Ministry of Environment, Forest and Climate Change
Impact Assessment Division
(Industry-1 Sector)

Summary record of the seventeenth (17th) meeting of Re-Constituted Expert Appraisal Committee (REAC) held during 9th April, 2020 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environment Impact Assessment (EIA) notification, 2006.

The seventeenth meeting of the Expert Appraisal Committee (EAC) for Industry-1 Sector constituted as per the provisions of the EIA Notification, 2006 for Environment Appraisal of Industry-1 Sector Projects was held during 9th April, 2020 in the Ministry of Environment, Forest and Climate Change through **video conferencing** in view of the Corona Virus Disease (Covid-19). The list of participants is furnished as below.

S.No.	Name	Position
1.	Dr. Chhavi Nath Pandey	Chairman
2.	Dr. Bipin Prakash Thapliyal, Director, Central Pulp and Paper Research Institute (CPPRI)	Member
3.	Dr.Siddharth Singh, Scientist 'E' Indian Meteorological Department (IMD)	Member
5.	Dr. Jagdish Kishwan	Member
6.	Dr. G.V.Subramanyam	Member
7.	Shri. Ashok Upadhyaya	Member
8.	Shri. Rajendra Prasad Sharma	Member
9.	Dr. Sanjay Deshmukh	Member
10.	Prof. S.K. Singh	Member
11.	Dr. R. Gopichandran	Member
12.	Shri Jagannadha Rao Avasarala	Member
13.	Shri. J.S.Kamyotra	Member
14.	Shri. A.K. Agrawal	Member-Secretary

After welcoming the Committee Members, discussion on each of the agenda items was taken up. The minutes of 16th meeting held during 24-25th February, 2020 were confirmed by the EAC as already uploaded on PARIVESH.

9th April, 2020

17.1 Proposed Standalone Cement Grinding Unit by installation of 2x300 TPD Ball Mill with production capacity of 0.183 MTPA by **M/s. Devanadan Banarasi Private Limited** located at Village- Belsipah, Pargana- Garwar, Tehsil & **District- Ballia, Uttar Pradesh** [Online proposal No. IA/UP/IND/121374/2019; MoEF&CC File No. J-11011/63/2020-IA.II (I)] – **Prescribing of Terms of Reference (ToR) – regarding.**

Consideration of the proposal was **deferred** as the Project Proponent did not attend the meeting. The Committee requested the Ministry to place the proposal in the next EAC meeting for consideration.

17.2 Proposed Iron ore beneficiation plant – 1000 TPD; pellet plant – 2000 TPD; sponge iron plant – 3000 TPD; Induction Melting Furnaces and /or Electric Arc Furnaces – 4X 25 TPD and CPP of 50 MW by **M/s. K.B. Steels Private Limited** located at Harovanahalli Village & Basavandurga Village, Chilakanhatti Post, Hosapete Taluk, **Bellary District, Karnataka** [Online proposal No. IA/KA/IND/146496/2020; MoEF&CC File No. J-11011/65/2020-IA.II (I)] – **Prescribing of Terms of Reference (ToR) – regarding.**

Consideration of the proposal was **deferred** as the Project Proponent did not attend the meeting. The Committee requested the Ministry to place the proposal in the next EAC meeting for consideration.

17.3 Expansion of Rolling Mill from 1,70,000 TPA to 2,30,000 TPA by **M/s. Aarti Steels Limited** located at Ludhiana, **District Ludiana, Punjab** [Online proposal No. IA/PB/IND/130267/2019; MoEF&CC File No. J-11011/417/2019-IA.II(I)] – **Prescribing of Terms of Reference (ToR) based on ADS reply – regarding.**

17.3.1 The proposal was considered in the 14th meeting of EAC held during 23-24th December 2019. The relevant portion of minutes of meeting is as given below.

17.3.2 **M/s. Aarti Steels Limited** has made application vide online proposal no. **IA/PB/IND/130267/2019**dated 07/12/2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

17.3.3 The existing plant was accorded Environmental Clearance vide lr.no. CSA/6419 dated 30/05/2003 by Government of Punjab. Consent to Operate for Arc Furnace Division was accorded by Punjab State Pollution Control Board vide lr. No. R16LDH1CTOA3561956, validity of which is up to 31/03/2021 for Air and vide lr. No. R16LDHCTOW3561870, validity of which is up to 31/03/2021for Water.

17.3.4 Consent to Operate for Induction Furnace Division was accorded by Punjab State Pollution Control Board vide lr. No. R15LDH1CTOA3263978 for airwhich is valid up to 31/03/2020and vide lr. No. R15LDH1CTOW3264172 for water which is valid up to 31/03/2020.

17.3.5 Consent to Operate was accorded by Punjab State Pollution Control Board for Rolling Mill Division vide lr. No. CTOA/Renewal/LDH1/2018/7027323 for air, which is valid up to 30/09/2022 and vide lr. No. CTOA/Renewal/LDH1/2018/7027276 for water which is valid up to 30/09/2022. Consent to Operate was accorded by Punjab State Pollution Control Board for Steel Wire Division vide lr. No. R15LDH1CTOA3161477 for air which is valid up to 31/03/2020 and vide lr. No. R15LDH1CTOW3161346for water which is valid up to 31/03/2020.

17.3.6 The proposed unit will be located at Plot No. 1855-1859, Focal Point, Phase-III, Village Dhandari Kalan/Jamalpur, Tehsil- Ludhiana, District-Ludhiana, State-Punjab.

17.3.7 The land area acquired for the proposed plant is 22.97 acres (9.3 ha) out of which agricultural land, grazing land and Government Land is Nil. No/forestland involved. The entire land has been acquired for the project. Of the total area 2.2ha (5.4 acre) (~23%) land will be used for green belt development.

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

17.3.9 Total project cost is aprx. INR 223.58 Crore. Proposed employment generation from proposed project will be 250 direct employment.

17.3.10 The targeted production capacity of the project is 2,30,000 TPA. Being a secondary steel plant no Iron ore for the plant would be needed. Other raw materials will be transported through Road. The proposed capacity for different products for the project is as below:

Name of unit	**No. of units**	**Capacity of Unit**	**Production Capacity (After Expansion)**
Billet manufacturing (EAF)	1	35 t	165,000 tpa
Billet manufacturing (IF)	2	12 t each	65,000 tpa
Round product (Rolling Mill)	3	2,00,000 tpa	158,400 tpa
Flats (Rolling Mill)	1	-	70,700 tpa

17.3.11 The electricity load of 38.5 MVA will be procured from Punjab State Power Corporation Limited (PSPCL). Proposed raw material and fuel requirement for project are 3,08,385 TPA. The requirement would be fulfilled by purchase as well as internal generation. Fuel consumption will be mainly Fuel oil and HSD.

17.3.12 Water Consumption for the proposed project will be 1174 KLD and waste water generation will be 38 KLD from process and 72 KLD from STP, both of which will be recycled and reused. Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reused in plant.

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

17.3.14 Environment Consultant Green C India Consulting Private Limited [Sl. No.75, List of Accredited Consultant Organizations (Alphabetically) Rev. 82, Dec. 05, 2019].

Observations of the Committee (EAC meeting held during 23-24th December 2019):

17.3.15 The Committee noted that the proposed plant site is located within the Critically Polluted Area and there is no space available for green belt development within the plant premises and the adjoining area. There is no surface water availability and only ground water is available.

Recommendations of the Committee (EAC meeting held during 23-24th December 2019):

17.3.16 The proponent was asked to look for better pollution control devices, reduction in

source and fugitive emission by way of improved control technologies (or) modification in production process and equipment. The proponent was also asked to examine the possibilities of alternative water sources i.e., use of sewage (or) effluent from CETP as alternate water source in place of ground water.

17.3.17 Project replied to ADS on 04.03.2020 on better pollution control devices and alternative water resources.

Observations of the Committee:

17.3.18 The Committee observed the following:

i. No space for Green belt development is available according to the records furnished by the PP.
ii. Engineering layout was not available.
iii. Equipment details inter-alia including APC devices were not available.
iv. PP has no definite plan to use surface water which could be made available from the STP water from Ludhiana Municipality Authority.
v. There is no space to develop 40 % Green belt as required in critically polluted areas as per the Ministry's O.M. dated 31/10/2019.

Recommendations of the Committee:

17.3.19 In view of the project area lying in critically polluted area and PP don't have any definite plan for surface water availability and acquisition of land for 40% green belt development, the committee recommended to return the proposal in present form.

17.4 Expansion of cement grinding unit from 50 TPD to 250 TPD by **M/s Jai Shree Krishana Cements** located at plot No.-G-27, RIICO Industrial Area, Sotanala, Tehsil: Behror, **District: Alwar Rajasthan** [Online proposal No. IA/RJ/IND/122267/2019; MoEF&CC File No. J-11011/99/2012-IA II(I)] – **Prescribing of Terms of Reference (ToR) based on ADS reply – regarding.**

17.4.1 The proposal was considered in the 13th meeting of EAC held during 27-29th November 2019. The relevant portion of minutes of meeting is as given below.

17.4.2 M/s. Jai Shree Krishana Cements proposes to install an expansion of existing manufacturing unit for Cement production (clinker grinding). It is proposed to set up the plant for 300 TPD (existing 50 TPD + proposed: 250 TPD) based on clinker grinding technology. The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 19.10.2019, vide Online Application No. IA/RJ/IND/122267/2019.

17.4.3 The existing project was accorded environmental clearance vide lr.no. J-11011/99/2012-IAII(I) dated13.04.2016. Consent to Operate was accorded by Rajasthan State Pollution Control Board vide letter no. F(CPM)/Alwar (Behror)/2690(1)/2017-2018/194-196 validity of CTO is up to 30.06.2022.

Details submitted by the Project Proponent

17.4.4 The proposed expansion of the unit will be coming up at Plot No.-G-27, G 26 (B), RIICO Industrial Area, Sotanala, Taluka: Behror, District: Alwar, State Rajasthan.

17.4.5 The land area acquired for the proposed plant is 0.32 ha {3210 sq. m. (existing: 1500 sq. m +proposed: 1710 sq. m.} out of which agricultural land, grazing land

and Government Land is Nil. No forestland involved. The entire land has been acquired for the project. Of the total area 0.10 ha (33%) (1059 sq. m.) land will be used for green belt development.

17.4.6 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

17.4.7 Total project cost for the (proposed expansion) is approx.Rs.1.91 Cr. Proposed employment generation from proposed project will be 10 direct employments and 5 indirect employments.

17.4.8 The targeted production capacity of the cement is 90,000TPA (existing: 15000 TPA + proposed 75,000 TPA). The proposed capacity for different products for new site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Cement production (PPC/OPC/PSC)	1	-	Existing : 50 TPD Proposed : 250 TPD After expansion: 300 TPD

17.4.9 The electricity load of 0.5 MW will be procured from JVVNL, Jaipur. Company has also proposed to install 1 DG Set (1500 kVA).

17.4.10 Proposed raw material and fuel requirement for project are as below:

S. No.	Cement type	Raw material combinations
1.	**OPC**	Clinker 97% + Gypsum 3%
2.	**PPC**	Clinker 65% + Gypsum 5% + Fly ash 30%
3.	**PSC**	Clinker 40% + Fly ash 25% + slag 35%

17.4.11 The requirement would be fulfilled by various places such as Shree Cement, Beawar & Laxmi Cement, Sirohi (clinker), and other raw materials (fly ash, gypsum, slag etc.) will be procured from outside agencies and cement mills through trucks (by road). Fuel consumption will be mainly of HSD for DG set (240 l/hr).

