraisal Committee (Industry) held during **18th – 19th September 2014**.

The minutes of the 23rd Meeting of the EAC was confirmed subject to the following corrections:

Agenda Item No. 23.6.6 The words "EC dated 17.04.2008 and 23.12.2011" is replaced with the words "EC No. J-11011/1304/2007 dated 26.03.2008 and its amendment dated 03.07.2009".

Agenda Item No: 23.5.5 In the subject, the words "withdrawal of earlier TOR application dated 06.06.2014 with revised TOR application dated 31.07.2014 vide letter dated 0.09.2014" will be added.

Table in page 37, will have the following revisions:

5	Calcination Plant	- ~~2x250 cum~~	2x300 TPD	2x300 TPD ~~1x750 cum~~
6	Blast Furnaces	2x250 cum 1x350 cum	1x750 cum	1x750 cum
13	Pig Casting Machine	40 tph	180 tph	40 tph 180 tph

*Presently gases are outsourced from M/s Praxair for Oxygen Plant

Agenda Item No: 23.5.6 The words "J-11011/259/2014-IA-II(I) dated 26.12.2010)" to be replaced by the words "J-11011/172/2007-IA.II(I) dated 27.12.2007"

Also, replace the words "06.06.2014" with "17.07.2014" and delete the words "sought vide PP's letter dated 09.09.2014".

MONDAY, 13th OCTOBER 2014

INDUSTRY-I PROJECTS

25.3 Environmental Clearance

25.3.1 **Expansion** of the Cement Plant from 0.6 MTPA to 1.7 MMTPA of **M/s The India Cements Ltd.** at Dist. Salem, T.N. (EC) J-11011/80/2012.IA-ll(I)

The unit was established in 1962. The total land area (cement and colony) is 66.98ha, of which 30.70 ha is cement plant and 36.28ha is colony. Of the total land area – 31.94 ha is green belt, of which greenbelt has been developed in 31.33 ha for the existing project and 0.61 ha is proposed. TOR was granted vide J-11011/80/2012-IA.II(I) dated 26.04.2012. The proposal is for expansion in production from 0.6 MTPA to 1.7MTPA and comes in the ambit of the EIA Notification 2006, requiring an EC for the first time since the unit was established in 1962. The proposed expansion would be undertaken within the existing plant

premises; no additional land is required. No major water bodies in the study area. RF is situated ata distance of 5km from project site.

The project lies in the boundary of the districts of Nammakal and Salem – the main plant and its units falls under Survey Nos. 127/1A, 127/1B, 127/2, 128/1A, 128/1B, 128/2B, 128/1C, 131/2B of Padaveedu Village, Tiruchengode Taluk, ***Namakkal District***, and survey numbers 17, 19, 20, 21, 51/1 of Sanyasipatti Village, Sankari Taluk, ***Salem District***, Tamil Nadu. Main industrial activities including crusher, kiln, cement kiln, cement mill, raw mill, packing etc of the Cement Plant complex are within the boundary of district Namakkal, however, lime stock pile, stores, workshop and railway siding of the Cement Plant Complex fall in the district of Salem.

The total clinker production capacity per day from Line-I after optimizing the kiln will be 1600 TPD and for cement will be 2500 TPD. The achievable monthly production is 77500 TPM assuming 31 calender days in a month. However, the annual production capacity will not exceed 0.85 MTPA. Line-II will have similar capacity making a total production capacity of 1.7MTPA with production from each line not exceeding 77,500TPA. It is proposed to start Line-II activity with cement grinding mills in the first phase using clinker form group plants.

The detail of the existing and expansion project are as given below:

S.N.	Product	Existing (MTPA)	Proposed Capacity (MTPA)		Total Capacity (MTPA)
			Optimising the existing Kiln (Line-I)	New Kiln (line-II)	
1.	Clinker	0.408	0.136	0.544	1.09
2.	Cement (OPC/PPC)	0.60	0.25	0.850	1.7

Public Hearing was held on 18.12.2012 at village Padaiveedu in District Namakkal. The TNPCB had conducted one joint P.H. covering both districts, which is not in accordance of the EIA Notification 2006. MOEF vide letter dated 17.02.2014 requested the TNPCB and the PP to conduct P.H. in the other district, Salem – as the project fell in 2 districts – Namakkal and Salem. Public Hearing was held on 18.07.2014 at Salem in Dist Salem.

The proposal was last considered and recommended in the EAC(I) meeting held on 16.05.2013. The proposal was recommended by EAC in the 8th EAC meeting held on 16.05.2013. The project was taken up for consideration with respect to the issues raised in the Public Hearing held on 18.07.2014.

Issues raised during the P.H. held on 18.07.2014 at Salem in district Salem were presented. The public was in general, supportive of the proposed expansion. The issues raised in the Public hearing include employment opportunities for the local people, dust pollution, drinking water for the nearby villages, periodical medical camps to the villagers, pathway from Sanyasipatti to Padaiveedu passing through the company shall not be blocked etc. It was committed by the PP that qualified and competent persons in nearby villages shall be given priority while recruitment, drinking water is already provided for the nearby villages and the same will be extended further. PP mentioned that the pathway from Sanyasipatti to Padaiveedu passing through school area is opened for public purpose. PP mentioned

that they are providing infrastructural facilities for the nearby schools, primary health centers and conducting periodical medical camps. Such CSR activities will be further expanded to cover more villages. Teaching staff is provided on the basis of student teacher ratio as prescribed by Government of Tamilnadu. Primary health centre is located at Padaiveedu village which is 2.0 km from the Sulliporikiyur. PP committed to join with the Government on participative scheme for any developmental activities initiated. PP mentioned that they have converted their kiln from wet process to dry process and there by reduced the water consumption from 10,00,000 gallons per day to below 2,00,000 gallons per day. The mining activities shall be carried out as per the IBM guidelines.

The Committee after deliberations, recommended the project for environmental clearance subject to the specific conditions as stipulated in its 8th meeting held during 16-17th May, 2013 and the following additional conditions:

i. The expansion project shall comply with the new MOEF Standards vide GSR 612 (E) dated 25.08.2014 with respect to particulate matter, SO_2, NO_x for Cement sector.

ii. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to prescribed standards by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill. Low NO_X burners shall be provided to control NO_X emissions. Regular calibration of the instruments shall be ensured.

iii. All the pollution control devices/equipment in raw mill/kiln, kiln feeding system, clinker cooler, coal mill, cement mill, and cement silo, shall be interlocked so that in the event of the pollution control devices/systems not working, the respective unit(s) shut down automatically.

iv. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and an a plan for implementation submitted to MOEF, RO, Bangalore.

v. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.

vi. The proponent shall implement a Plan for 100% utilisation the fly ash from the Power Plant in the Cement Plant. All the fly ash shall be utilized as per Fly ash Notification, 1999 subsequently amended in 2003 and 2008. Efforts shall be made to use fly ash maximum in making Pozzolona Portland Cement (PPC).

vii. The proposed cement plant kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes such as oil sludge, cut tyres, etc.

viii. The proponent shall examine and prepare a plan for utilisation of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such

wastes and enter into an MOU for long-term utilisation of such wastes as per the E(P) A Rules, 1986 and with necessary approvals.

25.3.2 Proposed Establishment of Pellet Plant within the existing premises of Integrated Mini Steel Plant of **M/s S.S.C. Steels Pvt. Ltd.** at Distt. Bellary, Karnataka J-l1011/406/2012.1A-l I (I)

EC was obtained on 07.02.2012 for Beneficiation plant, Sponge, Rolling Mill, etc (to check). The present proposal is for installation of a Pellet Plant within the existing premises. TOR was granted on 13.04.2013 for a Pellet plant and without conduct of P.H. It was stated that the original project is yet to start.

The environmental clearance dated 07.02.2012 is for establishing a Beneficiation Plant of 1.2 MTPA, Sponge Iron Plant (120,000TPA), Captive Power Plant of 12MW (8MW WHRB and 4MW FBC), Steel Melting and Billet Casting of capacity 196,000TPA (2x8 Ts IF, 1x15LF & 6x11 Continuous Casting Machine (CCM), Rolling Mill of capacity of 60,000 TPA (200 TPD) and Thermal Power Plant of 70MW capacity. However, the plant has not been commissioned. The company now proposes to establish a Pellet Plant of 0.6 MTPA. The total capital cost of the proposed expansion is Rs 87.76 crores.

The total project area is 280.98 acres which has been acquired, of which 170.55 acres is for industry. The details of break-up of the plant area is given below:

S.N.	Unit/facility	Area (in acres)
1.	Beneficiation Plant	10
2.	Sponge Iron Plant	6
3.	Captive Power Plnat	2
4.	Thermal Power Plant	8
5.	SMS Plant	5
6.	Rolling Mill	4.3
7.	Plant Facilities	2
8.	Raw Materials & Product Yard	8
9.	Ash Handling Facility	1
10.	Storage (Fuel)	1
11	Storage (water)	5.7
12	Roads, Office Building and Parking	10
13	Greenbelt	70
14	Other vacant areas	17.55
For Proposed Pellet Plant		
15.	Pelletisation Plant	20
	TOTAL	**170.55**

The details of raw materials required for the plant are given below:

S.N.	Raw Materials	Quantity	Source	Mode of Transportation
1.	Iron ore	6,23,460	E-auction From associated concerns – M/s M Hanumantha Rao Nearby mines from Hospet, Bellary	NA

2.	Bentonite	6000	Kutch, Gujarat	Road
3.	Limestone	3000	Tarpatri, Dhone, Piduguralla, etc	Road
4.	Coal	19,800	SCCL, imported coal from Indonesia, South Africa, etc	Road
5.	Furnace Oil	4,800	Local market	Road

Transportation details are given below:

S.N.	Details	Raw Materials	Finished products
1.	Total quantity (TPA)	33,600	4,39,560
2.	Total quantity (TPD)	112	1465
3.	Capacity of trucks (Tonnes)	22	22
4.	No. of trucks per day	5	66
5.	Operational days	300	300

Of the total project area, 40% of the total plot area will be developed as greenbelt. Nearest water bodies are Avinamodugu (9km N), Pakkurthy Tank (7.5km S) and Tungabhadra Reservoir (27km NW). The study area has a number of forests – Bandravi State Forest (1km W), Metriki RF (2.05km E), Krishnarajpur State Forest (2.50km SE) and Hirehal RF (2.05km ESE). The nearest village is Lakkalhalli (2.5km E). There are no National Partks/Wildlife Sanctuaries located within 10km radius from project site.

Raw materials include beneficiated iron ore, coal, bentonite, limestone, and furnace oil. The total water requirement is 6100KLD and an additional 360KLD is required for the proposed Pellet Plant. The source of this water is bore wells and tanks.

It was informed that the EIA Consultant for the project is K.R.S.Enterprises, has not been accredited for Category A projects and has obtained a Stay Order dated 05.08.2013 from the High Court of Karnataka. EAC after deliberations was of the view that the Stay Order for accreditation is for Category B projects as the Consultant had obtained accreditation earlier only for Category B projects from QCI/NABET. The Committee after deliberations decided that the PP may get his EIA-EMP Report revalidated through a Category A accredited consultant along with fresh collection of one-month baseline data.

In view of the aforesaid decision, further consideration of the project was not taken up.

25.3.3 Addition of Induction Furnace (18,000TPA) to installed Pig Iron Plant (12,000TPA) & Hard Coke (15,000TPA) of **M/s Lal Ferro Alloys Co. Pvt. Ltd**., vill. Biswadih, PO, Gadirampur, Dist. Giridih, Jharkhand (EC) (J- 11011/537A/2009.IA-II(I)

The proposal is for expansion of production capacity of Pig Iron (12,000 TPA) (40TPD), Hard Coke (15,000TPA) (50TPD) and MS Ingot (18,000TDA) (60 TPD). TOR was granted on 08.01.2010 and vide MOEF Circular dated 22.03.2010 and is applicable for 4 years, i.e. until 07.01.2014. The Final EIA-EMP Report was submitted on 28.06.2013. It was clarified that there is no requirement of EC earlier as the existing unit was operating with a CTO. The EIA-EMP has been prepared by M/s Visiontek Consultancy Services Pvt. Ltd, which is NABET accredited. PP submitted the final EIA-EMP report vide letter no. nil

dated 30th October, 2013 after conducting Public Hearing on 22.01.2013 for grant of Environmental Clearance.

M/s Lal Ferro Alloys Co. Pvt. Ltd. (***herein after Project Proponent –PP***) and their EIA-EMP consultant M/s Visiontek Consultancy Services Private Limited - Bhubaneshwar gave a presentation on the salient features of the project.

In response to the communication of the Ministry, PP vide letter dated 14th August, 2014 informed that no EC has been obtained for the existing installed units. It has been mentioned by the PP that an application for Consent to Establish (NOC) for Pig Iron & Hard Copy unit submitted to Jharkhand State Pollution Control Board, Ranchi on 05.10.2005. NOC for Pig Iron (40 TPD) & Hard Coke (TPD) issued vide No 225 dated 25.01.2007. PP further mentioned that after setting up the plant they have applied for Consent to Operate on 30.12.2008. It was informed that, as desired by JSPCB, PP applied to MoEF for environmental clearance on 19.08.2009 and according to circular F.No.J-11013/41/2006-IA-II (I) dated 21.11.2006, since the setting up the plant attracts the provisions of the EIA notification.

SH is 1.25km SW. The nearest river is River Ushri (4.1km) and River Barakar (8km). There are no National Parks/WL Sanctuaries within 10km of project site. The Project area is 11.75 acres which is already in possession. No forestland is involved. A total of 3.86 acres (33%) of the plant area is for green belt.

The break-up of project area is as given below:

S.N.	Details	Area (acres)
1.	Plant (built-up) Area	2.80
2.	Stockyard	1.34
3.	Road & Paved Area	1.86
4.	Green Belt	3.86
5.	Office & Store	0.16
6.	Open Area	1.73
	TOTAL	**11.75**

Pig Iron is manufactured in 23m3 capacity Mini Blast Furnace. The Hard Coke Oven top charging is of non-recovery type. MS Ingot is produced in a 6T Induction Furnace.

S.N.	Raw Material	Specific Consumption	Quantity/Day (TPD)	Quantity/Year (TPD)	Source	Mode of Transportation
PIG IRON UNIT to produce 12,000 TPA of pig iron						
1.	Iron Ore	1.6	64	19200	Barajamda	Road/rail
2.	Coke	0.75	30	9000	In-House	Road
3.	Dolomite	0.1	4	1200	Bhutan	Road
4.	Limestone	0.12	5	1500	Patratu	Road
5.	Manganese Ore	0.04	1.6	480	Barajamda	Road
HARD COKE						
1.	Coal	1.25	62.5	18750	BCCL	Road
INDUCTION FURNACE to produce 18,000 TPA of MS Ingots						
1.	Pig Iron	0.67	40	120000	In-house	Road
2.	Sponge Iron	0.5	30	9000	Giridih	Road
3.	Scrap	0.12	7.20	2160	Giridih	Road

The total number of trips/day is about 167, i.e an additional 11 trucks/tippers for the proposed expansion.

The main solid wastes generated include the following:

Detail	Source	Quantity (TPD)	Waste Management
Mini Blast Furnace	Slag	18.4	Slag sold to cement Unit
	APC Dust	1.50	Reused
Induction Furnace	Slag	7	Non-hazardous. Sold to slag processing units
	Bore/Riser	0.525	Reused in the process
TOTAL		22.40	

Slag will be used for metal recovery units for further processing. Maximum storage is 15 days. TCLP Test and Column leachate study for all types of stockpiles and waste disposal sites would be undertaken.

AAQ monitoring carried out during December 2011-Februray 2012 Indicates that the AAQ levels of PM10, PM2.5, SO2 and NOx are 47.2-68.6 ug/m3, 25.8-34.7ug/me, 7.6-12.5ug/m3 and 15.5 -23.4ug/m3 respectively which are within prescribed limits. AQIP Modelling carried out for PM10, SO2 and NOx show that the incremental increase in these AA levels due to the proposed expansion would be within prescribed limits.

