

**MINUTES OF THE 39<sup>th</sup> RECONSTITUTED EXPERT APPRAISAL COMMITTEE**  
**(INDUSTRY - 1) BEING HELD ON 20<sup>th</sup> May 2015**

**VENUE:** INDUS, Ground Floor, Jal Wing, Indira Paryavaran Bhawan, Jor Bagh, Lodi Road, New Delhi-110003.

**WEDNSDAY, 20<sup>th</sup> May 2015**

**39.1** Opening Remarks of the Chairman

At the outset Chairman and the Committee members welcomed the new Member Secretary of the Committee.

**39.2** Confirmation of the Minutes of the 37<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during **30<sup>th</sup> April – 1<sup>st</sup> May, 2015**

The minutes of the 37<sup>th</sup> meeting of the Expert Appraisal Committee (Industry) held during **30<sup>th</sup> April – 1<sup>st</sup> May, 2015** were confirmed. The Committee thereafter, taken up the agenda items for consideration at seriatim.

Following are some corrections incorporated in the previous minutes:

i. **Minutes of the 37<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 30<sup>th</sup> April – 1<sup>st</sup> May, 2015**

Annexure 4 – Additional ToRs for Pulp and Paper Industry, item no (vi) may be read as ‘A commitment that no extra **chlorine base** bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills.

ii. **Minutes of 33<sup>rd</sup> Reconstituted Expert Appraisal Committee (Industry) held on 10<sup>th</sup> -11<sup>th</sup> February, 2015.**

Item No. 33.3.1, following corrections are incorporated

From Specific Condition no (iii) ‘raw mill/kiln, kiln feeding system, clinker cooler, coal mill,’ is deleted, specific condition (iv) is deleted, specific condition (ix) is deleted, specific condition (xiv) raw mill dust and coal dust is deleted, specific condition (xv) ‘The proponent shall implement a Plan for 100% utilisation the fly ash from the Power Plant in the Cement Plant’ shall be deleted, specific condition (xvi), (xvii), (xviii) are deleted, specific condition (xix) ‘33%’ is replaced by ‘15%’, specific condition (xxiii) ‘Bhopal is replaced by ‘Banguluru’

### 39.3 CASES FOR TERMS OF REFERENCE (TOR)

39.3.1 Integrated 36000 TPA High Titanium Slag, 20000 TPA Pig Iron and 30000 TPA Titanium Dioxide Pigment Plant by **M/s Saraf Agencies Pvt. Ltd.** SEZ, Chhatrapur, Dist: Ganjam, Odisha by Saraf Agencies Pvt. Ltd. – ToR [F. No. J-11011/658/2007-IA II (I)]

The matter was considered in the 35<sup>th</sup> EAC meeting. Based on the presentation made and discussions held during the meeting the Committee deferred consideration of the proposal and advised PP to submit the following information for further consideration of the proposal:

- i. A detailed management plan for the treatment and disposal of effluent from the Sulphate pigment plant should be submitted.
- ii. Material balance statement in respect of Titanium and Iron in the ilminite and products and waste and for Sulphuric acid should be submitted.
- iii. Economic viability of the proposed project

Vide letter dated 23<sup>rd</sup> April, 2015 PP has submitted the requisite information. Regarding detailed management plan for treatment & disposal of effluent pp submitted the plan for disposal of various effluent generated from the plant. PP also submitted the Titanium Dioxide Pigment Plant input-output balance.

Regarding material balance PP has considered Pigment plant based on joint feed of ilminite & Titanium Slag. Sulphuric Acid is fixed in following 3 ways:

- a. Concentration of acidic effluent from intermediate steps & recycle in the process.
- b. Part of acid is required for fixing major quantity of iron in ilmenite as Ferrous sulphate crystals.
- c. Balance acid contained in washing in dilute form is fixed as Ferro gypsum by neutralizing with milk of lime with iron as impurity.

PP mentioned that  $TiO_2$  is mainly contained in Pigment, unreacted mass, ferro gypsum and in dust losses from finishing areas.

Iron is fixed in Ferrous sulphate crystals & Ferro gypsum. Ferro gypsum will find use as retardant in cement grinding, as raw material for making gypsum building materials like plaster boards, gypsum blocks etc. Ferrous sulphate will find use as water additive, chemical fertilizer, high purity ferro oxide etc.

Regarding economic viability pp mentioned that following financial parameters indicate that the project is viable.