17.4.12 Water Consumption for the proposed project will be 3 KLD and waste water generation will be 0.85 KLD (domestic sewage). Domestic waste water will be handled through septic tank, soak pit and there will be no industrial waste water as clinker grinding is a dry process.

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

17.4.14 EIA Consultant: Gaurang Environmental Solutions Private Limited, Jaipur. [S.No. 75, List of Accredited Consultant Organizations (Alphabetically) Rev. 86, April 07, 2020].

Recommendations of the Committee (EAC meeting held during 27-29th November 2019)

17.4.15 The committee after detailed deliberations, deferred the proposal for want of the following information.

i. Detailed Engineering drawing layout

ii. Information on green belt in the existing plant

17.4.16 Project Proponent replied to ADS on 27.02.2020.

Observations of the committee

17.4.17 The proposal was deferred for want of proper Prefeasibility Report. ADS reply is not satisfactory with respect plant layout and green belt.

Recommendations of the committee

17.4.18 In view of foregoing, after detailed deliberations, the Committee rejected the proposal. The committee felt that quality of the proposal/report by Gaurang Environmental Solutions Private Limited, Jaipur, EIA Consultant is very poor. Therefore, EAC advised MoEF&CC to refer the matter to QCI/NABET to issue warning to consultant and asked Consultant to improve the quality of reports in future.

17.5 Expansion of existing unit comprising of Iron Ore Beneficiation, Pelletisation, Sponge Iron, Billets and rolling mill by installation of 8 TPD Induction Furnace **by M/s HRG Alloys & Steels Pvt. Ltd** located at Hirekasankandi Village, **Koppal Dist, Karnataka** [Online proposal No. IA/KA/IND/144677/2020; MoEF&CC File No. J-11011/577/2008-IA.II (I)] – **Prescribing of Terms of Reference (ToR) – regarding.**

17.5.1 M/s. HRG Alloys & Steels Pvt Ltd has made online application in the prescribed Form-1 and other reports on 22.02.2020 vide proposal No. IA/KA/IND/144677/2020 to propose Terms of Reference for undertaking detailed EIA study for the expansion project mentioned in the subject. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

17.5.2 The existing project was accorded Environmental Clearance vide lr.no. J-11011/977/2008-IA-II(I) dated 23rd June 2011. Consent to Operate was accorded by Karnataka State Pollution Control Board vide lr. no.196/PCB/MIN/CFO/2016-17OB-455 dated 22nd July 2016 validity of CTO is up to 30th June 2021.

Details submitted by the project proponent

17.5.3 The proposed unit will be located at Sy.No.12, 14 & 23. Village: Hirekasankandi, Taluka: Koppal District: Koppal, State:Karnataka.

17.5.4 The land area acquired for the proposed plant is 34.60 ha out of which agricultural land, grazing land and Government Land is Nil. No forestland involved. The entire land has been acquired for the project. Of the total area 12.1 ha (35%) land will be used for green belt development.

17.5.5 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

17.5.6 Total project cost is approx 561 Crore rupees. Proposed employment generation from proposed project will be 450 direct employment and 550 indirect employment.

17.5.7 The targeted production capacity of the Iron Ore beneficiation is 1.5 million TPA, Sponge Iron 0.21MTPA. Pellet plant1.20 MTPA MS Billet by Induction

furnace155000TPA & Rolling Mill (TMT Bars) 165000TPA. The ore for the plant would be procured from Government source (MSTC, NMDC and MML). The ore transportation will be done through both Rail and road. (Rail/Road/Conveyor/Slurry Pipeline). The proposed capacity for different products for new site area as below:

Product Name	Consented	Proposed	Total
Iron Ore beneficiation	1.50 MTPA	--	1.50MTPA
Sponge Iron	0.21 MTPA		0.21MTPA
Pellet plant	1.20 MTPA		1.20MPTA
MS Billet by Induction furnace	78000TPA	77000TPA	155000TPA
Rolling Mill(TMT Bars)	75000 TPA	90000TPA	165000TPA

17.5.8 The electricity load of 25 MW will be procured from Captive power. Company has also proposed to install two DG sets of capacity 750KVA and 1500KVA.

17.5.9 Proposed raw material and fuel requirement for project are iron ore and Dolomite and Bentonite and iron Scrap are available locally. Coal is being imported. The requirement would be fulfilled by local suppliers as well as in house backward production facilities of Sponge iron and pellet plant Fuel consumption will be mainly electric power and small portion of coal for DRI/Sponge.

17.5.10 Water Consumption for the proposed project will be 302.5KLD and wastewater generation will be Nil. Domestic wastewater 20 KLD will be treated in STP and industrial wastewater generated will be treated and reused

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

Observations of the Committee

17.5.12 The details of raw materials, plant layout with scale, process description and raw material used and its quantity, source of supply, existing greenbelt, and permission for water withdrawal has not been provided in Pre-feasibility Report. Hence, the Committee was of the considered view that instant proposal is incomplete in several technical aspects.

Recommendations of the committee

17.5.13 In view of foregoing, after detailed deliberations, the committee recommended to return the proposal in the present form.

17.6 Expansion of Integrated Steel Plant with addition Steel Melting Shop-3,72,352 TPA producing steel Rolled Product of 3,43,312 TPA, Sponge Iron Plant of 2× 350 TPD , Captive Power plant 40 MW(AFBC-21, WHRB-19) to the Existing Facility: Sponge Iron Plant: 6× 100 TPD, Pellet Plant: 6,00,000 TPA, Captive Power Plant 15 MW(WHRB) and Iron Ore beneficiation Plant 6,00,000 TPA **by M/s. Janki Corporation Limited** located at Survey no 97,225 etc (KIADB: 219.11 Acres ,NA Land: 116.37Acres and KLA(u/s) 109: 49.68 Acres, (total 385.16 Acres) Sidiginamola village, **Bellary Taluk and District, Karnataka** [Online proposal No. IA/KA/IND/150633/2020; MoEF&CC File No. J-11011/576/2009-IA-II (I)] – **Prescribing of Terms of Reference (ToR) – regarding.**

17.6.1 M/s. Janki Corporation Ltd has made online application in the prescribed Form-1 along with pre-feasibility report vide proposal No. IA/KA/IND/150633/2020 dated 29/03/2020 to obtain Terms of Reference for undertaking detailed EIA study for the expansion project mentioned in the subject. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

17.6.2 M/s. Janki Corporation Limited proposes to install an expansion of Integrated Steel Plant with addition of Steel Melting Shop-3,72,352TPA producing steel rolled product of 3,43,312TPA, Sponge Iron Plant of 2×350TPD, Captive Power plant 40MW (AFBC-21, WHRB-19) to the Existing Facility: Sponge Iron Plant :6×100TPD, Pellet Plant: 6,00,000TPA, Captive Power Plant 15MW (WHRB+AFBC) and Iron Ore Beneficiation Plant 6,00,000 TPA based on Integrated Steel Technology. The existing project was accorded Environment Clearance vide lr.no.J-11011/576/2009-IA-II (I) dated 23rdJanuary,2012. Consent to Operate was accorded by Karnataka State Pollution Control Board vide lr. no. AW-303383 validity of CTO is up to 30.06.2022.

17.6.3 The proposed expansion will be located within the existing unit located at Village: Sidiginamola – 583 111 Taluka:Balalri, District: Ballari, State:Karnataka.

17.6.4 The land area acquired for the proposed expansion is155.980 ha (385.16 acres). Of the total area, 57.183 ha (36.70%) land will be used for greenbelt development.

17.6.5 No National Park/Wildlife Sanctuary/Bio-Sphere Reserve/Tiger Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna.

17.6.6 Total project cost is approx. Rs.423.43 Cr. Employment generation from proposed project will be for 618 nos. of people through direct employment and will be for 1000 nos. of people through indirect employment.

17.6.7 The targeted production capacity of the integrated steel plant is Steel Rolled Product of 3,43,312 TPA, with Pellet 6,00,000 TPA, Sponge Iron 6× 100 TPD, 2× 350 TPD, CPP 55 MW. The ore for the plant procured from local market. The ore transportation will be done through road. The proposed capacity for different products for new site area as below:

Name of unit	**No. of units**	**Capacity of each Unit**	**Production Capacity**
Steel melting Shop	01	3,72,352 TPA	3,43,312 TPA Steel Rolled product
Sponge Iron Plant	08	6× 100 TPD 2× 350 TPD,	1300 TPD
Iron Ore beneficiation Plant	01	6,00,000 TPA	6,00,000 TPA
Captive Power Plant	01	55 MW (AFBC-21, WHRB-34 MW)	55 MW
Pellet Plant	01	6,00,000 TPA	6,00,000 TPA

17.6.8 The electricity load of 41.23MW out of which 46.50MW will be generated from CPP &in case of emergency same power will be procured from GESCOM. Company has proposed to install 2 DG sets of 500 KVA & 3 DG sets of 600 KVA DG Set for standby.

17.6.9 Raw material and fuel requirement for proposed project are Iron Ore Fines (7,50,000TPA), Imported Coal (4,13,598 TPA), Dolomite (21,500TPA), Lime Stone (6,900 TPA), Coke Fine (4,485TPA) & Bentonite (4,485TPA). The requirement would be fulfilled by local as well as indigenous. Fuel consumption will be Diesel and Furnace Oil.

17.6.10 Water Consumption for the proposed project will be 6859 KLD (additional) and wastewater generation will be 4295KLD, which will be recycled in the process. Domestic wastewater will be treated in STP/ Soak Pit and industrial wastewater generated will be treated in Water treatment plant and reused in Greenbelt, Dust Suppression development and different unit of the plant.

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

17.6.12 EIA Consultant: M/s Ardra Consulting Services Pvt Ltd, Bhubaneswar.

Observations of the committee

17.6.13 AFBC was proposed with capacity of 21 MW which seems to be is much lower in power generation with respect to its configuration.

17.6.14 Details of producer gas plant are not available.

17.6.15 Required water 6000 KLD, will be met by treated sewer water supply from Bellary town.

Recommendations of the Committee

17.6.16 In view of foregoing, the committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. AFBC capacity and power generation shall be revisited with design details and process parameters (quality and quantity of dolochar and boiler efficiency). The details shall be furnished in the EIA report.

ii. No sale of dolochar is permitted.

iii. Details of tailings management shall be provided in the EIA report with slime filtration, disposal of cake, dewatering period, reuse etc. Tailing pond is not allowed in the plant premises.

iv. Details of utilization of fly ash generated in the proposed project shall be furnished. Stacking of fly ash is not allowed.

v. Producer gas plant shall be closed circuit type and details shall be furnished.

vi. Detail design for 100 % hot charging to ensure energy conservation.

vii. Action plan to achieve particulate emissions less than 30 mg/Nm^3. Design details of APCD to control emissions at peak production operations shall be furnished in the EIA report.

viii. Detailed Social Impact Assessment shall be carried out.

ix. Plant layout shall be furnished including greenbelt in scale.

17.7 Expansion of cement plant (clinker-0.66 to 3.0 MTPA; Cement -0.95 to 2.50 MTPA) and installation of WHRB (15 MW) by **M/s. Sagar Cements (R) Ltd.** (Formerly BMM Cement Ltd) located at Village Gudipadu, P.O. Yadiki Mandal, **Anantapur Dist., Andhra Pradesh** [Online proposal No. IA/AP/IND/144727/2020; MoEF&CC File No. J-11011/421/2017-IA.II(I)] – **Amendment in Terms of Reference (ToR) with respect to envisaged production capacities –** regarding.

