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

Summary record of the sixteenth (16th) meeting of Re-Constituted Expert Appraisal Committee (REAC) held during 24-25th February, 2020 for environment appraisal of Industry-1 sector projects constituted under the provisions of Environmental Impact Assessment (EIA) notification, 2006.

The sixteenth 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 24-25th February, 2020 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim. The minutes of 15th meeting held during 16-17th January, 2020 were confirmed by the EAC as already uploaded on PARIVESH.

25th February, 2020

VENUE: Conference Hall (TEESTA), Vayu Block, Indira Paryavaran Bhawan, Jor Bagh, New Delhi-110003

16.12 Proposed Cement Plant capacity 1.6 MTPA Clinkerisation & Captive Power Plant 30 MW by **M/s. Canis Mines and Minerals LLP** located at Village: Thangskai, P.O: Lumshnong, **Dist: East Jaintia Hills, State: Meghalaya** [Online Proposal No. IA/ML/IND/139569/2020, File No. J-11011/46/2020-IAII(I)] **– Prescribing of Terms of Reference (ToR) –** regarding.

16.12.1 M/s Canis Mines & Minerals LLP submitted an online proposal No. IA/ML/IND/139569/2020 on 29.01.2020 application in the prescribed format Form-1 and Pre-feasibility Report and other reports to proposed Terms of Reference to undertake detailed EIA study for proposed cement manufacturing. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" in EIA Notification, 2006 and appraised at the Central Level.

Details Submitted by the Project Proponent

16.12.2 The proposed unit will be located at Village: Thangskai, Taluka: P.O: Lumshnong, District: Jaintia Hills, State: Meghalaya.

16.12.3 The land area acquired for the proposed plant is 49.552 ha. No forestland involved. The entire land has been acquired for the project. Of the total area 16.312 ha (33%) land will be used for green belt development.

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

16.12.5 Total project cost is approx ₹ 570.63 Cr. Employment generation from proposed project will be 60 nos of people through direct employment and 140 through indirect employment.

16.12.6 The targeted production capacity of the Clinker is 1.6 MTPA. The ore for the plant would be procured from (linkages Canis mines). The ore transportation will be done through Road. (Rail/Road/Conveyor/Slurry Pipeline). The proposed capacity for different products are as given below:

Name of unit	**No. of units**	**Capacity of each Unit**	**Production Capacity**
Clinker	1	1.6 MTPA	1.6 MTPA
Cement (OPC)/(PPC)	2	320000 TPA (OPC) 1728000 TPA (PPC)	320000 TPA (OPC) 1728000 TPA (PPC)
Captive Power Plant	1	30 MW	30 MW

16.12.7 The electricity load of 30 MW will be met by proposed Captive Power Plant (CPP).

16.12.8 Proposed raw material and fuel requirement for project are Limestone, Clay, Gypsum, Coal. The Requirement would be fulfill by Local sources.

16.12.9 Water Consumption for the proposed project will be 4950 KLD and waste water generation will be 300 KLD (From CPP). Domestic waste water will be treated in Sewage Treatment Plant and industrial waste water generated will be treated in ETP and reused for mill spray and ash quenching.

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

16.12.11 Name of EIA Consultant: ABC Techno Labs India Pvt Ltd. #400, 13th Street, SIDCO Industrial Estate (North Phase), Ambattur – 600 098.

Observations and Recommendations of the Committee

16.12.12 In view of the foregoing, and after detailed deliberations, the Committee deferred the proposal and sought the following additional information.

i. Form-1 is to be revised.

ii. Layout drawing is not to the scale. Engineering drawing of proposed plant layout shall be furnished.

iii. Project Proponent shall explore the possibility of drawl of required water 4950 /day from nearby Um Lunal River.

iv. Green Belt development shall be included in the layout plan.

v. Prefeasibility Report (PFR) shall be revised with APCD to achieve particulate matter emissions of less than 30 mg/Nm^3 from stacks, and traffic management study shall be included in the proposed ToR.

vi. PFR shall be designed to achieve Zero Liquid Discharge and 100 % waste utilization.

16.13 Installation of Cement Grinding Unit of 0.60 MTPA Capacity (Product Mix of OPC, PPC, PSC & PCC) in two Phases (1st Phase: 1000 TPD & 2nd Phase: 1000 TPD) of **M/s Mittal Tech Steel & Cement Pvt. Ltd.** located at village-kurari, Durgawati, Kaimur district**, Bihar** [Online Proposal No. IA/BR/IND/136756/2020, File No. J-11011/41/2020-IAII(I)] **– Prescribing of Terms of Reference (ToR) –** regarding.

16.13.1 M/s. Mittaltech Steel & Cement Pvt. Ltd., has made an online application vide proposal No. IA/BR/IND/136756/2020 dated 13.01.2020 in the prescribed Form-I and other reports to the Ministry to propose Terms of Reference to undertake detailed EIA study for the project mentioned in the subject. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "B" in EIA Notification, 2006. However, due to the applicability of general condition i.e., interstate boundary of Uttar Pradesh and Bihar is within 5km from the proposed project site, the project was appraised at the Central level as Category 'A'.

Details Submitted by the Project Proponent

16.13.2 The project proponent proposes to install a Greenfield Cement Manufacturing (grinding) Unit of Capacity 0.60 MTPA (Product Mix of OPC, PPC, PSC & PCC) for production of cement in two phases (1st Phase: 1000 TPD & 2nd Phase: 1000 TPD). It is proposed to set up the plant for production of Cement based on Ball Mill technology.

16.13.3 The proposed unit will be located at Village: Kurari, Tehsil: Durgawati, District: Kaimur, State: Bihar. However as the project site falls within 5 km of the UP-Bihar inter-state boundary, General Condition is applicable and it will be treated as Category 'A' and considered at MoEF&CC, New Delhi level.

16.13.4 The land area acquired for the proposed plant is 4.08 Acres (1.651 ha.) No forestland is involved. The entire land has been acquired for the project. 1.36 Acres (0.55 ha) i.e. 33% of the total land area will be used for green belt development.

16.13.5 No National Park/Wildlife Sanctuary/ Biosphere Reserve/Tiger Reserve etc. are located within 10 Km radius. The area also does not report to form corridor for Schedule-I Fauna.

16.13.6 Total Cost of the proposed project is envisaged at ₹ 4556.73 Lakhs. Break-up is envisaged as: Phase-1 = ₹ 2838.52 Lakhs and Phase- 2 = ₹ 1718.21 Lakhs.

16.13.7 Total number of Employees will be 45 in Nos. for the entire project.

16.13.8 The targeted production capacity of 0.60 MTPA for the Project will be implemented in 2 phases of 0.30 MTPA (1000 TPD) each. The raw materials for the plant would be procured from Madhya Pradesh, Bhutan, Rajasthan & Uttar Pradesh etc. Transportation of raw materials will be done by road.

16.13.9 The electricity load of 4000 kVA (2000 kVA for each phase) will be sourced from South Bihar Power Distribution Company Limited. Silent DG sets (2 x 500 kVA) shall also be installed at the unit for power supply requirement during load shedding.

16.13.10 Raw Materials & Fuel required for the proposed project are:

Raw Material	**For OPC**		**For PPC**		**For PSC**		**For PCC**	
	%	**TPA**	**%**	**TPA**	**%**	**TPA**	**%**	**TPA**
Clinker	95%	570000	64%	384000	40%	240000	35%	210000
Slag	-	-	-	-	55%	330000	40%	240000
Fly Ash	-	-	31%	186000	-	-	20%	120000
Gypsum	5%	30000	5%	30000	5%	30000	5%	30000
Fuel								
Coal	-					13500 TPA		

16.13.11 Transportation of raw materials and finished product-mix (cement) would be done by road. Raw materials – Clinker, slag, fly ash, gypsum is required for cement manufacturing, while fuel coal is required for Hot Air Generator (HAG) for slag drying.

16.13.12 High efficient bag filters and dust collectors will be installed to maintain particulate matter emissions within permissible limit i.e. < 30 mg/Nm^3. Total 5 Nos. of Bag filters will be installed: Cement Mill 1 – 1 No., Cement Mill 2 – 1 No., Raw material unloading section – 1 No., Raw material section – 1 No. and Packing section – 1 No. Other small bag filters will be installed locally at cement silo top, separator, mill hopper, fly ash bin & silo etc. for control of fugitive emissions. Cyclone separator & Bag Filter will be provided in Slag Dryer.

16.13.13 Water Consumption for the proposed project will be total 6.5 KLD for both the phases and it will be sourced through ground water & treated waste water.

16.13.14 There is no use of process water. Cooling water requirement will be kept in closed circuit. Domestic effluent will be partly routed to septic tank-soak pit and balance part subjected to primary treatment and treated water will be used for plantation and sprinkling. There will be no discharge of effluent from the plant premises.

16.13.15 Earmuffs will be provided to all operators and employees working near the machinery to control noise pollution.

16.13.16 The cost of EMP is envisaged as Phase-1: Capital Cost: ₹ 140 Lakhs, Recurring Cost: ₹ 10 Lakhs and for Phase-2: Capital Cost: ₹ 85 Lakhs and Recurring Cost: ₹ 7 Lakhs.

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

16.13.18 Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar is engaged as the EIA consultant accredited by NABET, QCI with accreditation no. NABET/EIA/1720/RA0090-rev1, dtd- 28.05.2018. And Sl. no. in the QCI list is 165 as on Jan,20, 2020.

Observations of the Committee

16.13.19 Though project is planned in two phases, the EIA report shall be prepared for entire project as a single project.

Recommendations of the Committee

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

i. The required water 6.5 KLD, is proposed to be abstracted from ground. PP shall explore the possibility of switching over to drawl of surface water in next five years.

ii. Action plan for rainwater harvesting equivalent to/more than the consumption shall be furnished.

iii. Project shall be designed to limit the particulate matter from stack emissions at less than 30 mg/Nm^3.

iv. Action plan to control fugitive emissions from loading and unloading, transfer points, raw material storage etc. shall be furnished.

v. Project shall be designed to achieve Zero Liquid Discharge, and the corresponding water balance shall be furnished.

vi. Action plan for development of green belt in 33% of project area shall be prepared in accordance with CPCB guidelines.

16.14 Expansion of Integrated Steel Plant with addition of Steel Melting Shop-3,72,352 TPA, Pipes : 91,200 TPA ,Structures : 96,000 TPA, TMT : 1,56,112 TPA , Sponge Iron Plant of 2× 350 TPD , Captive Power plant 31 MW(AFBC-21, WHRB-10) to the Existing Facility: Sponge Iron Plant: 6× 100 TPD ,Pellet Plant: 6,00,000 TPA, Captive Power Plant 24 MW (AFBC-9, WHRB-15 MW) and Iron Ore beneficiation Plant 6,00,000 TPA by **M/s. Janki Corporation** located at Survey no 97,225 etc., Sidiginamola village, **Bellary Taluk and District, Karnataka** [Online Proposal No. IA/KA/IND/140674/2020, File No. J-11011/576/2009-IAII(I)] **– Prescribing of Terms of Reference (ToR) –** regarding.

The proposal was withdrawn by the Project Proponent.

16.15 Expansion of Integrated Cement Project - Clinker (1.48 to 4.38 MTPA), Cement (2.28 to 6.14 MTPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW) by **M/s. Nirma Limited** located at Villages - Nimbol and Sinla, Tehsil - Jaitaran, District Pali**, Rajasthan** [Online Proposal No. IA/RJ/IND/56521/2011; MoEF&CC File No. J-11011/01/2010-IA.II(I)] **– Environment Clearance –** regarding.

16.15.1 M/s. Nirma Ltd has made online application vide proposal No. IA/RJ/IND/56521/2011 dated 05.02.2020 in prescribed Form -2, EIA/EMP report and other documents to seek Environmental Clearance (EC) for proposed expansion project mentioned in the subject. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" in EIA Notification, 2006 and is appraised at the Central Level.

Details submitted by the Project Proponent

16.15.2 The Expansion of Integrated Cement Project - Clinker (1.48 to 4.38 MTPA), Cement (2.28 to 6.14 MTPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW) of M/s. Nirma Limited located at Villages - Nimbol and Sinla, Tehsil - Jaitaran, District - Pali (Rajasthan) was initially received in the Ministry on 11.11.2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its 13th meeting held on 23.11.2016 and prescribed ToRs to the project proposal for undertaking detailed EIA study for obtaining EC. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 04.08.2017 vide letter no. J-11011/01/2010-IA.II(I).

16.15.3 Based on the ToRs prescribed to the project, the project proponent submitted an application for EC to the Ministry online on 15.10.2018 vide online proposal No. IA/RJ/IND/80954/2009. The project was considered in the 2nd meeting REAC (Industry - I) for held on 10.12.2018 in which the committee recommended to return the proposal in present form.

16.15.4 The existing project was accorded EC vide letter no. J-11011/01/2010-IA-II(I) dated 29.03.2011 in the name of M/s. Siddhi Vinayak Cement Ltd and transfer of EC in the name of M/s. Nirma Limited has also been obtained vide letter no. J-11011/01/2010-IA-II(I) dated 31.07.2017.

16.15.5 The Status of compliance of earlier EC was obtained from Regional Office, Lucknow vide letter no. IV/ENV/R/ind-130/820/2011/17, dated 09.04.2019. There are no non-compliances reported by Regional officer.