Water requirement of 800m3/d is from 4 roof top water tanks of a total storage capacity of 9600m3 for storing rainwater. The total make-up water requirement is 160m3/d from bore well. Break-up of water requirement is as given below:

Unit/Process	Make-up Water M3/d)
Blast Furnace	120
Induction Furnace	15
Hard Coke Plant	20
Domestic Use	5
TOTAL Make-Up water req.	**160**

Permission for water drawl obtained from CGWA vide letter No. 21-4(53)/CGWA 12.08.2011. /MER/2010-1058. Rainwater harvesting outside the plant premises will be tried in consultation with local PIA, WCDC, Gram Panchayats. Water quality parameters of groundwater from bore well indicates that the levels are within prescribed limits. No effluents will be discharged from the plant.

Power will be sourced from DVC vide agreement dated 23.04.2009. Details of conditions in the CTO of Jharkhand SPCB were presented. Total project cost is Rs 11.47 crores.

Public Hearing was held on 22.01.2013. Issues raised in the P.H. include air and water pollution control measures, impact on agriculture, employment opportunities for the locals, decline in water level. Representatives of the company assured on addressing these issues through an environmental management plan, for water harvesting structures in the villagers for recharge of groundwater, development of plantation, providing employment, etc.

EMP cost is Rs 27.40 lakhsa and annual recurring costs is Rs 24.65 lakhs. CSR for Rs 55.50 lakhs (5% of total project cost) for a period of 10-12 years covering sectors such as education, capacity building, health & family welfare, infrastructure development, social reforms & other activities. Detailed sector – wise activities for the CSR Plan covering these sectors were presented.

The Committee noted that M/s Lal Ferro Alloys Co. Pvt. Ltd. have proposed the expansion of Pig Iron (12,000 TPA) & Coke (15,000TPA) Plant by installation of Induction Furance (18,000 TPA) at Dist. Giridh, Jharkhand. The Committee had sought details of existing units, details of environmental clearance obtained and status of operation of the units. Ministry vide letter dated 21st July, 2014 had requested the PP to provide details regarding status of Environmental Clearance obtained for the existing unit and its compliance status from Regional Office of MoEF at Bhubaneswar. Ministry had further advised PP that in case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of EIA Notification, 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/NOC and Consent to Operate obtained from SPCB shall be submitted. It was also requested by the Ministry that compliance of CTO for the ongoing/existing operation of the project from SPCB shall be submitted.

The Committee noted that the CTE was applied for prior to 2006 to Jharkhand State Pollution Control Board, Ranchi on 05.10.2005. However, NOC (CTE) for the establishment of Pig Iron (40 TPD) & Hard Coke (TPD) was issued vide No 225 dated 25.01.2007, i.e after the EIA Notification, 2006 came into effect on 14.09.2006. Hence as per MOEF Circular No. J-11013/41/2006-IA-II (I) dated 21.11.2006, PP should have applied for EC, instead of establishing the unit. PP further mentioned that after setting up the plant they had applied to JSPCB for Consent to Operate on 30.12.2008, instead of applying for EC to MOEF. It has been further stated that during the processing of CTO, PP came to know that EC is required for the Pig Iron Unit - MBF and Hard coke and the proposed addition of Induction Furnace, prior to grant of CTO. The Committee noted that the above facts were not revealed at the times applying for TOR in August 2009 and grant of ToR on 08.01.2010 for preparation of EIA-EMP report. PP submitted the draft EIA report to JSPCB 02.11.2012 for conduct of public hearing. PP has, in his respone to MOEF letter has stated that during the process of consideration of Public Hearing, it was suggested by Member Secretary, JSPCB that setting up the plant was not a violation but the plant has not come into operation as CTO was not granted, the word existing be replaced by “Already installed”. Accordingly the word ‘existing’ was replaced by “already installed” and public hearing conducted and final EIA report was submitted to the Ministry.

In view of the forgoing, the Committee referred the matter to the Ministry, whether the EC application can be considered by the EAC.

25.3.4 Expansion of Integrated Steel Plant Project of **M/s Divine Alloys & Power Co. Ltd.** at Dist. Saraikela- Kharsawan, Jharkhand (EC) **J**-11011/492/2010.IA-ll(I)

The project proponent did not attend the meeting. PP vide letter dated 13.10.2014 has sought consideration of the proposal in the next EAC meeting.

25.4 Further consideration cases

25.4.1 Expansion of Coke Oven Plant (Non-recovery type) from 1.6 MTPA to 2.2 MTPA of **M/s Tata Steel Ltd,** at dist. Purba Medinipur, West Bengal (TOR)

The proposed expansion of Haldia Coke Plant of Plant from 1.6 MTPA to 2.2 MTPA is aimed for meeting the additional hot metal capcity in Tata Steel and also to supplement the requirement in case of coke oven re-building. Additional 45 MW power will be generated from the Coke Plant expansion. Total capcity after expansion will be 165 MW (120 MW +45 MW). An environmental clearance was granted for the existing unit vide EC No.J-11011/284/2007-IA.II(I) dated 29.01.2008 in the name of M/s Hooghly Met Coke & Power Company Ltd which merged with Tata Steel Ltd and the EC was transferred in the name of Tat Steel Ltd, Hooghly Met Coke Division.

The matter was considered in the 22nd REAC held during 28th – 29th August, 2014. The Committee after deliberations stated that the PP may explore use of Coke Dry Quenching instead of wet quenching for conservation of water in the expansion coke oven unit and the details thereof to be reconsidered for grant of TOR.

The PP submitted details vide letter dated 9th September, 2014 and the matter was again deliberated in the REAC held during 29th September, 2014. The PP mentioned the following:

a) There is no established technology till date for the Heat Recovery Coke making process in the case of Non Recovery type of Coke Oven plants. China has put up one experimental plant and will take more time to declare it sustainable technology on a commercial scale.
b) Stand-alone CDQ for 5th row of 0.44 mtpa capacity is not technically feasible as coking cycle time is very high (64 hrs) and sometime it goes beyond also, in view of the same continuity in steam generation will not be consistent.

c) In the non recovery coke making technology, the coke quenching water is less polluted and water quality parameter are all within the limit, as the process is environment friendly, all the volatile matters are burnt within the battery unlike recovery type coke making process.

d) Presently the Fugitive emission generated from coke wet quenching are controlled by installing the appropriate environmental control equipment like baffle etc and particulate matter emission level are well within the limit. The residual water from quenching process is recycled and "Zero discharge" norms are maintained. The same practice will be followed for the expansion project also.

The Committee, after deliberations agreed that the PP may examine the Techno Commercial feasibility of installation of CDQ in the Non - recovery type Coke Oven Plants in the proposed expansion of Coke Oven Plant (Non-recovery type) from 1.6 MTPA to 2.2 MTPA at Haldia as part of the EIA-EMP Report. The Committee recommended the proposal for grant of TOR as given in Generic TOR at Annexure-1 (with exemption for conduct of P.H.) read with Sectoral TOR at Annexure 2 read with the following additional TORs given below:

(i) Techno Commercial feasibility of installation of CDQ in the Non - recovery type Coke Oven Plants in the proposed expansion of Coke Oven Plant (Non-recovery type) from 1.6 MTPA to 2.2 MTPA at Haldia as part of the EIA-EMP Report. PP may also furnish comments of Central Fuel Research Institute, Dhanbad in this regard in their EIA Report.

(ii) The expansion proposal is exempt from conduct of P.H.

25.5 Terms of Reference (TOR) Cases

25.5.1 Proposed Iron Ore Pellet Plant (0.6 MTPA) & 5 Nos. (4W +1S) Producer gas Plant of capacity of 5000 Nm3/h of **M/s Kashvi International Pvt. Ltd.** at Champadihi, Keonjhar Dist., Odisha (TOR)

The PP along with their EIA-EMP consultant (M/s Visiontek Consultancy Services Pvt Ltd. - Bhubaneswar) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. The proposed activity is listed at S.No. 3(a) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

M/s. Kashvi International Private Limited has proposed 0.6 MTPA Iron Ore Pellet Plant & 5 Nos (4W+1S) Producer Gas Plant of Capacity 5000 Nm^3/hr (Each) at- Champadihi, Keonjhar District of Odisha. The proposed project sites Latitude & Longitude is $21^0$53'23.76" N & $85^0$28' 47.84"E. No National Park/wild life sanctuary is involved in setting up plant within 10 km radius of the project site. The site is about 12.1 km away from nearest town Jhumpura. Nearest railway station Nayagarh is 6.8 km away from the proposed project site. Nearest airport is Bhubaneswar about 185 km away from the proposed project site. Total proposed project area is of 19.62 Acre. Total Project Cost is 2300.00 Lakhs. A budget of Rs. 1150 Lakhs has been envisaged for CSR activities.

The details of production the proposed plant are given below:

S. N.	Units	Product	Configuration	Capacity
1	Iron ore Pellet Plant	Iron Ore Pellet	1x0.6MTPA	6,00,000 TPA
2	Producer gas Plant	Producer gas(Gcal)	5 Nos. (4W+1 S)	5000 Nm^3/hr each

Iron Ore Fines (64.0% Fe), Bentonite, Limestone, Coke and Steam Coal are the major raw materials for the proposed plant. Total water requirement for the proposed project is of 15 M^3/hr. Waste water from domestic water will be treated in STP and reused in dust suppression, greenbelt etc. RWTP in form of Back Wash will be treated in settling pond and reused in dust suppression. Domestic wastewater will be treated in septic tank and discharged to soak pit. Zero discharge norms will be maintained in the proposed plant. Green belt will be developed in 6.49 Acres of the total plant area.

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

i. Proper management plan has to be submitted for the proposed solid waste disposal area. An MoU has to be submitted.

ii. Water requirement calculations along with the permission from the concerned authority shall be submitted.

iii. Appropriate expenditure plan for the pollution control measures shall be submitted

iv. PH to be conducted by the Odisha Pollution Control Board.

v. MOU required for waste management. Land is fully acquired and in possession.

25.5.2 Expansion of Existing Induction Furnace (26,000 TPA), M.S. Ingots/Billets, Rolling Mill (26,400TPA, M.S. Angles, Channels, Flats, & Square), TMT Rolling Mill (27,000 TPA) Structural and Construction Steel by Rolling Mill Activity by Addition of New Units (SMS/Induction Furnace Machine – 450 TPD/162,000 TPA, M.S. Ingots/Billets), Structural Rolling Mill (150 TPD/45,000TPA, Angles, Channels, Flats and Squares), TMT Rolling Mill (250 TPD/60000TPA, TMT Bars) of **M/s Shree Bhimsehswari Ispat Pvt. Ltd.** at Addl. MIDC Satara, Maharashtra (TOR)

The project proponent did not attend the meeting. The Committee decided to consider the proposal as and when requested by the proponent.

25.5.3 Expansion of Steel Plant (Proposed units are as follows, -i -.Sponge Iron Kilns (1x200 + 1x350) TPD - 1,65,000 TPA Sponge Iron Induction Furnaces (4x15 T) - 1,80,000 TPA (with matching LRF & CCM) Billets -i Rolling Mills - 2,00,000 TPA Structural Steel, TMT Bars, Angles, Channels, Wire Rod. -. Ferro Alloys Plant (2x9 MVA Submerged Arc Furnaces) - Ferro Manganese (20,460 TPA) or - Silico Manganese (14,850 TPA) or - Ferro Silicon (6,600 TPA) or - —iPig Iron (24,750 TPA) Captive Power Plant -18 MW (10 MW WHRB based + ha) in the existing plant area of **M/s Bhagwati Sponge Pvt. Ltd.,** in Village Ikra, Jamuria, Jamuria Industrial Estate, District Burdwan, West Bengal **(Revised TOR)**

M/s Bhagwati Sponge Private Limited is presently operating 2x100 TPD DRI Kilns for production of 60,000 TPA sponge iron at Jamuria Industrial Area, village Ikrah, Tehsil Jamuria, District Burdwan in West Bengal. A Captive Power Plant of 12 MW capacity (4 MW WHRB + 8 MW AFBC) is under construction in the existing project (for which NOC has already been obtained by SPCB).

EXISTING PROJECT

S.N.	UNIT	EXISTING CAPACITY	PRODUCT
1.	Sponge Iron Plant (2x100 TPD)	60,000 TPA	Sponge Iron
2.	Captive Power Plant (Under Construction - for which NOC has already been obtained by SPCB)	12 MW (4 MW WHRB + 8 MW AFBC)	Power

ToR for the above mentioned proposal was issued vide letter dated 12.02.2013. The company decided to revise the project configuration with the installation of proposed Sponge Iron Plant, Induction Furnace, Ferro Alloys Plant, Rolling Mills along with Captive Power Plant in the existing plant area. A TOR application dated 22.08.2014 was submitted which was considered in the EAC(I) meeting held on 18th-19th September 2014, wherein the Committee observed that the PP has not submitted the details

regarding the earlier proposal for which the ToR was already granted vis-à-vis the proposed revised configuration of the project.

The Committee advised that a fresh From–I shall be submitted mentioning the existing units, configuration of units for which ToRs already granted and proposed revised configuration of units for which the PP is seeking revised ToR, in a tabular form which the proponent wants to implement. Pre-feasibility report shall also be submitted along with the revised form-I. The proponent was advised to withdraw the earlier form-I submitted to the Ministry.

PP submitted a revised application on-line dated 30.09.2014 which was taken up for consideration. PP made a presentation.

S.N.	UNIT	EXISTING CAPACITY	Units as per TOR obtained vide MOEF letter dated 12.02.2013	Units under Revised project Configuration as per Revised TOR appl. dated 30.09.2014.	PRODUCT
1.	Sponge Iron Plant (2x100 TPD)	60,000 TPA		-	Sponge Iron
2.	Captive Power Plant (Under Construction - for which NOC has already been obtained by SPCB)	12 MW (4 MW WHRB + 8 MW AFBC)		-	Power
3.	Ferro Alloys Plant	-	2x9 MVA Submerged Arc Furnace for production of -Ferro Manganese (20,460 TPA) - Silico Manganese (14, 850 TPA) - Ferro-Silicon (6,600TPA) - Pig Iron (24,750 TPA)	2x9 MVA Submerged Arc Furnace for production of -Ferro Manganese (20,460 TPA) - Silico Manganese (14, 850 TPA) - Ferro-Silicon (6,600TPA) - Pig Iron (24,750 TPA)	Ferro Manganese or Silico Manganese or Ferro Silicon or Pig Iron
4.	Induction Furnaces	-	-	4x15T IF (with matching LRF & CCM) - 180,000 TPA Billets	Billets
5.	Rolling Mills	-	-	200,000 TPA Structural Steel, TMT Bars, Angles, Channels, Wire Rod	Structural Steel, TMT Bars, Angles, Channels, Wire Rod
6.	Sponge Iron Kilns	-	-	165,000TPA Sponge Iron- (1x200TPD + 1x350TPD)	
7.	Captive Power Plant	-	-	18MW (10MW WHRB based + 8MW AFBC based)	Power

The PP further informed that the unit is located in Jhamuria Industrial Estate. EC was obtained for the Ind. Estate on 06.11.2008. PP has therefore requested for exemption from P.H.

The Committee after deliberations recommended the proposal for TOR as given in Generic TOR at Annexure-1 read with Sectoral TOR at Annexure-2 with the following specific condition:

i. P.H. can be exempted if copy of the Public Hearing proceedings held for Jhamuria Industrial Estate and the EC granted therefore are furnished to the Ministry before grant of TOR.