17.7.1 M/s. Sagar Cements (R) Limited has made online application in the prescribed Form-3 and other documents on 22.02.2020 vide proposal No. IA/AP/IND/144727/2020 for seeking amendment in Terms of Reference for undertaking detailed EIA study for the expansion project mentioned in the subject. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

17.7.2 M/s. Sagar Cements (R) Limited (SCRL) formerly known as BMM Cements Limited (BMM) is operating a Cement Plant at Gudipadu Village, Yadiki Mandal, Anantapur District, Andhra Pradesh.

17.7.3 SCRL had proposed to increase the production capacity of the cement plant i.e Clinker from 0.66 to 3.00 MTPA and cement from 0.95 to 4.00 MTPA and increase the power capacity from 25 MW to 40 MW by installation of 15 MW WHR CPP within the existing cement plant complex of 80.0 ha located at Gudipadu Village, Yadiki Mandal, Anantapur District, Andhra Pradesh. TOR and Amended TOR was issued by MoEF&CC vide letter no J-11011/421/2017-IA, II(I) dt.19.09.2017 and dt.27.03.2018.

17.7.4 Further, considering the technical feasibility and market conditions, SCRL has obtained Environmental Clearance for increase in Clinker production from 0.66 to 0.75 MTPA with modification in the existing units which is falling within the purview of SEIAA, AP vide Lr. No. SEIAA/AP/ANT/IND/12 /2018/787 dt 03.05.2019 and also obtained Consent for Establishment and Consent for Operation for increase in Clinker production from 0.66 to 0.75 MTPA.

17.7.5 The present proposal was submitted to MoEF&CC for obtaining the amendment to the amended TOR for the change in base production with no change in ultimate production for which TOR was already issued by MoEF&CC. SCRL requests MoEF&CC for Amendment in the Amended TOR for change in base capacity. The capacities for which initial and amended TOR was granted and present request of Amendment to Amended TOR are given below in table.

Production Capacity (MTPA)

		Initial TOR Issued dated 19.09.2017	**TOR Amendment issued dated 27.03.2018**
Unit	**Present Capacity (MTPA)**	**Capacity after Expansion**	**Capacity after Expansion**

			(MTPA)		(MTPA)	
	Clinker	**Cement**	**Clinker**	**Cement**	**Clinker**	**Cement**
Unit –I	0.66	0.95	1.00	1.00	1.00	1.35
Unit –II	-	-	2.00	1.5	2.00	2.65
Total	**0.66**	**0.95**	**3.00**	**2.5**	**3.00**	**4.00**
Power	25 MW CPP		40 MW (with installation of 15 MW WHR CPP)		40 MW (with installation of 15 MW WHR CPP)	

Production Capacity Request for Amendment in Amended TOR

Cement Plant	**Present Capacity**			**Capacity after Proposed Enhancement**		
	Clinker	**Cement**	**Power (MW)**	**Clinker**	**Cement**	**Power (MW)**
Unit –I	*0.75	0.95	25 (CPP)	1.00	1.35	25 (CPP) + 15 MW WHRB
Unit –II	-	-		2.00	2.65	
Total	***0.75**	**0.95**	**25**	**3.00**	**4.00**	**40**

Note *Amendment is requested for change in base capacity with no change in ultimate capacity for which TOR amendment was issued

Observations of the committee

17.7.6 The clinker production was enhanced from 0.66 to 0.75 MTPA by obtaining permission from SEIAA, Andhra Pradesh on 03.05.2019.

17.7.7 TOR for the expansion proposal was prescribed on 19.09.2017 and it was amended on 27.03.2018 by the Ministry.

17.7.8 The project feasibility and capacities of clinker production were changed repeatedly for which prefeasibility report and other project details shall be redrawn.

Recommendations of the committee

17.7.9 In view of foregoing, after detailed deliberations, the committee rejected the proposal for further amendment in ToR and advised project proponent to make an application for fresh ToR.

17.8 Expansion of MS Billet from 2,37,600 MTPA to 5,74,200 MTPA, TMT bars from 2,00,000 MTPA to 4,20,000 MTPA, MS structures from 37,600 MTPA to 1,80,000 MTPA and wire rod of 4,20,000 MTPA of **M/s. Galwalia Ispat Udyog Private Limited** located at village Narain Nagar Industrial Estate, Bazpur Road, Tehsil Kashipur, **District Udham Singh Nagar, Uttarakhand** [Online Proposal No. IA/UK/IND/112895/2019, File No. IA-J-11011/277/2019-IA-II(I)] – **Amendment in Terms of Reference (ToR) with respect to envisaged production capacities – regarding.**

Consideration of the proposal was **deferred** as the Project Proponent did not attend the meeting. The Committee requested the Ministry to place the proposal in the next EAC meeting for consideration.

17.9 Proposed Modernization and Expansion Plan (MEP) of Existing Paper/Board Manufacturing Plant by **M/s JK Paper Limited** located at JKPL Unit: CPM, Fort Songadh, P.O Central Pulp Mills, **District Tapi, Gujarat** – [Proposal No. IA/GJ/IND/138412/2020, MoEF&CC File No.J-11011/416/2008-IAII(I)] **– Amendment in EC conditions pertaining to water consumption, energy consumption and coal consumption - regarding.**

Consideration of the proposal was **deferred** as the Project Proponent did not attend the meeting. The Committee requested the Ministry to place the proposal in the next EAC meeting for consideration.

17.10 Greenfield project for production of 70,500 TPA Billets through 1x350 TPD DRI kilns, 1x25 T Induction Furnace, 2x20 T Gas Oxygen Refiner and 6/11m Billet Caster **by M/s. Raiseland Steel Pvt Ltd** located at Village - Dhatara, P.S.- Raghunathpur, **District – Purulia, West Bengal** [Online proposal No. IA/WB/IND/145568/2020; MoEF&CC File No. J-11011/64/2020-IA.II (I)] – **Prescribing of Terms of Reference (ToR) – regarding.**

17.10.1 M/s. Raiseland Steel Private Limited has made application vide online proposal no. IA/WB/IND/145568/2020 dated 27/02/2020 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

17.10.2 M/s Raiseland Steels Pvt Ltd has proposed to install new manufacturing unit for production of 70,500 TPA Billets. Proposal is to set up the plant based on Coal based DRI Kilns, Induction Furnace and Billet Caster.

17.10.3 The proposed unit will be located at village –Dhatara, P.S- Raghunathpur, District: Purulia, West Bengal.

17.10.4 The land area required for the proposed plant is 16.285 ha (40.225 Acres). Present land form is Industrial and is in the possession of project proponent. No forest land is involved. Out of the total area, 5.36 ha (33%) will be used for green belt development.

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

17.10.6 Total project cost is Rs. 140.21 crores. Proposed employment generation from the project will be 240 direct employments and approx. 600 indirect employments.

17.10.7 The targeted production capacity of the plant is 0.0705 million TPA of MS Billets. The iron ore for the plant will be procured from Barbil, Odisha. The ore transportation will be done by road. The proposed capacity for different products for the new site area is given below:

Name of the Unit	No. of Unit	Capacity of each unit	Production Capacity TPA
DRI Kiln with Hydrogen Injection System	1	350 TPD	105,000
Induction Furnaces	1	25 Tons	75,000
Gas Oxygen Refiner	2	20 Ton	71,250
CCM (Billet Caster)	1	6/11m	70,500
CPP -8 MW (WHRB)	1	36 TPH	51.84 million units

17.10.8 Electricity load of 6.55 MW will be procured from West Bengal State Electricity Distribution Company Limited (WBSEDCL). Company has also proposed to install 2x750 KVA & 1x1000 KVA DG Set.

17.10.9 Proposed raw material requirement and fuel requirement after the project are 173,250 TPA iron ore or 157,500 TPA Pallet, 77,060 TPA Coal, 5,250 TPA Dolomite, 9,375 TPA Scrap, 4,688 TPA Pig Iron, 1,499 TPA Ferro Alloys, 5,250 TPA Flux, 675 TPA Coke and 4275 TPA Limestone. The requirement would be fulfilled from open as well as from local market. Fuel consumption will be mainly HSD (approx. 408 liters /hr).

17.10.10 Water consumption for the proposed project will be 998 KLD which will be sourced from DVC (Panchet Dam). Domestic waste water will be treated in Septic Tank with Soak Pit and Industrial waste water generated will be treated in Neutralisation Pit and reused for slag cooling and dust separation etc.

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

17.10.12 Name of Environment Consultant – M/s Vardan Environet (S.No. 165, List of Accredited Consultant Organizations (Alphabetically) Rev. 86, April 07, 2020).

Observations of the Committee

17.10.13 The Committee noted that details regarding Hydrogen generator, Quantity and source of O_2 gas not furnished in the pre-feasibility report.

Recommendations of the Committee

17.10.14 After detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. No sale of dolo char is permitted. Provide AFBC boiler.
ii. Action plan to make pucca roads around the plant and inside the plant shall be furnished.
iii. No ground water abstraction will take place.
iv. Provide details of Hydrogen generator in the EIA report.

v. Provide details of Raw Material source and mode of transport including O2 gas in the EIA report.
vi. Engineering drawing in scale shall be submitted for plant layout.
vii. 100% Hot charging shall be practiced. No RHF shall be installed
viii. PM shall be limited to 30 mg/Nm^3 from stacks/exhaust ducts.
ix. Linkage to Sinter plant for use of ESP dust to be provided.

17.11 Proposed expansion of existing Sponge Iron Plant by installation of 1 x 350 TPD DRI kilns along with expansion of CPP (WHRB) from 4 MW to 12 MW **by M/s Agrawal Structure Mills Pvt Ltd** located at Silpahari, Sirgitti Industrial Area, Bilaspur (C.G.) [Online proposal No. IA/CG/IND/138674/2020; MoEF&CC File No. J-11011/44/2020-IA.II(I)] – **Prescribing of Terms of Reference (ToR) – regarding.**

Project proponent neither circulated the requisite documents by email to the EAC members nor presented during the video conferencing. Hence, the Committee **deferred** the consideration of the proposal and recommended to consider the proposal in the next EAC meeting.

17.12 Expansion in Sponge iron Plant (6,00,000 TPA to 7,80,000 TPA) & Mini Blast Furnace with Oxygen Plant (3,00,000 TPA to 3,90,000 TPA) by process optimization & increasing number of working days/annum by **M/s. Orissa Metaliks Private Limited** located at village Gokulpur, P.O.Shyamraipur, P.S.Kharagpur, District **West Medinipur, West Bengal** – [Proposal No. IA/WB/IND/142980/2020, MoEF&CC File No.J-11011/227/2008-IAII(I)] **– Amendment in EC conditions pertaining to particulate matter emission level - regarding.**

17.12.1 M/s. Orissa Metaliks Private Limited has made online application vide proposal no. IA/WB/IND/142980/2020 dated 13/02/2020 along with Form 4 and sought for amendment in the Environment Clearance accorded by the Ministry vide letter no. J-11011/227/2007-IA-II(I) dated 26/12/2019 regarding amendment in EC condition pertaining to particulate matter emission level from the stacks.

Details submitted by the project proponent

17.12.2 MoEF&CC has accorded Environment Clearance to M/s. Orissa Metaliks Private Limited vide letter no. J-11011/227/2007-IA. II(I) dated 26/12/2019 for expansion of Sponge iron Plant (6,00,000 TPA to 7,80,000 TPA) & Mini Blast Furnace with Oxygen Plant (3,00,000 TPA to 3,90,000 TPA) by process optimization & increasing number of working days/annum located at village Gokulpur, P.O.Shyamraipur, P.S.Kharagpur, District West Medinipur, West Bengal under para 7(ii) of EIA, 2006.