- a. iRR : 22.64%
- b. Break Even Point: 60.44%
- c. Cash Break Even Point: 50.27%

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**

- i. Public Hearing shall be conducted by Odisha Pollution Control Board
- ii. PP has to explore whether flue gas from the furnace can be utilized for the heat recovery

39.3.2 Manufacturing of Ferric Oxide or Iron Oxide powder of 15 Microns or 10 Microns by adopting inhouse beneficiation process by **M/s Omkar Agencies** at Oblapuram, Anantapur, Andhra Pradesh [J-11011/255/2013-IA-II(I)]

Consideration of the proposal was deferred as the PP did not attend the meeting. The proposal would be considered as and when requested for by the PP.

39.3.3 MS Billet from Induction Furnace, 360 TPD, (3 sets of 15 MT Per Heat capacity) at Talwara Road, Village Talwara, Mandi Gobindgarh, Tehsil Amloh, District Fatehgarh Sahib, Punjab by **M/s Fortune Metals Ltd** [J-11011/58/2015-IA-II(I)]

The PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activities are listed at 5(k) under category "B" of the schedule of EIA Notification, 2006 and appraised at the central level since the site falls within 5 km from critically polluted area.

Fortune Metals Ltd. having its factory premises at Talwara Road, Village Talwara, Mandi Gobindgarh, Tehsil Amloh, District Fatehgarh Sahib, Punjab. The company is planning to expand its existing 280 TPD TMT bars rolling mills by setting up 360 TPD Induction Furnaces for the production of MS Billet within the existing premises located at Talwara Road, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab. The project would be implemented within 2 years.

Around 50 persons per shift would work in the project. The project would operate for 330 days in a year. The promoters of the project are already having 4.7 acres of land at Talwara Road, Village Talwara, Mandi Gobindgarh, Tehsil Amloh, District Fatehgarh Sahib, Punjab.

The industry would install 66 KVA sub station for the power required for the project. Power requirements would be around 25 MW. Power would be made available from PSPCL. The industry would install 400 m<sup>3</sup>/day cooling towers, one D G set of 500 KVA capacity as a part of the utilities. The industry will use scrap iron @ 375 MT/day as basic raw material. Besides this, alloying metals @ 5 MT/day would be used for the production of MS Billets @ 360 MT/day. Fresh water requirements for the industry would be around 75 m<sup>3</sup>/day. This includes water requirements for cooling towers, APCD and domestic requirements. Only domestic effluent @ 4.5 m<sup>3</sup>/day would be generated which after treatment in septic tank would be used on land for irrigation purposes. The industry would install wet scrubbers as APCD for the control of emissions from the induction furnaces. The capital investment on the project would be around 54.30 Crores.

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-9:**

i. Public Hearing shall be conducted by Punjab Pollution Control Board

39.3.4 Proposed Integrated Cement Project - Clinker (2.5 MTPA), Cement (3.4 MTPA), Captive Power Plant (39 MW) & WHRS (8 MW), near Village: Kol Karhiya, Tehsil: Pawai, District: Panna (Madhya Pradesh) by **M/s. Springway Mining Private Limited**. [J-11011/131/2015-IA-II(I)]

PP along with their EIA-EMP consultant J.M. EnviroNet Pvt. Ltd. gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activities are listed at 3(b) under category "A" of the schedule of EIA Notification, 2006 and appraised at the central level

Springway Mining Private Limited (SMPL) is proposing an Integrated Cement Project- Clinker (2.5 MTPA), Cement (3.4 MTPA), Captive Power Plant (39 MW) & WHRS (8 MW) near Village: Kol Karhiya, Tehsil: Pawai, District: Panna (Madhya Pradesh).

Details of the products along with their production capacity are given below:

<b>Units</b>	<b>Proposed Capacity</b>
Clinker (MTPA)	2.5 MTPA
Cement (MTPA)	3.4 MTPA
Captive Power Plant (MW)	39 MW
WHRs (MW)	8 MW

Total project area including colony is 140 ha. Out of the total project area, 33 % of the total project area (46.2 ha) will be developed under green belt/ plantation. Geographical coordinates for the proposed project site are Latitude 24° 15' 48.12"N - 24° 16' 29.11"N & Longitude 79° 50' 36.20"E - 79° 51' 30.94"E.

Nearest Town is Amanganj (~25 km in NE direction), Nearest Highway is SH-49 (~1 km in SSE direction) from the proposed project site. Nearest Railway Station is Damoh Railway Station (~64 km in SW direction) and Nearest Airport is Khajuraho Airport, which is approx.60 km in North direction from the proposed project site.