16.15.6 The proposed capacity for the different products as below:

Units	Existing Capacity	Additional Capacity			Total Capacity After Expansion
		Through optimization in Existing Line - I	Proposed New Line - II	Total	
Clinker (MTPA)	1.48	0.56	2.34	2.9	4.38
Cement (MTPA)	2.28	0.78	3.08	3.86	6.14
Captive Power Plant (MW)	25	5	30	35	60
WHRB (MW)	4.7	1.3*	9	10.3	15
D.G. Set (MW)	4.8	Nil			4.8

** Consent to operate for Waste Heat Recovery System of 1.3 MW has already been obtained from RSPCB vide letter F(CPM)/Pali(Jaitaran)/2683(1)/2016-2017/200-202 on dated 06th April, 2018. Thus, the existing capacity of WHRS is 6.0 MW.*

16.15.7 Total land required for the project is 95.764 ha (which includes 70 ha existing plant area and 25.764 ha additional area); which is already industrial land and totally under the possession of M/s. Nirma Ltd. No forest land is involved. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

16.15.8 The topography of the area is almost flat and reported to lies between 26^0 19' 31.29" N to 26^0 20' 11.25" N Latitude and 73^0 50' 18.94" E to 73^0 51' 17.78" E Longitude in Survey of India toposheet no. 45 F/11 and 45 F/15 at an elevation of about 290 - 300 m. The ground water level reported to ranges between 60 m bgl to 70 m bgl below the land surface during the post-monsoon season and 80 m bgl to 90 m bgl below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be 95 m. Further, the stage of groundwater development is reported to be 100 % and 132 % in core and buffer zone respectively and thereby these are designated under Over-exploited Category.

16.15.9 No National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve etc. are reported to be located in the study area. The authenticated list of flora and fauna provided through the primary survey reporting presence of two schedule - I fauna (i.e.Indian Peafowl (*Pavo cristatus*) and Indian monitor lizard (*Varanus bengalensis*) in the study area (Annexure - 4 of Final EIA/EMP Report).

16.15.10 The raw materials required for the proposed expansion project are Limestone, Gypsum, Fly ash, Clay, Red Ochre/Iron Ore and Silica Sand. Cement Plant is based on Dry Process Technology for Cement manufacturing with Pre- Heater and Pre-Calciner Technology. The type of cement manufactured will be OPC and PPC.

16.15.11 The cement manufacturing process largely comprises of the following steps:

- Limestone Handling & Storage
- Raw Mix Preparation & Homogenization
- Fuel Preparation (Coal/Pet coke/Lignite)
- Calcination &Clinkerization
- Cement Grinding, Storage, Packing & Dispatch

No waste will be generated during Cement manufacturing process.

16.15.12 The targeted production capacity of the Clinker (1.48 to 4.38 MTPA), Cement (2.28 to 6.14 MTPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW). Limestone is being / will be sourced from the Captive Limestone Mines and third party limestone suppliers by road. Gypsum will be sourced from Bhavnagar, Gujarat; RSSM & FCI, Rajasthan and transported through road. Clay and Silica Sand will be sourced from nearby market through road. Red Ochre/Iron Ore will be sourced from Chhoti Sadri, Bhilwara, Chittorgarh and nearby market by road.

16.15.13 Fresh water requirement for the existing plant is 1123 KLD, additional fresh water requirement for the expansion project will be 1377 KLD. Thus, the total fresh water requirement after expansion will be 2500 KLD; which will be sourced from Ground Water. The permission for drawl of groundwater has been obtained from CGWA vide letter no. 21-4(493)/WR/CGWA/2011-4952 dated 10th December, 2012 and renewal application has been submitted on 09th May, 2016, which was scrutinized by CGWB, Jaipur and visited on 31.10.2018 to verify the compliance as per the NOC issued. CGWA after satisfactory verification has forwarded the application to CGWA, New Delhi vide letter dated 25.02.2019 for final approval. Application for additional water requirement of 1377 KLD has also been submitted to CGWA on 08.02.2018.

16.15.14 Existing power requirement for the plant is 28.0 MW. Additional requirement for upgradation in Line - I will be 5.5 MW, thus the total power requirement for the Line - I will be 33.5 MW and the power requirement for the installation of new Line - II is 35.0 MW. Thus, the total power requirement after proposed expansion will be about 68.5 MW; which will be met from Captive Power Plant, RSEB, WHRB & D.G. Set (for back-up).

16.15.15 Baseline Environmental Studies were conducted during Winter Season i.e. from Dec., 2016 to Feb., 2017. Ambient air quality monitoring was carried out at eight locations during 01.12.2016 to 28.02.2017 and the data submitted indicated: PM_{10} (59.4 to 89.3 mg/m^3), $PM_{2.5}$ (27.3 to 48.4), SO_2 (7.1 to 12.9 mg/m^3) and NO_2 (14.3 to 26.9 mg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed expansion project is1.52 µg/m^3 with respect to the PM, 0.65 µg/$m^3$with respect to the SO_2, 0.71 µg/$m^3$with respect to the NO_x.

16.15.16 Ground water quality has been monitored at eight locations in the study area and analysis of samples shows: pH- 7.06 to 7.31, Total Hardness- 288 to 480.70 mg/l, Chlorides- 272.26 to 474.71 mg/l, Fluoride- 0.62 to 0.84 mg/l. Heavy metals are within the limits. Surface water samples were not collected from the above locations as all the water bodies are seasonal and were found dry during the study period.

16.15.17 Noise levels are in the range of 52.1 to 67.1 Leq dB(A) for day time and 42.2 to 57.3 Leq dB(A) for night time.

16.15.18 It has been reported that there is no habitation in the core zone of the project. No R&R is involved.

16.15.19 No solid waste will be generated in the cement manufacturing process. Dust collected from various air pollution control equipments will be totally recycled back into the process. STP Sludge will be utilized as manure for greenbelt development within the plant premises. Used oil & grease will be generated from plant machinery / Gear boxes; which will be sold out to the CPCB authorized recycler. It has been envisaged that an area of 31.6 ha (i.e. 33% of the total project area - 95.764 ha) has been proposed to be developed under greenbelt out of which, 25.9 ha have already been developed as greenbelt and 5.7 ha is under development as greenbelt to attenuate the noise levels and trap the dust generated due to the project development activities.

16.15.20 It has been reported that Consent to operate from Rajasthan State Pollution Control Board vide letter no. F(CPM)/Pali(Jaitaran)/ 2683(1)/2016-2017/6226-6228, dated 04.10.2017 for Clinker and Cement which is valid up to 31.08.2022, CTO vide letter no. F(CPM)/Pali(Jaitaran)/ 1(1)2011-2012/1199-1201 dated 25.06.2019 for CPP & D.G. Set; which is valid up to 31.10.2023 and CTO vide letter no. F(CPM)/Pali(Jaitaran)/ 1(1)2011-2012/9802-9804 dated 19.01.2017 for WHRS; which is valid up to 30.09.2022.

16.15.21 Public hearing of the project was held on 08.06.2018 at Govt. Upper Primary School, Sinla, Gram Panchayat - Digrana, Tehsil - Jaitaran, District - Pali (Rajasthan) under the Chairmanship of Mr. Sudhir Kumar Sharma, District Collector, Pali (Rajasthan) for proposed expansion Project having production capacity of Clinker (1.48 to 4.38 MTPA), Cement (2.28 to 6.14 MTPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW) under the Rajasthan State Pollution Control Board. The major issues raised during public hearing are Employment, Environment & Pollution, Education, Health, CSR activities related, Land related and Plantation etc. An amount of ₹ 6.6 Cr has been earmarked for Corporate Environmental Responsibility (CER) based on public hearing issues.

16.15.22 The capital cost of the project is ₹ 950.27 Cr {including cost for Line - I optimization (₹ 75 Cr), New Line - II (₹ 868.1 Cr), CER (₹ 6.6 Cr) & Wildlife Conservation Plan (₹ 0.57 Cr)} and the capital cost for environmental protection measures is proposed as ₹40 Cr. The annual recurring cost towards the environmental protection measures is proposed as ₹ 5.0 Cr / annum (Line - I: ₹ 0.25 Cr/annum & Line - II: ₹ 4.75 Cr/ annum). The detailed CER plan has been provided in the EMP in its page No. 209 to 210.

16.15.23 The employment generation from the proposed expansion will be for 375 nos. of persons through direct employment.

16.15.24 Greenbelt will be developed in 31.6 ha which is about 33% of the total plant area; out of which 25.9 ha has already been covered under greenbelt. Additional 5.7 ha area will be developed under greenbelt. Greenbelt will be developed along the plant boundary as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a proposed density of 1500 trees per hectare. Total no. of 45770 saplings will be planted and nurtured in 31.6 hectares in 4 years.

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

Observations and Recommendations of the Committee

16.15.26 In view of the foregoing, the Committee deferred the proposal for deliberations for want of permission required for abstraction of ground water from CGWA.

16.16 Expansion of existing plant [Sponge iron (3x100 TPD) – 90,000 TPA; MS Billets – 123500 TPA; TMT Bars / Structural Steels / Wire rod mill – 94800 TPA; Captive power (WHRB – 6 MW; FBC – 12 MW)] by installation of one additional DRI kiln of 1x100 TPD – 30,000 TPA; WHRB – 2 MW; Fly ash brick unit – 70,000 TPA and reduction in power generation of existing FBC from 12 MW to 4MW by **M/s. Shree Rupanadham Steel Private Limited** located at Saraipalli Village, Tamnar Tehsil, **Raigarh District, Chhattisgarh** [Online Proposal No. IA/CG/IND/127747/2019; MoEF&CC File No. J-11011/308/2009-IA.II(I)] **– Environment Clearance under para 7(ii) of EIA Notification, 2006 –** regarding**.**

16.16.1 M/s. Shree Rupanadham Steel Private Limited has made an online application vide proposal no. IA/CG/IND/127747/2019 dated 22/01/2020 along with Form – 2, updated Form I & pre-feasibility report and sought for environmental clearance for enhancement in sponge iron production from 90,000 TPA to 1,20,000 TPA and Fly ash brick unit – 70,000 TPA under para 7(ii) of EIA Notification, 2006. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the project proponent

16.16.2 M/s. Shree Rupanadham Steel Private Limited was accorded Environment Clearance by MoEF&CC vide letter no. J-11011/308/2009-IA.II(I) dated 29/03/2011 under the provisions of the EIA Notification, 2006 for setting up of sponge iron – 90,000 TPA; MS Billets – 1,23,500 TPA; TMT Bars/ Structural Steel/ Wire Rod Mill – 94,800 TPA and WHRB – 6 MW & FBC – 12 MW at Village Saraipalli, Tehsil Tamnar, District Raigarh, State Chhattisgarh. Subsequently, MoEF&CC vide letter dated 9/07/2018 extended the validity of the EC till 28/03/2021.

16.16.3 The details of the units as per the EC dated 29/03/2001 and the expansion envisaged under para 7(ii) of the EIA Notification, 2006 is furnished as below:

S. No.	Products	Units as per EC dated 29/03/2011	Proposed expansion under para 7(ii)	Total	Remark
1	Sponge Iron	90000 TPA (3 X 100 TPD)	+ 30000 TPA (1 X 100 TPD)	120000 TPA (4 X 100 TPD)	One additional DRI kiln will be installed Capacity will be increased by 33%.
2	MS Billets	123500 TPA	Nil	123500 TPA	No change.
3	TMT Bars/ Structural Steel/ Wire Rod Mill	94800 TPA (Based on 94800 TPA Billet Reheating Furnace)	Reheating furnace will be replaced with direct Hot Charging of hot billets to existing Rolling Mill, the capacity will	94800 TPA (based on direct Hot charging)	The reheating furnace will be replaced with direct Hot Charging process for which hot

S. No.	Products	Units as per EC dated 29/03/2011	Proposed expansion under para 7(ii)	Total	Remark
			remain same.		billet will be received from CCM. No change in capacity.
4	WHRB	6 MW	2 MW	8 MW	Increase in waste heat recovery based power generation capacity. Capacity increased by 33%.
5	FBC	12 MW	(-) 8 MW	4 MW	The coal based power generation capacity will be decreased; therefore, fossil fuel consumption will be reduced, which result in reduction in pollution load. Also leads to reduction in water consumption. Capacity will be decreased by 66.6%.
6	Fly Ash Brick unit	-	70000 TPA	70000 TPA	To utilize waste like fly Ash, Coal Ash etc.

16.16.4 The compliance status to the existing EC was obtained from Regional Office, Nagpur vide Lr. No. 5-24/2011(ENV)/5930 Dated 28.11.2019. The non-compliances mentioned in the report of the Regional Office report and the action taken by the project proponent are summarized as below:

i. Specific Condition No (ii): PP has installed continuous stack monitoring facility. However, there was no display board at their main gate for public display. PP has installed 04 Nos of temporary AAQ monitoring station which are being regularly monitored. PP was advised to have permanent AAQ monitoring station.

Reply

- The unit has installed a display board at main gate of plant premises. PP has now setup 4 nos. of permanent AAQ monitoring station.

ii. Specific Condition No (v): PP has installed Dust suppression system and Bag Filters were installed at conveyor and transfer points, product handling, loading and unloading points. However, during the visit, housekeeping was observed to be poor.
Reply

- The housekeeping has been improved now and PP is maintaining clean premises especially in conveyor and transfer points, product handling, loading and unloading points.

iii. Specific Condition No (vi): The process for installation of waste heat recovery boiler (WHRB) is under progress. The PP has informed that implementation of WHRB will be completed by October, 2020.
Reply

- The civil work has been initiated in time and it is going on in full swing. A portion of civil work is related to the actual supply of system. So that as per foundation footing requirement this will be completed.