17.12.3 As per condition no. (ii) of the EC dated 26/12/2019, emission levels from Bag filter and ESP shall be 30 mg/Nm^3.

17.12.4 PP informed that their existing APC devices (ESP) are designed for keeping emission level below 100 mg/ Nm^3 from DRI as per CTO & CPCB norms. However, PP has proposed for up-gradation of ESP by improving T.R rating and introducing additional field. But after all that effort emission level shall be less than 50 mg/Nm^3 only. It will not be possible to keep emission level below 30 mg/ $Nm^3$with ESP. From bag filter

after necessary modification PP can achieve emission level below 30 mg / Nm^3. Hence, PP sought amendment in condition no (ii) of the EC dated 26/12/2019 as below:

Reference of Approved EC	Description as per approved EC	Description as per proposal (Amendment Required)
MOEFCC File no – J-11011/227-IA-I.(II) dated 26-12-2019	Point (ii) additional condition states that: **Emission level from bag filter and ESP shall be 30 mg/Nm^3.**	Particulate emissions from the stacks shall be less than 30 mg/Nm^3 with bag house as APCD. Emission from ESP shall be less than 50 mg/Nm^3.

Observations of the Committee

17.12.5 The Committee noted that the instant proposal has no technical merits and quoted the lab reports seen by subcommittee during the visit to the unit recently wherein PP has reported PM values from ESP much lower than 30 mg/Nm^3. Further, the Committee opined that even less than 10 mg/Nm^3 of Particulate matter is achievable from bag filters by using PTFE dipped filter bags (BAT).

Recommendations of the Committee

17.12.6 In view of the foregoing and after deliberations, the Committee recommended for the return of the instant proposal in the present form.

17.13 Expansion of Sponge Iron Plant (6,00,000 TPA to 13,20,000); Ferro Alloy Plant (72,000 TPA to 1,44,000) with Briquette plant and addition of New Steel Melting Shop- (9,00,000 TPA) with Slag crushing unit, Hot Rolling Mill- (5,50,000 TPA; Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA); Lime Dolime Plant- (200 TPD); Oxygen Plant- (200 TPD); CPP- [45 MW to 159 MW (50 MW Coal &Dolochar Mix based and 109 WHRB] of **M/s. Rashmi Cement Limited** at Mouja-Jitusole (J.L No.-702 & 703), Junglekhas (J.L. No.731) and Baghmundi (J.L. No.928), Village-Jitusole, PS-Jhargram, **District Jhargram (Formerly Paschim Medinipur) West Bengal** – [Proposal No. IA/WB/IND/145636/2020, MoEF&CC File No.J-11011/604/2008-IAII(I)] **– Amendment in EC conditions pertaining to subject and particulate matter emission level - regarding.**

17.13.1 M/s. Rashmi Cement Limited has made online application vide proposal no. IA/WB/IND/145636/2020 dated 26/02/2020 along with Form 4 and sought for amendment in the Environment Clearance accorded by the Ministry vide letter no. J-11011/604/2008-IA-II(I) dated 29/01/2020 regarding amendment in EC condition pertaining to subject matter and particulate matter emission level from the stacks.

Details submitted by the project proponent

17.13.2 MoEF&CC has accorded Environment Clearance to M/s. Rashmi Cement Limited vide letter no. J-11011/604/2008-IA. II(I) dated 29/01/2020 for for expansion of Sponge Iron plant from 6,00,000 TPA to 14,90,000 TPA, Ferro Alloys Plant from 72,000 to 96,000 TPA with Chrome briquette & Zigging plant and addition of new

Steel Melting Shop of 5,70,000 TPA with slag crushing unit, Hot rolling mill of 2,50,000 TPA, Cold rolling mill of 3,00,000 TPA capacity, CPP from 45 MW to 113 MW (25 MW coal and Dolochar Mix Based and 88 MW WHRB based) under EIA Notification, 2006.

17.13.3 As per the EC accorded, the product slate is given as below:

Sl. No	Name of the Unit	No of Units (Existing)		No of Units (Proposed)		Total Production	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1	Enhancement of Existing DRI production by process optimization **Product:-**Sponge Iron	10 x 100 + 1 x 350 TPD + 1 x 600 TPD	6,00,000 TPA	3 x 600 TPD	6,90,000 TPA	10 x 100 + 1 x 350 + 4 x 600 TPD	14,90,000 TPA
			--	--	2,00,000 TPA		
2	SAF (Ferro Alloy Plant) **Product:-(**FeMn, FeSi , SiMn&FeCr)	4 x 9 MVA	48,000	4 x 9 MVA	48,000	8 x 9 MVA	96,000 TPA
3	Zigging plant	--	--	6 x 15 TPD	6 x15 TPD	6 x 15 TPD	6 x 15 TPD
4	Chrome Briquette Plant	1 x 40 TPH	1 x 40 TPH	1 x 40 TPH	1 x 40 TPH	2 x 40 TPH	2 x 40 TPH
5	SMS with matching LRF & AOD, CCM **Product-:** Billets/ Slab	--	--	8 x 20 T	5,70,000 TPA	8 x 20 T	5,70,000 TPA
6	Slag Crusher	--	--	2 x 20 TPH	2 x 20 TPH	2 x 20 TPH	2 x 20 TPH
7	Hot Rolling Mill **Product-:** H.R. Plates, Galvanized sheets	--	--	--	2,50,000 TPA	--	2,50,000 TPA
8	Cold Rolling Mill/ Wire Drawing with Pickling Line & Continuous Galvanising Line **Product-:** TMT Bars, Wire rod & Wire	--	--	--	3,00,000 TPA	--	3,00,000 TPA
9	Captive Power Plant Product: Power	43 WHRB	43 MW	45 MW WHRB based + 1 x 25 MW CFBC (Coal Dolochar based)	70 MW	88 MW WHRB based + 1 x 25 MW CFBC (Coal Dolochar based)	113 MW

17.13.4 As per specific condition no. (vi) of the EC dated 29/01/2020, Particulate emission from the stacks shall be less than 30 mg/Nm^3.

17.13.5 The amendment sought by the PP are summarized as below:

S.No.	Description as per Approved EC	Description as per proposal	Remarks
i.	**EC subject:** Expansion of Sponge Iron Plant (6,00,000 TPA to 13,20,000); Ferro Alloy Plant (72,000 TPA to 1,44,000) with Briquette plant and addition of New Steel Melting Shop- (9,00,000 TPA) with Slag crushing unit, Hot Rolling Mill- (5,50,000 TPA; Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA); Lime Dolime Plant- (200 TPD); Oxygen Plant- (200 TPD); CPP- [45 MW to 159 MW (50 MW Coal & Dolochar Mix based and 109 WHRB)	Expansion of Sponge Iron plant (6,00,000 TPA to 14,90,000 TPA), Ferro Alloys Plant (72,000 to 96,000 TPA) with Chrome briquette & Zigging plant and addition of new Steel Melting Shop of 5,70,000 TPA with slag crushing unit, Hot rolling mill of 2,50,000 TPA, Cold rolling mill of 3,00,000 TPA capacity, CPP from 45 MW to 113 MW (25 MW coal and Dolochar Mix Based and 88 MW WHRB based)" .	Modification in the subject of the EC as per the product slate given above.
ii.	Specific condition no (vi) states that: Particulate emission from the stack shall be less than 30 mg/Nm^3	Particulate emissions from the stacks shall be less than 30 mg/Nm^3 with bag house as APCD. Emission from ESP shall be less than 50 mg/Nm^3.	Existing APC devices (ESP) are designed for keeping emission level below 100 mg/ Nm^3 from DRI as per CTO & CPCB norms. However, PP has proposed for up-gradation of ESP by improving T.R rating and introducing additional field. But after all that effort emission level shall be less than 50 mg/Nm^3 only. It will not be possible to keep emission level below 30 mg/ $Nm^3$with ESP. From bag filter after necessary

S.No.	Description as per Approved EC	Description as per proposal	Remarks
			modification PP can achieve emission level below 30 mg / Nm^3.

Observations of the Committee

17.13.6 The observations of the Committee are furnished as below:

i. With respect to amendment in EC subject as stated above, the Committee was of the view that amendment is of factual in nature and in line with the product slate for which EC was accorded by the Ministry.

ii. With respect to amendment in PM emission level from stacks as stated above, the Committee noted that the instant request has no technical merits and quoted the lab reports seen by subcommittee during the recent visit to the unit wherein PP has reported PM values from ESP much lower than 30 mg/Nm^3. Further, the Committee opined that even less than 10 mg/Nm^3 of Particulate matter is achievable from bag filters by using PTFE dipped filter bags (BAT).

Recommendations of the Committee

17.13.7 In view of the foregoing and after deliberations, the Committee recommended for the amendment in the EC subject as stated above and did not accede to the request pertaining to the particulate matter emission level from the stacks.

17.14 Production of 4,60,000 TPA of Newsprint/paper/Board, new wood pulp mill of 600 TPD (Paper & Board) capacity and coal fired boiler based captive power plant having capacity 140 MW by **M/s. Emami Paper Mills Limited** located at Village Balgopalpur, Tehsil Remuna, **District Balasore, State Odisha** - [Online Proposal No. IA/OR/IND/124371/2019, File No. IA-J-11011/437/2010-IA-II(I)] - **Amendment in EC conditions - regarding.**

17.14.1 M/s. Emami Paper Mills Limited has made online application vide proposal no. IA/OR/IND/124371/2019 dated 25/02/2020 along with Form 4 and sought for amendment in the Environment Clearance accorded by the Ministry vide letter no. J-11011/323/2006-IA.II(I) dated 17/05/2007 and J-11011/604/2008-IA-II(I) dated 29/01/2020 regarding amendment in EC conditions.

Details submitted by the project proponent

17.14.2 M/s. Emami Paper Mills Ltd. is operating a 3,00,000 TPA paper & board plant at village Balgopalpur, District Balasore, Odisha with valid CTO dated 27.03.2019. The paper & board types comprise Newsprint, Kraft, Writing, Printing and Industrial Paper Board/ Packaging Board.

17.14.3 The company had obtained an Environment Clearance as follows:

i. EC letter No. J-11011/437/2010-IA-II (I) dt. 13.01.2012 for a capacity of 4,60,000 TPA paper & board and 140 MW captive power plant
ii. EC letter No. J-11011/323/2006-IA-II (I) dt. 17.05.2007 for 1,30,000 TPA paper and 20 MW captive power plant.