No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger / Elephant Reserve, Wildlife Corridor, Protected Forest etc. falls within 10 km radius of the proposed project site. Only Pagra RF falls at the distance of approx. 3 km in NNE direction from the proposed project site. Nearest water bodies which fall within 10 km radius of the proposed project site are Bearma River (~1.0 km in North direction), Sonar River (~4.0 km in North direction), Marwa Nala (~8.0 km in South direction) and Gahra Nala (~6.5 km in NW direction).

Total cost of the project is Rs. 1950 Crores. Capital cost for Environmental Protection Measures is Rs. 40 Crores and Recurring Cost is Rs.3 Crores / annum.

The sources of various raw materials required for the proposed cement plant are Limestone from captive mine, Bauxite from Maihar, Satna (MP), Iron Ore from Siroha, Katni (MP) and Gypsum from Nagaur/ Bikaner (Rajasthan). Fly ash will be sourced from proposed CPP & Amarkantak (MP). Pet coke and coal will be used as fuel.

Water requirement for the proposed project is 2650 m<sup>3</sup>/day which will be sourced from Bearma River. Total power requirement for proposed project is 41.3 MW which will be sourced from proposed Captive Power Plant, WHRS & Grid (for emergency)

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-4:**

- i. Public Hearing shall be conducted by Madhya Pradesh Pollution Control Board
- ii. Permission from irrigation department should be obtained for drawl of water
- iii. Total coal requirement for the cement plant and power plant should be provided

PP requested for use of baseline data collected for the period of March to May 2015, which the committee agreed to.

39.3.5 Proposed Leather Processing Unit, 15.5 TPD, (Raw hides & skins to finished Leather) for manufacturing of finished chrome tanned leather at Rania (U.P.) by **M/s Leayan Global Pvt. Ltd.** [J-11011/59/2015-IA-II(I)]

PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. Since the project does not fall under any industrial area, hence as per the EIA notification 2006, the project is considered to be 'A' category project of schedule 4 (f) and appraised at the central level

The Proposed project is Leather Processing Unit being developed by M/s Leayan Global pvt. Ltd. at Rania, uttar pradesh. The unit will process the finished chrome tanned leather from raw hides/skins. The unit will process 15.5 TPD (Raw hides).

The total plot area is 34,700 m<sup>2</sup> out of which Green Area of 11,451 m<sup>2</sup> i.e. (33 % of plot area) shall be provided. The cost of the project is 4800 Lakhs. Capital cost toward environment protection measures is Rs. 725 lacs and recurring expenditure is Rs. 92 lacs/year. There is no eco-sensitive zone nor any protected & reserved forest in the buffer zone of the proposed area. The nearest highway is NH-2 which adjacent to the site. The nearest river is Rind river which is at 4.8 Km E and the Ganga river is at 25 Km NE.

The total water requirement will be 613 KLD (196 KLD of fresh water & 417 KLD of treated water). The water requirement will be met from Ground water supply after getting permission from CGWA. The total waste water generation will be 445 KLD (434 KLD Process waste + 11 KLD Domestic & Boiler waste).

The soaking waste water of 23.25 KLD shall be first given the primary treatment & then shall be treated in MEE. Chrome shall be recovered from chrome containing waste water of 23.25 KLD through Chrome recovery unit & the treated water from CRU will go to MEE for further treatment. The general process waste water of 387.5 KLD shall be treated in ETP of 480 KLD followed by R.O. of 400 KLD. All other waste Water (11 KLD) from Domestic, Boiler shall be given primary treatment & then treated water shall be sent to aeration tank in ETP. The treated

effluent of 317 KLD (80%) generated from R.O. would be reused for Gardening, Process & wash & reject of 80 KLD (20%) generated from R.O. shall be sent to multi-effect evaporator for further treatment. Also Approx. 100 KLD condensed clean water shall be obtained from MEE & shall be reused. It shall be a zero discharge complex.

The total power requirement for the unit is 1500 KVA and shall be supplied from Uttar Pradesh Electricity board. There are two boilers for steam generation of 1.5 tonnes/hr and 1 tonne/hr. There will be DG sets of capacity 1 x 1000 KVA, 1 x 600 KVA, 1 x 250 KVA & 1 x 100 KVA for power back up. Type of fuel used will be Low Sulphur Diesel and the fuel consumption of the DG set will be about 200.0 Lt/hr. 33 % green area will be maintained & DG Sets shall be bought Acoustically Enclosed.