The major plant and machinery have been ordered for purchase. Implementation work is going on as per the supply of equipments. The legal permission from boiler inspector for erection and welding of boiler has been received on31.01.2020, PP can now start the erection of boiler. As per the current revised plan we will complete the implementation work by October 2020.

iv. Specific Condition No (viii): The PP has septic tank and soak pit for sanitary wastewater. However, PP was advised to explore the possibility of implementation of Sewage Treatment Plant (STP).
Reply

- At present only partially facilities are implemented, in which very small quantity (less than 10 KL) of domestic waste water is generated therefore construction of STP is not feasible. However along with complete implementation PP will implement the STP.

v. Specific Condition No (xv): Regarding Corporate Social Responsibility the project is under progress, only partially implementation has been done. PP undertakes that they will fulfill the commitment simultaneously with implementation of remaining facilities.
Reply

- The implementation of the project as enormously delayed by 6 years due to delay in grant of permission to Establish and subsequently due to delay in receiving financial sanction from bank. Therefore, the project is still under implementation stage. PP undertake to fulfill the commitment under CSR/ CER simultaneously after implementation of remaining facilities within the stipulated period of time.

vi. General Condition No, (iii): PP has installed temporary 4Nos. of AAQ stations and monitoring is being done regularly. PP was advised to have permanent AAQ monitoring station.
Reply

- PP has made 4 nos. of permanent AAQ monitoring stations. These are now permanent.

vii. General Condition No. (vii): Rain water harvesting structure is under construction. PP are also constructing a rain water collection facility for utilization in lean season.
Reply

- The rain water harvesting structures are now completed and rain water collection tank is under implementation and will be completed by March 2020.
- The area is under "safe zone" and water table varies form 1 meter to 1.9 meters.

viii. General Condition No. (x): PP has uploaded copy of Environment Clearance. However, when website was access the site was not working.
Reply

- The website of company was under maintenance due to technical reason. Now the website is updated and link for the same is given as follows:

  http://srspl.in/downloads

ix. General Condition No. (xi): PP has informed that the status of compliance of the stipulated environment clearance conditions, including results of monitored data has been uploaded on company's website. However, when website' was access the site was not working. The PP has not provided display board at plant main gate regarding SPM, RSPM, SOX and NOX. However, PP committed install display board at plant
Reply

- The website of company was under maintenance due to technical reason. Now the website is updated and link for the same is given as follows:

  http://srspl.in/downloads

The display board at main gate has been installed in which PM, SO_2 and NOX has been displayed.

The Committee noted that the project proponent is yet to obtain the formal closure report from the Regional Office on the observed non-compliances.

16.16.5 The proposed expansion will be carried out within the existing land of 11.14 ha. No additional land is required for the proposed expansion.

16.16.6 The topography of the area is flat(and reported to lies between 22^0 1' 16.99" to 22^0 1' 31.86" N Latitude and 83^0 18' 28.97" to 83^0 18' 43.73" E Longitude in Survey of India topo sheet No. 64 N/4,&8 and 64 O/1,5, at an elevation of 302 m AMSL.

16.16.7 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 for corridor for Schedule-I fauna.

16.16.8 The details of the raw materials requirement after the proposed expansion is furnished as below.

Raw Material:

(in TPA)

S. No.	Item	Qty Required to be sourced from outside		Remark
		Permitted scenario as per existing EC	**Status after Proposed expansion**	**Change in quantity**
1	Sized Iron Ore	144000	192000	(+) 48000
2	Coal for DRI Kiln and FBC	161100	147642	(-)13458
3	Dolomite	4500	6000	(+) 1500
4	Sponge Iron (own Generation)	25267	0	(-)25267
5	Scrap	29223	29223	Nil
6	Ferro Alloys	1166	1166	Nil
7	Billets (Cold)	104280	0	(-)104280
8	Furnace Oil	2937	0	(-)2937
9	Dolochar	0	0	Nil
10	Fly Ash/Coal Ash etc	0	960	(+) 960
11	Gypsum & Cement	0	21000	(+) 21000
	Total :	**472473**	**397991**	**(-)74482**

Fuel:

	Change in fuel consumption TPA and percentage reduction		**EMISSION RATE TPA and percentage reduction**			**Solid waste TPA and percentage reduction**
	FO consumption of reduction	Coal consumption of reduction	PM	SO_2	NOx	Ash /dust generation
Permitted scenario as per existing EC	2937	161100 TPA	53.93	1657.22	1278.15	62000
Status after Proposed expansion	-	147642	46.67	1615.59	1225.8	36200
Reduction	(-)2937 & (-) 100 %	(-) 13458 & (-) 8.3 %	(-) 7.26 & (-)13.4 %	(-) 41.63& (-) 2.5 %	(-) 52.35 & (-) 4.0 %	(-)25800 & (-) 41.6 %
Note: • Due to implementation of Fly Ash Brick making unit it is proposed to utilize Fly Ash and dust, effectively. This will be value addition for effective						

utilization of solid waste.

- Overall thermal energy consumption from fossil fuel as permitted in existing scenario works out to 982710 G cal/Annum against which the total thermal energy consumption after change in configuration of plant for proposed change in product mix will get reduced to 892240 Gcal/Annum. This will reduced 90470 G Cal/Annum Thermal Energy requirement.

16.16.9 The water requirement of the project is estimated as 595 KLD of fresh water requirement will be obtained from the Bore wells. The permission for drawl of groundwater is obtained from Central Ground Water Authority vide Lr. No. CGWA/NC/IND/ORIG/2019/5163 Dated 14.05.2019 (valid till 11.04.2021).

16.16.10 The power requirement of the project is estimated as 17MW, out of which out of which 12 MW (8 MW –WHRB and 4 MW) will be sourced through Captive Power Plant and remaining 5 MW will be sourced from CSPDCL Grid. In addition 2100 KVA DG sets will be also used as emergency backup. There will be no significant increase in power consumption.

16.16.11 For Baseline Environmental Studies representative samples were taken during November 2019.Ambient air quality status was found as below:

PM - Min 61 Max 85.8 (µg/m^3)
SO2- Min 11 Max 18 (µg/m^3)
NOx- Min 10 Max 20 (µg/m^3)

16.16.12 The maximum ground level concentrations (GLCs) for particulate matter and gaseous concentration SO_2, NO_2 due to permitted capacities activities were carried out for both the scenarios (a) for the capacities for which existing EC has been issued; and (b) for the proposed expansion. On comparing the possible contribution from both the scenarios, following status reveals that the proposed expansion will be resulting in reduction in pollution load.

Pollutant	**Calculated Contribution as per capacity granted in existing EC dated 29/03/2001**	**Predicted Contribution as per proposed expansion**
	µg/m^3)	**µg/m^3)**
Particulate Matter	0.75	0.6
SO_2	16.0	13.5
NO_x	14.5	10.5

16.16.13 An area of 4.85 ha (44% of total land) has been developed as green belt at the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.16.14 It has been reported that the Consent to Operate from the State Pollution Control Board (Chhattisgarh Environment Conservation Board) obtained vide Lr. No. 8075/TS/CECB/2019 dated 06.03. 2019 and the consent is valid up to 29.02.2020.

16.16.15 The Public hearing for the existing project was held on 28.08.2010 as per the provisions of the EIA Notification, 2006.

16.16.16 Total cost of the project is INR 148 Crores.

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

16.16.18 Name of the Consultant: M/s Anacon Laboratories Pvt. Ltd. [S.No. 10, List of Accredited Consultant Organizations (Alphabetically) Rev. 83, Jan 20, 2020].

Observations of the Committee

16.16.19 The Committee noted the following:

i. The instant proposal is for enhancement of sponge iron production to the extent of 33% of the capacity permitted in the earlier Environment Clearance dated 29/03/2011 along with the installation of Fly ash brick unit of 70,000 TPA capacity.

ii. According to the records made available by the project proponent, there is reduction in pollution load due to direct hot charging in place of reheating furnace.

iii. Instant proposal does not fall under the purview of the clause 7(ii) a & 7(ii) b of the EIA Notification, 2006.

iv. As per the MoEF&CC gazette notification no. S.O.236 (E) dated 16/01/2020, "*any change in raw material-mix or product-mix, change in quantities within products or number of products in the same category for which prior environmental clearance has been granted, shall be exempted from the requirement of prior environmental clearance provided there is no increase in pollution load and the resultant increase in production is not more than 50 percent of the production capacity permitted in the earlier environmental clearance and the project proponent shall follow the procedure for obtaining 'No Increase in Pollution Load' certificate from the concerned State Pollution Control Board or Union Territory Pollution Control Committee, as the case may be, as per the provisions given in Appendix –XIII of EIA Notification, 2006".*

v. In light of the above, the Committee was of the considered view that the instant proposal falls under aforesaid clause, i.e., clause 7(ii) c of EIA Notification 2006 and accordingly advised the project proponent to approach the Chhattisgarh Environment Conservation Board (CECB) as per the MoEF&CC gazette notification no. S.O.236 (E) dated 16/01/2020.

Recommendations of the Committee

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

16.17 Expansion of the existing 0.052 MTPA Sponge Iron to 0.16 MTPA Sponge Iron, 2x9 MVA Arc Furnace for manufacturing of Ferro Alloys of 30,000 TPA (Fe-Mn, Si-Mn, Fe-Si & Pig Iron combined), Iron Ore Sinter Plant of 80,000 TPA, 2x20 TPH Iron ore washery of 2,40,000 TPA and 20 MW Power Plant [WHRB – 10 MW & AFBC – 10 MW] by **M/s Maithan Steel & Power Limited** located at PO Bonra, PS Neturia, **Purulia District, West Bengal** [Online Proposal No. IA/WB/IND/70780/2017; MoEF&CC File No. IA-J-11011/554/2017-IA.II(I)] **– Environment Clearance – regarding.**

16.17.1 M/s. Maithan Steel and Power Limited has made an online application vide proposal no. IA/WB/IND/70780/2017 dated 09/01/2020 along with copy of EIA/EMP report and Form – 2 seeking Environmental Clearance (EC) under the provisions of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the project proponent

16.17.2 M/s. Maithan Steel and Power Limited has established and operating a 2x100 TPD sponge iron kiln at village Bonra, PS Neturia, Purulia District, West Bengal based on the Consent To Establish (CTE) obtained from the West Bengal Pollution Control Board (WBPCB) vide memo no. 787/2N-2383/2001 dated 27/09/2001. The cost envisaged for the said unit was less INR 100 Crore at that time. Hence, Environment Clearance was not obtained under the EIA Notification dated 27/01/1994. Consent To Operate (CTO) has been obtained from WBPCB from time to time. Presently, the CTO was renewed on 28/08/2018 and is valid up to 31/08/2023.

16.17.3 The expansion project of M/s Maithan Steel & Power Limited located at Village Bonra, Tehsil Neturia, District Purulia, State West Bengal was initially received in the Ministry on 4th November 2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (1)] during its 24th meeting held on 11-13th December 2017 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining Environment Clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 25th January 2018 vide Lr. No J-11011/554/2017-IA-II(I).

16.17.4 The expansion project of M/s Maithan Steel & Power Limited is located in Bonra Village, Neturia Tehsil, Purulia District, West Bengal. The details of the existing unit and the proposed expansion units are furnished as below:

Facilities	**Existing configuration**	**Proposed Phase I**	**Proposed Phase II**	**Final configuration after expansion**	**Final Production Capacity In TPA**
DRI Kilns	2x100 TPD	2x100 TPD	1x100 TPD	5x100 TPD	1,60,000
Power(WHRB)	Nil	8MW(from 4x100 TPD)	2 MW	10 MW	10 MW
Power(AFBC)	Nil	10 MW	Nil	10 MW	10 MW
Ferro Alloys Plant	Nil	1 x9 MVA	1 x9 MVA	2 x9 MVA	30,000 (Fe-Mn, Si-Mn, Fe-Si & PigIron combined)
Iron Ore Sinter Plant	Nil	250 TPD	NIL	250 TPD	As required.
Iron Washery	Nil	1 x 40 TPH	Nil	1 x 40 TPH	2,40,000

16.17.5 The status of compliance of existing CTO was obtained from WBPCB vide Lr. No. 279 - 4A/18/2008(Part-IV), dated 08.11.2019. As per the report, following non-compliances have been reported:

i. Common Energy meter provided for ESP of DRI kilns and for it's ID fan.

ii. The dry fog systems at the bottom of the various bag filters and transfer points shall be operated properly.

iii. The leakage from the DRI kiln no. 02 should be repaired.

iv. The broken part of the coverings of the conveyor belt should be repaired.

v. More water sprinkling arrangements should be installed and the same should be operated properly.

vi. The unit should change over to green DG sets. The unit should obtain NOC of WBPCB for 01 number of 380 KVA DG set.

vii. About 50-60% of the internal roads are concreted and the rest also be concreted.

viii. Rain water harvesting should be done.

ix. The unit has developed about 20-22% green coverage for the existing unit.

The committee noted that formal closure report from Regional Office of the WBPCB has not been submitted.

16.17.6 The total land required for the project is 11.90 ha. No forestland involved. The entire land has been acquired for the project. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

16.17.7 The topography of the area is undulated and reported to lies between 23°38'6.35" to 23°37'52.13" latitude and 86°49'59.25" to 86°50'12.7" Longitude in survey of India topo sheet No- F45C14, at an elevation of 117m AMSL. The ground water table reported to ranges between 1.8 - 2.3m below the land surface during the post-monsoon season and 4.5 – 4.9m below the land surface during the pre-monsoon season.

16.17.8 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.