17.14.4 The units & capacity sanctioned through the above two Environment Clearances and their current status is given below:

Sl. No.	Section	Unit	As per EC
1	Newsprint, Paper & Board	tpd	1400 (4,60,000 TPA)
2	RCF Pulp	tpd	800
3	Wood Pulp	tpd	600
4	Chlorine-di-oxide	tpd	14
5	Oxygen Generation	tpd	15
6	Evaporation Plant	tpd	280
7	Recovery Boiler	solids/day	1300
		tph stream	280
8	Lime Kiln	tpd	280
9	Causticiser Plant – recovered caustic (AA) basis	tpd	300
10	Producer gas plant	Nm^3/h	10000
11	Power Plant	MW	140
12	Coal fired boiler	tph	540
13	DM/RO plant	m^3/h	225
14	Power Evacuation sub station	MVA	65
15	Cooling Towers	m^3/h	29000
16	Water requirement	m^3/day	82000
17	Waste water treatment plant capacity	m^3/day	75000
18	Colony	No. of Houses	975

17.14.5 Due to lack of success in developing plantation for wood pulp, the Company dropped the project for captive pulping and associated processes. Thus, as on 31.03.2019, the production achieved could only be 3,00,000 TPA paper & board and 33.5 MW captive power plant could be installed. The CTO from OSPCB is for the actually achieved capacities. The following Table shows the present status of implementation of the EC:

Sl. No.	Section	Unit	As per EC	Existing status of implementation (based on CTO dt. 27.03.2019 & actual implementation)
1	Newsprint, Paper & Board	tpd	1400 (4,60,000 TPA)	909 (3,00,000 TPA)
2	RCF Pulp	tpd	800	600
3	Wood Pulp	tpd	600 (was to be produced in-house)	300 (purchasing)
4	Chlorine-di-oxide	tpd	14	Not installed
5	Oxygen Generation	tpd	15	Not installed
6	Evaporation Plant	tpd	280	Not installed
7	Recovery Boiler	solids/day	1300	Not installed
		tph stream	280	Not installed
8	Lime Kiln	tpd	280	Not installed
9	Causticiser Plant – recovered caustic (AA) basis	tpd	300	Not installed
10	Producer gas plant	Nm^3/h	10000	Not installed
11	Power Plant	MW	140	33.5 (part installed & existing augmented)
12	Coal fired boiler	tph	540	185 (part installed)
13	DM/RO plant	m^3/h	225	Not installed, existing 75 m^3/h continued
14	Power Evacuation sub station	MVA	65	16/20MVA, 132/11Kv (part augmented)
15	Cooling Towers	m^3/h	29000	8,750 (existing 6000 + part installed 2750)
16	Water requirement	m^3/day	82000	11,700 (reduced due to partial installation of plant)
17	Waste water treatment plant capacity	m^3/day	75000	14,500 (reduced due to partial installation of plant)
18	Colony	No. of Houses	975	205 (Existing 175 augmented by 30)

It can be seen from the above table that full production at serial 1 to 3 could not be achieved. The units at serial 4 to 10 were not installed at all and units at serial 11 to 18 were partially installed or the units existing at time of EC were augmented. Since the wood pulp could not be produced in-house, therefore, the pulp is purchased.

17.14.6 Due to non-installation of seven of the sanctioned facilities, partial installation of eight facilities and only partial achievement of Newsprint, Paper & Board production i.e. of 3 lakh TPA instead of 4.6 lakh TPA sanctioned the overall reduction in air emission, water consumption, effluent generation, solid waste generation has occurred as follows:

Parameter	**As sanctioned in EC**	**Amendment sought**
Water requirement, m^3/day	82,000	11,700
Waste Water discharge, m^3/day	65,500	7,000
Effluent treatment plant	75000	14,500
Power requirement	100 MW	33.5 MW

Solid waste

SI. No.	**Source**	**As per EC dt. 13.02.2012**		**Amendment sought**		**Management**
		Total	**Reuse/ Sale**	**Total**	**Reuse/ Sale**	
1.	Used Oil, TPA	--	--	25	25	Sold to authorized vendor
2.	Ash, TPD	900	900	401	401	Used 100% in brick manufacturing
3.	Primary Sludge, BDMT	204	204	100	100	Primary sludge used in company's own power boiler as a fuel
4.	Secondary Sludge, TPD	9	9	3.5	3.5	Used in Plantation/ horticulture as a manure
5.	Waste Plastic, TPD	--	--	10	10	Sent to authorized cement industry for co Processing in lime kiln
6.	Lime sludge	50	50	Nil	Nil	Brick manufacturing & cement grinding plant

Air Emission

All values in µg/m³

	As per EIA			**As per amended configuration**		
Pollutant	**Baseline air quality values**	**Incremental GLC**	**Resultant GLC**	**Incremental GLC**	**Resultant GLC**	**Reduction in GLC**
PM_{10}	68.7	3.8	72.5	0.225	68.925	3.575
SO_2	15.5	16.4	31.9	4.742	20.242	11.658
NOx	19.3	4.3	23.6	2.478	21.778	1.822

17.14.7 The amendment required in the EC dated 13/01/2012 and 17/05/2007 are furnished as below:

(1) ***with respect to EC dated 13.01.2012:*** The plant was envisaged to expand from

(a) 130000 TPA to 460000 TPA of Newsprint/ paper/ Board was sanctioned but only 3,00,000 TPA is installed till date

(b) New wood pulp mill of 600 TPD (Paper & board) capacity was sanctioned could not be installed and wood pulp is currently purchased

(c) Coal fired boiler based Captive Power Plant from 20 MW to 140 MW was sanctioned but only 33.5 MW has been installed

The present capacity is lower than that permitted in the EC and no new wood pulp mill was installed due to lack of success in developing plantation for wood pulp. Thus, instead of manufacturing wood pulp in-house, the company is purchasing wood pulp from various countries to Haldia Port and bringing it to plant by road. Furthermore, due to change in plans, none of the following units have been installed:

- One new de-inking pulp mill of capacity 400 tpd
- ECF wood pulp mill of capacity 600 tpd in two phase
- New plant of Chlorine –di-oxide plant (s) of capacity 14 tpd
- New Oxygen generation plant of capacity 15 tpd
- New evaporation plant (s) of capacity 240 tpd water evaporation
- Two new recovery boiler (s) 1300 tonne of BL solids firing per day
- Two new lime kiln (s) of capacity 280 tpd Lime
- Two new causticiser plant (s) of capacity 300 tpd of recovered caustic (AA)
- New producer gas plant of capacity 10000 Nm^3/h
- New DM/RO plant (s) of Capacity 150 m^3/hr
- New water treatment plant of capacity 75000 m^3/day

The capacities of following project constituents as per EC dated 13.01.2012 were partly implemented:

	As per EC dated 13.01.2012	**Actual implementation**
i.	One newsprint/ board machine #4 of capacity 400 tpd	One board machine # 4 of capacity 500 TPD. Out of 3 paper/ Board machines of 1000 TPD capacity, we have installed only one board machine of capacity 500 TPD
ii.	Two paper /board paper machines (PM#5 &#6) of capacity 600 tpd	
iii.	Two new power plant (s) of capacity 120 MW	One new power plant of capacity 10.5 MW and augmentation of power plant 15 MW to 18 MW
iv.	Three new coal fired boilers of capacity 420tph (3 x140tph)	One new coal fired boilers of capacity 65 tph
v.	New cooling towers of capacity 23000 m^3/hr of water	New of 2750 m^3/Hr
vi.	Augmentation of power substation of capacity 50 MVA for receiving and evacuation of	Augmentation of power substation of capacity 16/20

	power to grid	MVA, 132/11kV for receiving Grid power
vii.	New wastewater treatment plant of 65000 m^3/day	Augmentation of present installed capacity to 14500 m^3/day
viii.	Additional housing colony consisting of 800 houses	Additional 30 new houses in existing colony

- Due to non-installation, and other changes as mentioned above, there is no generation of black liquor, wood chips nor use of furnace oil.
- Ground water consumption has also not increased with respect to that mentioned in 2007 EC due to various water conservation measures implemented over the years. Hence, the proposal to draw additional water from Budhabalanga river through Barrage for expansion project was not required to be implemented as per EC of 2012.
- Accordingly, the project configuration of 2012 EC got changed and subsequently the project cost reduced to Rs 490 Crores from Rs. 2500 Crores and correspondingly ESR expenditure may be replaced with the CER as per MoEF&CC OM dated 01.05.2018.

(2) with respect to EC dated 17.05.2007: There is typographical error in the subject matter while the correct figures regarding production are mentioned in the first paragraph of the letter itself. Subsequently, EMPL has not installed captive Digestor Pulping (Kraft process), Recovery Boiler or chemical recovery plant, as mentioned in the EC letter no F.No. J-11011/323/2006-IA-II (I) dt. 17.05.2007 hence there is no conventional pulp bleaching. Consequently, the pollutant emitted through these processes (H_2S, Pb, Mercaptans, Methylene chloride, TOC and AOx), wastes generated (black liquor) and chemicals used in these processes (chlorine and hypochlorite) do not apply.

17.14.8 The amendment required in the environment clearance letters are given below:

(1) Amendments required in Environmental clearance letter no. J-11011/437/2010-IA-II (I) dated 13.01.2012

Reference of approved EC	**Description as per approved EC**	**Description required as per proposal (proposed changes are underlined)**	**Justification of amendment**
(1)	**(2)**	**(3)**	**(4)**
Subject	Expansion of Paper Mill from 130000 TPA to 460000 TPA of Newsprint/ Paper/ Board, new wood pulp mill of 600 TPD (Paper & board) capacity and Coal fired boiler based Captive Power Plant from 20 MW to 140 MW capacity at Balgopalpur village, Remuna Tehsil, Balasore District, Orissa by M/s Emami Paper Mills Limited- regarding Environment Clearance	Expansion of Paper Mill from 1,30,000 TPA to 3,00,000 TPA of Newsprint/Paper/ Board and Coal fired boiler based Captive Power Plant from 20 MW to 33.5 MW capacity at Balgopalpur village, Remuna Tehsil, Balasore District, Odisha by M/s Emami Paper Mills Limited- regarding Environment Clearance	● Due to lack of success in developing plantation for wood pulp the company dropped the project for captive pulping and associated processes ● The total production that could be achieved was 3,00,000 TPA

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
(1)	(2)	(3)	(4)
			paper & board with 33.5 MW installed capacity of CPP
Para 2	The Ministry of Environment and Forests has examined the proposal. It is noted that M/s Emami Paper Mills Limited have proposed for expansion of Paper Mill from 130000 TPA to 460000 TPA of Newsprint/Paper/Board by increasing the production of Newsprint/Printing & Writing Papers from 400 TPD (Newsprint) to 800 TPD capacity, new wood pulp mill of 600 TPD (Paper & Board) capacity and Coal fired boiler based Captive Power Plant from 20 MW to 140 MW capacity at Balgopalpur Village, Remuna Tehsil, Balasore District, Orissa. Total plant area is 967 acres including 69 acres of existing plant area. About 150 acres of the plant area will be developed under green belt. No national park/ wildlife sanctuary / eco-sensitive area is located within 10 km radius of the project. However, Mitrapur reserve forest is located at a distance of 2.5 km and 4.3 km in the west and 5.9 km in south west. Total cost of the proposed expansion will be Rs. 2500.00 Crores (including Rs.325.00 Crores will be earmarked towards for environmental pollution control measures) in the proposed expansion plan.	The Ministry of Environment and Forests has examined the proposal. It is noted that M/s Emami Paper Mills Limited have proposed for expansion of Paper Mill from 1,30,000 TPA to 3,00,000 TPA of Newsprint/ Paper/ Board by increasing the production by using 300 TPD purchased pulp and RCF/balance Deinked pulp 600 TPD. Coal fired boiler based Captive Power Plant from 20 MW to 33.5 MW capacity at Balgopalpur Village, Remuna Tehsil, Balasore District, Odisha. Total plant area is 158.35 acres including 69 acres of existing plant area. About 53 acres of the plant area will be developed under green belt No national park/ wildlife sanctuary / eco-sensitive area is located within 10 km radius of the project. However, Mitrapur reserve forest is located at a distance of 2.5 km. Total cost of the proposed expansion will be Rs. 490 Crores (including Rs.30.00 Crores will be earmarked towards for environmental pollution control measures) in the proposed expansion plan.	Captive pulping and associated process was dropped as wood plantation project did not succeed.
Para 3	Following additional facilities will be taken up in the proposed expansion:	Following additional facilities will be taken up in the proposed expansion:	
	➢ One newsprint/ board machine #4 of capacity 400 tpd	- One board machine # 4 of capacity 500 tpd	Out of 3 paper /Board machines of 1000TPD capacity, we have installed only one board machine of capacity 500TPD.
	➢ Two paper /board paper machines (PM#5 &#6) of capacity 600 tpd		
	➢ One new de-inking pulp mill of capacity 400tpd	-	Not installed
	➢ ECF wood pulp mill of capacity 600 tpd in two phase	-	Not installed
	➢ New plant of Chlorine –di-oxide plant (s) of capacity 14 tpd	-	Not installed
	➢ New Oxygen generation plant	-	Not installed