25.5.4 Proposed Integrated Steel Plant with Melting Unit, Re-rolling Mill, Sponge Iron Plant, Power Generation and Ferro Alloys (MS Billets - 190000 TPA, Rolled products (TMT) - 180000 TPA, Sponge Iron - 105000, Ferro alloys - 28800 TPA, WHRB (8MW), AFEC (4 MW), Total area - 23.605 ha) of **M/s ARS Metals Pvt. Ltd., vill.** Sirasanambedu, Tehsil Naidupet, dist. Nellore, A.P. **(TOR)**

The PP along with their EIA-EMP consultant (M/s Vimta Labs Limited - Hyderabad) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. The proposed activity is listed at S.No. 3(a) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

M/s. ARS Metals Private Limited has proposed a greenfield integrated steel plant with melting unit, re-rolling mill, sponge iron plant, power generation & ferro alloys. Land has been allotted in APIIC Ind. Park. Sponge Iron Plant and Induction Furnace = 23.605ha (58.33 acres). The proposed project site is located at S. Nos. 306/2 to 306/6, 306/6 (P), 307/2 to 307/11, 308/3 to 308/11, 310/1 to 310/3, 310/5 to 310/9, 311/1 to 311/14, 312/2 to 312/13, 312/13 (P) & 312/14, APIIC Industrial Park, Sirasanambedu village, Pellakuru mandal, Naidupet, Nellore district, Andhra Pradesh. Land area available for development – 23.605 ha (58.33 acres). The entire land area has been leased by Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC)

Proposed project details are as following:

Stage	Products	Production Capacity (TPA)
I	M.S. Billets	1,90,000
	Rolled Products – TMT	1,80,000
II	Sponge Iron	1,05,000
	Power Generation WHR AFBC	 8 MW 4 MW
III	Ferro Alloys	28,800

Initially, the required power of 27 MW for the project will be met from the state electricity board. Later, 12 MW power will be generated from WHRB and AFBC boiler for captive power generation. The total cost of the projects is INR 277.34 Crores

Nearest highway is NH 5 (Chennai – Gummidipoondi – Gudur – Nellore) at 6.7 km, East, SH 61 (Naidupet - Renigunta) is at 3.9 km, North. The Nearest railway station is Nelaballe R.S. at 6.2 km, NE and Naidupet

R.S. at 8.0 km, NE. Nearest airport is Tirupati airport is at 41.9 km, SW. Nearest sea port is Krishnapatnam port (AP) is at 52.6 km, NE and Ennore port (TN) is at 80.9 km, SE. The water bodies R. Swarnamukhi is at 4.4 km, North, Pellakuru lake is at 5.9 km, WSW, Bheemavaram lake is at 5.5 km, NNW, Pala kalva is at 6.7 km, South, R. Kalangi is at 8.6 km, SE, Mamidi kaluva is at 7.4 km, NW

Nearest habitation is Sirasanambedu village is 1.3 km, NW and Chennappanaidupetta is at 1.3 km, SW. There are no Resettlement and Rehabilitation issues involved in the project. Rosanaru R.F. is at 2.5 km, East, Udipudu R.F. at 4.5 km, WSW, Ekollu R.F. at 5.6 km, ESE, Nelabelle R.F. at 7.0 km, NE. There are no historical / archaeological places within 15 km of the project boundary.

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

i. Since the Industrial area does not have an EC, therefore PH has to be conducted for the proposed unit.

ii. PP has proposed 2X175 TPD sponge iron kiln. However committee advised the PP to establish 2 X 200 TPD plant. The proposed project/plant configuration may be revised accordingly. Both shall have a separate WHRB.

iii. Green belt plantation as per CPCB guidelines of 2009 shall be implemented.

iv. Details of land allotment of APIIC with details for setting of the units of the Plant within 23.605ha along with detailed plant layout with all the proposed units and to confirm whether the land area allotted for setting up of the ISP is sufficient for setting up of the ISP.

v. To specifically clarify whether any Ecologically sensitive zones such Wild Life Sanctuaries, National Parks and biospheres, etc exist within the 10km study area.

PP to submit revised Form- I for 2X 200 TPD instead of 2X175 TPD and thereafter the TOR would be issued.

25.6 Any Other Items

25.6.1 Expansion of Ferro Alloy Plant (Existing 16.5MVA; Proposed 3x9 Submerged Arc Furnace) of **M/s Sharp Ferro Alloys Ltd.,** at Nachan Road, Kamalpur, Durgapur, West Bengal (Extension of validity of vide PP's letter dated 12.04.2014 for EC - J-11011/1035/2007-IA.II(I) dated 13.05.2009)

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/1035/2007-IA II (I) dated 13.05.2009. The Project Proponent (PP) vide letters dated 12th May, 2014 has submitted the updated Form I and requested MoEF for extension of validity of EC.

The Committee noted that the PP had received Consent to Establish from West Bengal Pollution Control Board, Kolkata vide their Memo No. 449- 2N-84/2008(E) dated 14.07.2009. The PP has already setup 1 of the 3 units and the said unit is in operations. Further, the work on the 2nd unit is at advance stage and likely to be completed by June 2014 and COD of the 2nd unit was proposed in July 2014. PP also

proposed to start work on the 3rd unit early next financial year i.e. during April -June 2015, by which time PP is expecting to receive sanction of need based credit facilities from their banks.

In view of aforesaid, PP requested to permit them to complete the work and start operations at all the 3 units by 31.12.2016.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of four years with effect from 13.05.2014.

25.6.2 Proposed Integrated Steel Plant of **M/s Alliance Energy & Steel Ltd.** at villages Basadi, Karuakap, Salhana, Tehsil Badawara, Dist. Katni, Madhya Pradesh P.P. seeking amendment in EC vide letter dated 04.09.2014 for EC J-11011/691/2009.IA-11(1) dated 16.02.2012

An Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/691/2009-IA II (I) dated 16.02.2012. PP vide letter dated 16th January, 2014 requested MoEF for the amendment to the EC accorded by the Ministry. Ministry vide letter dated 9th April, 2014 and 24th July, 2014 requested PP to submit the Form – I application along with pre-feasibility report for the proposed amendment in the EC dated 16.02. 2012 for additions of the process units. PP vide letter dated 4th September, 2014 submitted the Form – I application along with pre-feasibility report.

The PP sought amendment in the EC dated 16.02.2012 as given below:

S.No.	Details	EC Obtained Unit Configuration (Production Capacity)		Amendment sought
1.	Sponge Iron unit	4 x 350 TPD & 6 x 100 TPD (6,00,000 TPA)		None
2.	Induction Furnace unit (Billets / Ingots)	10 x 20 Tons/ Heat (6,00,000 TPA)		None
3.	Rolling Mill unit (TMT bars & structural steel)	4 x 500 TPD (6,00,000 TPA)		None
4.	Ferro Alloys unit Fe-Si Si-Mn Fe-Mn	4 x 9 mVA (25,330 TPA 57,000 TPA 74,000 TPA)		None
5.	*Iron Ore Beneficiation & Pelletization unit*	*2 x 1000 TPD (6,00,000 TPA)*		*Change in configuration to 1 x 2000 TPD (6,00,000 TPA)*
6.	Power through	WHRB	44 MW	----
		FBC	3 x 35 MW	None

<u>The reasons submitted by the PP for the proposed change in configuration are as given below:</u>

a) During the detailed engineering it is found that Viability of the 0.6 MTPA pellet plant is better than that of 0.3 MTPA pellet plant due to lesser land requirement, lesser fuel consumption, lesser power consumption, lesser manpower requirement, etc.
b) Better Operation & maintenance with single module instead of 2 modules.
c) There will be reduction in number of required plant & machineries, such as, requirement of 1 against 2 in case of Travelling Grate, Rotary Kiln, Annular Cooler, ESP Fan, etc. However, physical sizes of machinery for 1x2000 TPD module for 0.6 MTPA, shall be 1.6 times bigger than the machinery required for 1x1000 TPD module for 0.3 MTPA but smaller compared to 2x1000 module.
d) Major changes will be in the auxiliary facilities and consumptions.
e) Number of air supply fans will be reduced from 2 x 13 sets [with multiple fan control system] to 1 x 12 sets [with single fan control system] which means less land area requirement as well as less energy consumption and above all optimum air flow gives lesser quantum of flue gas generation.
f) Only one burner will be required for 1x2000 TPD module instead of 2 burners required for 2x1000 TPD module. Also, radiation losses will be reduced.
g) Due to this fuel consumption will be reduced by 15%

It was explained that during detailed engineering, it was found that the viability of the 0.6 MTPA pellet plant would be better due to lesser land requirement, lesser fuel consumption, lesser power consumption and lesser manpower requirement. A single stack of 65m would be erected. The O&M would also be better with a single module than with two modules. It was clarified that there would be no change in solid waste generation.

After detailed deliberations, the Committee recommended for the amendment in the EC dated 16.02.2012 for Change in configuration of Iron Ore Beneficiation & Pelletization unit from 2X1000 TPD to1 x 2000 TPD and as agreed by the proponent during the meeting for change in the configuration of Sponge Iron unit from 4x350 & 6 X 100 TPD to 4X500 TPD with no increase in overall production capcity as this would be more environmentally friendly.

25.6.3 Integrated Steel Plant of **M/s MPL Mineral Processing Private Limited** located at Village Mudumalagurthy, Kodumur Mandal, Kurnool District, A.P. (EC) -J- 11011/139/2012-IA.II(I))

The proposal is for establishment of a Greenfield Integrated Steel Plant for production of pellets through Beneficiation and Pelletisation process, manufacture of sponge iron through DRI Kilns with pre-heating technology, manufacture of Billets through IF with Concast, manufacture of TMT Bars/Structural Steel through a Rolling Mill and Power generation through a Waste Heat Recovery & FBC technology. The total cost of the project is Rs 710 crores. Total land requirement is 143.20 acres. TOR was granted on 23.05.2012. Public Hearing was held on 21.02.2014. There is no litigation against the proposed project. EIA-EMP Report has been prepared by Pioneer Enviro Laboratories and Consultants Pvt. Ltd. which is accredited by QCI/NABET.

PP informed that certain revisions have been made in the configuration of the project vis-a-vis the TOR dated 23.05.3012, which are given below:

S.N.	UNIT	Configuration As in TOR dated 23.05.2012	Product	Capacity	Revisions made in the EIA for PH and in Final EIA-EMP
1.	Iron Ore Beneficiation Plant	1x1.0 MTPA (throughput)	Beneficiated Iron Ore	0.65 MTPA	No change
2.	Iron Ore Pelletisation	1x0.6 MTPA	Pellets	0.6 MTPA	No change
3.	DRI Kilns with Pre-heating technology	2x350TPD	Sponge Iron	0.3 MTPA	2x500TPD
4	Steel melting Shop Induction Furnace)	3x40MT	Billets	0.36 MTPA	2x40MT (1x40MT of IF dropped)
5.	Rolling Mill/Wire Rod Mill	1x0.225 MTPA	TMT Bars/Wire Rods	0.225 MTPA	No change
6.	Structural Mill	1x0.12MTPA	Structural Steels	0.12 MTPA	Dropped
7.	Power Generation: WHRB FBC ---------- TOTAL =	 2x8 MW 1x20MW	 Power Power	 16MW 20MW 36MW	 1x10MW = 20MW 20MW ---------- 40MW

The PP informed that the revisions as given in the last column were made in EIA-EMP Report for public Hearing. It was clarified that the 2x500 TPD of sponge iron is to have more clarity as 2x350 TPD with pre-heating technology and 300 days of operation would generate 500TPD of sponge iron (DRI) and this would not change the annual production capacity which would remain 300,000TPA. It was clarified that emission load has been calculated based on 500 TPD, and P.H. conducted on 0.3 MTPA as per the TOR.

In addition to the above-mentioned revision, structural mill of 120,000TPA has been dropped. In addition, the steel billet production capacity has been reduced from 0.36 MTPA to 0.24 MTPA. Power generation has been increased from 16MW to 20MW in order to utilise the hot waste flue gases from rotary kilns, which is an environmentally friendly and energy efficient process.

The Committee after discussions was of the view that a sponge iron unit of 2x350TPD may yield a max of 0.23 MTPA, however with pre-heating technology, 500TPD would yield 0.3 MTPA. The EAC after considering the aforesaid explanation given by the PP, after deliberations, decided to consider the project for environmental clearance with the aforesaid changes.

The project is proposed in a total area of 143.20 acres of which 12.30 acres is Govt. Land, 139.90 acres in private land. No forest land is involved. Of the total area, 123 acres of land has been acquired and for the balance- sale agreement has been completed and is under the process of acquisition. There are no National Parks/WL Sanctuaries and Reserve Forests within the 10km study area. River Handri flows at a distance of 0.6km from project site and a storm water drain named Panthulu Vagu flows adjoining the project site boundary. In addition, two small streams enter the4 site in SW direction and exit from NE direction. The streams flowing within the project area will not be disturbed and wherever required culverts will be constructed.

S.N.	Raw Material	Qunatity (MTPA)	Source	Mode of Transportation
Iron Ore Pelletisation Plant				
1.	Iron Ore Fines	1	Kadapa/Kurnoo/Ananthpur/Bellary	Road
2.	Concentrated iron ore/Iron ore fines	0.65	In-plant Kadapa/Kurnoo/Ananthpur/Bellary	Closed conveyors Road
3.	Coke Breeze	0.008	Vizag (A.P.)	Road
4.	Bentonite	0.009	Gujarat	Road
5.	HFO	0.0021	Chittoor	Road
6.	Limestone	0.11	Kadapa	Road
7.	Coal	0.02	Indian/Imported	Sea/Rail-cum Road
Sponge Iron Plant				
8.	Pellets	0.45	In Plant generation	Closed conveyors
9.	Coal	0.39	Indian/Imported	Sea/Rail-cum-Road
10.	Dolomite	0.015	Kurnool/Ananthpur	Road
Induction Furnace				
11.	Sponge Iron	0.205	Inplant generation	By trucks
12	Scrap	0.0704	A.P./Telangana	Road
13	Ferro-Alloys	0.0048	Ananthpur	Road
TMT/Wire Rod Mill				
14.	Billets	0.24	Inplant generation	By trucks
15	Pulverised coal	75TPD	Inplant generation	
Power Plant				
16.	Dolochar	0.063	Inplant generation	By trucks
17.	Coal	0.0645	India/Imported	Sea/Rail-cum-Road

Imported coal is to be obtained from Indonesia for which an MOU has been entered with Maheswari Brothers Coal Ltd.

Total water requirement for the project is 3630KLD, which is make-up water for Beneficiation, Pellitisation, DRI Plant, SMS, Rolling Mill & Power Plant and domestic water, which would be met from groundwater (1500m3/d) and Tunghabhadra Reservoir. No water will be drawn from River handri flowing at a distance of 0.6km. Approvals for use of groundwater has been obtained vide letter No.510/DI/MPL/2012 dated 13.03.2013 of Ground Water Department for 1000m3/d from 12 borewells and 1 dugwells and vide letter No. 510/DI/2912 dated 04.12.2013 for an additional 500m3/d. Use of Tungabhadra Reservoir water for the balance water has been applied for to Irrigation and &CAD Dept. and is under process. Groundwater table is in the range of 3.5-4.5m bgl. It is proposed to construct water harvesting structures such as recharge pits, trenches, dug wells, and recharge shafts to recharge groundwater in the area, in consultation with CGWA. Six acres of land has been earmarked for a rainwater harvesting pond. Other water conservation measures include closed circuit water system in the Pellet Plant, DRI, SMS and Rolling Mill. The Power Plant will also have a closed circuit water system with cooling towers. Total wastewater generated is 268KLD, of which 120m3/d is from domestic waste water (sewage and canteen). A closed circuit cooling system will be adopted in Beneficiation Plant, Pelletisation Plant, Sponge Iron, SMS & TMT/ Wire Rod Mill, hence there will not be any waste water generation from process and cooling. The boiler blow down & DM Plant regeneration water will be treated in a neutralisation tank. The treated wastewater will be mixed with CT blow down and service water in Central Monitoring Basin (CMB). The effluents from power plant will be treated in ETP and the

treated effluents (20m3/d) meeting APPCB norms will be used for dust suppression, ash conditioning (30m3/d) and for green belt development (218m3/d). The plnat will operate on a zero-discharge basis. Air pollution control systems/devices/measures include ESP in Pellet Plant, DRI, FBC Boiler and Fume extraction systems in Induction Furnace and dust suppression system with bag filters at transfer points, covered conveyors, etc. The incremental GLC of PM10 (0.9ug/m3), SO2 (13.1ug/m3) and NOX (8.6ug/m3) estimated by AQIP Modelling indicate that the emissions due to the proposed expansion project would be within limits. Particulate matter from the proposed plant will be below 50mg/Nm3, below CPCB standards.