16.17.9 The salient features of the project is given as below.

i. Sponge iron will be produced by direct reduction of iron oxide below the fusion temperature of iron (1535°C) by utilizing hydrocarbon gases or carbonaceous fuels from coal.

ii. Ferro Alloys like Fe-Mn, Si-Mn, Fe-Si & Pig Iron will be produced from respective ores utilizing electric power of Submerged Arc Furnace.

iii. 20 MW Captive power plant will consist of 1) Five (5) nos. 10 TPH, 89 kg / cm^2, 515 °C Waste Heat Recovery Boilers (WHRBs) utilizing Waste heat from flue gas from 5 x 100TPD Sponge Iron kilns, generating steam for10 MW power.

iv. One 38 TPH, 89 Kg / cm², 515 °C Atmospheric Fluidized Bed Combustion (AFBC) Boiler fired by Coal, Coal Fines, Char in desired proportion, generating steam for 10 MW power. 3) One no. Steam Turbo-Generator, 87 Ata and 510 ° C to generate 20 MW power.

v. 1x250 TPD Iron Ore Sinter plant will agglomerate a mixture of iron ore fines, secondary iron oxide wastes (collected dusts, mill scale etc.) along with fluxes (lime, limestone and dolomite) recycled iron making products, slag-forming agents, and solid fuel like coke and coal.

vi. 1x40 TPH Iron ore washery to beneficiate low grade Iron ore fines with Fe content 56-58% to Fe content around 63% Fe.

16.17.10 The targeted production capacity of the project is 0.16 million TPA. The ore for the plant would be procured from (Iron Ore-Barbil, Coal-Dhanbad). The ore transportation will be done through Rail.

16.17.11 The fresh water requirement of the project is estimated as 1800 KLD which will be drawn from Disergarh Ghat & Chinakuri Ghat near Damodar river. The permission for drawl of surface water is obtained from Damodar Vallley Corporation vide Lr. No MRO/watertariff/183 dated 26.03.2019.

16.17.12 The power requirement of the project is estimated as 20 MW, which will be met from the CPP.

16.17.13 Baseline Environmental Studies were conducted during Winter season i.e. from December to February, 2018 Ambient air quality monitoring has been carried out at eight locations during December to February 2018 and the data submitted indicated: PM_{10} (89.7µg/m^3 to 65.1µg/m^3), $PM_{2.5}$ (51.1µg/m^3 to 30.3µg/m^3), SO_2 (23.5 µg/m^3 to 11.1µg/m^3) and NO_X (28.4 µg/m^3 to 14.1µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 3.62 µg/m^3 with respect to the PM_{10}, 4.07 µg/m^3 with respect to the SO_2 4.18 µg/m^3 with respect to the NOX.

16.17.14 Ground water quality has been monitored at eight locations in the study area and analyzed. PH: 7.1 to 7.5, Total Hardness: 9.6 to 128 mg/l, Chlorides: 42 to 50 mg/l, Fluoride: 0.26 to 0.36 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 8 locations. PH: 7.3 to 7.8; DO: 4.6 to 6.6 mg/l and BOD: 7.2 mg/l. COD from 30 to 50 mg/l.

16.17.15 Noise levels are in the range of 50.7 to 64.4 dBA for daytime and 39.1 to 44.4 dBA for nighttime.

16.17.16 It has been reported that there are no people in the core zone of the project. No R&R is involved. It has been envisaged that no families to be rehabilitated or provided compensation and preference in the employment.

16.17.17 It has been reported that a total of 1,90,150 tons of waste will be generated due to the project, out of which 38,350TPA will be used in process, 136800TPA will be supplied to authorized to recyclers and 15000TPA will be dumped in abandoned coal mines of Eastern Coal Fields Limited. It has been envisaged that an area of 3.9ha will be developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.17.18 It has been reported that the Consent to Operate from the West Bengal State Pollution Control Board obtained vide Lr. No- CO110150 dated 28.08.2018 and consent is

valid up to 31.08.2023.

16.17.19 On 11.01.2019, at 12: 00 hrs, Public Hearing was conducted at Sampriti Bhawan, Sarbari More, Neturia Block, Dist- West Bengal. Sri Naba Kumar Burman, Additional District Magistrate presided over the meeting. Sri S.K Mandal Sr, Environment Engineer was also present. Points raised in PH and reply is as follows:

S.No	Name of Public	Issues raised by Public	Commitment of PP
1	Sri Ratan Bauri, Golalhati	Source of water for the project	Water requirement will be met from nearby river Damodar through pipeline.
2	Sri Dakhinesawri Bauri, Anandapur. Sri Shyamapada Bauri, Sarbori	Concern on Environment Management Plan.	Adequate APC Devices like ESPs, Bag Filters shall be installed. The unit has already planted saplings and the same will continue. Solid waste generated will be partly co-processed and partly sold to authorized recyclers. Prevailing Environmental norms will be strictly maintained.
3	Sri Atanu Chakraborty, Bonra	Local development and abatement of pollution.	Peripheral Developments will be done and Adequate APC Devices like ESPs, Bag Filters shall be installed. Prevailing Environmental norms will be strictly maintained.
4	Sri Laltu Das, Biduti	Health Consciousness program	Health camp will be done. CSR related activities will be carried out.
5	Sri Ratneswar Kisku, Saontal Moreghat	Employment opportunities	Preference to the local youths. Also give proper training exposure to Industrial Activity.
6	Sri Nirmal Bauri, Dhangora	Local development and employment opportunities.	Peripheral Developments will be done. Preference to the local youths. Also give proper training exposure to Industrial Activity.
7	Sri Pradeep Kabi, Bora	Enquired about tree plantation program	The unit has already planted saplings and the same will be continue. Proper green belt along the periphery as well as surroundings will be developed.

16.17.20 The capital budget for CER purpose is 149 lakhs (1% of 100 cr + 0.75 % of next 500 cr) of the project cost which will be spend towards the sustainability of project as well benefit of the public. This will be spent along the construction activities of the project and will cover all the issues raised by public during hearing and as committed by project proponent.

S. No.	Item	Description	1st Yr (in lacs)	2nd Yr (in lacs)	Total (in lacs)
1	Drinking water	Sinking of new bore wells in Bonra, Anandpur & Bhamuria @ 5 /village	25	20	45
2	Strengthening of approaching road	Strengthening of approach road in villages Bonra & Biduti 3 km	30	25	55
3	Energy efficient street light	Electrification of the Bonra & Anandpur village with energy efficient LED bulbs.	5	5	10
4	Primary School renovation	Bonra primary school & Anandpur Higher Secondary School building Renovation	10	10	20
5	Swatch Bharat Mission	Providing Tractors, dust bins and development of the dump yard	10	5	15
6	Refresher course to the unemployed	A short term training course to the local unemployed seeking employment into the industry.	2	2	4
	TOTAL		149		

16.17.21 The capital cost of the project is INR165 Crores and the capital cost for environmental protection measures is proposed as INR 660 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as INR 66 Lakhs.

Category	Capital Cost (in lacs)	Recurring Cost (in lacs
Air pollution Equipment	355.1	35.5
Water Pollution Control Machinery & Construct^{n}	118	11.8
Rainwater Harvesting	11.62	1.2
Occupational Health	11.3	1.1
Green Belt Development	126	12.6
Environmental Monitoring	4.65	0.5
Solid Waste management	13.53	1.4
Safety & Disaster Management	12.4	1.2
EMS & Capacity Development	7.4	0.7
Total	**660**	66

16.17.22 The employment generation from the proposed project / expansion is 450 Nos.

16.17.23 Greenbelt will be developed in 3.92 ha which is about 33% of the total acquired area. A 100 m wide greenbelt, consisting of at least 3 tires around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 5224 saplings will be planted and nurtured in 3.92 hectares in 3 Years.

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

16.17.25 Name of the consultant: M/s. Global tech Enviro Experts Private Limited [S.No. 3; List '2' – ACOs in process of complying; List of Accredited Consultant Organizations (Alphabetically) Rev. 29, Jan 20, 2020].

Observations of the Committee

16.17.26 The Committee noted the following shortfalls in the EIA report:

i. Execution of agreement with Damodar Valley Corporation for drawl of water from Damodar River has not been submitted.

ii. Closure report from Regional Office of WBPCB on the observed non-compliances has not been furnished.

iii. Action plan for solid and hazardous waste utilization has not been furnished.

iv. BOD parameter in the ground water sample has not been monitored. Hence, fresh assessment of ground water quality for all the parameters is required.

v. Action plan for rain water harvesting is not furnished.

vi. Transportation details of materials have not been furnished.

Recommendations of the Committee

16.17.27 In view of the foregoing and after detailed deliberations, the committee deferred the consideration of the proposal cited above and sought following additional information for further consideration of the proposal:

i. Execution of agreement with Damodar Valley Corporation for drawl of water from Damodar River shall be submitted.

ii. Closure report from Regional Office of WBPCB on the observed non-compliances in the existing CTO conditions.

iii. Action plan for solid and hazardous waste utilization.

iv. BOD parameter in the ground water sample has not been monitored correctly. Hence, fresh assessment of ground water quality for all the parameters shall be carried out and report submitted.

v. Provision for one 350 TPD DRI kiln in place of 3 Nos of 100 TPD DRI kiln shall be submitted.

vi. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.

vii. Description of the existing condition of the road to be used for transportation of raw materials and finished products inter-alia including its dimensions along with photographs, shall be furnished.

viii. Quantity of raw materials and products to be transported by different modes such as road and rail respectively shall be described.

ix. Reasons for higher level of presence of Particulate matter in the Ambient Air and the source for the same shall be furnished.

16.18 Expansion in SMS shop (replacement of smaller (2x3t+1x6t IF) with (3x10t IF) in existing steel plant by **M/s. Bihar Foundry & Casting Limited** located at Plot No 1364, Ramgarh Industrial Area, Ramgarh, Marar, Ramgarh, **Jharkhand** [Online Proposal No. IA/JH/IND/136232/2020, MoEF&CC File No. J-11011/310/2009-IA. II(I)] **– Prescribing of Terms of Reference (ToR) –** regarding**.**

16.18.1 M/s. Bihar Foundry & Casting Limited has made application vide online proposal no. IA/JH/IND/136232/2020 dated 10/01/2020 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.

16.18.2 M/s. Bihar Foundry & Casting Limited (BFCL) vide letter dated 25/02/2020 sent a letter to the Member Secretary expressing their inability to participate in the meeting and further stated that they would like withdraw the proposal cited above.

Observations and recommendations of the Committee

16.18.3 In view of the request from Project Proponent, the Committee recommended for the withdrawal of the proposal from PARIVESH.

16.19 1.4 MTPA Integrated Steel Plant comprising of DRI (Sponge Iron) 1400000 TPA, Ferro Alloy (FeMn, SiMn, FeSi & FeCr)-36000 TPA, Chrome Briquette plant-20 TPH; Zigging Plant-60 TPD; Steel Melting Shop with matching LRF/AOD & CCM (Billet/Slab)-1400000 TPA; Slag Crushing unit- 60 TPH; Rolling Mill with Pickling & Galvanising Line-350000 TPA; Wire Rod Mill & Wire Drawing -1000000 TPA, I/O Beneficiation plant- 2000000 TPA, Wet Grinding unit-2000000 TPA, I/O Pellet Plant-4000000 TPA, Producer Gas Plant- 225000 N.Cu.M/hr and 235 MW Captive Power plant by **M/s. Rashmi Udyog Private Limited** located at village Baghmuri, P.O. Garhsalboni, P.S. Jhargram, District Jhargram**, West Bengal** [Online Proposal No. IA/WB/IND/133965/2019, MoEF&CC File No. J-11011/40/2020-IA.II(I)] **– Prescribing of Terms of Reference (ToR) – regarding.**

16.19.1 M/s. Rashmi Udyog Private Limited has made application vide online proposal no. IA/WB/IND/133965/2019 dated 10/01/2020 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

16.19.2 M/s Rashmi Udyog Private Limited proposes to install a new unit for "1.4 Million Ton Per Annum Integrated Steel Plant along with 235 MW (110 MW WHRB based & 3 x 45 MW Coal and Dolochar mix based) Captive Power Plant". It is proposed to manufacture steel from Pellet plant-Sponge Iron-SMS route.

16.19.3 The proposed unit will be located at Village- Baghmuri, P.O-Garhsalboni, P.S-Jhargram, District- Jhargram, State- West Bengal.

16.19.4 The land area required for the proposed plant is 49.78 hectares (123 acres). No forestland involved. Out of the 49.78 hectares (123 acres) of land, 20.23 hectares (50

acres) of land is in possession by M/s Rashmi Udyog Private Limited and for rest of the land mutual agreement obtained from private rayat. Of the total area 16.43 ha (33 %) land will be used for green belt development.

16.19.5 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.

16.19.6 Total project cost is approximately INR 1500 Crore rupees. Proposed employment generation from proposed project will be 1500 direct employment and 3500 indirect employment.

16.19.7 The targeted production capacity of the proposed standalone greenfield project is DRI (Sponge Iron) 1400000 TPA, Ferro Alloy (FeMn, SiMn, FeSi & FeCr)-36000 TPA, Chrome Briquette plant-20 TPH; Zigging Plant-60 TPD; Steel Melting Shop with matching LRF/AOD & CCM (Billet/Slab)-1400000 TPA; Slag Crushing unit- 60 TPH; Rolling Mill with Pickling & Galvanising Line-350000 TPA; Wire Rod Mill & Wire Drawing -1000000 TPA, I/O Beneficiation plant- 2000000 TPA, Wet Grinding unit-2000000 TPA, I/O Pellet Plant-4000000 TPA, Producer Gas Plant- 225000 N.Cu.M/hr and Captive Power plant-235 MW [WHRB-100 MW + CFBC (Coal & Dolochar mix based)-3 x 45 MW]. The major raw material which will be handled consists of Iron Ore fines & lumps, Pig Iron, Coal, Coke, Dolomite, Limestone, Manganese Ore, Chromium ore & Quartzite. The raw materials will be purchased from mines located in Odisha, West Bengal, Jharkhand, Madhya Pradesh and Chhattisgarh depending upon availability. Non-Coking coal will be imported. The ore transportation will be done through Rail, Road & Ship.