<table>
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<tr><td>(1)</td><td>(2)</td><td>(3)</td><td>(4)</td></tr>
<tr><td></td><td>of capacity 15 tpd</td><td></td><td></td></tr>
<tr><td></td><td>➢ New evaporation plant (s) of capacity 240 tpd water evaporation</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ Two new recovery boiler (s) 1300 tonne of BL solids firing per day</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ Two new lime kiln (s) of capacity 280 tpd Lime</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ Two new causticiser plant (s) of capacity 300 tpd of recovered caustic (AA)</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ New producer gas plant of capacity 10000 Nm^3/h</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ Two new power plant (s) of capacity 120 MW</td><td>➢ One new power plant of capacity 10.5 MW and augmentation of power plant 15 MW to 18 MW</td><td>Reduced capacity installed. Existing 5 + Augmented 18+ new 10.5 = 33.5 MW total capacity</td></tr>
<tr><td></td><td>➢ Three new coal fired boilers of capacity 420tph (3x140 tph)</td><td>➢ One new coal fired boilers of capacity 65 tph</td><td>Reduced capacity installed. Existing 35 + 85 + new 65 = 185 TPH total.</td></tr>
<tr><td></td><td>➢ New DM/RO plant (S) of capacity 150 m^3/hr</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ New cooling towers of capacity 23000 m^3/h of water</td><td>➢ New cooling towers of capacity 2750 m^3/h of water</td><td>Reduced capacity installed</td></tr>
<tr><td></td><td>➢ Augmentation of power substation-50 MVA for receiving and evacuation of power to grid</td><td>➢ Augmentation of power substation of capacity 16/20 MVA, 132/11kV for receiving Grid power</td><td>Reduced capacity installed</td></tr>
<tr><td></td><td>➢ New water treatment plant of capacity 75000 m^3/day</td><td>-</td><td>Not installed</td></tr>
<tr><td></td><td>➢ New wastewater treatment plant of capacity 65000 m^3/day</td><td>➢ Augmentation of wastewater treatment plant of capacity to 14500 m^3/day</td><td>Augmentation of existing ETP capacity</td></tr>
<tr><td></td><td>➢ Additional housing colony consisting of 800 houses.</td><td>➢ Additional new 30 houses in existing colony</td><td>Augmentation of existing colony with new houses</td></tr>
<tr><td>Table in Para 4</td><td>
<table>
<tr><th>Sr. No.</th><th>Section</th><th>Unit</th><th>Existing</th><th>MEP</th><th>Total Post MEP</th><th>Proposal</th></tr>
<tr><td>1</td><td>Newsprint, Paper & Board</td><td>tpd</td><td>400</td><td>1000</td><td>1400</td><td>New</td></tr>
<tr><td>2</td><td>RCF pulp</td><td>tpd</td><td>400</td><td>400</td><td>800</td><td>New</td></tr>
<tr><td>3</td><td>Wood pulp</td><td>tpd</td><td></td><td>600</td><td>600</td><td>New</td></tr>
<tr><td>4</td><td>Chlorine-di-oxide</td><td>tpd</td><td>-</td><td>14</td><td>14</td><td>New</td></tr>
<tr><td>5</td><td>Oxygen Generation</td><td>tpd</td><td>-</td><td>15</td><td>15</td><td>New</td></tr>
<tr><td>6</td><td>Evaporation Plant</td><td>tpd</td><td>-</td><td>280</td><td>280</td><td>New</td></tr>
<tr><td>7</td><td>Recovery Boiler</td><td>Solids/</td><td>-</td><td>1300</td><td>1300</td><td>New</td></tr>
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<table>
<tr><th>Sr. No.</th><th>Section</th><th>Unit</th><th>Existing</th><th>MEP</th><th>Total Post MEP</th><th>Proposal</th></tr>
<tr><td>1</td><td>Newsprint, Paper & Board</td><td>tpd</td><td>400</td><td>509</td><td>909</td><td>New</td></tr>
<tr><td>2</td><td>RCF pulp</td><td>tpd</td><td>400</td><td>200</td><td>600</td><td>New</td></tr>
<tr><td>3</td><td>Wood pulp</td><td>tpd</td><td>-</td><td>300</td><td>300</td><td>Purchased Pulp</td></tr>
<tr><td>4</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>5</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>6</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>7</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>8</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>9</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>10</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>11</td><td>Power</td><td>MW</td><td>20</td><td>13.5</td><td>33.5</td><td>New &</td></tr>
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Due to lack of success in developing plantation for wood pulp production, Company had to drop the project for captive pulping and associated processes.
The total capacity that could be achieved was 3,00,000 TPA paper & board.

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<table>
<tr><th>Reference of approved EC</th><th>Description as per approved EC</th><th>Description required as per proposal (proposed changes are underlined)</th><th>Justification of amendment</th></tr>
<tr><td>(1)</td><td>(2)</td><td>(3)</td><td>(4)</td></tr>
<tr><td></td><td>
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<tr><td></td><td></td><td>day</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>Tph steam</td><td>-</td><td>160</td><td>280</td><td>New</td></tr>
<tr><td>8</td><td>Lime kiln</td><td>tpd</td><td>-</td><td>280</td><td>280</td><td>New</td></tr>
<tr><td>9</td><td>Causticiser plant – recovered caustic (AA) basis</td><td>tpd</td><td>-</td><td>300</td><td>300</td><td>New</td></tr>
<tr><td>10</td><td>Producer gas plant</td><td>Nm^3/h</td><td>-</td><td>10000</td><td>10000</td><td>New</td></tr>
<tr><td>11</td><td>Power Plant</td><td>MW</td><td>20</td><td>120</td><td>140</td><td>New</td></tr>
<tr><td>12</td><td>Coal fired boiler</td><td>tph</td><td>120</td><td>420</td><td>540</td><td>New</td></tr>
<tr><td>13</td><td>DM/RO plant</td><td>m^3/h</td><td>75</td><td>150</td><td>225</td><td>New</td></tr>
<tr><td>14</td><td>Power Evacuation sub station</td><td>MVA</td><td>15</td><td>50</td><td>65</td><td>Augmentation</td></tr>
<tr><td>15</td><td>Cooling Towers</td><td>m^3/h</td><td>6000</td><td>23000</td><td>29000</td><td>New</td></tr>
<tr><td>16</td><td>Water requirement</td><td>m^3/day</td><td>7000</td><td>75000</td><td>82000</td><td>New</td></tr>
<tr><td>17</td><td>Waste water treatment plant capacity</td><td>m^3/h</td><td>10000</td><td>65000</td><td>75000</td><td>New</td></tr>
<tr><td>18</td><td>Colony</td><td>No. of Houses</td><td>175</td><td>800</td><td></td><td>New</td></tr>
</table>
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<table>
<tr><td></td><td>Plant</td><td></td><td></td><td></td><td></td><td>augmentation</td></tr>
<tr><td>12</td><td>Coal fired boiler</td><td>tph</td><td>120</td><td>65</td><td>185</td><td>New</td></tr>
<tr><td>13</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr>
<tr><td>14</td><td>Power Evacuation sub station</td><td>MVA</td><td>15</td><td>5</td><td>20</td><td>Augmentation</td></tr>
<tr><td>15</td><td>Cooling Towers</td><td>m^3/h</td><td>6000</td><td>2750</td><td>8750</td><td>New</td></tr>
<tr><td>16</td><td>Water requirement</td><td>m^3/day</td><td>7000</td><td>4,700</td><td>11,700</td><td>Augmentation</td></tr>
<tr><td>17</td><td>Waste water treatment plant capacity</td><td>m^3/h</td><td>10000</td><td>4500</td><td>14,500</td><td>Augmentation</td></tr>
<tr><td>18</td><td>Colony</td><td>No. of Houses</td><td>175</td><td>30</td><td>205</td><td>Augmentation</td></tr>
</table>
</td><td>Accordingly, the capacity of the following units has been reduced commensurate to production:
• RCF pulp
• Wood pulp to be purchased in place of in-house manufacturing
● Not installed since not required:
• Chlorine dioxide
• Oxygen generation
• Evaporation plant
• Recovery boiler
• Lime kiln
• Causticiser plant – recovered caustic (AA) basis
• Producer plant</td></tr>
<tr><td>Table in Para 5</td><td>
<table>
<tr><th>Product</th><th>Unit</th><th>Pre-Mill Expansion Plan</th><th>Post Mill Expansion Plan</th></tr>
<tr><td>Paper/ Board</td><td>tpa</td><td>1,30,000</td><td>4,60,000</td></tr>
<tr><td>Wood based pulp</td><td>BD tpa</td><td>-</td><td>2,00,000</td></tr>
<tr><td>De-inked pulp</td><td>BD tpa</td><td>1,30,000</td><td>2,60,000</td></tr>
</table>
</td><td>
<table>
<tr><th>Pro duct</th><th>Unit</th><th>Pre-Mill Expansion Plan</th><th>Post Mill Expansion Plan</th></tr>
<tr><td>Paper/ Board</td><td>tpa</td><td>1,30,000</td><td>3,00,000</td></tr>
<tr><td>Wood based pulp</td><td>BD tpa</td><td>-</td><td>89,000 (Purchased Pulp)</td></tr>
<tr><td>De-inked & RCF pulp</td><td>BD tpa</td><td>1,30,000</td><td>2,00,000</td></tr>
</table>
</td><td>● Due to lack of success in developing plantation for wood pulp production, Company had to drop the project for captive pulping and resort to import of wood based pulp.
● The total capacity that could be achieved was 3,00,000 TPA paper & board.</td></tr>
<tr><td>Para 6</td><td>Raw materials required for the project will be mixed hard wood & bamboo and waste paper. The mixed hard wood and bamboo will be obtained through social / farm forestry and Govt. plantation. The waste paper will be imported and obtained through local sources. The major chemicals required will be sodium hydroxide, hydrogen</td><td>Raw materials required for the project will be waste paper and purchased pulp. The waste paper and bleached wood pulp will be imported and/ or obtained through local sources. The major chemicals required will be sodium hydroxide, hydrogen peroxide, Sodium silicate, Hydro sulphite, surfactant/ DI chemicals, sulphuric acid, polyelectrolytes/flocculants, etc. Coal (in co-generation plant) will be used as fuel. The coal</td><td>● Black liquor will not be generated as there is no captive pulping and recovery boiler.
● Furnace oil will also not be required as no lime kiln is installed.
● Use of hard wood</td></tr>
</table>