Solid wastes generated from pellet Plant will be given to Ceramic Industries/Cement Industry, etc. The dolochar generated from DRI plant will be used as a fuel in the AFBC boiler. Accretion slag will be used of road construction/ Slag will be crushed and after recovery of iron, the inert material will be stored in an area of 3acres and given to brick manufacturers. Mill scales will be reused in SMS/Pellet. Ash generated from power plant will be stored in silos and sold to cement plants/manufacture of flyash bricks. An ash pond is not envisaged. Waste oil will be stored in covered HDPE drums and given to APPCB approved vendors.

It was stated that CPCB CREP standards for Steel Plants would be followed.

The details of solid wastes generated and method of disposal are given below:

S.N.	Type of Solid Waste	Quantity (MTPA)	Disposal
1.	Tailings	0.34	Sold to ceramic industries/Cement plants/other mineral based industries
2.	Dolochar	0,063	Fully utilised in the CFBC Plant
3.	Accretion slag	0.0027	Road construction/filling up low lying areas
4.	Wet scrapper sludge	0.0135	Road construction/brick manufacturing
5.	Ash from DRI	0.054	Brick Manufacturing/cement Plants
6.	Slag from SMS	0.024	After recovery of iron, inert material will be sold to brick manufacturers
7.	Mill scales (from TMT/Wire Rod Mill)	0.01125	Reused in SMS/Pellet Plant
8.	Ash from Power Plant	0.0607	Brick Manufacturing/cement Plants
9.	Used Refractory	0.001	Recycled to Refractory Industry
10.	Ash from coal pulveriser	5 TPD	Cement Plants

The total power requirement is 66MW of which 40MW is generated from the CPP and the balance 26MW is sourced from grid. The power requirements of various utilities of the Integrated Steel Plant are: Iron ore beneficiation & pelletisation Plant (15MW), Sponge Iron plant (2MW), Induction Furnace, Concast & auxillary and Ladle Furnace (3MW), Power Plant (3MW), TMT/Wire Rod Mill (4MW) and water supply (1MW).

Baseline data was collected for the period March-May 2012. AAQ data from 8 AAQ stations indicates that the range of PM10 (18.5-36.9ug/m3), PM2.5 (10.6-22.1Ug/m3), SO2 (6-8.7ug/m3) and NOx (6,4-9.8ug/m3).

Of the total area of 147 acres, an area of 47 acres will be developed with greenbelt as per CPCB guidelines. The total EMP costs is Rs 30.6 crores and an annual recurring cost will be Rs 1.5 crores.

Public Hearing was held on 21.02.2014. The issues raised in the P.H. include impacts of proposed project, water requirements and possible contamination of groundwater, use of solid wastes such as dolochar and flyash, development of surrounding villages, greenbelt development and avenue plantation, health facilities, etc. The PP presented details in regard to each of the issues.

The total CSR budget is Rs 35.5 crores, which is 5% of the total cost of the project of Rs 710 crores, to be implemented over 25 years. The annual CSR Budget is Rs 1.42 crores. Activities proposed under CSR include infrastructure development in the sectors of drinking water and sanitation, roads, renovation of village bunds and construction of rainwater harvesting structures, skill development and industrial training of unemployed youth, medical facilities, education, etc.

The Committee after deliberations recommended the project for environmental clearance subject to stipulation of the following conditions and measures and any additional conditions:

i. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 by installing energy efficient technology.

ii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.

iii. 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.

iv. Multi stage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office at the Bhubaneshwar, CPCB and SPCB.

v. Hot gases from the DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in Waste Heat Recovery Boiler (WHRB). The gas then shall be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.

vi. Total make up water requirement after the proposed expansion shall not exceed 2593 m^3/day. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.

vii. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.

viii. All the effluent shall be treated and used for dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.

ix. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.

x. In case source of coal supply is to be changed at a later stage the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.

xi. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.

xii. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. Flue dust from pellet plant, sinter plant, DRI and SMS and sludge from BF shall be re-used in sinter plant. Coke breeze from coke oven plant shall be used in sinter and pellet plant. Slag shall be given for metal recovery or properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.

xiii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

xiv. Coal and coke fines shall be recycled and reused in the process. The breeze coke and dust from the air pollution control system shall be reused in sinter plant. The waste oil shall be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2008.

xv. As proposed, green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

xvii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

xviii. 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.

xix. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 16.11.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.

xx. 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.

25.6.4 Expansion of pulp production capacity from 500 TPD to 650 TPD by modernization and debottlenecking the process of **M/s International Paper APPM,** at Sreeram Nagar, Rajahmundry, East Godavari District, Andhra Pradesh -Amendment of EC J-11011/410/2010-IA.II(I) dated 06.03.2014 to incorporate the production capacity in MTPA- Letter of PP dated 09.09.2014

The project was granted an environmental clearance No. J-11011/410/2010-IA.II(I) dated 06.03.2014 and EC was transferred in the name of M/s International Paper APPM vide MOEF letter dated 26.08.2014.

PP has vide letter dated 09.0-9.2014 informed that in the EC letter the unit of expansion of production capacity from 500TPD to 650TPD. PP has requested that the expansion be mentioned also as 175,000 TPA to 227,500TPA considering 350 days of operation. This was agreed to.

25.6.5 Expansion of Installing Induction Furnace, Rolling Mill, Ferro Alloys 8t Slag Crushing plant of **M/s Hanuman Alloys Pvt. Ltd.** at Dist. Borkaro, Jharkhand (Extn. of validity of TOR) J-11011/238/2011.IA- 11(1)

PP did not attend the meeting, however, the Committee deliberated on the above proposal. It has been noted by the Committee that the ToR for the above proposal was accorded vide Ministry's letter F. No. J-11011/238/2011-IA-II(I) dated 09.09.2011. The PP vide letter dated 28.08.2013 requested the Ministry to extend the validity of ToR by one year since the validity of ToR was expiring in September, 2013. The matter was considered in the 13th REAC meeting held during 18th to 20th November, 2013. The

Committee noted that the Project Authorities (PAs) vide letter no. Nil dated 17.11.2013 expressed their inability to attend the meeting due to some unavoidable circumstances and requested to consider the proposal in the next EAC meeting. The PP vide letter dated 3rd May, 2014 requested for consideration of the matter.

The Committee after consideration further noted that the ToR was accorded on 9th September, 2011 and as on date, 3 years is over and validity of TOR has expired.

In view of the forgoing, the Committee decided that the PP has to apply afresh for obtaining fresh ToRs by making application to the Ministry online.

25.6.6 Proposed expansion of Integrated Iron and Steel Plant of **M/s Sova Ispat Ltd.** at Distt. Bankura, West Bengal (Extension of EC validity & Amendment to EC). J-11011/724/2007.1A-11(I)

PP did not attend the meeting, however, the Committee deliberated on the proposal.

The proposal was considered in the EAC(I) meeting held on 23rd-24th June 2014, wherein the EAC had decided that the Committee recommended extension of validity of EC by a period of 5 years with effect from 03.08.2013 subject to environmental safeguards.

The Committee had further decided that no further amendment to the EC would be considered either for expansion of the aforesaid units or for reintroduction of the dropped units, namely Mini Blast Furnace and Sinter Plant which have been deleted by the PP in the revised proposal and any further changes/modifications/expansion to the project would require obtaining fresh TORs and an EC afresh as per provisons of the EIA Notification 2006.

The Committee had further noted that the PP vide letter dated 11th August, 2014 has requested the Ministry to update the Minutes of 20th REAC meeting held during 23rd June to 24th June, 2014. In the first Para of the item 20.6.7 it appeared as *"EC amendment was granted by MoEF on 18.4.2012 for the change in configuration of the sponge iron unit from 2x300 TPD + 3x100 TPD* ***to*** *3x300 TPD"*. However, the above line shall read as "*EC amendment was granted by MoEF on 18.4.2012 for the change in configuration of the sponge iron unit from 2x300 TPD + 3x100 TPD* ***instead of*** *3x300 TPD.*

The EAC after deliberations did not agree for a change from 3x300TPD reiterated its decisions taken in the EAC(I) meeting held on 23rd-24th June 2014 to retain the configuration of the DRI Unit as 3x300 TPD.

25.6.7 Environmental Clearance of Zinc Smelter (2,50,OOOTPA) and CPP (100MW) to Include Fumer Plant to convert Jarosite to slag of **M/s Hindustan Zinc Ltd.** at Putholi, Gangrar, Chittorgarh, Rajasthan (Amendment of EC -J-11011/279/2006-IA. 11(1) dated 06.12.2006)

The proposal is for introduction of pyro-metallurgical process within the existing leaching circuit of Hydro-2 Zinc Smelter of M/s Hindustan Zinc Ltd at Chanderiya Lead Zinc Smelter. The proposed project will eliminate generation of Jarosite, a hazardous waste which is stabilised with lime and cement to convert into stabilised jarofix compound and stored in Jarofix yard. Waste- Jarosite- highly hazardous substance with high levels of Zinc and lead. Presently Jarosite is converted to jarofix. It is now proposed to convert to slag and sold to cement industries. One tonne of solid wastes produces 0.8T of Jarosite.

Fumer slag will be used in cement manufacture. Thus the benefits of the project include: (i) Converison of unusable solid waste to usable slag (ii) Increased recovery of metals, (iii) Power generation from waste heat recovery and (iv) reduced requirement of land for storage of solid waste. With the introduction of this technology, Jarosite process will be stopped after process stabilisation. Geothite cake will be generated from this process to an extent of 5500 TPA which would be disposed in existing landfill. By-products include Pb-Ag cake (16,000 TPA), from which Pb and Ag can be recovered.

The summary of the project is given below:

Particulars	Item	Existing	Additional	Total	Remarks
Raw Material	Coal for Fumer (TPA)	-	1,32,000	1,32,000	For Fumer furnace
Product	Zinc (TPA)	2,10,000	0	2,10,000	No increase in capacity of Zinc production
	Thermal Power (MW)	100	-	100	No increase in capacity
By-Products	Pb-Ag Cake (TPA)	-	16,000	16,000	No increase in capacity
	Cu Spiess (TPA)	-	700	700	Will be recycled/reused
	Sulphuric Acid (98.5%) (TPA)	2,88,000	0	2,88,000	No increase in capacity
	Slag (TPA)	-	150,000	150,000	Will be sold to cement manufacturers
	Waste Heat Power (MW)	4.5	21	25.5	Internal consumption
Hazardous Waste	Jarosite (TPA)	132,000	-	-	Jarosite process will be stopped after process stablisation
	Geothite Cake (TPA)	-	5500	5500	Disposal in existing captive secured landfill

The emission levels from the RMH, Coal Pulveriser and Fuming Furnace will be kept below 50mg/Nm3 for PM10 and below 80ppm for SO2 by scrubbing with zinc oxide slurry.

The project does not require any additional land. No additional water is also required. A total of 10MW power is to be used from the 21MW Waste Heat recovery Unit. The total project cost is Rs 500 crores. The EMP- pollution control equipment is Rs 80 crores.

The Committee sought a table showing step 1 till end and stage-wise elemental recovery (quantity as well as in %). The EAC after deliberations decided that the establishment of this unit, although for introducing an environmentally friendly technology cannot be treated as an amendment to the EC dated 06.12.2006.

After deliberations, the Committee decided that an EIA-EMP Report is required on the project and decided to accord TOR without P.H. for preparation of EIA-EMP for this unit on the basis of the following:

i. Details of the proposed Fumer Plant Project to convert Jarosite to slag

ii. Pollution load estimates of the project vis-à-vis the proposed Fumer Plant Project

iii. Effluent/solid waste characteristics before and after treatment.

iv. Energy and other resources required for the project

v. Percentage recovery of Zn and other metals in the process.

iv. Plan for slag management:
- Process details
- Environmental Issues
- MOU/Agreements with cement manufacturers for use of slag and other solid wastes.

v. One-season baseline data along with data (including trace metal levels) of groundwater quality including from peizometers.

vi. Public Hearing be exempted as EC was obtained for the project on 06.12.2006 under the new EIA Notification 2006.

TUESDAY, 14th OCTOBER 2014

25.8.1 Expansion for utilization of the existing pig iron capacity for the production of Value Added Products by **M/s SLR Metaliks Ltd.** at in village Narayanadeverakere, Taluka Hagaribommanahalli Dist. Bellary, Karnataka (EC) J-11011/257/2013.IA-II**(I)**

The proposal is regarding Expansion for utilization of the existing pig iron capacity for the production of Value Added Products by **M/s SLR Metaliks Ltd.** at in village Narayanadeverakere, Taluka Hagaribommanahalli Dist. Bellary, Karnataka. TOR was awarded on 16th January, 2014. Consultant is M/s Ultra-Tech Environmental Consultancy & Laboratory. The Final EIA-EMP Report was submitted on 4th October, 2014. The Public hearing was conducted on 15th July, 2014. PP has an operating pig iron complex consisting of Blast furnace (200,000TPA), Sinter Plant (331,000TPA) and 6MW BF off-gas based CPP.

PP proposes to install the following: Steel Plant (300,000TPA), Rolling Mill (320,000TPA), Coke oven Plant (120,000TPA), Coke Oven off-gas based CPP of 9MW (1x9MW), Air Separation Plant of 120 TPD Oxygen Capacity and Producer Gas Plant of 15,000Nm3/h and Pulverised Coal Unit of 10ton/h. The proposed expansion is expected to improve the operational economics of the Plant. The existing unit is located in an area of 50 acres and an additional 90 acres of land has been procured for the proposed expansion project in R.S No. 633, 646, 643 & others. The total area of 100 acres has been allotted by KIADB and another 100 acre sis under process by KIADB. Nearest village is Lokappanahola at a distance of 1.5km.

Salient features of the proposed project is given below:

S.N.	Unit/Parameter	Activity	Quantity
1.	Land Area	Existing: 50 acres Built-up area- 33 Greenbelt – 17	Existing 50 acres. Additional – 190 acres of which 90 acres have been procured.