16.19.8 The proposed capacity for different products for new site area as below:

Sl. No	Particulars of Facilities	Configuration	Capacity	Product
1.	DRI	900 x 4 TPD	1.4 Million T.P.A	Sponge Iron
2.	Steel Making Facilities with matching LRF, CCM and oxygen optimized furnace	25 T IF X 12 + 30 T EAF X 2	1.4 Million T.P.A	Billets, Slab
3.	Slag Crusher	3 x 20 TPH	60 TPH	Metal Recovery
4.	Oxygen Plant	1 x 200 TPD	200 TPD	Oxygen
5.	Ferro Alloy	3 x 9 MVA	36,000 TPA	FeMn, SiMn, FeSi & FeCr
6.	Jigging Plant	3 x 20 TPD	60 TPD	Metal Recovery
7.	Chrome Briquette Plant	1 x 20 TPH	20 TPH	Briquette Plant
8.	Rolling Mill with Pickling Line & Continuous Galvanising Line	**	0.35 Million T.P.A	H.R. Plate , Galvanized Sheets
9.	Wire Rod Mill and Wire drawing	***	1.0 Million T.P.A	TMT Bars, Wire Rod & Wire
10.	Captive Power Plant	WHRB Based	235 MW	Power

Sl. No	Particulars of Facilities	Configuration	Capacity	Product
		100 MW from DRI Plant + CFBC (Coal Dolochar mix based) 3 x 45 MW		
11.	Pellet Plant	4 x 1.0 Million T.P.A	4.0 Million T.P.A	Iron ore Pellet
12.	I/O Beneficiation	1 x 2.0 Million T.P.A	2.0 Million T.P.A	Concentrated Iron ore
13.	Wet Grinding Unit	1 x 2.0 Million T.P.A	2.0 Million T.P.A	Concentrated Iron ore
14.	Producer Gas Plant	30 x 7,500 Nm^3/hr	2,25,000 Nm^3/hr	Producer Gas

16.19.9 Total connected power demand for the proposed project is 262 MW and it will be met from proposed 235 MW Captive Power Plant & balance 27 MW from WBSEDCL/ open access. Further the management will have 10 x 720 KVA DG sets to meet the emergency power requirement.

16.19.10 The proposed raw material requirement along with its source and mode of transportation is furnished as below.

Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
				First Unloading Point (Km)	Project site		Distance from first unloading point	(Mode of Transportation)
1	Iron Ore Fines	44,53,300	Applied for captive iron ore mines Alternate source: Purchased from Barbil-Joda, Orissa	270-300	---	Train up to Jhargram Public Siding	10 KM	By Road SH-5
2	Iron ore Lumps	1,00,000				Train up to PFT RML/ OMPL Siding or Nimpura Public Siding	25-30 KM	By Road NH-6
3	High graded Iron Ore	1,66,700						
4	Pig Iron	2,75,100	From other unit of group company	---	30-200	----	---	By Road NH-6
5	Non-coking coal	24,58,960	CCL, MCL & Imported Coal. Applied for captive	300-500	---	By vessel up to nearest port (Haldia / Paradeep / Vizag)	10 KM	By Road SH-5

Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
				First Unloading Point (Km)	Project site		Distance from first unloading point	(Mode of Transportation)
			Coal mines (Jagnnathpur-B, West Bengal) and is successful bidder.			and followed by train up to Jhargram Public Siding		
						By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by Train up to PFT RML Siding	30 KM	By Road NH-6
6	Coke	23,400	Imported, E-Auction	300	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Jhargram Public Siding	10 KM	By Road SH-5
						By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by Train up to PFT RML/OMPL Siding	30 KM	By Road NH-6
7	Dolomite	1,04,980	From Birmitrapur, Orissa / Bilaspur, CG	270-350	---	Train up to Jhargram Public Siding	10 KM	By Road SH-5
8	Limestone	1,60,000	From	270-350	---	Train up	10 KM	By Road SH-

Sl. No.	Name of the Raw Materials	Quantity (TPA)	Source	Distance of source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
				First Unloading Point (Km)	Project site		Distance from first unloading point	(Mode of Transportation)
			Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP			to Jhargram Public Siding		5
9	Manganese ore	93,600	From Balaghat, MP & Orissa	1000	---	Train up to Jhargram Public Siding	10 KM	By Road SH-5
10	Chromium Ore	79,200	Orissa, Jharkhand etc.	300	---	Train up to Jhargram Public Siding	10 KM	By Road SH-5
11	Quartzite	9,000	From Belpahar Orissa / Bilaspur, Raipur CG	500		Train up to PFT RML/ OMPL Siding	30 KM	By Road NH-6
Total (TPA)		**79,24,240**						

16.19.11 The total water requirement of the project is estimated as 7080 KLD. The raw water will be sourced mainly from the supply system of Jhargram Municipality (Subarnarekha River), ground water (bore well) and rain water harvesting pond. Domestic waste water will be treated in STP and industrial waste water generated from power plant cooling tower blow down will be used in DRI and balance industrial waste water will be treated in ETP and reused for dust suppression, green belt development and ash handling.

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

16.19.13 Name of the consultant: M/s. Kalyani Laboratories Private Limited (S.No. 87, List of Accredited Consultant Organizations (Alphabetically) Rev. 83, Jan 20, 2020)

Observations of the Committee

16.19.14 The Committee noted the following shortfalls in the proposal:

i. The details sought in the Form I inter-alia including underground works, emission details and environmental sensitivity etc., have not been adequately quantified and described.

ii. The group companies existing in vicinity of the project site have not been combined and integrated proposal has not been furnished.

iii. Map indicating the existence of group companies located within the study area has not been furnished in the pre-feasibility report.

iv. Optimisation of capacities for IF (12 Nos of 25 T) and pellet Plant 4x1MTPA). The unit sizes should be increased for reduction of pollution, energy and land requirement. Also, the size of producer gas modules should be increased for above reasons. Presently the module of 30x7500 Nm^3/hr has been proposed.

v. Plan to treat phenolic water and tar sludge from Producer Gas plant has not been furnished.

vi. Details regarding construction/back filling need to be furnished.

vii. Water shall be drawn from Subarnarekha River. Action plan for phasing out of Ground water abstraction in next three years to zero shall be furnished.

viii. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.

ix. Traffic management plan and plan to get a railway siding for the proposed and existing plants has not been furnished.

Recommendations of the Committee

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

16.20 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 Private Limited** located at Silpahari, Sirgitti Industrial Area, Bilaspur, Chhattisgarh [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.**

16.20.1 **M/s. Agrawal Structure Mills Private Limited** has made application vide online proposal no. IA/CG/IND/138674/2020 dated 24/01/2020 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.

16.20.2 M/s Agrawal Structure Mills Private Limited vide letter dated 25/02/2020 addressed a letter to the Member Secretary expressing their inability to participate in the meeting due to their non-availability of senior executive and requested to consider the proposal in the next EAC meeting.

Observations and recommendations of the Committee

16.20.3 In view of the foregoing and after detailed deliberations, the Committee recommended the Ministry to place the proposal in the next EAC meeting for consideration.

16.21 Expansion of existing DRI 60,000 TPA to 180,000 TPA, & manufacturing 138,700 steel billets in SMS through Induction Furnaces, Rolling Mill 100,000 TPA TMT Rods, 27,900 TPA Ferro Alloy and 20 MW CPP from WHRB and 1x30 tph AFBC/CFBC by **M/s. Saluja Steel & Power (P) Limited** located at Village: Mohanpur, PS Mahtodih, Tehsil: Giridih**, District: Giridih, State: Jharkhand** [Online Proposal No. IA/JH/IND/135158/2020, MoEF&CC File No. J-11011/47/2020-IA.II(I)] **– Prescribing of Terms of Reference (ToR) – regarding.**

16.21.1 M/s. Saluja Steel & Power Private Limited has made application vide online proposal no. IA/JH/IND/135158/2020 dated 29/01/2020 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

16.21.2 M/s. Saluja Steel and Power Limited has established and operating a 2x100 TPD sponge iron kiln at village Mohanpur, PS Mahtodih, Tehsil: Giridih, District: Giridih, State Jharkhand based on the Consent To Establish (CTE) obtained from the Jharkhand State Pollution Control Board (JSPCB) vide letter no. N-465 dated 6/08/2005. The cost envisaged for the said unit was less INR 100 Crore at that time. Hence, Environment Clearance was not obtained under the EIA Notification dated 27/01/1994. Consent to Operate for the existing unit was accorded by Jharkhand State Pollution Control Board vide lr. no. JSPCB/HO/RNC/CTO-3029975/2019/282 validity of CTO is up to 30/09/2020.

16.21.3 M/s. Saluja Steel & Power (P) Ltd. proposed for the expansion of existing DRI 60,000 TPA to 1,80,000 TPA, and new unit for manufacturing 1,38,700 TPA Steel Billets in SMS, A Rolling Mill 1,00,000 TPA TMT Bars, 27,900 TPA Ferro Alloy and 20 MW CPP from WHRB/ AFBC at village: Mohanpur, PS Mahtodih, Tehsil: Giridih, District: Giridih, State: Jharkhand.

16.21.4 The land in possession is 12.26 Ha which is in industrial use. No forestland involved. Of the total area 4.04 ha (33%) land will be used for green belt development.

16.21.5 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.

16.21.6 Total project cost is approximately Rs.96 Crores. Proposed employment generation from proposed project will be 135 direct employment and 500 indirect employment.

16.21.7 The details of the existing units and the proposed expansion details are furnished as below:

Sl. NO.	**UNIT**	**PROJECT CONFIGURATION AND PRODUCTION CAPACITY**		**PRODUCTION CAPACITY**
		Existing	Proposal	
1.	DRI Kilns (Sponge Iron)	2 X100 TPD 60,000 TPA	2 X200 TPD 1,20,000 TPA	1,80,000 TPA
2.	Induction Furnace with CONCAST (MS Billets)	-	4X 15 t (4 Cell Standby)	1,44,000 TPA Cast Billets
3.	Rolling Mill (TMT bar)	-	1,00,000 TPA	1,00,000 TPA TMT Bars
4.	Ferro Alloy Unit	-	2x9 MVA SAF	29,700 TPA Silico Manganese

5.	Power Plant	WHRB	-	2x11 TPH+2x22 TPH	20 MW
		AFBC/CFBC	-	1 X 30 TPH	

16.21.8 Power required for proposed project will be met from proposed 20 MW WHRB and FBC based power plant during operation.

16.21.9 Total raw material and fuel requirement for project are 297,000 TPA sized iron ore and 260,000 TPA respectively. Fuel consumption will be mainly coal.

16.21.10 Water Consumption for the existing and proposed expansion project will be 401 KLD which will be sourced from pond made on water harvesting principle by the company in the existing premises. Sanitary waste water will be treated in Packaged Type STP and industrial waste water generated will be treated and reused. The plant shall follow zero discharge unit.

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

16.21.12 Name of the consultant: M/s. Pollution and Ecology Control Services (S.No. 122, List of Accredited Consultant Organizations (Alphabetically) Rev. 83, Jan 20, 2020).

Observations and recommendations of the Committee

16.21.13 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 ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Action plan for 33% green belt development shall be submitted. For every tree cut, PP shall plant 10 trees during construction of the plant /facility.
ii. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.
iii. Water shall be withdrawn from Ushri River. No ground water abstraction is permitted.
iv. Fourth Hole extraction system shall be provided on sub-merged arc furnace.
v. No Fe-Cr shall be manufactured without clearance from MoEF&CC.
vi. Particulate matter emission level from stacks shall be less than 30 mg/Nm^3.
vii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.
viii. Action plan for Zero liquid discharge shall be furnished.

16.22 Expansion of Sponge Iron Plant from 36,000 TPA to 1,02,000 TPA with 7.5 MW Captive Power Plant and 23,760 TPA Billet Production **by M/s Aryavrata Steel Pvt. Ltd** located at Village: Lohamellya, NH-6, P.O. Montipa Mohanpur, P.S. Jhargram, **District: Paschim Medinipur, West Bengal.** [Online Proposal No. IA/WB/IND/140592/2020, MoEF&CC File No. J-11011/589/2008-IA.II(I)] **– Prescribing of Terms of Reference (ToR) – regarding.**

16.22.1 M/s. Aryavrata Steel Private Limited has made application vide online proposal no. IA/WB/IND/140592/2020 dated 04/02/2020 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

16.22.2 M/s. Aryavrata Steel Private Limited proposed to expand their existing manufacturing unit by installation of Sponge Iron, Billets Production & 7.5 Captive Power Plant.

16.22.3 The existing project was accorded environment clearance vide no. J-11011/589/2008-IA II (I) dated 20.10.2008. Consent to Operate renewal for the existing unit was accorded by West Bengal State Pollution Control Board vide no. 6298-W-CO-8/11/0088 validity of CTO is up to 31.12.2022.

16.22.4 The proposed expansion will be located at Village: Lohamellya, NH-6, P.O. Montipa, P.S. Jhargram, District: Paschim Medinipur, West Bengal.

16.22.5 The land area required for the proposed expansion will be carried out within the existing premises of 8.148 hectares. No additional land is required for the proposed expansion. No forestland involved. The entire land has been acquired for the project. 2.68 ha (33%) land will be used for green belt development of the total area.

16.22.6 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.

16.22.7 ASPL decided to expand its present Sponge Iron manufacturing capacity from 36,000 TPA to 1,02,000 TPA. The proposed expansion will be made by installing additional two 100 TPD rotary kilns and 7.5 MW Captive Power Plant using WHRB and AFBC Boiler. ASPL will also add 8 tons Induction Furnace to produce 23760 TPA Billets.