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
(1)	(2)	(3)	(4)
	peroxide, Sodium silicate, Hydro sulphite, surfactant/DI chemicals, sulphuric acid, polyelectrolytes/flocculants, limestone, sodium sulphate, SO, and Chlorine etc. Black liquor (in chemical recovery boiler), furnace oil (in lime kiln), coal (in co-generation plant) will be used as fuels. The coal will be imported and obtained from MCL.	will be obtained from MCL.	& bamboo not required as captive pulping project is dropped.
Para 7	It is noted that proposed coal-based power boilers will be based on circulating fluidized bed combustion technology. Electrostatic precipitators will be installed to control the particulate emissions from the captive power plants. There will be additional water requirement of 75,000 m^3/day for the proposed expansion in addition to the present water requirement of 13,550 m^3/day. The existing plant has water drawl permission for about 13,550 m^3/day from the river Sona. The additional water for the proposed expansion is proposed to be drawn from River Budhabalanga. The expansion will aim at maximum recycling of back water, thereby minimizing the wastewater discharge from new paper machines. New wastewater treatment plant of capacity 65000 m^3/day will be established for treatment of wastewater generated from the proposed expansion project. Treated wastewater along with cooling tower blow down will be used for irrigation to raise wood plantation and green cover. The mill will have dewatering system to dewater sludge from the ETP and deinking plant. The treated waste water meeting the prescribed standards is proposed to the let out in the Daula nallah drain and meeting Lembunai: It is proposed to develop rain water harvesting structures to recharge the ground water. NCG collection and firing system will be installed as part of proposed expansion project. Treated sanitary waste water / sewage will be used for greenbelt	It is noted that proposed coal-based power boilers will be based on Atmospheric Fluidised Bed Combustion (AFBC) technology. Electrostatic precipitators will be installed to control the particulate emissions from the captive power plants. There will be additional water requirement of 4700 m^3/day for the proposed expansion in addition to the present water requirement of 7,000 m^3/day. The existing plant has water drawl permission for 12,100m^3/day from the Ground water. The additional water for the proposed expansion is proposed to be drawn from ground water. The expansion will aim at maximum recycling of back water, thereby minimizing the wastewater discharge from new paper board machine. Existing wastewater treatment plant will be augmented to a capacity of 14,500 m^3/day for treatment of wastewater generated from the proposed expansion project. Treated wastewater will be used for irrigation, green cover and reused in the non- process areas. The mill will have dewatering system to dewater sludge from the ETP and deinking plant. The treated effluent meeting the prescribed standards is proposed to be let out in the Sapna Nala and meeting Sona River. It is proposed to develop rain water harvesting structures to recharge the ground water. Treated sanitary waste water / sewage will be used for greenbelt development and maintenance.	• Due to reduction in boiler capacity, CFBC boiler was replaced with AFBC boiler as CFBC is not suitable at this lower capacity • Since the wood pulp mill was dropped the project and additional power generation of 140 MW was not required. Company has installed AFBC based boiler for 33.5 MW (5 MW+18 MW+10.5 MW) power generation. • Water requirement for the project is now 11700 m^3/day, commensurate with present production & configuration. • The existing plant has water drawl permission for 12,100 m^3/day from ground water. Hence, the source of water for expansion is changed from River Budhabalanga to ground water. • Wastewater treatment plant capacity has been changed commensurate with production to 14500 m^3/day • Treated wastewater discharge point continues to be Sapna Nala.

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
(1)	(2)	(3)	(4)
	development and maintenance. Black liquor will be completely recovered and burnt in the chemical recovery boiler.		● Quantity of Cooling tower blowdown is reduced substantially. ● NCG collection and firing system is not applicable as there is no captive pulping. ● Black liquor is not present as no captive pulping is installed.
Para 8	Fly ash generated from the plant will be used in roof sheets manufacturing units, brick manufacturing units, road construction activities, abandoned mines in the surrounding area and captive cement grinding units. Sludge from Deinking plant will be dried and fired in the boiler. Lime sludge will be dried and sold to cement mills. Chip dust will be fired in boilers/Vermi compost. STP sludge will be used as manure for greenbelt development. Dust generated from coal yard will be suppressed by dust suppression system. Sludge generated from waste water treatment plant (WWTP) will be disposed as per prescribed HWM rules. Waste fibre from DIP will be fired in boiler. Waste pulp from WWTP will be used for card board / fired in boiler.	Fly ash generated from the plant will be used in roof sheets manufacturing units, brick manufacturing units, road construction activities, abandoned mines in the surrounding area and captive cement grinding units. Sludge from Deinking plant and ETP will be dried and fired in the boiler. STP sludge will be used as manure for greenbelt development. Dust generated from coal yard will be suppressed by dust suppression system. Sludge generated from waste water treatment plant (WWTP/ ETP) will be fired in power plant boiler. Waste fibre from DIP will be fired in boiler.	● 100% fly ash generated from the plant is being given to fly ash brick manufacturers who are registered in District Industries Centre. ● No captive cement grinding unit is installed ● Lime sludge is not present as no recovery unit/ lime kiln is installed ● Chip dust is not generated as there is no captive pulping of bamboo/ wood material. ● 100% sludge generated from the ETP & DIP is being burnt in power plant boiler.
Para 9	Greenbelt will be developed in about 33% of total plant area. All the new equipments will be designed for low noise level at source. Total power requirement (100 MW) will be met from the proposed 120 MW Captive Power Plant and excess power (40 MW) will be exported to State Grid.	Greenbelt will be developed in about 33% of total plant area. All the new equipments will be designed for low noise level at source. Total power requirement (29 MW) will be met from the proposed 33.5 MW Captive Power Plant	● Power requirement has reduced commensurate with the lesser number of machinery and lower production ● No excess power generation is there
Specific Condition(i)	The project authority shall install Electrostatic Precipitator to control the emissions from the Chemical Recovery Boiler and Coal Fired Boilers to achieve the particulate emission below 50 mg/Nm^3.	The project authority shall install Electrostatic Precipitator to control the emissions from the Coal Fired Boilers to achieve the particulate emission below 50 mg/Nm^3.	● No chemical recovery boiler is installed
Specific condition (iv)	The water requirement should not exceed 75,000 m^3/day. The industry shall ensure the compliance of the standards for discharge of the treated effluent	The water consumption should not exceed 11700 m^3/day. The industry shall ensure the compliance of the standards for discharge of the treated effluent from the unit as stipulated under the Environment (Protection) act rules	● Water requirement has reduced commensurate with the production achieved.

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
(1)	(2)	(3)	(4)
	from the unit as stipulated under the Environment (Protection) act rules or SPCB, whichever is more stringent. The company shall make an effort to limit the water consumption upto 75 m^3/tonne of product. The company shall develop more water recharge structure in addition to the existing recharge structures and shall make barrage on the river in consultation with the state government.	or SPCB, whichever is more stringent. The company shall make an effort to limit the water consumption upto 75 m^3/tonne of product. The company shall develop more water recharge structure in addition to the existing recharge structures.	● No river water withdrawn due to lower requirement off waster in absence of captive pulping. Thus, no separate arrangement for construction of barrage on the river is required since source of water is ground water.
Specific condition (vi)	The company shall install Oxygen Delignification (ODL) Plant and shall maintain AOX below 1 kg/tonne of paper production	To be deleted	As no captive pulping has been installed, hence, this condition is not applicable.
Specific condition (vii)	ECF technology shall be adopted and the lime kiln shall be installed to manage lime sludge.	To be deleted	As no captive pulping has been installed, hence, this condition is not applicable
Specific condition (xvi)	At least 5% of the total cost of the project shall be earmarked towards the enterprise social commitment and item – wise details along with time bound action plans shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.	At least 0.75% of the total cost of the project shall be earmarked towards the Corporate Environment Responsibility and item – wise details along with time bound action plans shall be prepared and submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.	Since only part of the project sanctioned in EC dated 13.01.2012 has been installed, the project cost has reduced to Rs 490 Crores. Furthermore, as per MoEF&CC OM no. F-No. 22-65/2017-IA.II dated 01.05.2018, henceforth CER of 0.75% is requested to become applicable instead of ESR

(2) Amendments required in Environmental clearance letter no. J-11011/323/2006-IA II (I) dated 17.05.2007

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
Subject	Expansion of Paper Production (45,000 to 136,000 TPA) and Cogeneration Power Plant (4.2 to 15.7 MW) at Balasore, Balgopalpur, Orissa by M/s Emami Paper Mills Ltd.- Environmental Clearance reg	Expansion of Paper Production (45,000 to 130,000 TPA) and Cogeneration Power Plant (5 to 20 MW) at Balasore, Balgopalpur, Odisha by M/s Emami Paper Mills Ltd.- Environmental Clearance reg	As mentioned in EC letter itself in para 1
Specific	The gaseous emissions (SPM, RPM, SO2, NOx, H2S, CO	The gaseous emissions (PM_{10}, $PM_{2.5}$, SO_2, NOx and CO) from various process	Digester pulping and recovery boiler are not

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
condition (i)	and Pb) from various process units shall conform to the standards prescribed from time to time. The Orissa State Pollution Control Board (OSPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of industry, its size and location. At no time, the emission level shall go beyond the prescribed stands. In the event of failure of any pollution control system(s) adopted by the unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Ambient air quality shall be regularly monitored and records maintained and reports submitted to the Ministry/ CPCB / OSPCB once in six months	units shall conform to the standards prescribed from time to time. The Odisha State Pollution Control Board (OSPCB) may specify more stringent standards for the relevant parameters keeping in view the nature of industry, its size and location. At no time, the emission level shall go beyond the prescribed standards. In the event of failure of any pollution control system(s) adopted by the unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Ambient air quality shall be regularly monitored and records maintained and reports submitted to the Ministry/ CPCB / OSPCB once in six months	installed hence no H_2S or Pb is generated and there is no gaseous emission from the paper manufacturing process. The parameters of SPM and RPM are now replaced by PM10 & PM2.5 as per National Ambient Air Quality Standards 2009.
Specific condition (ii)	The flue gases from recovery boiler shall be analyzed continuously for SPM, SO_2, NOx, H_2S.Continuous monitoring shall be carried out for H_2S near the major source of emission and in the ambient air near the plant boundary at three location. No odour should emanate as there will be no captive pulping. In case, any odour from any source is generated, same shall be adequately treated to alleviate the odour problem.	No odour should emanate as there will be no captive pulping. In case, any odour from any source is generated, same shall be adequately treated to alleviate the odour problem.	As per MoEF Notification dated 16.11.2009 on NAAQS standard, H_2S Parameter is not mentioned and in absence of digester pulping and recovery boiler, no odour is being generated. Furthermore, as the mill is using only waste paper for manufacturing of paper neither wood/ bamboo nor any agro residues are being used and there is no black liquor generation and hence, no chemical recovery plant exists. EPML has written to Ministry vide letter dated 18.01.2012 and got acknowledgement that this clause may be exempted.
Specific condition	The company shall install Electrostatic precipitators to control emissions from the	The company shall install Electrostatic precipitators to control emissions from the boiler and co-generation power plant	As chemical recovery plant is not installed hence no corresponding