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-6:**

- i. Public Hearing shall be conducted by U.P Pollution Control Board
- ii. 15 - 20 meters of green belt has to be provided all around the periphery of the plant and the revised layout plan should be submitted in the EIA report. Species should be selected such that odour problem from the plant is mitigated.
- iii. Explore the possibility of reuse of salt.

PP requested for use of baseline data collected for the period of March to May 2015, which the committee agreed to.

39.3.6 Expansion of Steel Manufacturing unit at Village Ambey Majra, Mandi Gobindgarh, District- Fatehgarh Sahib, (Punjab) by **M/s Vardhman Adrash Ispat (P) Limited** [J-11011/60/2015-IA-II(I)]

PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activities are listed at 3(a) under category "A" of the schedule of EIA Notification, 2006 and appraised at the central level

M/s Vardhman Adarsh Ispat (P) Limited is already manufacturing TMT Bars, Flats, Strip at Village- Ambe Majra, Mandi Gobindgarh, District- Fatehgarh Sahib, Punjab. The total area of the plot is about 7.56 acre. Total Cost of the Project after expansion will be Rs 34 Crores and Rs 85 lacs have been provided for pollution control Measures. About Rs 10 lacs will be spent on annual maintenance of such measures.

PP now wants to increase the capacity of their unit by adding two numbers of Induction Furnace (12TPH capacity each) and one no. Arc furnace of 15TPH capacity. The existing capacity of the unit is 1, 20,000 MTA of TMT Bars, Angles, Round etc. The capacity of the unit after expansion will be 2, 00,000 MTA of Billets, Steel Ingots & Blooms and 1, 20,000 MTA of TMT Bars, Angles, Round. The raw materials used are MS/CI Scrap, Sponge/Pig Iron, Silicon Manganese Alloys.

Total water requirement will be 18.5 KLD, which includes 6.5 KLD for domestic use, 12 KLD for cooling. This will be met from the existing tube-well within the premises. Rain water harvesting has been provided in the unit with a potential of 5544 m<sup>3</sup>/annum. The total power demand for the unit after expansion shall be about 23.24 MW. This demand will be met by sourcing power from Punjab State Power Corporation Limited from the nearby sub-station.

There will be about 150 persons working in the unit. Provision for occupational health of the workers has also been made.

The unit is situated in the Critically Polluted Area of Mandi Gobindgarh, Punjab. There are no Wild Life Sanctuaries, Reserved /Protected Forests or Defence Installations, Rivers and Hill Ranges within 10 Km of the project. It is about 5 Kms from Mandi Gobindgarh Bus stand.

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. 2 rows of plantation should be provided all around the periphery of the plant and the revised layout plan should be submitted in the EIA report.
- ii. Public hearing for the project is exempted as the project is situated within the industrial area

39.3.7 Expansion of Steel Plant along with Captive Power Plant and Sponge Iron Plant/WHRB at Periyapuliur, Amirthamangalam & Poovalambedu Village, Gummidipoondi Taluk, Thiruvallur Distt. Tamil Nadu by **M/s J. R. Metal Chennai Limited.**[J-11011/317/2012-IA-II(I)]

Consideration of the proposal was deferred on the request of PP. The proposal would be considered as and when requested for by the PP.

39.3.8 Proposed Project of 3 MTPA Hot Strip Mill, 3.3 MTPA Beneficiation and 2 MT Pellet Plant and Special Plate Plant (3,000 TPA to 15,000 TPA) within the premises of Rourkela Steel Plant of **M/s SAIL** at village Rourkela Tehsil Rourkela, District Sundergarh, Odisha – Request for amendment in ToR [J-11011/66/2014-IA-II(I)]

The ToR for the proposal was accorded by the Ministry vide letter No. J-11011/66/2014-IA-II(I) Dated 27<sup>th</sup> June, 2014. PP requested for waiver of point no. 76 of ToR i.e. “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 the time bound action plan shall be included. Socio-economic development activities need to be elaborated upon”.

PP mentioned that they have established an exclusive department for carrying out various activities under Corporate Social Responsibility. The main focus areas of CSR activities are, Education, Infrastructure, Health, Support for disabled/under privileged, Income generation & livelihood, Water supply and sanitation, Sports and culture, Women empowerment.

PP mentioned that they are spending huge sum on various CSR initiatives. The year wise expenditure on various CSR initiatives vis-à-vis net profit earned during the year is given below;

<b>Year</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
Net Profit (Rs. Crs)	871.89	645.93	363.37	212.20	<b>* Not declared</b>
CSR expenditure (Rs. Crs.)	11.034	5.733	10.962	15.836	16.541
<b>% expenditure on net profit</b>	<b>1.27%</b>	<b>0.9%</b>	<b>3.01%</b>	<b>7.46%</b>	<b>~8%*</b>

**\*Net profit has not been declared for 2014-15 as on 12/05/2015**

The above expenditures are excluding the expenditure on Social welfare and greenery development.