16.22.8 The details of the existing unit and proposed expansion units are furnished as below:

Name of Units	Existing	Proposed Expansion	Total Capacity & Product
DRI Kiln	36000 TPA (1x40 TPD + 1x50 TPD Kilns)	66000 TPA (2x100 TPD Kiln)	1,02,000 TPA Sponge Iron
Induction Furnace	-	23,760 TPA 1 x 8 tons)	23,760 TPA Billets
Captive Power Plant	-	WHRB: 5 MW AFBC: 2.5 MW	7.5 MW

16.22.9 Total project cost is INR 130 crores. Proposed employment generation from proposed project will be 345 total employment direct & indirect employment.

16.22.10 Based on annual installed capacity of the plant; the estimated power requirement for smooth operation of the unit will be around 6.85 MW.

16.22.11 The main raw materials required for the proposed expansion is given as below:-

	Name	Quantity TPA	Source	Transportation
1	Iron ore lumps	1,50,000	Captive mines, purchase from NMDC/ OMDC /other mines	Road
2	Coal	1,12,620	Purchase from CIL, Imported	Road
3	Dolomite	3,300	Local purchase	Road
4	Lime & Ferro	15	Local purchase	Road
5	MS Scrap	30	Local purchase	Road
	Total	2,65,965	730 TPD equivalent to 24 multi-axle dumpers (30 t)	

16.22.12 Total water consumption is 300 KLD which will be met from borewell. Permission for the water drawl will be obtained from SWID / CGWA Air cooled condenser will be used in CPP. Sewage will be treated in STP. Treated sewage will be used for greenery development.

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

16.22.14 Name of the consultant: M/s. Grass Root Research & Creations India Private Limited (S.No. 83, List of Accredited Consultant Organizations (Alphabetically) Rev. 83, Jan 20, 2020)

Observations and recommendations of the Committee

16.22.15 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 ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Project proponent shall submit action plan to close down 50 TPD kiln and replace the same with at least 100 TPD kiln to realise full potential of waste heat recovery to generate power or to preheat the charge.

ii. PP shall submit to the scale engineering layout of the facility.

iii. 100 % dolochar generated in the plant shall be used to generate power. Sale of dolochar or dumping of the same is not permitted.

iv. Air Cooled condensers shall be used.

v. Action plan for 33% green belt development shall be submitted. For every tree cut, PP shall plant 10 trees during construction of the plant /facility.

vi. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.

vii. PP shall submit action plan for phasing out ground water use in next three years and switch completely over to surface water use.

viii. Particulate matter emissions from stacks shall be less than 30 mg/Nm^3.

ix. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.

x. Action plan for maintaining zero liquid discharge shall be submitted.

xi. Certified compliance report for the existing Environment Clearance from the Regional Office of the MoEF&CC shall be furnished.

16.23 Expansion of Integrated Steel Plant (from 1.74 MTPA to 2.0 MTPA); Pellet Plant (from 2.2 to 2.5 MTPA), Sponge Iron Plant (from 0.5 to 1 MTPA), Sinter Plant (0.75 to 1.5 MTPA), Blast Furnace (0.7 to 1.4 MTPA), Steel Melting Shop (from 1.74 to 2.0 MTPA), Oxygen Plant (0.132 to 0.264 MTPA), Coal Beneficiation Plant (1.0 to 2.0 MTPA), Captive Power Plant (170 to 240 MW), DG Sets (from 2X1500 KVA to 1X3.8 MVA & 3X 1500 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill (0.5 MTPA) **by M/s. Monnet Ispat & Energy Limited** located at Village Naharpali, Tehsil Kharsia, **District Raigarh, Chhattisgarh** [Online Proposal No. IA/CG/IND/140806/2020, MoEF&CC File No. J-11011/196/2007-IA.II(I)] **– Prescribing of Terms of Reference (ToR) – regarding.**

16.23.1 M/s. Monnet Ispat & Energy Limited has made application vide online proposal no. IA/CG/IND/140806/2020 dated 04/02/2020 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

16.23.2 Monnet Ispat & Energy Limited proposes for Expansion of Integrated Steel Plant (from 1.74 MTPA to 2.0 MTPA); Pellet Plant (from 2.2 to 2.5 MTPA), Sponge Iron Plant (from 0.5 to 1 MTPA), Sinter Plant (0.75 to 1.5 MTPA), Blast Furnace (0.7 to 1.4 MTPA), Steel Melting Shop (from 1.74 to 2.0 MTPA), Oxygen Plant (0.132 to 0.264 MTPA), Coal Beneficiation Plant (1.0 to 2.0 MTPA), Captive Power Plant (170 to 240 MW), DG Sets (from 2x1500 KVA to 1x3.8 MVA & 3x 1500 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill (0.5 MTPA), Heavy Round Mill (0.4 MTPA) and Lime Dolo Plant (0.28 MTPA) at Village & Post Naharpali, Tehsil Kharsia, District Raigarh, Chhattisgarh.

16.23.3 The existing project was accorded environmental clearance vide lr.no. J-11011/196/2007-IA.II(I) dated 26/12/2007 & amended on 12/3/2008, 31/03/2011, 16/02/2012. Further another EC was obtained on 13/04/2017 for expansion in Pellet Plant from 1.2 MTPA to 2.2 MTPA. Consent to Operate for all existing units were accorded by Chhattisgarh Environment Conservation Board, Raipur which is renewed from time to time.

16.23.4 The unit is located at Village & Post Naharpali, Tehsil Kharsia, District Raigarh, State Chhattisgarh and proposed expansion will be done in within the plant and as well as additional company owned land which is adjacent to the existing land and already under the possession of the company.

16.23.5 Existing Plant area is 227.84 ha (563 acres), additional company owned adjoining land required for the expansion is 28.16 ha (69.6 acres). Hence, after expansion total plant area will be 256 ha (632.6 acres). No agricultural/ grazing/ govt./ forest land/ is

involved. The entire land has been acquired for the project. 78 ha (193 acres) i.e. 33% of the existing plant area has already been covered under greenbelt & plantation. Additional 9.3 ha (23 acres) land will be developed under greenbelt. After expansion approx. 33% of the total plant area i.e. 84.48 ha (208.8 acres) will be developed under greenbelt & plantation.

16.23.6 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. 5 Reserve forests fall in the 10 km radius buffer area.

16.23.7 Total project cost is approx. INR 3510 Crores. The existing manpower is 2985 persons (1400 regular + 1585contractual). Additional employment generation from expansion project will be 850 persons (450 regular +400 contractual).Thus, after expansion, total manpower requirement in operational phase will be 3835 persons (1850 regular+1985 contractual).

16.23.8 The targeted production capacity of the Integrated Steel Plant is 2.0 MTPA; Pellet Plant (2.5 MTPA), Sponge Iron Plant (1 MTPA), Sinter Plant (1.5 MTPA), Blast Furnace (1.4 MTPA), Steel Melting Shop (2.0 MTPA), Oxygen Plant (0.264 MTPA), Coal Beneficiation Plant (2.0 MTPA), Captive Power Plant (240 MW), DG Sets (1X3.8 MVA & 3X 1500 KVA) with new installation of Coke Oven Plant (0.8 MTPA), Wire Rod Mill (0.5 MTPA), Heavy Round Mill (0.4 MTPA) and Lime Dolo Plant (0.28 MTPA). The Iron Ore would be procured from open market. The ore transportation will be done through road.

16.23.9 The existing, additional and total capacity for different units for expansion are as below:

S. No.	Particulars	Existing Capacity	Additional Capacity	Total Capacity after expansion
IRON DIVISION				
1	Pelletisation Plant	2.20 MTPA	0.3 MTPA	2.5 MTPA
2	DRI Plant (Sponge Iron)	0.50 MTPA (2x100 TPD & 4 X 350 TPD)	0.50 MTPA (2X100 TPD will be replaced by 2X650 TPD)	1.0 MTPA (2X650 TPD & 4X350 TPD)
3	Sinter Plant	0.75 MTPA (90 m^2)	0.75 MTPA (90 m^2)	1.5 MTPA (2X90 m^2)
4	Blast Furnace	0.70 MTPA (550 m^3)	0.70 MTPA (550 m^3)	1.4 MTPA (2X 550 m^3)
STEEL DIVISION				
5	Steel Melting Shop	1.74 MTPA (2x100 Ton EAF, 3x100 Ton LRF, 1x5 Strand CCM Caster)	0.26 MTPA (1x100 Ton LRF, 1x5 Strand CCM Caster, 1x100 Ton Vacuum degassing)	2.0 MTPA (2x100 Ton EAF, 4x100 Ton LRF, 2x5 Strand CCM Caster, 1x100 Ton Vacuum degassing)
6	Rolling Mill	0.45 MTPA	--	0.45 MTPA
7	Plate Mill	0.75 MTPA	--	0.75 MTPA
8	Wire Rod Mill	--	0.5 MTPA	0.5 MTPA
9	Heavy Round	--	0.4 MTPA	0.4 MTPA

S. No.	Particulars	Existing Capacity	Additional Capacity	Total Capacity after expansion
	Mill			
UTILITIES				
10	Oxygen Plant	0.132 MTPA (400 TPD)	0.132 MTPA (400 TPD)	0.264 MTPA (2X400 TPD)
11	Coke Oven	--	0.8 MTPA	0.8 MTPA
12	Coal Beneficiation Plant	1.0 MTPA	1.0 MTPA	2.0 MTPA
13	Lime-Dolo plant	--	0.28 MTPA (Lime- 2x250 TPD; Dolo 1x250 TPD & 1x100 TPD)	0.28 MTPA (Lime- 2x250 TPD; Dolo 1x250 TPD & 1x100 TPD)
14	Captive Power Plant	170 MW (90 MW - 2x120 TPH AFBC Boilers + 4x 35 TPH WHRB and 80 MW- 1x336 TPH CFBC boilers)	70 MW (2x120 TPH AFBC Boilers + 2x40 TPH WHRB+ 250 TPH CHP + 60 TPH AHP)	240 MW (4x120 TPH AFBC + 4x35 TPH + 2x40 TPH WHRB; 1x336 TPH CFBC+250 TPH CHP + 60 TPH AHP)
15	DG Set	2x1500 KVA	1 x 1500 KVA & 1x 3.8 MVA	3 x 1500 KVA & 1x3.8 MVA

16.23.10 The total electricity load of 224MW (Existing 151 MW+ Proposed 73 MW) will be procured from 240 MW Captive Power Plant. Company has existing two DG set of 1500 KVA and proposes to install 1x1500 KVA& 1x 3.8 MVA DG Set additional as a part of expansion for emergency and blackout condition.

16.23.11 Iron ore, Iron ore fines, Limestone, Calcined lime, Dolomite, Calcined dolomite, Dolomite stone, Coal, Pulverized coal, ROM Coal, Coal for coke oven, Coke, Coke breeze and Quartzite Bentonite will be used as raw material and fuel for the project which will be sourced from open market or in-house and majorly transported by road.

16.23.12 Existing fresh water requirement is 34021 KLPD (33671 Industrial + 350 Domestic) and additional 14201 KLPD (14151 Industrial + 50 Domestic) will be required for the proposed expansion. Thus, after expansion water requirement for complete plant will be 48222 KLPD (47822 Industrial + 400 Domestic)which will be sourced from Mahanadi River. Industrial wastewater of 3618 KLD will be generated which will be treated in 4000 KLD ETP and reused. Domestic wastewater generated will be treated in STP of capacity 350 KLD and reused in greenbelt development & plantation.

16.23.13 Case no. 2117 is ongoing in Hon'ble High Court Bilaspur, Chhattisgarh which is related to water discharge from plants through the canal which resulted in affecting agriculture crops.

16.23.14 Name of EIA consultant: J. M. Environet Pvt. Ltd (S.No.94, List of Accredited Consultant Organizations (Alphabetically) Rev. 83, Jan 20, 2020).

Observations and recommendations of the Committee

16.23.15 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 ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. PP shall abide by the outcome of the case no. 2117 pending before the Hon'ble High Court Bilaspur, Chhattisgarh.
ii. PP shall submit 'to the scale' engineering layout of the entire Integrated Steel Plant.
iii. 100 % dolochar generated in the plant shall be used to generate power. Sale of dolochar or dumping of the same is not permitted.
iv. Air Cooled condensers shall be used in the power plant.
v. Coke oven shall be equipped with Coke Dry Quenching facility.
vi. Lime kiln shall be VSK type to conserve energy.
vii. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
viii. Fourth Hole fume extraction system shall be provided for SAF. WHR system shall be installed to recover heat from flue gases of EAF.
ix. Action plan for 33% green belt development shall be submitted. For every tree cut, PP shall plant 10 trees during construction of the plant /facility.
x. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.
xi. PP shall use Mahanadi water only and ground water abstraction shall not be permitted.
xii. Particulate matter emission level from stacks shall be less than 30 mg/Nm^3.
xiii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.
xiv. Action plan for maintaining zero liquid discharge shall be submitted.
xv. Certified compliance report for the existing Environment Clearance from the Regional Office of the MoEF&CC shall be furnished.
xvi. Public hearing shall be carried out by the concerned State Pollution Control Board.