		Open Vacant area- nil	Built up area: 76 Grenbelt – 65 Open area- 49
2.	Proposed capacity	Steel Plant	300,000 TPA
		Rolling Mill	320,000 TPA
		Coke Oven Plant	120,000 TPA
		Coke Oven off gas based Power Plant	1x9 MW
		Air Separation Plant	120 TPD Oxygen
		Producer Gas Plant	15000Nm3/h
		Pulverised Coal Unit	10ton/h
3.	Unit	Basic Raw Material Requirement:	Raw Material
	Steel Plant	1. Hot Metal from BF 2. Pig Iron/PI scrap 3. Plant return scrap/ 4. DRI 5. Fe-Alloys & Additives 6. Lime & Dolomite	210,000 TPA 88,000 TPA 44,000 TPA 44,000TPA 7,500 TPA 18,000 TPA
	Rolling Mill	Steel Shop Billets and purchased billets	300,000 TPA 33,000TPA
	Coke Oven Plant	Coking Coal	171,428 TPA
	Coke Oven off gas based Power Plant	Coke Oven off gas	125 TPH
	Air Separation Plant		
	Producer Gas Plant	Thermal coal (B/C grade)	47,000 TPA
	Pulverised Coal Unit	Anthracite & Bituminous coal	16,800 TPA
4.	Water Requirement (m3/d)	3005 Existing: 2200	sourced from Tungabhadra reservoir.
5.	Power	40MVA	
6.	Project cost	Rs 482 crores	
7.	EMP cost	Capital: Rs 3174 lakhs Operational: 318 lakhs	
8.	Wastewater	Domestic = Existing-30KLPD, Additional – 32KLPD Industrial: cooling tower & Boiler blowdown	Used for green belt
9.	Emissions sources	Flue gas from CPP boiler Reheating furnace Steel Plant furnace Coke Oven quenching unit stack	
10.	Solid Wastes	Steel Plant – EOF sludge & slag, ladle slag, cut ends and millscale from caster Rolling Mill: cut ends/cobbles, mill scale Coke Oven plant: coke fines, coal fines from coal crushers PGP/PCI: ash/tar	
11.	Manpower	Construction: 400 Operational: 950	

Baseline data collection was carried out during mid-Dec 2013 to mid March 2014. AAQ was monitored in 12 AAQ stations. AAQ parameters of PM10, PM2.5, SO2 and NOx indicates a range of 35-60, 21-30, 5.3-9.6 and 3.5-9.1 ug/m3, which is within prescribed limits. AQIP Modelling carried out for the proposed expansion indicated that the max. incremental GLC of PM, SO2, NOx would be 3.28, 4.23, 1.12 ug/m3 respectively. Main sources of fugitive dust emissions are raw material handling area, crusher area, raw material feed area, and product processing area. Dust extraction system comprising of pulse jet type, bag filter, duct work including suction hoods in the EOF stack house, fume and dust extraction in rolling Mill, spray nozzles, etc in raw material handling area.

Water quality parameters such as TDS, Total Hardness, F etc of surface and groundwater in lake and river and in groundwater were found to be within limits of IS:10500 2012 standards. Water drawl permission obtained from Government of Karnataka for 0.19 TMC (5320000m3/y) from Tungabhadra Reservoir.

Details of solid waste management include the following:

Sl.No.	Solid waste	Composition	Storage facility	Quantity T/A	Utilization/ Disposal
1. STEEL PLANT					
1.	EOF GCP sludge	Fe- 45%	Settling tanks	16320	Reused in sinter plant
2.	EOF slag	CaO- 40-52% SiO2-10-19% Fe2O3-10-40% MnO-5-10% Al2O3-1-3%	Slag cooling pit	60000	Used for civil works, road works after metal recovery
3	Ladle slag	CaO-30-60% SiO2-2-35% FeO-0-15% MgO-1-10% Al2O3-5-35%	Dumping pits	15040	Used for civil works, road works
4	Cut end from caster	Iron bearing material	Reused in EOF	6300	Reused in EOF
5	Mill scale from caster	Iron bearing material	Reused in sinter plant	1500	Reused in sinter plant
2. ROLLING MILL					
6	Cut ends/cobbles	Iron bearing material	Reused in EOF	12800	Reused in EOF
7	Mill scale	Iron bearing material	reused in sinter plant	3200	Used in sinter plant
3. COKE OVEN PLANT					
8	Coke fines/ nut coke from coke screen	<10mm dia	Sinter plant	13200	Coke fines used in sinter plant
9	Coal fines from coal crushers	Carbon material	Recirculated in coke oven	1280	Recycled as coke oven feed
3. PRODUCER GAS PLANT/PULVERIZED COAL INJECTION PLANT					

10	Ash	Carbon residue	Used for brick manufacturi ng	16000	Will be used for brick manufacturing
11	Tar	Complex mixture of hydrocarbons	Mixed with FO & used as fuel	7700	Used as fuel along with FO & residue sold to Koramandel refractories, Hubli

A Disaster management Plan and on on-site emergency plan has been prepared.

The Karnataka State Pollution Control Board has conducted Public Consultation on 15.07.2014 at the proposed site under the Chairmanship of Deputy Commissioner, Bellary. All the members participated in the discussion have welcomed the proposed project. They have further asked the management to provide jobs to the locals, drinking water to the nearby villages, toilets to the village schools greenery development in the vicinity of the site. Technical training to the village unemployed youth. The company has agreed to comply with the above needs of the public.

The total CSR budget is Rs 24.90 crores, which is 5% of the total cost of the project of Rs 482 crores, to be implemented over 5 years. Activities proposed under CSR include Training of Local eligible unemployed youth through, sponsoring computers for school children, providing one well equipped ambulance, Setting up health center and providing medical assistance and medicines, training to local farming community, Repair of School building/Anganwadis, Bal vihars, women and child welfare centers, Provision of drinking water supply and toilets in Schools

The Committee after deliberations recommended the project for environmental clearance subject to stipulation of the following conditions and measures and any additional conditions:

i. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 by installing energy efficient technology.

ii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.

iii. 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 30^{th} May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

iv. Multi stage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection)

Act shall be followed. The reports shall be submitted to the Ministry's Regional Office at the Bhubaneshwar, CPCB and SPCB.

v. Hot gases from the DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely.The gas then shall be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.

vi. Total water requirement after the proposed expansion shall not exceed 9012 m^3/day. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.

vii. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.

viii. All the effluents shall be treated and used for dust suppression and green belt development. No effluent shall be discharged outside the premises via drains and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.

ix. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.

x. Prior approval of this Ministry shall be obtained in case change of fuel.

xi. Risk Assessment and Disaster Management Plan for the project focussing on Disaster Prevention shall be prepared and implemented in conjunction with District Disaster Management Plan.

xii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

xiii. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. Slag generated shall be given for metal recovery or properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.

xiv. Coal and coke fines shall be recycled and reused in the process. The breeze coke and dust from the air pollution control system shall be reused in sinter plant. The waste oil shall be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2008.

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

xvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

xvii. The Company shall submit 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.

xviii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 15.07.2014 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.

xix. 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.

xx. Haulage roads shall be sprinkled with water at regular intervals for which water tankers with sprinkler arrangement are deployed. Regular sweeping of roads shall be practiced with vacuum sweeping machine or water flushing to minimize dust.

xxi. Trucks carrying coal and other raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.

xxii. Greenbelt of 20-30 meters in width and greenery shall be developed around storage yards, around plants, either side of roads and around the periphery of the industry as per CPCB Guidlines

25.8.2 Expansion of existing Steel Alloys manufacturing unit of **M/s R.L. Steels Energy Ltd.** at Dist. Aurangabad, Maharashtra (EC) J-11011/578/2011.IA-II**(I)**

The proposal is regarding Expansion of existing Steel Alloys manufacturing unit of **M/s R.L. Steels Energy Ltd.** at dist. Aurangabad, Maharashtra. TOR was awarded on 14th February, 2012. Consultant is M/s SD engineering services Pvt Ltd, Aurangabad. The Public hearing was conducted on 11.07.2012 and Final EIA-EMP Report was submitted on 21st October, 2012.

While examining the EIA/EMP report, it was observed that the certified report of compliance to the conditions stipulated for existing capacity in EC/NOC from SPCB had not been submitted and was sought vide Ministry's letter dated 1st February, 2013. Further it was observed that the Public Hearing was

presided over by the sub-divisional officer of the rank of Deputy Collector. A clarification in this regard was also sought by the Ministry.

PP vide letter dated 2nd May, 2014 submitted that Addl District Magistrate, Beed vide letter 30.04.2013 clarified that Sub-divisional Officer or Sub-Divisional Magistrate in not below the rank of additional District Magistrate. Both are the officers from Maharashtra Revenue Services Class - 1 and can be posted as SDM or Additional District Magistrate Popularly known as Residential Deputy Collector. Hence sub-Divisional Officer Ambajogai was appointed for preside over the public hearing in respect Majalgaon S. S. K Ltd. as he is not below the rank of Additional District Magistrate. Hence the Public hearing was supervised and conducted in accordance with the EIA Notification, 2006.

It has been observed by the Committee that the Capital cost of existing project is Rs 161.52 crores and the PP has obtained Consent to Operate on 05/12/2012. The Committee advised PP to submit clarification for not applying for Environmental Clearance for the existing unit, since the project cost was more than 100 crores. Committee also advised PP to furnish Consent to Establish details.

The committee also observed that AAQ values are factually incorrect. The committee advised PP that One-month AAQ data shall be freshly collected through an accredited consultant and shall be submitted to the Ministry.

The Committee deferred the proposal and advised PP to submit revised EIA-EMP report along with the details as mentioned above.

25.8.3 Production capacity enhancement of writing & Printing grades of paper of **M/s Naini Tissues Ltd.** at Tehsil Kashipur, Dist. Udham Singh Nagar, Uttarakhand (EC) J-11011/58/2013.IAII(I)

The proposal is for expansion of the existing agro-based Pulp and Paper Unit of M/s Naini Tissues Ltd. located at Moradabad Road, Tehsil Kashipur, Dist. Udham Singh Nagar, Uttarakhand. The existing unit was established in 2005 with production capacity of 100TPD of Writing & Printing Grade Paper. CTE was granted by UEPPCB vide letter No. UEPPCB/H.O./NOC-96/04/1702 dated 29.07.2004. EC was not required as the project cost was less than Rs 100 crores requiring EC under EIA Notification 1994. CTO has been renewed by UEPCB vide letter No. U.E.P.P.C.B. /HO/Con-N-2/2014/398 dated 07.06.2014. The plant is 0.2km from Uttarkhand-UP Inter-State border. The present proposal is for expansion by 40TPD thus making the total production capacity of 140TPD of Writing and Printing Grades paper in the existing plant area of 51.7 acres (20.92 ha). TOR was granted on 13.11.2013. Baseline data collection was carried out for summer season of March-May 2013. Public Hearing was held on 10.07.EC submitted on 27.08.2014. The EIA-EMP has been prepared for JM EnviroNet Pvt. Ltd which is QCI/NABET accredited for Pulp & Paper. Total capital cost of the expansion project is Rs 1514 lakhs.

There are no National Parks/Wildlife Sanctuaries, Tiger Reserves, Wildlife Corridors within the 10km study area. Dhandhi Nalla flows adjoining the project boundary. River Dhela flows at a distance of about

2.5km from the plant. NH-74 and NH-121 are located at a distance of 4.5km and 6.4km from the plant and SH-41 is adjacent to plant.

Entire project area of 20.92 ha is acquired. Of the total area of 20.92 ha, greenbelt has been developed in 33% of plant area – 7.69 ha (18.99 acres). The process consists of raw material handling & processing. Pulping, Paper making, Pope reel and converting, Finishing & Packaging. Raw materials for the Unit consist of bagasse, wheat straw, waste paper and rice husk as fuel. No wood is used. The process involves use of imported bleached pulp which does not involve pulp washing. It is not proposed to use elemental chlorine free bleaching as per advice of CPPRI report as it is not economically feasible and instead the company intends to go for Op-C-Eop-H-H. No AoX (0.84kg/T) to be used within limits and the same will be used for the expansion project too. No WHRB proposed as it is a small unit and non-conventional recovery is used.

Raw material requirement for the project:

S.N.	Particulars	Existing req. (T)	Add. Req. (T)	Total Req. (T)	Source	Mode of Transport	Trips/Day	Storage
	(A) Raw Material Consumption							
1.	Bagasse & Wheat Straw	185.5	71.5	257	Neraby Area	By road	10/day	Open yard
2.	Imported Pulpwood	3.44	1.26	4.7	Import	Sea/Road	2 container/ month	shed
	(B) Chemical Composition							
1.	Caustic Soda	26.5	10.1	36.6	Vendor	By road	15 tankers/ Month	Tanks
2.	Oxygen Gas	1.65	1.35	3	In-house			Vessel
3.	Hydrogen Peroxide	0.660	0.243	0.903	Vendor	By road	2 tankers/ Month	Tank
4.	Lime	0.810	0.036	0.846	Vendor	By road	2trucks/month	Godown
5.	AKD	1.10	0.44	1.54	Vendor	By road	As and when reqd.	Tank
6.	Soapstone	15.6	9,4	2.5	Vendor	By road	2 trucks/day	Godown
	(C) Fuel Consumption							
7.	Rice Husk	84m3/d	33	117	Nearby areas	By road	Godown	10/day
8.	Bagasse Pith	56m3/d	22	78	In-house			

In addition, other chemicals required in the processes are sourced as and when required. Total number of trucks per day would be 20/day.

Total water requirement of fresh water is 6000m3/d and the expansion project will require 7595m3/d. Effluent analysis by UEPPCB done on 11.04.2014 indicates levels of TSS, TDS, BOD and COD as 56mg/l, 1080mg/l, 24mg/l and 192 mg/l. Effluents are discharged into the Dhandhi nalla flowing adjoining the plant. Stack monitoring of PM indicates 105.20mg/Nm3. Groundwater table is in the range of 1.99-6.89m bgl. Water quality parameters of groundwater quality analysed at 8 locations in and villages around the plant indicated that levels of TDS, Total Hardness, were within limits. The specific water conservation measures adopted include: (i) Reuse of entire effluents generated from Paper Ill in the Pulp Mill (ii) Counter current washing in unbleached section of pulp mill, (iii) Use of foul condensate from

soda recovery plant on ODL washers for pulp washing, and (iv) Complete wet washing of raw material with treated effluents from ETP, and (v) reuse of treated ET effluents for green belt.

Solid waste generation is as given below:

S.N.	Solid Waste	Section	Existing Quantity	Total after capacity enhancement	Use
1.	ETP Sludge	ETP	7.5TPD	12.8TPD	Constitutes of cellulose fibres and will be recycled for use of board making
2.	Boiler Ash	Boiler House	12.5 TPD	17.5TPD	Filling low lying areas
3.	Lime Sludge	Hydro preparation	10-15kg/day	10-15kg/day	Mixed with cement and mortar for repairing/plaster work

Agro based liquor – sodium carbonate pellets – 400kg/T of solids of black liquor is generated. Black liquor (chemical recovery is done) in Soda Recovery Plant. Copeland FBR (fluidized Bed Reactor) is being used. Effluents are discharged into River Dhela River via Ramganga (7-8km) and finally into River Ganga (reaches after two days). The expansion project requires 7595m3/d of water to be sourced from groundwater. TDS after tertiary treatment to be provided. Oxygen delignification and chemical recovery of black liquor already being done.

AAQ monitoring carried out at 8 stations indicated that levels of PM10, PM2.5, SO2 and NOx were within limits, however levels of PM10 (65.8-96ug/m3) and PM2.5 are on the higher side (27.5-45ug/m3). AQIP modelling indicates that the predicted incremental GLC of PM10, SO2 and NOx are 5.49, 2.44 and 7.33ug/m3 respectively. With the proposed expansion, levels of particulates would be even higher. To minimise air pollution from the plant operations, it is proposed to install Treema Cyclone and double stage wet scrubbing system for the proposed boiler.

The total CSR budget for the next 5 years is Rs 76 lakhs for activities in the sectors of education, health, sustainable livelihood, infrastructure and social issues. Capital cost of EMP measures is Rs 1514 lakhs and annual recurring cost is Rs 95 lakhs.

Public Hearing was held on 10.07.2014. Issues raised in P.H. include control of air pollution from stacks and white smoke from chemical recovery plant, proposed increase in water consumption, disposal of ash, socio-economic development of the region and employment to locals. These issues were responded to by PP.

The Committee was informed that in a meeting held on 8th October 2014 of Ministers of Water Resources and Environment & Forests on Action Plan for water polluting industries in Ganga River Basin, it was decided that all large and medium scale units located in Ganga River Basin shall be based on zero-discharge. The 3 Paper Mills are located in the Ganga Basin, although not along the river front. The Committee further noted that in case of chemical based paper industries it is difficult to achieve zero-discharge. The effluents have been brought down from 200m3/T of paper produced, to 60m3/T, which is well within prescribed standards and it is proposed to further down to 50m3/d.

EAC further desired that any details such as a Circular/direction in this regard issued by the CP Division may be obtained and CP division be also consulted whether these units would also require achieving zero-discharge.