Based on the justification provided by the PP the Committee recommended an amount equivalent to 2.5 % of the total cost of the project to be earmarked towards the Enterprise Social Commitment

### 39.3.9 Integrated Steel Plant 3.0MTPA Godapaisal, Paschim Madinipur, West Bengal by **Ms JSW Bengal Steel Limited** [J-11011/37/2007-IA-II(I)]

PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activities are listed at 3(a) under category “A” of the schedule of EIA Notification, 2006 and appraised at the central level

JSW Bengal Steel Limited of JSW group has proposed to set up 3.0 Million tonnes per annum capacity Integrated Steel Plant at Godapiasal, P.S Salboni, Paschim Medinipur District, West Bengal. PP mentioned that an area of land admeasuring 4500 acres is under their possession secured by boundary wall. Out of total, an area of 2100 acres is earmarked for ISP with other ancillary facilities including Cement plant, 600 acres for power plant, 1300 for green belt and 500 acres for township.

The source of water will be Rupnarayan river and power will be sourced from Gaighata sub-station of WBSEDCL. There is no national park, wildlife sanctuary, tiger/elephant reserve, animal migratory route/corridors etc present within 15 km from the site. Parang river is at a distance of 0.9 km and Tamal Nadi is 5 km from the site.

Following table shows major plant and other facilities

<b>S. No</b>	<b>Plant Facility</b>	<b>Capacity</b>
1	Beneficiation Plant	Up to 10.0 MTPA
2	Coal washery Plant	3.7 MTPA
3	Pellet Plant	Up to 6.0 MTPA
4	Coke Oven battery with CDQ	Recovery type ovens 4x56 (6.25 m

		tall)
5	Sinter plant	1x360 m2
6	Blast Furnace	1x4300 m3
7	Steel melting and continuous casting shop	BOF 2x180 t, Ladle furnace 2x180 t, RHOB 1x180 t, Slab caster 3 MTPA, HSM 3 MTPA, CRM 1 MTPA
8	Oxygen plant	2500 TPD
9	Lime plant and dolo calcinations plant	3x600 TPD
10	Captive Power Plant	1x300 MW
11	Cement Plant	2.0 MTPA

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. The total area should be divided into 3 parts viz. Steel Plant, CPP and township and submitted
- ii. Water requirement for steel plant and CPP should be submitted separately.
- iii. A detailed study on the water requirement and usage along with the availability should be submitted for all the 3 components viz Steel Plant, CPP and township and submitted.
- iv. Data collected can be used 2013-2014. However, 1 month fresh data should be collected and should be compared with the old data and presented in the EIA report.
- v. Public Hearing shall be conducted by West Bengal Pollution Control Board

39.3.10 Proposed project of 3x 7MT Induction Furnace with Billet caster, 1 x 4 MVA Ferro Alloy and Re- Rolling Mill of **M/s Steelax Electrocast Pvt. Ltd.** at Plasto Steel Park, Barjora, dist: Bankura in West Bengal – Request for Exemption of Public Hearing [J-11011/375/2014-IA-II(I)]

Committee opined that the if PP has submitted a consent letter from the Industrial Department, then that letter is sufficient for deciding exemption of public hearing. Gazette Notification is not required. However, it was clarified by the Member Secretary, MoEFCC that the EIA Notification, 2006 specifies that the industrial activities coming up within Notified Industrial Area are exempted from conduct of Public hearing.

In the present case, since no Gazette Notification has been submitted for Industrial Area by the PP, Public consultation has to be conducted by the PP.

39.3.11 Expansion of Asbestos Fibre Cement Sheet Manufacturing Plant from 14500 T/M to 30000 T/M at Podanur, District Coimbatore, Tamil Nadu by **M/s Everest Industries Limited.** [J-11011/342/2012-IA II (I)]

The ToR for the present proposal was accorded by the Ministry vide its letter no. J-11011/342/2012-IA-II(I). PP mentioned that the project was delayed due to difficult industrial relations situation at the plant and decision to use existing non-asbestos sheet making plant to make AC products through product mix change which will conserve electricity, water and space, which took time.

PP requested to extend the validity of ToR for another period of 1 year as the existing ToR is expiring on 22.04.2015.