16.24 Expansion and modernization of 1.2 MTPA Iron ore crushing, screening plant to 1.50 MTPA Iron ore Crushing, Screening and 1.50 MTPA Beneficiation plant by **M/s. Godavari Natural Resources Limited** located at Village-Gidhali, Tehsil: Dondi, **Dist. Balod, Chhattisgarh** [Online Proposal No. IA/CG/IND/140923/2020, MoEF&CC File No. J-11011/48/2020-IA.II(I)] **– Prescribing of Terms of Reference (ToR) – regarding.**

16.24.1 M/s. Godavari Natural Resources Limited has made application vide online proposal no. IA/CG/IND/140923/2020 dated 05/02/2020 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. 2(b) Mineral

Beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

16.24.2 M/s. Godavari Natural Resources Limited proposes for Expansion and Modernization of their existing 1.2 MTPA Iron Ore Crushing, Screening Plant to 1.50 MTPA Iron Ore Crushing, Screening and 1.50 MTPA Beneficiation Plant. The existing unit does not attract the provisions of the EIA Notification, 1994 and EIA Notification, 2006. The unit was established and being operated based on the consent obtained from Chhattisgarh Environment Conservation Board (CECB).

16.24.3 Consent to Operate for the existing unit was accorded by Chhattisgarh Environment Conservation Board vide lr. no. 306/TS/CECB/2019 validity of CTO is up to 13/06/2024.

16.24.4 The proposed expansion and modernization will be carried out at Survey no. 33,35,49,50,53,55,56 41,46,47,51,58,59, 60,61,62,63,64,65,70,85 Village-Gidhali, Tehsil : Dondi, Dist. Balod, Chhattisgarh.

16.24.5 The land in possession is 28.45 Ha which is private land in Industrial use. Out of existing area of 28.45 ha, an area of 1.7479 ha. will be utilized for setting up the beneficiation plant. No additional land will be purchased. 1.36 ha of Forest land is existing within the project boundary. Of the total area 9.3885 ha (33%) land will be used for green belt development.

16.24.6 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.

16.24.7 Total project cost is Rs. 23.50 Crores. Proposed employment generation from proposed project will be 44 direct employment and indirect employment.

16.24.8 The ore for the plant would be procured from mines of SAIL and other non-captive mines. The ore transportation will be done through road by Tarpaulin covered trucks.

16.24.9 The proposed capacity for different products is as below:

Name of unit	**Existing Capacity**	**Proposed Capacity**	**Production Capacity**
Iron Ore Crushing, Screening Plant	1.2 MTPA	0.3 MTPA	1.5 MTPA
Beneficiation Plant	-	1.5 MTPA	1.5 MTPA

16.24.10 The electricity load of 2.0 MW will be procured from State Electricity Board.

16.24.11 Water Consumption for the proposed project will be 370 KLD. Domestic waste water will be treated in Packaged Type STP and industrial waste water generated will be treated in Thickeners and filter press and reused. Water source will be surface water for industrial use and ground water for domestic use.

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

16.24.13 Name of the consultant: M/s. Pollution and Ecology Control Services (S.No. 122, List of Accredited Consultant Organizations (Alphabetically) Rev. 83, Jan 20, 2020)

Observations and recommendations of the Committee

16.24.14 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 ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. Stage I Forest Clearance for the diversion of forest patch of 1.36 ha that exists within the project boundary shall be submitted.

ii. PP shall phase out ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water from Kesla Nallah.

iii. PP shall submit 'to the scale' engineering layout of the entire facility.

iv. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.

xii. Action plan for 33% green belt development shall be submitted. For every tree cut, PP shall plant 10 trees during construction of the plant /facility.

xiii. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.

xvii. Particulate matter emissions from stacks shall be less than 30 mg/Nm^3.

xviii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.

xix. Action plan for maintaining zero liquid discharge shall be submitted.

xx. Certified compliance report for the existing Consent to Operate from the Regional Office of the CECB shall be furnished.

xxi. Public hearing shall be carried out by the concerned State Pollution Control Board.

16.25 0.75 MTPA capacity Iron Ore Beneficiation Plant (Wet Process), 0.10 MTPA capacity Manganese Ore Beneficiation Plant (Wet Process) and 0.65 MTPA capacity Coal Beneficiation Plant (Dry Process) by **M/s. Choudhary Iron & Steel Industries** located at Village Raichhapal, PO: Kumjharia, Tehsil: Kuarmunda in **Sundargarh district, Odisha** [Online Proposal No. IA/OR/IND/139517/2020, MoEF&CC File No. J-11011/49/2020-IA.II(I)] **– Prescribing of Terms of Reference (ToR) – regarding.**

16.25.1 M/s. Choudhary Iron & Steel Industries has made application vide online proposal no. IA/OR/IND/139517/2020 dated 06/02/2020 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. 2(b) Mineral Beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

16.25.2 M/s Choudhary Iron & Steel Industries proposes for establishment of 0.75 MTPA capacity Iron Ore Beneficiation Plant (Wet Process), 0.10 MTPA capacity Manganese Ore Beneficiation Plant (Wet Process) and 0.65 MTPA capacity Coal Beneficiation Plant (Dry Process).

16.25.3 It is a green field project. The proposed unit will be located at Village: Raichapal, Taluka: Kuarmunda, District: Sundargarh, State: Odisha. The latitude and longitude of the project site is 22◦20'12.92"N and 84◦ 44'28.03" E respectively.

16.25.4 The land area acquired for the proposed plant is 3.970 ha. No forestland involved. The entire land has been acquired for the project. Of the total area, 1.31 Ha. (33%) land will be used for green belt development.

16.25.5 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.

16.25.6 Total project cost is approximately INR 11.00 Crore rupees. Proposed employment generation from proposed project will be 30 numbers of direct employment and around 100 numbers of indirect employment.

16.25.7 The targeted production capacity of the project is 4.5 Lakh TPA of High Grade Iron Ore (Calibrated and Lumps), 3.0 Lakh TPA of saleable Iron Ore Fines and Tailings, 0.65 Lakh TPA of High Grade Manganese Ore, 0.35 Lakh TPA of saleable Manganese Ore fines and Tailings and 4.35 Lakh TPA of Beneficiated coal & 2.15 Lakh TPA of saleable Coal fines and Rejects.

16.25.8 The proposed capacity for different products for proposed expansion site area as below:

Name of the Unit	No. of Units	Capacity of Each Unit	Production Capacity
0.75 MTPA installed capacity of Iron Ore Beneficiation Plant	2	100 TPH	4.5 Lakh TPA of High grade Iron Ore (Calibrated and Lumps).
			3.0 Lakh TPA of saleable Iron Ore Fines & Tailings.
0.1 MTPA capacity of Manganese Ore Beneficiation Plant	1	50 TPH	0.65 Lakh TPA of High grade Manganese Ore
			0.35 Lakh TPA Manganese Ore Fines and Tailings.
0.65 MTPA capacity Coal Beneficiation (Dry) Plant	1	200 TPH	4.35 Lakh TPA of Washed coal
			2.15 Lakh TPA of Saleable Coal fines and Rejects.

16.25.9 The total power requirement will be 1.1 MVA. It will be taken from the Odisha State Electricity Board (OSEB) subsidiary known as WESCO. Power back up is being provided by one 500 KVA silent type Diesel Generator set.

16.25.10 Proposed raw material required for the project is Low grade Iron Ore, Manganese Ore and High as content ROM Coal. The quantity is 7.5 Lakh TPA of Iron Ore, 1.0 Lakh TPA of Manganese Ore and 6.5 Lakh TPA of Coal. Iron Ore and Manganese Ore will be sourced from mines located in Keonjhar and Sundergarh district. And the coal for

the project will be sourced from the Coal Mines of Mahanadi Coalfields Limited (MCL) located in Sambalpur/Sundargarh district. The raw material transportation will be done through Road by trucks covered with tarpaulin sheets.

16.25.11 Water Consumption as make up water for the proposed project will be approximately 233 KLD and ZERO discharge concepts will be adopted. Domestic waste water will be treated in Septic tank followed by Soak pit.

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

16.25.13 Name of the consultant: M/s. ERS (India) Private Limited, Bhubaneshwar.

Observations and recommendations of the Committee

16.25.14 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 ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

i. PP shall phase out ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water.
ii. PP shall submit 'to the scale' engineering layout of the entire facility.
iii. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
iv. Action plan for 33% green belt development shall be submitted. For every tree cut, PP shall plant 10 trees during construction of the plant /facility.
v. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.
vi. Particulate matter emissions from stacks shall be less than 30 mg/Nm^3.
vii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.
viii. Action plan for maintaining zero liquid discharge shall be submitted.
ix. Public hearing shall be carried out by the concerned State Pollution Control Board.

16.26 Expansion of Integrated Steel Plant (Sponge Iron - 0.21 to 0.264 MTPA; Steel Melting – 0.129 to 0.211 MTPA; Ferro Alloy- 0.0144 to 0.0198 MTPA; Rolling Mill-0.15 to 0.21 MTPA; New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel) **by M/s. Shri Bajrang Power & Ispat Limited** located at Village Borjhara, Urla-Guma road, Urla Growth Centre, **District Raipur, Chhattisgarh** [Online Proposal No. IA/CG/IND/142035/2020, MoEF&CC File No. J-11011/531/2007-IA.II(I)] **– Amendment in Terms of Reference (ToR) and validity extension of ToR – regarding.**

16.26.1 M/s. Shri Bajrang Power & Ispat Limited has made application vide online proposal no. IA/CG/IND/142035/2020 dated 10/02/2020 along with the Form 3, revised Form-I, copy of pre-feasibility report and sought for amendment in the ToR accorded by the Ministry vide letter no. J-11011/531/2007-IA.II(I) dated 20/10/2017. Further, PP also sought for the validity extension of ToR for another one year.

Details submitted by the project proponent

16.26.2 M/s. Shri Bajrang Power & Ispat Limited have obtained Terms of Reference (TOR) from Ministry vide letter no. J-11011/531/2007-IA.II(I) dated 20/10/2017 for expansion of their Integrated Steel Plant. The ToR was basically issued for expansion of production capacity and change in configuration of Integrated Steel Plant following units at Urla Industrial Area, Village Borjhara, District Raipur, Chhattisgarh.

i. Sponge Iron - 0.21 to 0.264 MTPA
ii. Captive Power Plant, Capacity 26 MW
iii. Steel Melting – 0.129 to 0.211 MTPA
iv. Ferro Alloy- 0.0144 to 0.0198 MTPA
v. Rolling Mill- 0.15 to 0.21 MTPA
vi. New Pellet plant - 0.6 MTPA with coal gasifier from alternative fuel.

16.26.3 The configuration and the production capacities envisaged in the Terms of Reference (TOR) accorded by the Ministry vide letter no. J-11011/531/2007-IA.II(I) dated 20/10/2017 is furnished as below:

Existing Production capacity and configuration	**ToR Granted Total capacity after expansion and configuration**	**Remark**
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron – 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge iron process optimization with same 2 kilns by use of good quality coal
Total Power Plant – 26 MW (CPP) WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	 WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	 No change in capacity Change in fuel Mix for CPP. To include coal as fuel in addition to Rice Husk& Dolochar
SMS – 1, 29,600 TPA 6 x 8T Induction Furnace CTE for change in configuration from 6 X 8 T to 3 X 15 T has been granted by CECB	SMS – 2, 11, 200 TPA	Two more induction furnace of 15 T each along with continuous casting machine and LRF to be installed for additional production 81,600 TPA.
Ferro Alloys – 14.400 TPA 2 x 4 MVA (SAF) (Combined EC of Ferro & Biomass)	Ferro Alloys – 19,800 TPA 1 x 5 MVA + 1 x 6 MVA (SAF)	Existing furnaces 4 MVA – 2 Nos. will be replaced by higher capacity transformer 1X5 MVA 1X6 MVA
Rolling Mill – 0.15 MTPA	Rolling Mill - 0.21 MTPA	Optimization of

		production capacity of Rolling Mill by curtailing Idle running hours.
Pellet plant (0.6 MTPA) CTE granted by CECB, but plant yet not installed	Proposed - Pellet Plant (0.6 MTPA)	New unit – Applying for EC

16.26.4 The amendment envisaged in the Terms of Reference (TOR) dated 20/10/2017 is furnished as below:

	Expansion proposal (capacity after expansion and configuration)		
Existing Production capacity and configuration	**TOR granted on 20/10/2017**	**TOR Amendment Requested**	**Remark**
Sponge Iron - 2,10,000 TPA 2 x 350 TPD x 300 days	Sponge Iron – 2,64,000 TPA 2 x 400 TPD x 330 days	Sponge Iron – 2,64,000 TPA 2 x 400 TPD x 330 days	**No Change** Sponge iron process optimization with same 2 kilns by use of good quality coal
Total Power Plant – 26 MW (CPP) WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolo Char	 WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolochar	WHRB – 18 MW CPP – 8 MW AFBC Boiler 60 TPH Fuel : Rice Husk & Dolochar	 **No change** Change in fuel Mix for CPP. To include coal as fuel in addition to Rice Husk & Dolochar
SMS – 1, 29,600 TPA 6 x 8T Induction Furnace CTE for change in configuration from 6 X 8 T to 3 X 15 T has been granted by CECB	SMS – 2, 11, 200 TPA 6 x 8T + 2 x 15 T	SMS – 2, 11, 200 TPA 5 x 15T	**No change** Two more induction furnace of 15 T each along with continuous casting machine and LRF to be installed for additional production 81,600 TPA. CTE for change in configuration from 6 x 8T to 3 x 15T has been granted by CECB
Ferro Alloys – 14.400 TPA	Ferro Alloys – 19,800 TPA	Ferro Alloys – 19,800 TPA	**No change** Existing furnaces

	Expansion proposal (capacity after expansion and configuration)		
Existing Production capacity and configuration	**TOR granted on 20/10/2017**	**TOR Amendment Requested**	**Remark**
2 x 4 MVA (SAF) (Combined EC of Ferro & Biomass)	1 x 5 MVA + 1 x 6 MVA (SAF)	1 x 5 MVA + 1 x 6 MVA (SAF)	4 MVA – 2 Nos. will be replaced by higher capacity transformer 1X5 MVA 1X6 MVA
Rolling Mill – 0.15 MTPA	Rolling Mill - 0.21 MTPA	Rolling Mill - 0.21 MTPA	**No change** Optimization of production capacity of Rolling Mill by curtailing Idle running hours.
Pellet plant (0.6 MTPA) CTE granted by CECB, but plant yet not installed	Proposed - Pellet Plant (0.6 MTPA)	Proposed - Pellet Plant (0.6 MTPA)	**No change** New unit – Applying for EC
Coal Washery- 1.2 MTPA	Coal Washery- 1.2 MTPA	Coal Washery- 1.2 MTPA	No change in capacity
Iron Ore Washery Plant	-	Capacity - 4,00,000 TPA	Amendment in Terms Of Reference (TOR) for inclusion of Proposed Iron Ore Washery Plant, Titanium Slag Plant & Pig Iron Plant
Titanium Slag Plant	-	36,000 TPA	
Pig Iron Plant	-	20,000 TPA	

16.26.5 In addition to the above, the project proponent also sought for validity extension of ToR from 20/10/2020 to 19/10/2021 in order to facilitate the draft EIA report preparation and submission of the same to CECB for conducting public consultation.