The EAC after deliberations desired that water quality details u/s and d/s of River Dela upto 2km from point of discharge and for g/w for the 8 stations shall be furnished in terms of TSS, TDS, COD and BOD. Details of new technologies globally, if available, to bring to zero discharge shall be furnished so that pollutants do not pollute the River Ganga in line with decisions taken in meeting held on 8th October 2014 of Ministers of Water Resources and Environment & Forests on Action Plan for water polluting industries in Ganga River Basin. In addition, the Committee also sought details of best available technologies for treatment of TDS, colour, etc. The EAC also desired that Pollution Control Division of the MOEF&CC may be consulted for details of recent best available technologies for reduction of TDS and colour and on policy decisions/development with respect to industrial units in Ganga River Basin generating large quantities of effluents and discharging into River Ganga/tributaries/canals. The EAC also desired that permission from CGWA/State GWB is required for use of g/w for industrial operations. The Committee desired that activities under CSR shall cover specific skill development and training for the unemployed youth in the surrounding areas. Copies of the CTE and CTO shall also be provided.

The EAC after deliberations decided to further consider the project after receipt of the aforesaid details.

25.8.4 Proposed capacity expansion of Kraft Paper of **M/s Siddeshwari Paper Udyog Ltd.** at Dist. Udham Singh Nagar, Uttarakhand (EC) J-11011/407/2012.IA-II(I)

M/s. Siddeshwari Paper Udyog Ltd (SPUL) is having an existing Kraft Paper manufacturing plant of 65 TPD using agro-wastes like bagasse and wheat straw and also Indian waste paper at 7th K.M. stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand. The project proponent has obtained NOC / CTE for the said project from UPPCB Vide letter Ref No. 2394/ NOC/ Siddheshwari Paper Udyog Limited / 2429 dated 06th March, 1991. SPUL has proposed for expansion in production of Kraft Paper from 65 TPD to 115 TPD and also, to optionally use coal instead of rice husk for 6 MW Captive Power Generation Plant. The project was considered before the Expert Appraisal Committee (Industry) for its First technical presentation (ToR) on 4th April, 2013. The ToR reconsideration presentation was held on 18th Nov, 2013. The EAC has suggested Terms of References (ToR's) for preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) vide its F. No. J-11011/407/2012-1A-II (I) letter dated 31st March, 2014. Public hearing was conducted on 3rd july, 2014. The EIA-EMP Report has been prepared by JM EnviroNet Pvt Ltd which is QCI/NABET accredited for Pulp and Paper. EC application was made on 21.08.2014.

It was informed by M/s. Siddeshwari Paper Udyog Ltd that the total plant area is 9.27 ha. Proposed enhancement in production capacity will be done within the existing plant premises, thus no additional land is required. Out of the total area, 2.13 ha (~23%) will be developed under Green belt/Plantation. Additional area will be developed under green belt during expansion to make it ~33% of total area. The

total cost for the proposed enhancement project is Rs. 475 Lacs. Capital cost for Environmental Protection Measures is Rs. 110 Lakhs and Recurring Cost is Rs. 100 Lakhs per Annum.

No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor, Protected Forest etc. falls within 10 km radius of the plant site. Nearest Town/City is Thakurdwara which is approximately 3 km in WSW direction and Kashipuris at 5.4 km in E direction. State Highway SH-41 is adjacent to plant boundary, NH-74 is approximately 2.5 km in ENE direction. Nearest Railway Station is Kashipur Railway Station which is 5 Km in NE direction. Nearest Airport Pant Nagar Airport is 59 Km in ESE direction. Interstate Boundary (Uttarakhand- UP) lies at a distance of 0.5 km in west direction. Dehla River is at a distance of 2.0 km in SE direction and Dhandi Nallah is 600 m in South direction

Following table shows the existing and the proposed facility of the plant:

	Description	Existing Capacity	Proposed Expansion Capacity	Total Capacity After Expansion
Project Proposal	Agro-pulp (30 - 70%)	20 - 45 TPD	35 TPD max.	35 - 80 TPD
	Waste Paper Pulp (70 - 30%)	45 - 20 TPD	15 - 35 TPD	80 - 35 TPD
	Total production	65 TPD	50 TPD max.	115 TPD
	Chemical Recovery plant	120 TPD	--	120 TPD

SPUL is proposing to alternatively use coal instead of rice husk for 6 MW captive power generation plant. Indian coal will be used which will be purchased from open market. The proposed expansion project is agro residue based and waste paper. Wood pulp is not technically feasible for use in manufacturing process. The product of the industry is Kraft Paper. Hence bleaching chemicals like elemental chlorine, hypochlorite, ClO2 etc. is not required. The black liquor spillage points are identified and collected in a RCC lined pit. From here, it is pumped back into the black liquor storage tank and further to chemical recovery plant. Potcher washing is not involved instead two stage counter-current drum washers are used. Foul condensate generated from MEE (Multiple Effect Evaporator) is stored in the storage tank and used in pulp washing in pulp mill. The ventury scrubber is installed to reduce the SPM emission. Lime Kiln is not feasible as the CRP is FBR based. There is no spillage of foam in CRP Plant.

The manufacturing process of kraft paper involves the agro-based raw materials like bagasse & wheat straw along with some portion of waste paper (unbleached). To produce the kraft grade of paper, there is no need to bleach the pulp as the paper is for packaging purposes only. The raw material is cooked with caustic under high temperature & pressure and washed further with simple water without any chemicals. The pulp so produced is brown in nature from which the paper is manufactured directly. Hence, there is no question of using the bleach chemicals for bleaching of pulp.

Raw material requirement

S.	Raw Material	Quantity (MT)	Source	Distance	No. of trips

No.		Existing	Additional	Total after proposed enhancement		& Mode of Transport	per day
(A)	Raw material consumption						
1.	Wheat Straw	25 MT	19 MT	44 MT	Local Suppliers	Trucks	2
2.	Bagasse	42.5 MT	33.5 MT	76 MT	Local Suppliers	Trucks	4
3.	Indian Waste Paper	32 MT	25 MT	57 MT	Local Suppliers	Trucks	3
(B)	Chemical consumption						
1.	Caustic Soda	5.5 MT	4.5 MT	10 MT	Chemical Manufacturers	Tankers	1 in 2 days
2.	Fortified Rosin	200 kg	165 kg	365 kg	Chemical Manufacturers	Tankers	As required
3.	Alum	5 MT	4 MT	9 MT	Chemical Manufacturers	Tankers	1 in 2 days
(C)	Fuel consumption						
1.	Rice Husk or	200 TPD	Nil	200 TPD	Near-by market	Truck	10
	Coal	Nil	140 TPD	140 TPD	Open market	Truck	7

Existing water requirement for the project is 2600 m3/day. Additional water requirement for the proposed project will be 2000 m3/day. Total water requirement after proposed enhancement project will be 4600 m3/day. Total power requirement after proposed enhancement project will be 82000 KWH sourced from captive power generation of 6 MWh capacity, 1000 KVA connection from UPCL & DG sets of 500 KVA (1 no.) - Used as standby.

Primary ETP sludge is reutilized back into paper making. The secondary clarifier and Tertiary treatment sludge is collected in either sludge beds or dewatered through decanter and utilized within the plant. The ash from the boilers is being/will be utilized for filling low lying area within the campus and also utilized by nearby farmers in their fields. PP mentioned that once EC is granted for the proposed use of coal in place of rice husk, the fly ash will be sent to the cement manufacturing units for which MoU will be signed prior to use of coal. The levels of effluent quality before and after ETP treatment is as follows:

S. No.	ETP Parameter	Before Treatment	After Treatment
1	pH	6.5 - 7.5	6.5 - 8.5
2	TSS (mg/l)	2000 - 2500	< 75
3	BOD (mg/l)	450 - 600	< 30
4	COD (mg/l)	1600 - 1800	< 250
5	TDS (mg/l)	1800 - 2000	< 2100

6	Color (PCU)	-	< 500

Ambient air quality monitoring was carried out at 9 locations during Summer Season, 2013 (March to May, 2013) and an additional one Month (December, 2013) within the study area of 10 km radius of plant to assess the ambient air quality. The dominant wind direction during the study period was found to be West and therefore, two locations were selected in downwind direction (East) for ambient air monitoring. PM10 in the range of 65.8 – 96 µg/m3 and PM 2.5 in the range of 28.3 – 45µg/m3 are high. SO2 (7.5-15µg/m3) and NOx in the range of 18.4-28 µg/m3 are well within prescribed limits.

All major sources of air pollution are being/will be provided with adequate & efficient APCDs to maintain emissions within permissible limit. Proper mitigation measures are being undertaken to take care of the environment in respect of air, water, noise, soil & the green cover of the plant site & nearby villages. Same practices will be followed for proposed enhancement project.

CSR budget for Rs 27 lakhs of 5% of the total cost of expansion project (Rs 475 lakhs) has been earmarked for various activities in the sectors of education, health, sustainable livelihood, infrastructure and social issues.

Public hearing was conducted on 3rd july, 2014 at Plant premises at 7th K.M. Stone, Moradabad Road, Kashipur, District Udham Singh Nagar, Uttarakhand under the chairmanship of Mr. Ashish Bhatgai, ADM, Udham Singh Nagar. Major issues raised during the Ph are effect of effluent water on animal and crops, control of fly ash from falling in the nearby areas and depletion of ground water. PP mentioned that during Paper making, the effluent coming out of the industry is being treated in the ETP before discharge; so that there is no effect of discharged water on animals & crops. For control of emissions from the boiler, ESP has already been installed with proper stack height (i.e. 52 m). Ground water recharge will be done through Rain water harvesting.

The Committee was informed that in a meeting held on 8th October 2014 of Ministers of Water Resources and Environment & Forests on Action Plan for water polluting industries in Ganga River Basin, it was decided that all large and medium scale units located in Ganga River Basin shall be based on zero-discharge. The 3 Paper Mills are located in the Ganga Basin, although not along the river front. The Committee further noted that in case of chemical based paper industries it is difficult to achieve zero-discharge. The effluents have been brought down from 200m3/T of paper produced, to 60m3/T, which is well within prescribed standards and it is proposed to further down to 50m3/d.

EAC further desired that any details such as a Circular/direction in this regard issued by the CP Division may be obtained and CP division be also consulted whether these units would also require achieving zero-discharge.

The EAC after deliberations sought details of new technologies globally, if available, to bring to zero discharge shall be furnished so that pollutants do not pollute the River Ganga in line with decisions taken in meeting held on 8th October 2014 of Ministers of Water Resources and Environment & Forests on Action Plan for water polluting industries in Ganga River Basin. In addition, the Committee also

sought details of best available technologies for treatment of TDS, colour, etc. The EAC also desired that Pollution Control Division of the MOEF&CC may be consulted for details of recent best available technologies for reduction of TDS and colour and on policy decisions/development with respect to industrial units in Ganga River Basin generating large quantities of effluents and discharging into River Ganga/tributaries/canals. The EAC also desired that permission from CGWA/State GWB is required for use of g/w for industrial operations. The Committee desired that activities under CSR shall cover specific skill development and training for the unemployed youth in the surrounding areas. Copies of the CTE and CTO shall also be provided.

The EAC after deliberations decided to further consider the project after receipt of the aforesaid details.

25.8.5 Proposed capacity expansion of kraft paper from 60 TPD to 110 TPD of **M/s Sidharth Paper Ltd.** at village Hariawala & Basai, Tehsil Kashipur, district Udham Singh Nagar, Uttarakhand (EC) (J-11011/14/2013-1 A.II(I)

M/s Sidharth Papers Ltd was established in 1987 for manufacturing Kraft paper. A Consent to Establsih was garnted by UPPCB vid eletetr No. 1909/NOC/Sidharth papers Ltd/1752/20 dated 03.02.1988. As on date the unit is manufacturing 60TPD of quality Kraft Paper using agro-wastes such as bagasse and wheat straw and also Indian wastepaper for which the unit has obtained a CTO from UEPPCB vide letter No. UEPPCB /HO/Con/S-37/2013/1704 dated 02.06.2014. The present proposal is for expansion of the production of Kraft paper from 60TPD to 110 TPD within its existing project area of 7.8 ha. No additional land is required. TOR was granted on 25.04.2013. Public Hearing was conducted on 04.07.2014. The EIA-EMP Report has been prepared by JM EnviroNet Pvt Ltd which is QCI/NABET accredited for Pulp and Paper. EC application was made on 22.08.2014.

It was informed that M/s Siddheshwari Paper Udyog is a sister concern and in 2011 established a Common Chemical Recovery Plant of 120 TPD black liquor solids to treat the black liqour from both its own and that of Sidharth Paper Ltd. A 6MW Captive Power Plant is also set up to meet the power requirement of both these units. Total cost of the expansion project is Rs 427 lakhs. Capital cost of EMP measures is Rs 130 lakhs and annual recurring cost is Rs 95 lakhs.

There are no National Parks/Wildlife Sanctuaries, Tiger Reserves, Wildlife Corridors within the 10km study area. Dhandhi Nalla flows at about 600m from the project boundary. River Dhela flows at a distance of about 2.5km from the plant. NH-74 and NH-121 are located at a distance of 3.5km and 5.7km from the plant and SH-41 is adjacent to plant. The plant is 0.5km from Uttarkhand-UP Inter-State border.

The process largely comprises of Raw material handling & processing. Pulping, Paper making, Sheet formation, Drying, Glazing, Pope Reel and Finishing & Converting. A Standby Boiler of 12TPH is installed in the unit and will be operational during annual shut down of the 45TPH boiler with Multi-cyclone Dust Collector is installed at M/s Siddheshwari paper Udyog for maintenance for 3-4 days in a year. The company has installed a soda recovery unit (common with Siddheshwari Paper Udyog) for processing of black liquor to valuable soda ash which is sold to detergent and glass industries.

The proposed expansion project is agro residue based and waste paper. Wood pulp is not technically feasible for use in manufacturing process. Since the product is Kraft paper, bleaching chemicals such as elemental chlorine, hyopochlorite, ClO2 are not required. As there is no involvement of halide group of chemicals, the AOx will be very low in concentration. The pulp produced is brown in nature from which the Kraft Paper is produced directly. Black liquor generated in the existing unit is 209m3/d and after expansion would be 313m3/d. Black liquor is stored in a tank and possible spillage points are monitored and spillages are collected in a RCC lined pit and pumped back into the black liquor tank and further to chemical recovery plant. Foul condensate generated from Multiple Effect Evaporator (MEE) is stored in a storage tank and used in pulp washing in pulp mill. Lime kiln is not feasible as Chemical Recovery Plant (CRP) is Fluidised Bed Reactor (FBR) based. There is no spillage of foam in CRP Plant. Ventury scrubber is installed to reduce particulate emissions.

Raw Material Requirement

S.N.	Raw Material	Quantity (MT)			Source	Mode of Transportation	No. Of Trips
		Existing (60TPD)	Proposed (50 TPD)	Total after Proposed expansion			
(A) Raw Material Consumption							
1	Bagasse	30	38	68	Local suppliers	By road (Trucks)	4
2	Wheat Straw	25	30	55	Local suppliers	By road (Trucks)	2
3	Indian Waste Paper	31	19	50	Local suppliers	By road (Trucks)	3/week
(B) Chemical Composition							
4	Caustic Soda (MT)	5	4	9	Chemical Manufacturers	By road (Tankers)	1 in 2 days
5	Fortified Rosin (KG)	195	161	356	Chemical Manufacturers	By road (Tankers)	As reqd.
6	Alum (TPD)	4.55	3.75	8.3	Chemical Manufacturers	By road (Tankers)	1 in 2 days

Water consumption for 4400m3/d which will be met from ground water. Proposal for drawl of 4400m3/d of water has been submitted to CGWA vide letter No. SPL/CGWB/13/01 dated 08.10.2013 by the State Authority to CGWA. Treated wastewater is discharged into the adjoining drain which discharges into River Dhela at a distance of 2km.