It has been clarified by the Committee that as per Ministry's OM, the ToRs are valid for a period of 3 years. Therefore the existing ToR is valid upto 22.04.2016.

39.3.12 Proposed expansion project by **M/s ASR Multimetals Private Limited**, located at Village Chhadwada, Tehsil, Bhachau, District, Kutch, Gujarat. [J- 11017/251/2007- IA II (I)] Earlier EC granted dated 31st March 2008

PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activities are listed at 3(a) under category "A" of the schedule of EIA Notification, 2006 and appraised at the central level

Initially company had installed rolling mill products (MS Rods , MS Wires , MS Flats , Re rolled steel products of MS i.e channels, angles, bars, rounds, sections and profiles etc , Steel billets/ ingots ) for existing plant. EIA Notification was not applicable to these products. The site is located at the Sy. No. 394/2, 398, 399 & 400 with a land area 220250.5 sq m. PP has acquired additional land of 94433 sq m which is located at Sy. No. 394/1(P), 395, 397 making a total area of 314683.5 sq m. The nearest village is Samkhiyali at a distance of 3.6 km and nearest town is Bhachau at 13.5 km. The latitude and longitude of the project site is 23°18'22.74"N, 70°28'10.69"E

The company later obtained Environmental Clearance vide letter no. F. No. J- 11011/ 251/2007- IA II (I) dated 31st March 2008 for the following units:

Product	Granted capacity	Installed capacity	Remark
Sponge iron	6000 MT/month	5500 MT/month	Company has obtained consent to operate for sponge iron plant and captive power plant vide order no. AWH 55787 dated 25/07/2013 and the plant has commissioned.
Captive power plant Coal/ lignite based CPP WHRB	20 MW 16 MW 4 MW	8 MW 4 MW 4 MW	
Pig iron	5400 MT/month	---	

Now the PP proposes for expansion in their existing manufacturing capacity. Company has procured additional land for the same. Proposed expansion falls under category A, section 3 (a) & 1 (d).

<b>Name of Products /By Products &amp; Intermediate Products</b>	<b>Existing quantity</b>	<b>Proposed quantity MT/month</b>	<b>Total quantity MT/month</b>
MS (MILD STEEL) Rods	5000 MT/Month	24000 MT/Month	36000 MT/Month
MS (MILD STEEL) Wires	2500 MT/Month		
MS (MILD STEEL) Flats	2500 MT/Month		
Re-Rolled Steel Products of MS (i.e. Channels, Angles Bars, Rounds, Sections & Profiles etc.)	2000 MT/Month		
Steel Billets / Ingots (Semi Finished Products)	12333 MT/Month	24000 MT/Month (Along with Preheater & LRF)	36333 MT/Month
Sponge Iron	5500 MT/Month	15000 MT/Month	20500 MT/Month
Power from AFBC Boiler (Coal Base)	4 MW	17 MW	21 MW
Power from WHRB (Waste Heat Gases from Rotary Kiln)	4 MW	8 MW	12 MW

The company has also acquired additional land and the details of same are as below:

<b>Details</b>	<b>Existing</b>	<b>Additional land</b>	<b>Total</b>
Survey No.			394/2, 398, 399 & 400, 394/1(P), 395, 397
Land 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. Public Hearing shall be conducted by Gujarat Pollution Control Board

39.3.13 Manufacturing of Manganese oxide and Manganese dioxide and Various Ferro Alloys at Khasra No. 248/2, 249/2 , 248/3, 249/3, Village-Kumhali, Tahsil-Khairlanji, Dist-Balaghat, M.P. by **M/s Mahashree Minerals and Chemicals**

PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activities are listed at 3(a) under category “A” of the schedule of EIA Notification, 2006 and appraised at the central level

M/s Mahashree Minerals & Chemicals, a Partnership Firm proposed to install new unit, at Survey No. 248/2, 249/2, 248/3, 249/3, Village-Kumhali, Tahsil-Khairlanji, Dist-Balaghat, Madhya Pradesh to manufacture Manganese dioxide and Manganese oxide and Various Ferro Alloys. Total 2 Acres of Land (N.A.) is in possession of M/s Mahashree Minerals & Chemicals. No National Park, Biosphere Reserve and Wildlife Sanctuary including Notified Eco- Sensitive Areas within 10 km radius. Nearest water body is Wainganga River at 0.7 km (E) and Bawanthadi River at 3.0 km (SW). The Latitude is 21°33'21.64"N Longitude 79°55'26.48"E. nearest railway station is Tiroda at the distance of 16kms. Interstate Boundary Maharashtra & Madhya Pradesh 0.9 km (SE)