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
(iii)	boiler and co-generation power plant, dust extraction system in chemical recovery plant and dust suppression system in conveyors to control gaseous and fugitive emissions. The particulate emissions from the stacks shall not exceed 75 mg/ Nm^3. The efficiency of ESP shall be 99.9%.	and dust suppression system in conveyors to control gaseous and fugitive emissions. The particulate emissions from the stacks shall not exceed 75 mg/ Nm^3. The efficiency of ESP shall be 99.9%.	dust extraction system is installed for controlling fugitive emissions.
Specific condition (iv)	The company shall adopt environment friendly Element Chlorine Free (ECF) pulp bleaching process. Existing straw pulping will be ceased to make mill environment friendly. No captive pulping will be carried out. No straw or forest based raw material will be used. Since new material mix will consist of 60% local waste paper and 40% imported, availability of waste paper shall be tied up prior to expansion.	Existing straw puling will be ceased to make mill environment friendly. No captive pulping will be carried out. No straw or forest based raw material will be used. Since new material mix will consist of 60% local waste paper and 40% imported, availability of waste paper shall be tied up prior to expansion	The mill produces paper using waste paper and neither elemental chlorine nor chlorine products are used in bleaching. Hence, the first sentence is not applicable. EPML have requested Ministry vide letter dated 18.01.2012 to delete this condition as it is not applicable.
Specific condition (V)	Total water requirement from borewells shall not exceed 13,525 m^3/day as per the permission accorded by the Central Ground Water Authority (CGWA). The waste water will be treated in the waste water treatment plant (WWTP) and reused in the process or for irrigation purpose. Remaining treated waste water will be discharge into Sona River through Sapna Nullah by a closed pipeline. Reverse Osmosis plant will be installed. The waste water shall be colourless due to absence of captive pulping. No bleaching will be involved. Regular monitoring of Mercaptans, Methylene chloride, TOC and AOx in the treated effluent and AOx level in the river (surface) water shall be carried out once in month. TOC analyzer shall be installed to monitor TOC in	Total water requirement from borewells shall not exceed 13,525 m^3/day as per the permission accorded by the Central Ground Water Authority (CGWA). The waste water will be treated in the waste water treatment plant (WWTP) and reused in the process or for irrigation purpose. Remaining treated waste water will be discharge into Sona River through Sapna Nullah by a closed pipeline. Reverse Osmosis plant will be installed. The waste water shall be colourless due to absence of captive pulping. Secondary fiber treatment includes bleaching using Hydrogen peroxide and Sodium hydrosulfite. Domestic sewage will be taken into Sewage treatment plant and treated. The quality of the treated effluent shall be monitored regularly and reports submitted to the Ministry and its Regional Office at Bhubaneshwar.	● Mercaptans, Methylene chloride, TOC and AOx are generated in the captive pulping through digester (kraft process) followed by chlorine-based bleaching. Plant does not have such process. Hence, it is not applicable. EPML has already requested to Ministry vide letter dated 18.01.2012 to suitably amend this condition.

Reference of approved EC	Description as per approved EC	Description required as per proposal (proposed changes are underlined)	Justification of amendment
	the effluent regularly. Domestic sewage will be taken into oxidation pond and treated. The quality of the treated effluent shall be monitored regularly and reports submitted to the Ministry and its Regional Office at Bhuvaneshwar.		
Specific condition (vii)	Solid waste generated in the form of boiler ash shall be used for manufacturing bricks in company's own fly ash manufacturing machines and for road construction. Waste pulp from wastewater treatment plant (WWTP) will be used for firing in the boilers. ETP sludge shall be used as manure for green belt development.	Solid waste generated in the form of boiler ash shall be used for manufacturing bricks. Waste pulp (primary sludge) from wastewater treatment plant (WWTP) will be used for firing in the boiler. ETP (secondary Sludge) shall be used as manure for green belt development.	● 100% of the fly ash as being utilised by outside brick manufacturers ● "Primary and Secondary" sludge have been included for more clarity.

17.14.9 Name of the Consultant: M/s. Min Mec Consultancy Pvt. Ltd., New Delhi with permission from High Court of Delhi vide in LPA 110/2014 and CM No.2175/2014 (stay) and W.P.(C) 3665/2016.

Observations of the Committee

17.14.10 The Committee noted project proponent has not made available the following :

- Request for ground water abstraction for reduced amount of water consumption not acceptable. PP has not furnished action plan to meet the water requirement from surface water. In view of it, request pertaining to groundwater abstraction even in reduced quantum is untenable. PP should make effort as per specific condition (iv) for making barrage on the river in consultation with the State Government.

- Details of the CER activities carried out based on the findings of the social impact study and public hearing issues along with the expenditure incurred since the grant of EC has not been furnished.

- Impact on the existing traffic due to the transportation of ready pulp to the plant site has not been furnished.

- Action plan for recycle of wastewater being discharged into the Nallah for irrigation has not been submitted.

Recommendations of the Committee

17.14.11 In view of the foregoing and after detailed deliberations, the Committee deferred the consideration of the instant proposal for want of following additional information for further consideration.

i. Action plan to meet the water requirement from surface water as per specific condition (iv) of the EC dated 13/01/2012 shall be furnished.

ii. Action plan for recycle of wastewater being discharged into the Nallah for irrigation shall be submitted.

iii. Details of the CER activities carried out based on the findings of the social impact study and public hearing issues along with the expenditure incurred since the grant of EC shall be furnished.

iv. Impact on the existing traffic due to the transportation of ready pulp to the plant site shall be submitted.

17.15 Integrated Steel Plant (6.0 MTPA) and captive power plant of 1080 MW **by M/s. Jindal Steel and Power Limited** at village Kerjang, **district Angul in Odisha** - [Online Proposal No. IA/OR/IND/149629/2020, File No. IA-J-11011/365/2006-IA-II(I)] **– Amendment in Environment Clearance with respect to extension of time frame for installation of Coke Dry Quenching from 31/12/2020 to June 2022 – reg.**

17.15.1 M/s. JSPL made an application vide online proposal no. IA/OR/IND/149629/2020 dated 18/03/2020 seeking amendment in the environmental clearance granted to Integrated Steel Plant (6.0 MTPA) and Captive Power Plant (1,080 MW) located at Kerjang, DistrictAngul, Orissa by M/s Jindal Steel & Power Ltd vide MoEFCC letter No J-11011/365/2006-IA.II(I) dated 22.2.2007 and its subsequent amendments dated 14.11.2008, 26.6.2018 and 22/01/2019.

Details submitted by the project proponent

17.15.2 M/s Jindal Steel & Power Ltd (JSPL) was granted Environmental Clearance for its 6 MTPA Integrated Steel plant at Angul, Odisha vide Ministry's letter no. J-11011/365/2006-IA.II (I) dated 22.02.2007 and amendments dated 14.11.2008, 08.02.2017 and 26.06.2018 to the said Environmental Clearance. The company has commissioned various units of Integrated Steel Plant like Coal Gasification Plant (CGP), DRI plant, Captive Power Plant, Coke Oven, Sinter Plant, Blast Furnace, Steel Melting Shop (SMS), etc.

17.15.3 The MoEF&CC in its EC amendment letter dated 26.06.2018 stipulated the following:

"*(ii) Use of wet quenching system in coke oven batteries shall be permitted up to 31st December, 2020.*

(iii) Wet quenching to be kept as standby for emergency operation and also to be used during the annual shutdown for CDQ boiler."

17.15.4 The Company had initially ordered contract to M/s Nippon Steel & Sumikin Engineering Company Ltd. Japan on 21st Apr 2015 for supply of coke dry quenching system (CDQ). However, due to commercial issues the order had to be terminated and

a fresh contract was awarded to M/s Acre Coking & Refractory Engineering Consulting Corporation, China on 30th July 2019. However, due to outbreak of COVID-19 pandemic, all flight operations to and from China are suspended till June, 2020.

17.15.5 Due to this the detailed engineering, review and finalization of drawings, manufacturing of equipment, etc. has come to a standstill. It is also uncertain when the situation will become normal. Moreover, even after normalization of the situation, it will have larger impact on the restart of the equipment manufacturing work and we are not clear how the work will progress in China and India, after normalization.

17.15.6 Due to the above, the Company has requested the following:

i. Grant extension in time for installation of CDQ system by another 18 months i.e. up to June, 2022.

ii. Permit use of existing wet quenching system till CDQ is installed and commissioned.

Observations of the Committee

17.15.7 The Committee noted that the progress made by the project proponent for installation of Coke Dry Quenching (CDQ) in the Coke Oven Plant in not convincing and no tangible effort has been taken by the PP till date for installation of CDQ by 31/12/2020.

Recommendations of the Committee

17.15.8 In view of the foregoing and after detailed deliberations, the Committee recommended to return the proposal in present form and requested the PP to make an fresh application during November, 2020 along with the report explicitly indicating the tangible actions taken for installation of CDQ in the Coke Oven Plant.

17.16 Proposed 0.3 MTPA Integrated Steel Plant (1x1.8 MTPA Throughput Iron Ore Beneficiation Plant, 2x1.2 MTPA Iron Ore Pellet Plant, 0.3 MTPA Integrated Steel Plant – 0.3 MTPA High Grade Pure Iron Nuggets [HGPIN], 0.3 MTPA M S Billets, 0.2 MTPA TMT Rods/Structurals, 9 Nos. of Producer Gas Plant of capacity 4500 Nm^3/hr each [total 40500 Nm^3/hr]) **by M/s Arya Integrated Steel Private Limited** at Villages Malda & Dhanurjayapur, Tehsil Barbil, **District Keonjhar, Odisha** – [Online Proposal No. IA/OR/IND/149208/2020, File No. J-11011/100/2011-IA-II(I)] **– Validity extension of Environment Clearance – reg.**

Project proponent vide email dated 8/04/2020 expressed his inability to participate in the EAC meeting through video conferencing due to personal constraints. The Committee has taken note of the email of project proponent and requested the Ministry to place the proposal in the next EAC meeting.

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ANNEXURE –1

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

1. Executive Summary
2. Introduction
   - i. Details of the EIA Consultant including NABET accreditation
   - ii. Information about the project proponent
   - iii. Importance and benefits of the project

3. Project Description
   - i. Cost of project and time of completion.
   - ii. Products with capacities for the proposed project.
   - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   - iv. List of raw materials required and their source along with mode of transportation.
   - v. Other chemicals and materials required with quantities and storage capacities
   - vi. Details of Emission, effluents, hazardous waste generation and their management.
   - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
   - ix. Process description along with major equipment and machineries, process flow sheet (Quantitative) from raw material to products to be provided
   - x. Hazard identification and details of proposed safety systems.
   - xi. Expansion/modernization proposals:
     - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB/PCC shall be attached with the EIA-EMP report.
     - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4. Site Details
   - i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

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

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

6. **Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

7. **Impact Assessment and Environment Management Plan**

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

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

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

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

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

8. **Occupational health**

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

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

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

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

9. **Corporate Environment Policy**

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

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

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

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

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

11. Corporate Environment Responsibility (CER)

i. To address the Public Hearing issues, an amount as specified under Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018 amounting to Rs. .....crores, shall be earmarked by the project proponent, towards Corporate Environment Responsibility (CER). Distinct CER projects shall be carved out based on the local public hearing issues. Project estimate shall be prepared based on PWD schedule of rates for each distinct Item and schedule for time bound action plan shall be prepared. These CER projects as indicated by the project proponent shall be implemented along with the main project. Implementation of such program shall be ensured by constituting a Committee comprising of the project proponent, representatives of village Panchayat& District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. No free distribution/donations and or free camps shall be included in the above CER budget

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

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

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

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

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report

vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.

viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.

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

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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 production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material especially slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.

ADDITIONAL ToRS FOR PELLET PLANT

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

ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

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

ADDITIONAL ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY

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

ADDITIONAL ToRs FOR COKE OVEN PLANT

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

ADDITIONAL ToRs FOR 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.

ADDITIONAL ToRs FOR METALLURGICAL INDUSTRY (FERROUS AND NON-FERROUS)

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

Executive Summary

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

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

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