Water samples of River Dhela at a distance of 2.5km upstream and downstream were collected and results show that the major water quality parameters such as TDS was 870-890 mg/l. Levels of COD (89-92), BOD (14.4-15) and TSS (50-52) are within limits. A number of water conservation measures have been taken which include: (i) Replacement of freshwater with ETP treated water or Machine back water in Hi-Con pulper, (ii) Freshwater is replaced with black liquor in caustic dilution, (iii) Decker showers replaced with better shower nozzle resulting in 20% water use, (iv) Use of twin-stage washers for pulp

washing replacing potcher washing, (v) use of foul condensate from CREP-MEE in pulp washing. The levels of water quality parameters before and after ETP treatment are:

Parameter	Before Treatment	After Treatment in ETP
TSS (mg/l)	1000	< 75
TDS (mg/l)	1400	<2100
BOD (mg/l)	400	<30
COD (mg/l)	1200	<250

Recent monitoring carried out by Uttarakhand PCB indicates that the levels of BOD (24 mg/), COD (192 mg/l), TSS (66mg/l) and TDS (717mg/l).

No major solid wastes are generated in the process. Solid wastes generated include ETP sludge which is reused for paper manufacturing and boiler ash in the boiler installed in the Plant of M/s Siddheshwari paper Udyog (and hence nil from this unit). All the stock piles, waste disposal sites are propeorly lined to prevent leaching and groundwater contamination is not expected.

AAQ monitoring has been carried out for the summer season of 2013 (March-May 2013) at 9 locations. PM10 in the range of 65.8 – 98.2 ug/m3 and PM 2.5 in the range of 27.5 – 45ug/m3 are high. SO2 (7.5-15ug/m3) and NOx in the range of 18.6-28 ug/m3 are well within prescribed limits.

CSR budget for Rs 22 lakhs of 5% of the total cost of expansion project (Rs 427 lakhs) has been earmarked for various activities in the sectors of education, health, sustainable livelihood, infrastructure and social issues.

Public Hearing was held on 04.07.2014 in the plant premises, chaired by Addl. DM. Issues raised include effect of effluents on crops, depletion of groundwater, employment, use of solar energy, control of flyash being let out in nearby areas, etc. The PP has committed for better maintenance and regular monitoring of the pollution control systems, preference to locals, rainwater harvesting structures, etc.

The Committee was informed that in a meeting held on 8th October 2014 of Ministers of Water Resources and Environment & Forests on Action Plan for water polluting industries in Ganga River Basin, it was decided that all large and medium scale units located in Ganga River Basin shall be based on zero-discharge. The 3 Paper Mills are located in the Ganga Basin, although not along the river front. The Committee further noted that in case of chemical based paper industries it is difficult to achieve zero-discharge. The effluents have been brought down from 200m3/T of paper produced, to 60m3/T, which is well within prescribed standards and it is proposed to further down to 50m3/d.

EAC further desired that any details such as a Circular/direction in this regard issued by the CP Division may be obtained and CP division be also consulted whether these units would also require achieving zero-discharge.

The EAC after deliberations sought details of new technologies globally, if available, to bring to zero discharge shall be furnished so that pollutants do not pollute the River Ganga in line with decisions

taken in meeting held on 8th October 2014 of Ministers of Water Resources and Environment & Forests on Action Plan for water polluting industries in Ganga River Basin. In addition, the Committee also sought details of best available technologies for treatment of TDS, colour, etc. The EAC also desired that Pollution Control Division of the MOEF&CC may be consulted for details of recent best available technologies for reduction of TDS and colour and on policy decisions/development with respect to industrial units in Ganga River Basin generating large quantities of effluents and discharging into River Ganga/tributaries/canals. The EAC also desired that permission from CGWA/State GWB is required for use of g/w for industrial operations. The Committee desired that activities under CSR shall cover specific skill development and training for the unemployed youth in the surrounding areas. Copies of the CTE and CTO shall also be provided.

The EAC after deliberations decided to further consider the project after receipt of the aforesaid details.

25.9 Terms of Reference (TORs)

25.9.1 Proposed expansion of cement plant by addition of Clinker: 2.50 MTPA, Cement: 3.00 MTPA and Captive Power Plant: 35 MW of **M/s Durga Cement Works** (a unit of Andhra Cements Ltd.) at Durgapuram Village, Mandal Dachepalli, Guntur District, Andhra Pradesh (TOR)

The presentation was made by Vimta Labs Ltd, Hyderabad.

Durga Cement Works (a unit of Andhra Cement Works) is operating a Cement project with a 2MTPA clinker and 2.31 MTPA cement manufacturing capacity along with 30MW CPP and a captive limestone mine of 3MTPA. Management has changed (due to majority shareholding with Jaiparaksh Inds.) but name remains the same.

Existing project has an EC – J-11011/719/2007-IA.II(I) dated 20.12.2007 and a Order No. SEIAA/AP/GTR-54/2012 dated 10.07.2013 for 30MW CPP. A CTO has been obtained for the existing project from APPCB dated 23.01.2014 for the cement and captive limestone mine. Estimated cost of the expansion project is Rs 1900 crores. There are no ecologically sensitive areas within the 10km radius of the project site. There are 9 RFs within the study area. River Krishna flows at distance of 3.7km N and Dandivagu at 4.1km W.

Salient Features of the Project are summarised below:

S.N.	Features	Details
1.	Expansion Capacity	Clinker - 2.5 MTPA Cement – 3 MTPA CPP – 35 MW
2.	Process Technology	Cement Plant: Dry Process with six stage Inline Calciner & pre-heater /Pre-calciner kiln CPP: CFBC Boilers with air cooled condensers
3.	Product	Portland Pozzolona Cement (PPC) and Ordinary Portland Cement (OPC)
4.	Land Requirement	141.574 ha within existing premises. Land already available. No additional land acquisition.
5.	Water Requirement	2000m3/d additional

6.	Source of Water	Mining Pit (developed in captive limestone mines) and harvested rainwater
7.	Power Req. and Source	32MW will be sourced from CPP
8.	Manpower Requirement	During construction: 2400 During Operation phase: 500

Of the total land area of 141.574 ha, 91.854 ha is for the Cement Plant (existing & proposed), CPP is 3ha and green belt development is 46.72ha, i.e 33% of the area will be developed into greenbelt. The entire power requirement of the project will be met from the 35MW CPP. Air cooled condensers will be installed in the CPP to reduce water consumption. The project would operate on a zero-discharge concept. Flyash produced would be fully utilised in the cement plant. No ash disposal area proposed.

Water requirement for the Cement Plant-cum CPP is about 2000m3/d of which the cement plant requires 650m3/d, CPP – 550m3/d and limestone mine – 60m3/d. The water would be obtained form the limestone mine pits of a storage capacity of about 2 million cu.m

Raw material requirements are given below:

Raw Material	Existing (MTPA)	Proposed (MTPA)	Total (MTPA)	Source
Limestone	2.717	3.8	6.517	Captive Limestone Mine
Laterite	0.143	0.1		RRT, Shankarpalli, RRMM, Mornagpalli
Coal	0.300	0.7	1.0	SCCL
Gypsum	0.115	0.15	0.265	EID, Coromandel Fertilizers, Vizag/imported
Flyash	0.35	1	1.35	CPP, and other Thermal Power Plants
Coal (CPP)	0.21	-	0.21	Imported

The estimated 4500 TPD of material are proposed to be transported by trucks.

The Committee desired that the transport of limestone from the captive mine shall be by closed belt conveyor avoid truck transportation and hence plan shall be changed to conveyor. Crusher can be in the captive limestone and install closed conveyor from limestone to cement unit. The Committee desired that the captive limestone mine pits shall be reclaimed – the mine pits of 30m depth shall be gently sloped and stabilised with plantation. The Committee sought details of captive limestone mines and details of production to meet the cement production requirements.

After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3**:

i. P.H. shall be conducted by the A.P. Pollution Control Board as per the generic TOR.

25.9.2 Integrated Cement Project (Clinker 3.6 MTPA, Cement 5.5 MTPA, CPP-75 MW) of **M/s Reliance Cement Co. Ltd.** at village & Taluka Sedam, Dist. Gulbarga, Karnataka (TOR)

The PP along with their EIA-EMP consultant (M/s **Vimta Labs Limited, Hyderabad**) gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken along with draft Terms of Reference for preparation of EIA-EMP Report. The proposed activity is listed at S.No. 3(a) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

M/s. Reliance Cement Company Private Limited has Proposed Integrated Cement Plant of Clinker 3.6 MTPA, Cement 5.5 MTPA, Captive Power Plant 75 MW, Limestone capacity 5.0 MTPA Sedam Rural, Sedam Taluka Gulbarga , Karnataka. The proposed project sites Latitude & Longitude is $17^0$11' 53.62" N & $77^0$18' 10.01"E. Land Requirement for the Plant is 135 Ha, External infrastructure 70 Ha, Lime Stone Mine 929.12 Ha. Water requirement for the plant is 4750 KLD and Mines is 250 KLD, sourced from Surface/ ground water. Manpower requirement for the Plant during construction is 110 direct & 2000 indirect. During operation the manpower requirement is 225 direct and 390 indirect employees. For Mines it will be 110 direct and 45 indirect employees.

Nearest Railway station is Kurgunta which is at a distance of 4.7 Km. Nearest Highway is SH-15 which is 0.6km. Nearest Airport is Hyderabad which is 126 Km from the project site. Kagina River is at a distance of 2.7 Km. River Kali flows adjoining the plant boundary. 70ha of land is reserved for rail corridor, closed belt conveyor and approach road. Distance of the plant from the limestone mine is 3.6km. No National Park/wild life sanctuary is involved in setting up plant within 10 km radius of the project site. The total cost of the Cement Plant project is 2600 crores & Mining is 280 crores

Mining lease granted by Dept. of Mines and Geology, Govt. of Karnataka dated 30th July, 2011 and Mining plan approved for 929.12 Ha by IBM dated 23.04.2014

Following are the details of the raw material for the proposed plant:

Name	**Quantum (MTPA)**	**Source**	**Mode of Transportation**
Limestone	5.0	Captive limestone mines	Belt Conveyor
Laterite	0.2	Near by area	Road
Bauxite	0.15	Near by area	Road
Iron ore/blue dust	0.15	Near by area	Road
Coal (Cement Plant + CPP)	1.60	Coal India / Imported Coal	Rail /Road
Gypsum	0.275	Rajasthan & Others	Rail / Road
Flyash	1.80	Near by power plant and CPP	Road

After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3**:

i. Impact of the mining and the cement plant on the nearby water body shall be submitted

ii. Breakup of the total lease land in terms of agriculture, forest, barren land, water body, fellow land etc shall be submitted

iii. Lime stone shall be supplied through a closed conveyor belt from the mining area.

iv. Permission for abstraction of ground water from State Ground Water Board and surface water from the irrigation department shall be submitted

v. P.H. shall be conducted by the Karnataka Pollution Control Board as per the generic TOR.

25.9.4 Leather Processing Unit (Wet Blue To Finish) of **M/s Unique Enterprises** at Plot No - 2319, 2320, 2321, 2322, 2342, 2344, 2345 M.I.E Part (B), Bahadurgarh Jhajjar, Haryana (TOR) J-11011/39/2010- lA.II(l)

The Proposed project is Leather Processing Unit being developed by M/s Unique Enterprises. Terms of Reference (TOR) were granted vide letter no. J-11011/39/2010- IA-II (I) dated 22.06.2010 and the EIA report along-with TOR compliance was submitted in MoEF on 06.02.2012. Then case was appraised in EAC meeting held on 24.09.2012 in MOEF. EAC raised certain queries for which the PP has submitted the reply on 18.02.2013. The cost of the project is Rs. 82 Lakhs.

As per EIA Notification, 2006 (as project is located in notified Industrial Area) the project falls under 'B' category of 4 (f). However as per the Gazette Notification dated 1st Dec., 2009, general conditions apply to the project as Inter State "Delhi" Boundary fall at a distance of 2 km E from the project site & thus the project falls under 'A' category of 4 (f).

Further, MoEF sought clarification from Industries, Department, Govt. of Haryana whether the land under consideration comes under the limits of notified industrial area. The required letter from Industries & commerce, Haryana was received at MoEF vide Memo no. IE/HSIIDC/HUDA/Rep/11049-A dated 24.10.13 along-with the Haryana Government Gazatte issued on 6th Jan. 1977 & document of land acquisition act Section 17. The same was resubmitted in MoEF on 01.11.13. As per the office Memorandum dated 24th Dec., 2013, being a leather production unit without tanning & lying within the notified industrial area, PP mentioned that their project falls under 'B2' category of 4 (f). However, the project was recommended with exemption Public Hearing and Terms of Reference (TOR) has expired.

PP has again applied vide application dated 11.09.2014 under 'A' category of 4 (f) for obtaining fresh ToR. PP has requested to appraise the case in 'B2' Category & exempt from conducting public Hearing for the Project to initiate the further Environmental Clearance process.

The committee agreed for one-season baseline data collection from October-December 2014. After detailed deliberation, EAC has decided to refer the matter to Ministry regarding clarity on the conduct of Public hearing and requirement for preparation of an EC for a B2 category project.

25.10 Any Other Items

25.10.1 Expansion of Steel Plant (1.5 MTPA along with waste gas based CPP (17 MW) of **M/s Uttam Galva Metallics Ltd.** at vill. Barbadi, Dist. Wardha, Maharahstra (Amendment of EC sought vide PP's letter dated 15.09.2014 of EC J-11011/358/2014-1A.I 1(1) dated 04.09.2014)

Environmental Clearance for the proposal of Expansion of Steel Plant (1.5 MTPA along with waste gas based CPP (17 MW) of **M/s Uttam Galva Metallics Ltd.** at vill. Barbadi, Dist. Wardha, Maharahstra was accorded by Ministry vide letter F. No. EC J-11011/358/2014-IA-II(I) on 4th September, 2014. The capacity of the existing and the proposed units for which EC was granted are as given below:

S.No.	Name of Product	Production Capacity		
		Existing	Proposed	Total after Expansion
1.	Sinter Plant	0.76 MTPA	0.76 MTPA	1.52 MTPA
2.	Blast Furnace along with 0.4 MTPA Pellet plant	0.47 MTPA	0.55 MTPA	1.02 MTPA*
3.	Coke Oven	0.20 MTPA	0.60 MTPA	0.80 MTPA
4.	Coke oven gas based DRI (Surplus gas based) along with 0.4 Mtpa pellet plant	--	0.40 MTPA	0.40 MTPA
5.	Captive Power Plant (Surplus gas & kinetic energy based)	17 MW	17 MW	34 MW
6.	Converter / Electric Arc Furnace (Steel making)	--	60 Tonnes/Heat	60 Tonnes/Heat
7.	Caster & Mills for production of long products / blooms / billets	--	0.5 MTPA	0.5 MTPA
	By – Product			
8.	Coal Tar	8400 TPA	25000 TPA	33400 TPA

It was explained by the PP that with better operational practices learnt and mastered over the last three years, with the help of Technical Experts PP has achieved the production output of about 0.60 MTPA of Hot Metal, as compared to the name plate capacity of 0.47 MTPA. PP mentioned that they have increased the use of improved quality sinter feed in the BF to 90% from 70%. It has been mentioned by the PP that they are therefore confident of achieving the total output of Hot Metal to 1.20 MTPA (from both the blast furnaces combined), instead of 1.01 MTPA as stated in the EC. However, the PP will maintain the overall capacity of the plant to 1.50 MTPA of Steel production, as specified in the EC.