Following are the details of the product and capacity:

By Submerged Arc Furnace	
1. Pig Iron	1000 MTPA
By Thermite Process (5 Nos. of MS crucibles of 1000kg each)	
1. Ferro Alloys Low & Medium Carbon	1000 MTPA
2. Ferro Alloys High Carbon	2000 MTPA
3. Silico Manganese	1000 MTPA
4. Ferro Titanium	1500 MTPA
5. Ferro Molybdenum	600 MTPA
By Installing Induction Furnace (2no of 1000kg each)	
1. Aluminum Ingot	1200 MTPA
By installing Furnace (3Nos. of 5000 kg each)	
1. Manganese oxide	9000 MTPA
2. Manganese dioxide	3000 MTPA

Water Requirement for the project is 5 KLD and the source is Ground water. The cost of the project is Rs. 3.83 Crores.

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-10:**

- i. Public Hearing shall be conducted by Madhya Pradesh Pollution Control Board
- ii. Health checkup for the workers should be conducted and report submitted.

39.3.14 Proposed expansion of Cement Plant from 1 MTPA to 1.15 MTPA with captive Power Plant by **M/s Kalyanpur Cements Ltd. (KCL)** at village Kalyanpur, P.O. Banjari, Distt. Rohtas, Bihar

KCL intends to expand its cement production capacity from 1 MTPA to 1.15 MTPA and install a CTPP with capacity of 15 MW. PP had submitted Form 1 & PFR in MoEF&CC on 15.07.2011. The project was considered in the 27<sup>th</sup> meeting held on 26-27<sup>th</sup> August, 2011 and issued ToR vide F.No.J-11011/366/2011-IA-II(I) on 9<sup>th</sup> September, 2011. Draft EIA Report was submitted at Bihar State Pollution Control Board, Patna for conducting public hearing on 02.05.2012. The public hearing was conducted by BSPCB, Patna on 15.07.2012 at primary school, Baknaura, Banjari, District Rohtas, Bihar.

PP mentioned that as per ToR condition at Sl. No. 10, a map showing the location of the project and Kaimur Wildlife Sanctuary along with distance had to be authenticated by CWLW, Bihar. PP submitted the application for No Objection Certificate & map Authentication to DFO, Rohtas, Bihar on 18.11.2011.

NOC from CWLW, Rohtas was to be issued after Gazette Notification of Eco Sensitive Zone by the MoEF&CC. In view of this, an extension of validity of TOR has been sought by PP for a period of one year on 20.08.2013. The project was considered in the 18<sup>th</sup> meeting of the Reconstituted Expert Appraisal Committee held on 28-30<sup>th</sup> April, 2014 and ToR extended for a period of one year effect from 09.09.2013 until 08.09.2014.

PP mentioned that since the NOC from Wildlife Division was not received till date, therefore the Final EIA submission and hearing could not happen as per earlier OM dated 20.08.2014. PP mentioned that this situation has changed as per OM No.F.No.J-11013/41/2006-IA.II(I) (Part) dated 30.03.2015 and OM No. J-11013/41/2006-IA-I(I) dated 02.12.2009

Now PP requested to extend the validity of EC for further period of 1 year.

The Committee after detailed deliberation extended the validity of EC for a period upto 8<sup>th</sup> September, 2015 as per the new OM dated 7/11/2014.

39.3.15 Capacity enhancement of existing Cement Plant of **M/s Maharaja International**, u/o- Pawan Cement Co (P) Ltd. at Survey No 12, Amirgadh, Banaskantha, Gujarat.

PP along with their EIA-EMP consultant gave a detail presentation on the salient features of the project and proposed Environmental protection measures to be undertaken along with draft Term of Reference for the preparation of EIA-EMP report. The proposed project activity is listed at 3(b) under category "B" of the schedule of EIA Notification, 2006, since production capacity remains <1.0 million tonnes/annum, however, due to project located at a distance of 3 kms from inter-state boundary of Gujarat & Rajasthan the project falls under Category A and subjected to applicability of General Condition (GC).

Maharaja International u/o- Pawan Cement Co. Pvt Ltd is an existing Clinker / Cement Manufacturing unit since 2009 at GPCB consented quantity of manufacturing 9,000 MT/month

(300 TPD). PP now has proposed to enhance production capacity upto 900 TPD or say 2.97 Lac TPA from 300 TPD at Survey no: 12/2, Village & Taluka- Amirgadh, NH – 27, District- Banaskantha, Gujarat Pin: 385103.