PP explained that the original design parameters for the Blast Furnace is 70 % Sinter and 30% of Lump ore. However, presently the Blast furnace is operating with 90% sinter and 10% of lump ore. The sinter is produced from washed iron ore fines. This leads to improved efficiency in the chemical reduction process. The Blast Furnace operational efficiency is increased with the use of 90% Sinter in the burden. Sinter is a pre-reduced feed and an intermediate product. This leads to an improvement in productivity of the BF

PP further mentioned that as CDQ process is stipulated in EC letter dated 4th September 2014. The coke dry quenching (CDQ) process will be adopted whereby additional power of 12MW will be generated out of waste heat recovery in addition to generation of 17MW power from waste gas recovery from BF and CO.

In view of the above PP requested for following amendment in the Environmental Clearance accorded vide letter dated 4th September, 2014

i. Additional 12 MW power from Coke Dry Quenching process
ii. Blast Furnace output (intermediate product) to be amended from 1.01 MTPA to **1.20 MTPA** (due to improvement in burden characteristics, increased Pulverised Coal Injection, increased oxygen enrichment of the blast, humidification of the blast and use of washed iron ore).
iii. In Para 2, line 5 of the EC, the line "1.5 MTPA of metallurgical coke" to be replaced by "1.5 MTPA of Steel Plant"
iv. In Para (i), General Condition,"Odisha" to be replaced by "Maharashtra"
v. In Para (iii), (ix), (xii), (xiii) & (xiv), General Condition, "Bhubaneswar" to be replaced by Bhopal

After detailed deliberations, the Committee recommended that an amendment to EC as requested by the proponent.

25.10.2 Integrated Cement Plant (5.5 MTPA, Clinker 4.08 MTPA), Captive Power Plant (3x25 MW, 75MW) of **M/s UltraTech Cement Ltd.** at village Basawa, Turkani Johdi, Sundon Ki Dhani, Khirod, Kemro Ki Dhani, and Mohanbari & Beri, Tehsil Nawalgarh, Dist. Jhujhunu, Rajasthan (Letter dated 18.05.2014 seeking extn. of validity of EC J-11011/18/2008-IA.II(I) dated 03.06.2009)

The proposal of Integrated Cement Plant (5.5 MTPA, Clinker 4.08 MTPA), Captive Power Plant (3 x 25 MW, 75 MW) and Limestone Mines (3461.2 ha & 1153.4 ha, 7.0 MTPA) at Villages, Basava, Turkani Johdi, Sundon ki Dhani, Khirod, Kemro ki Dhani and Mohanbari & Beri, Tehsil, Nawalgarh, District Jhunjhunu (Rajasthan) has obtained Environmental Clearance vide Letter No. J-11011/18/2008-IA II (I) dated 03rd June, 2009.

Renewed CTE for the Cement Plant has been obtained by RSPCB vide letter no. F.Tech (C-116)/ RPCB/ CPM/ 889 dated 03rd Dec., 2013 till 31st January 2017. Renewed CTE for the Captive Power Plant has been obtained by RSPCB vide letter no. F.Tech (P-127)/ RPCB/ CPM/ 1213 dated 19th February 2014 till 31st January, 2017.

It has been informed by the PP that the total plant area is 250 ha and out of this, 71 ha land has been acquired through direct negotiation and remaining 179 ha land under Compulsory Acquisition through RIICO for which award has been declared under Section 11 of Land Acquisition Act, 1894. A total expenditure of Rs. 452 Crores has been committed for plant and mines land acquisition. However, inordinate time consumed in land acquisition process.

PP further informed that Demerger & Merger of Cement Business from Grasim Industries Ltd. to Samruddhi Cement Ltd. and then to UltraTech Cement Ltd took lot of time. Which eventually delayed the grant & execution of Mining Leases by State Government; which, as per present scenario, will be granted shortly.

PP vide his application requested the committee to consider the proposal and extend the validity of the Environmental Clearance Granted vide MoEF letter no. J-11011/18/2008-IA II (I) dated 03rd June, 2009.

The Committee recommended the extension of validity of EC for the further period of 5 years. However, the PP was advised to first furnish the relevant documents to Ministry for change of name/transfer of EC from Grasim to Ultra-Tech for processing the extension of validity of EC in the name of UltraTech.

25.10.3 Expansion of Sponge Iron, Steel melting. Captive Power generation Plant of **M/s Godavari Power & Ispat Ltd.** at Plot No. 428/2. Ph-1, Industrial Area, Siltara, Chhattisgarh (Amendment in process of Steel making from EAF Route to IF Route for 2,00,000 MT in EC J-11011/326/2005.IA.II(I) dated 02.03.2006 and 08.02.2012)

Ministry vide letter No. F. No. J-11011/326/2005-IA-II(I) dated 2nd March, 2006 accorded Environmental Clearance for teh project of 'Expansion of Sponge Iron, Steel melting, Captive Power Generation Plant. The PP out of 4.0 Lack TPA of steel billet capacity, commissioned 2.0 lakh TPA of billet production capacity using induction furnace.

PP vide application dated 17.01.2011 sought amendment to use electric arc furnace instead of induction furnace for the balance capacity of steel making. Ministry vide letter dated 08.02.2012 accorded amendment to the EC as sought by the PP.

PP has requested to revert to the original permission for Induction Furnace instead of Arc Furnace and requested for commissioning of balance 2.0 lakh TPA capacity through Induction Furnace and LRF route instead of Electric Arc Furnace.

After detailed deliberations, the Committee recommended that an amendment to EC as requested by the proponent.

25.10.4 Expansion of Steel Plant (2,50,000 TPA to 300.000TPA) of **M/s Jindal Saw Ltd.,** at village Samaghogha, Paragpur, Mandvi Road, Taluka Mundra, Dist. Kutch, Gujarat (Letter dated 17.06.2014 for ext. of validity of EC-J-11011/868/2008-IA.II(I) dated 26.11.2009)

M/s Jindal Saw Limited had proposed for expansion of steel Plant (2,50,000 TPA to 3,00,000 TPA) at village Samaghogha, Paragpur-Mandavi Road, Taluka Mundra, District Kutch, Gujarat. The EC for the expansion project was accorded to JSW on 26.11.2009.

It has been informed by the PP that out of 5 units for which EC obtained, JSL commissioned 3 units. However, due to steel market fluctuation and financial constraints, construction of balance 2 units could not be done. The entire project land is in the possession of JSL. The cost of the expansion project was Rs.

400 crores. And an amount of Rs. 175 crores has been spent till date. Water requirement for the entire project is 9 MLD. PP has obtained permission for 9.5 MLD water from Gujarat Water Infra Ltd. Consent to Establish for all the 5 units obtained from Gujarat PCB.

PP vide letter dated 17.06.2014 requested Ministry for Extension of validity of the EC. No ecologically sensitive area exists within 10 km radius of project site. Following is the detail of the commissioned and proposed production:

S. No	Name of Proposed Units	Existing Capacity, TPA	Proposed Capacity, TPA	Total Capacity (TPA)
1	R&M of Existing BF	250000	300000	3,00,000
2	Mini Blast Furnace	-	280000	2,80,000
3	Steel Making Shop EOF-LRF-VDU, CCM)	-	280000	2,80,000
4	Air Separation Unit	-	110 TPD	110 TPD
5	Captive Power Plant	-	4 MW	4 MW (BF gas)
Units at Sl. No. 1, 2 and 4 commissioned& operational. Construction of units 3 and 5 yet to start.				

The Committee recommended the extension of validity of EC for the further period of 5 years. The Committee advised the proponent to start plantation at the site all along the periphery of the site wherever possible.

25.10.5 Expansion Extension of validity of EC for Integrated Steel Plant of **M/s Corporate Ispat Alloys** at Slitara Growth Centre, Siltara, Raipur, Chhattisgarh (Letter dated 16.09.2013 of PP seeking Extn. of validity of EC J- 11011/1058/2007-IA.II(I) dated 22.12.2008)

As presented by the PP, Corporate Ispat Alloys Limited "CIAL" had purchased the closed unit of M/s. Rajendra Steel Limited in 2006, through an auction conducted by the High Court of Allahabad. The Plant had been re-furbished and re-commissioned and had been restarted in the year 2009.

Ministry vide its letter No F.No.J-11011/1058/2007-IA-II(I) dated 22nd December, 2008 granted EC for the expansion projects. It has been mentioned by the PP that the expansion projects could not be implemented due to sluggish market conditions and the unwillingness of the banks to funds isolated steel projects. PP further mentioned that, vide a High Court Order dated 16.09.2013 the company had been merged with Jayaswal Neco industries Limited.

In view of the forgoing the PP requested the Committee to recommend the following

a) Extension of validity of EC for an additional period of 5 years
b) The revalidated EC to be accorded in the name of M/s Jayaswal Neco Industries Limited

The Committee advised PP to provide following details

i. Details shall be submitted regarding incorporation of the industry into a new name.

ii. Registration of the new name with the concerned authority shall be submitted.

The Committee decided that the matter shall be further considered once the above information is submitted to the Ministry.

The meeting ended with a vote of thanks to the Chair.

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LIST OF PARTICIPANTS OF EAC (I) IN 23rd MEETING OF EAC (INDUSTRY-I) HELD ON 18th-19th SEPTEMBER 2014

S.N.	Name		
1	Shri M. Raman	Chairman	A
2	Shri R.K. Garg	Vice-Chairman	P
3	Prof. R.C. Gupta	Member	P
4	Dr. Prem Shankar Dubey	Member	A
5	Dr. R.M. Mathur	Member	P
6	Dr. S. K. Dave	Member	P
7	Dr. B. Sengupta	Member	P
8	Shri Rajat Roy Choudhary	Member	A
9	Dr. S.D. Attri	Member	P (1st Day Forenoon)
10.	Dr. Antony Gnanamuthu	Member	P
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjan Raghunath Raje	Member	P
MOEF Representatives			
13.	Dr.T.Chandini	Scientist F& MS (Industry-I)	
14.	Shri Amardeep Raju	Scientist C	

ANNEXURE -I

GENERIC TERMS OF REFERENCE (TOR) IN RESPECT OF INDUSTRY SECTOR

1. Details of the EIA Consultant including NABET accreditation (including sector details and whether A/B and Accreditation No. shall be provided on the cover the EIA-EMP Report as well as in the Hard Copies of the presentation made before the Expert Appraisal Committee. Copy of NABET Accreditation for the period of preparation until submission of the EIA-EMP Report to MOEF and for presentation made before the EAC should be provided in the Annexures. If more than one consultant has been engaged, details thereof, including details of NABET accreditation as mentioned above.
2. Executive summary *(maximum 8-10 sheets in A4 size paper)* of the project covering project description, description of the environment, anticipated environmental impacts & its mitigation measures, environmental management plan, environmental monitoring programme, public consultation, project benefits, Social impacts including R&R.
3. Site Details:
   i. Location of the project site covering village, Taluka/Tehsil, District and State on Indian map of 1:1000,000 scale.
   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.
   iii. Co-ordinates (lat-long) of all four corners of the site.
   iv. Google map-Earth downloaded of the project site.
   v. A map showing environmental sensitivity [land use/land cover, water bodies, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc.] and from critically/severely polluted area(s) and Eco-sensitive Areas within 10km radius of the project site vis-à-vis shortest (aerial) distance from the project. If the project is located within 10km of CPAs/severely Polluted Areas, confirm whether moratorium has been imposed on the area.
   vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. In addition, if located within an Industrial area/Estate/Complex, layout of Industrial Area and location of unit within the Industrial area/Estate/Complex, layout of Industrial Area.
   vii. Photographs of the proposed and existing (if applicable) plant site. If existing, in addition to site map, provide photographs of plantation/greenbelt in the existing project. If fresh EC application, photographs
4. Landuse break-up of total land of the project site (identified and acquired) – agricultural, forest, wasteland, water bodies, settlements, etc shall be included.
5. A copy of the mutual agreement for land acquisition signed with land oustees.
6. Proposal shall be submitted to the Ministry for environment clearance only after acquiring at least 60% of the total land required for the project. Necessary documents indicating acquisition of land shall be included.
7. **Forest and wildlife related issues:**
   i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department.
   ii. Landuse 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

8. **Expansion/modernization proposals:**

i. 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.

ii. 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.

Details of Industrial Operations

9. A list of major industries with name and type within study area (10km radius) shall be incorporated.
10. Details of proposed raw materials and products along with production capacity. If expansion project, details for existing unit, separately for existing and new (proposed) unit.
11. Details of manufacturing process, major equipment and machinery. If expansion project, details of existing unit, separately for existing and new (proposed) unit.
12. List of raw materials required and its source along with mode of transportation shall be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
13. Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished
14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site shall be included.
15. Manufacturing process details of all the plants including captive power plant if any along with process flow chart shall be included.
16. Mass balance for the raw material and products shall be included.
17. Energy balance data for all the components of the plant shall be incorporated.

Environmental Status

18. Geological features and Geo-hydrological status of the study area shall be included.
19. 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 river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of RL of the project site and mRL of the river shall also be provided.
20. If the site is within 1 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years.
21. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) at 8 locations for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and HC (methane & non-methane) shall be collected. The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16th November, 2009 and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
22. Determination of atmospheric inversion level at the project site and 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.

23. Surface water quality including trace elements of nearby River (60m upstream and downstream) and other surface drains at eight locations to be provided.
24. Ground water monitoring including trace elements at minimum at 8 locations shall be included.
25. Noise levels monitoring at 8 locations within the study area.
26. Coal Characteristics – of indigenous and imported coal to be used in the project in terms of Calorific value, ash content and Suplhur content.
27. Traffic study of the area for the proposed project in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
28. Detailed description on flora and fauna (terrestrial and aquatic) exists 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.
29. Emissions (g/second) with and without the air pollution control measures.
30. 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 modeling 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.
31. 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.
32. Details of water requirement, water balance chart for new unit or for existing unit as well as proposed expansion (in case of expansion).
33. Source of water supply and quantity and permission of withdrawal of water (surface/ground) from Competent Authority.
34. Details regarding quantity of effluents generated, recycled and reused and discharged to be provided. Methods adopted/to be adopted for the water conservation shall be included. Zero discharge effluent concepts to be adopted.
35. 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.
36. Action plan for control of ambient air quality parameters as per NAAQM Standards for $PM_{10,}$ $PM_{2.5}$, SO_2 and NO_X, etc as per GSR 826(E) dated 16th November, 2009.
37. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008.
38. Action plan for solid/hazardous waste generation, storage, utilization and disposal. Copies of MOU regarding utilization of solid waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
39. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. A detailed plan of action shall be provided.
40. 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. All rooftops/terraces shall have some green cover.
41. 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. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
42. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

43. Details of Rehabilitation & Resettlement (R & R) involving the project. R&R shall be as per policy of the State Govt. and a detailed action plan shall be included.
44. Action plan for post-project environmental monitoring shall be submitted.
45. Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control needs to be addressed and included.
46. 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. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
    v. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
47. 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
48. 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.
49. At least 5 % of the total cost of the project 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.
50. 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.
51. The questionnaire for industry sector (available on MOEF website) shall be submitted as an Annexure to the EIA-EMP Report.
52. 'TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in the form of 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.

53. A tabular chart with index for point wise compliance of above TORs.
54. Name of the Consultant and the Accreditation details shall be printed on the cover page of the EIA-EMP Report in the Introduction as well as on the cover of the Hard Copy of the Presentation material for EC presentation as per requirments in TOR condition No. (1).
55. The TORs prescribed shall be valid for a period of two years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF 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.

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ANNEXURE-2

ADDITIONAL TORS FOR INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of generation of coal and iron ore from coal & iron ore mines and the projects they cater to
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. Respirable Suspended particulate matter (RSPM) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements). The RSPM shall also be analysed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM and incorporating of RSPM data.
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 must be prepared.

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ANNEXURE-3

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 generation of coal and limestone from coal & limestone mines and the projects they cater to;
3. For large Cement Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
4. 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.
5. If the raw materials used have trace elements, an environment management plan shall also be included.
6. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.

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ANNEXURE-4

ADDITIONAL TORs FOR PULP AND PAPER INDUSTRY

i. For major Pulp and Paper Units, 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.

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

iii. 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

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

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

vi. A commitment that no extra bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills.

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