In order to derive 900 TPD Clinker production, basic input requirement of Limestone is to be about 1400 TPD. Existing Raw Mill capacity of 45 TPH is proposed to be supplemented by a Pre-Grinder unit of commensurate capacity to meet the requirement. Present Coal Mill capacity of 7 TPH needs to be raised to 12 TPH. To meet the requirement, a new Calciner unit is proposed for secondary firing system. Existing Rotary Kiln (44.6 m long X 3.0 m dia.) is sufficiently capable to process clinker up to 1200 TPD. At present the Kiln is equipped with Planetary Coolers, which needs to be replaced by Grate Cooler.

The power requirement for the project is 4000 KVA (Proposed Expansion Load) Existing 2500 KVA. Captive substation of 66 KVA of UGVCL within premises. DG Set of 125 KVA is available for the existing plant, which is stand by. An employment for 125-150 direct and 350-400 people indirect will be created. The water requirement for the project is 16.1 m<sup>3</sup>/day

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-4:**

- i. Public Hearing shall be conducted by Gujarat Pollution Control Board

39.3.16 Kaolin beneficiation plant, Village- Raghunathpura, Chittorgarh, Rajasthan of M/s Sawa Kaolin Pvt. Ltd. [J-11011/61/2014-IA-II(I)]

Consideration of the proposal was deferred as the PP did not attend the meeting. The proposal would be considered as and when requested for by the PP.

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## Executive Summary

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

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

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

1. Executive Summary
2. Introduction
  - i. Details of the EIA Consultant including NABET accreditation
  - ii. Information about the project proponent
  - iii. Importance and benefits of the project
3. Project Description
  - i. Cost of project and time of completion.
  - ii. Products with capacities for the proposed project.
  - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
  - iv. List of raw materials required and their source along with mode of transportation.
  - v. Other chemicals and materials required with quantities and storage capacities
  - vi. Details of Emission, effluents, hazardous waste generation and their management.
  - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
  - viii. Process description along with major equipments and machineries, process flow sheet (quantative) from raw material to products to be provided
  - ix. Hazard identification and details of proposed safety systems.
  - x. Expansion/modernization proposals:
    - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30<sup>th</sup> May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing *existing* operation of the project from SPCB shall be attached with the EIA-EMP report.
    - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
4. Site Details
  - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
  - ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)

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

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

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. 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

6. **Environmental Status**

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
- ii. AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
- iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iv. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- v. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC.
- vi. Ground water monitoring at minimum at 8 locations shall be included.
- vii. Noise levels monitoring at 8 locations within the study area.
- viii. Soil Characteristic as per CPCB guidelines.
- ix. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- x. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- xi. Socio-economic status of the study area.

## 7. Impact Assessment and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for 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.
- ii. Water Quality modelling – in case, if the effluent is proposed to be discharged in to the local drain, then Water Quality Modelling study should be conducted for the drain water taking into consideration the upstream and downstream quality of water of the drain.
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent

treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

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

## 8. Occupational health

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

## 9. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
11. Enterprise Social Commitment (ESC)
- i. Adequate funds ( atleast 2.5 % of the project cost) shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be included. Socio-economic development activities need to be elaborated upon.
12. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
13. ‘A tabular chart with index for point wise compliance of above TORs.
14. The TORs prescribed shall be valid for a period of three years for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

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 4<sup>th</sup> August, 2009, which are available on the website of this Ministry shall also be followed.

- viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCI) /National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
- ix. TORs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCB shall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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**ADDITIONAL TORS FOR INTEGRATED STEEL PLANT**

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

**ADDITIONAL TORS FOR PELLET PLANT**

14. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
  15. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
  16. 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.
  17. PM(PM<sub>10</sub> and P<sub>2.5</sub>) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM<sub>10</sub> to be carried over.
  18. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  19. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
  20. Plan for slag utilization
  21. Plan for utilization of energy in off gases (coke oven, blast furnace)
  22. System of coke quenching adopted with justification.
  23. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
  24. Trace metals in waste material especially slag.
  25. Trace metals in water
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**ADDITIONAL TORs FOR CEMENT INDUSTRY**

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

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

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**LEATHER/SKIN/HIDE PROCESSING INDUSTRY**

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, *etc.*).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulfides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, *etc.*, along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.

**Coke oven plant**

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

**Asbestos milling and asbestos based products**

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

**Induction/arc furnaces/cupola furnaces 5TPH or more**

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

**Metallurgical industry (ferrous and non-ferrous)**

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