Observations of the Committee:

16.26.6 The Committee noted that the instant project site is located at Urla Industrial Area [CEPI score – 70.77] which is Critically Polluted Area as per the Ministry's O.M. dated 31/10/2019.

Recommendations of the Committee:

16.26.7 In view of the foregoing and after detailed deliberations, the Committee recommended for the amendment in ToR dated 20/10/2017 as mentioned above along with extension of validity of ToR till 19/10/2021 subject to the following additional specific ToRs in compliance to the Ministry's O.M. No. 22-23/2018-IA.III dated

31/10/2019 pertaining to consideration of the proposals located in critically polluted areas:

i. Action plan for control of fugitive emissions from the plant shall be furnished.
ii. Action plan for transportation of raw materials and finished products shall be submitted.
iii. Action plan for green belt development covering 40% of the total plot area shall be furnished.
iv. Action plan for CER shall be 2 times the amount calculated as per provisions of the Ministry's O.M. dated 1/5/2018.
v. Domestic wastewater shall be treated in the STP and shall be reused.
vi. PP shall use mechanized pig casting machine. Manual casting using casual labour shall not be permitted for safety and health reasons.
vii. Fourth Hole fume extraction system shall be used on SAF/EAF.
viii. PP shall phase out ground water abstraction in next three years except for domestic purposes and shall switch over to 100 % use of surface water.
ix. PP shall submit 'to the scale' engineering layout of the entire facility.
x. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
xi. Rain water harvesting plan to harvest more than 100% of annual water consumption shall be furnished.
xii. Particulate matter emissions from stacks shall be less than 30 mg/Nm^3.
xiii. All roads inside the plant shall be paved and an industrial vacuum cleaner shall be deployed to clean the roads regularly to keep fugitive dust emission under control.
xiv. Action plan for maintaining zero liquid discharge shall be submitted.

16.27 Integrated Steel Plant (2.85 MTPA Steel) of **M/s. Rungta Mines Limited** located at Villages Jharbandh, Galpada and Tarkabeda, **District Dhenkanal, Odisha - Environment Clearance – regarding** [Online Proposal No. IA/OR/IND/139080/2020, MoEF&CC File No. J-11011/309/2018-IA.II.(I)] **– Amendment in Environment Clearance (EC) for change in configuration of pellet plant from 2X1.47 MTPA to 1x2.948 MTPA– regarding.**

16.27.1 M/s. Rungta Mines Limited has made online application vide proposal no. IA/OR/IND/139080/2020 dated 28/1/2020 along with Form 4 sought for amendment in the Environmental Clearance accorded by the Ministry vide letter no. J-11011/309/2018-IA-II(I) dated 11/09/2019 regarding change in configuration of pellet plant from 2X1.47 MTPA to 1x2.948 MTPA.

Details submitted by the project proponent

16.27.2 Dhenkanal Steel Plant of M/s Rungta Mines Limited obtained Environment Clearance from MoEF&CC vide Letter no. J-11011/309/2018.IA.II (I) dated 11.09.2019. The sanctioned capacity of the different units envisaged in the EC dated 11/09/2019 along with its configuration is furnished as below:

Sl. No.	Plant facilities	Units	Phase 1	Phase 2	Total
1	Beneficiation Plant	MTPA	2.7	2.7	5.4
	Configuration		1 X2.69 MTPA	1X2.69 MTPA	2X2.69 MTPA
2	**Pelletisation Plant**	**MTPA**	**1.47**	**1.47**	**2.948**
	Configuration (with additional 10% extra capacity utilisation)		**1X1.2 MTPA**	**1X1.2 MTPA**	**2X1.2 MTPA**
3	Coal Washery	MTPA	2.616	1.524	4.141
	Configuration		1X400 TPH	1X235 TPH	1X400 + 1X235 TPH
4	DRI Plant	MTPA	1.001	0.546	1.547
	Configuration (with additional 30% extra capacity utilisation)		2X500 + 2X600 TPD	2 X 600 TPD	2X500 + 4X600 TPD
5	Mini Blast Furnace	MTPA	0.567	0.992	1.559
	Configuration		1X600 CUM	1X1050 CUM	1X600+ 1X1050 CUM
6	Sinter Plant	MTPA	0.612	1.051	1.663
	Configuration		1X64 sq.m.	1X110 sq.m.	1X64 +1X110 sq.m.
7	Coke Oven Plant	MTPA	0.420	0.70	1.12
	Configuration		6 batteries X 70,000 TPA	10 batteries X 70,000 TPA	16 batteriesX 70,000 TPA
8	Steel Melting Shop	MTPA	1.232	1.232	2.464
8.1	Steel Melting via Induction Furnace Route	MTPA	0.539	-	0.539
	Configuration		7X 20 T IF + 4X20 T LRF	-	7X 20 T IF + 4X20 T LRF
8.2	Steel Melting via Electric Arc Furnace-Vacuum Degassing-Argon Oxygen Decarburization Route	MTPA	0.693	1.232	1.925
	Configuration		1X90 T EAF + 1X90 T LRF	1X160 T EAF + 1X160 T LRF	1X90 T + 1X160 T EAF and 1X90 T + 1X160 T LRF
8.3	Continuous Casting Machine (Billets/ Bloom Caster/ Slab)	MTPA	1.207	1.207	2.415
	Configuration		1 X 3 strands	2 X 3 strands	3 nos. X 3 strands
9	Finished Product Facilities	MTPA	1.450	1.400	2.850
9.1	Rolling Mill (TMT/ Flat/ Round/ Wire Rod/ Structural Mill/ others)	MTPA	0.800	0.800	1.600
	Configuration		4X0.2 MTPA	1X0.2 + 2X0.3 MTPA	5X0.2 + 2X0.3 MTPA
9.2	Strip Mill/ Sheet/	MTPA	0.450	0.400	0.8500

Sl. No.	Plant facilities	Units	Phase 1	Phase 2	Total
	Coil/ Wire & Bar Mill/ Wire Rope				
	Configuration		1X0.45 MTPA	1X0.4 MTPA	1X0.45+ 1X0.4 MTPA
9.3	Ductile Pipe Plant	MTPA	0.200	0.200	0.400
	Configuration		1X0.2 MTPA	1X0.2 MTPA	2X0.2 MTPA
10	Producer Gas Plant	Million Nm^3/ Annum	240	240	480
	Configuration		10X3000 Nm^3/h	10X3000 Nm^3/h	20X3000 Nm^3/h
11	Oxygen Plant	MTPA	0.035	0.063	0.098
	Configuration		1 X 100 TPD	1 X 180 TPD	1 X 100 + 1 X 180 TPD
12	Lime Plant	MTPA	0.105	0.1995	0.3045
	Configuration		1 X 300 TPD	1 X 570 TPD	1X100+1X570 TPD
13	Cement Plant	MTPA	0.884	0.802	1.686
	Configuration		1 X 2600 TPD	1 X 2300 TPD	1X2600+1X2300 TPD
14	Captive Power Plant	MW	217	168	385
14.1	Waste Heat Recovery Boiler (WHRB) based Captive Power Plant (CPP)	MW	67	68	135
a	DRI Kiln exit gas based	MW	44	24	68
	Configuration		2 X 50 + 2X 60 TPH	2X 60 TPH	2X50+2X 60 TPH
b	MBF Gas based	MW	11	20	31
	Configuration		1 X 50 TPH	1 X 90 TPH	1X50+1X90 TPH
c	Coke Oven Gas based	MW	12	24	36
	Configuration		1 X 60 TPH	1 X 100 TPH	1X60+1X100 TPH
14.2	Circulating Fluidised Bed Combustion (CFBC) based CPP	MW	150	100	250
	Configuration		2X125 + 2X250 TPH	2X250 TPH	2X125 + 4X250 TPH

16.27.3 The present status of the implementation of the EC dated 11/09/2019 is furnished below:

Sl. No.	Facilities	Configuration	Production	Status
1	Sponge Iron plant	1x500 TPD	0.150 MTPA	Under construction
		1x500 TPD	0.150 MTPA	Ordering stage
2	Steel Melting Shop comprising IF along with CCM	2X 20 T	0.128 MTPA	Under construction
		2X 20 T	0.128 MTPA	Ordering stage

Sl. No.	Facilities	Configuration	Production	Status
3	Captive power plant			
	WHRB	1x45 TPH	25 MW	Under construction
		1x45 TPH		Ordering stage
	AFBC/CFCB	1 X 115 TPH	25 MW	Under construction
	TOTAL		50 MW	

16.27.4 The project proponent submitted an online application in the prescribed format i.e. Form-4 along with other reports to the Ministry on 28.01.2020 vide proposal No. IA/OR/IND/139080/2020, for change in the pelletisation plant module configuration from 2X1.47 MTPA to 1X2.948 MTPA without any change in overall sanctioned capacity permitted as per EC dated 11.09.2019 due to following advantages:

i. Reduction in specific fuel (furnace oil) consumption to18 ltr/ton from 20 ltr/ton. Therefore, there will be less emission due to better thermal efficiency and less heat loss at furnace as a consequence of larger size.
ii. Reduction in specific power consumption to 55 Kwh/ton instead of 60 Kwh/ton due to less number of equipment and more efficient use of equipment.
iii. Reduction in number of chimneys from two to one.
iv. Half the number of transfer points for iron ore and pellet will be required
v. The structural steel consumption and civil work will get reduced.
vi. Time Reduction in project implementation

16.27.5 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 and recommendation of the Committee:

16.27.6 After detailed deliberations, the committee recommended for the change in configuration of the pelletisation plant module from 2x1.47 MTPA to 1x2.948 MTPA.

16.28 Proposed increase in production of Asbestos Sheets (from 1,08,000 to 1,44,000 TPA) of **M/s. U.P Asbestos Ltd** at village Mau, Taluka Mohanlalganj, Dist. Lucknow, **Uttar Pradesh – Amendment in Environmental Clearance** [Proposal No.IA/UP/IND/142986/2020; File No. J-11011/567/2011-IAII(I)]

16.28.1 M/s U.P Asbestos Ltd has made an online application vide proposal no. IA/UP/IND/142986/2020 dated 13.02.2020 in prescribed Form – 4 along with other documents to seek amendment in Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed in the schedule at Sl. No. 4 (c) Asbestos milling & asbestos based products under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the Project Proponent

16.28.2 The existing plant of M/s UP Asbestos Ltd was accorded EC vide letter F.No. J-11011/567/2011-IAII(I) dated 12.06.2015 for production of 144,000 TPA of Asbestos sheets.

16.28.3 Thereafter, the project proponent has proposed to expand the plant capacity for which TR was prescribed to undertake detailed EIA study vide letter F.No. J-11011/567/2011-IAII(I) dated 11.02.2019.

16.28.4 Total area of the plant site is 46.687 acres. Now, the project proponent desires to lease out the unutilized land, admeasuring 86686 sqm (21.420 acres) within the plant site for warehousing. In this regard, application for EC amendment was made to amend the existing EC with respect to land use. It is to mention that the existing greenbelt area 38.9 % of total area, i.e 25.06 acres shall be remained unchanged.

Observations of the Committee

16.28.5 The project proponent has proposed to lease out 20.65 acres of land, which is shown in three parts. The committee opined that a part of area measuring 3111 sqm of the proposed area to be leased out, located in between the plant premises, may interfere with plant operations, if given out on lease. Therefore, the committee asked the Project Proponent to revise the layout plan deleting the afore- mentioned area (3111 sqm) from the proposal.

16.28.6 The Project Proponent has submitted the revised layout plan demarcating the area of 83575 sqm (20.65 acres) on the western side of the existing plant without including the part measuring 3111 sqm earlier included in the leasing proposal.

16.28.7 Warehousing project in the area of 20.65 acres require EC from SEIAA.

Recommendations of the Committee

16.28.8 In view of the foregoing, the committee recommended the proposal for amendment in EC for change in land use, i.e., 20.65 acres of land is deleted from the total land of plant premises with the following conditions.

i. Project Proponent shall obtain Environmental Clearance for warehousing project in 20.65 acres from SEIAA, Uttar Pradesh.

ii. The existing Greenbelt area of 25.06 acres shall remain unchanged.

16.29 Proposed manufacturing Asbestos Cement Sheets (Corrugated & Plain) of capacity 50,000 TPA & Non-Asbestos Flat sheets of capacity 30,000 TPA by **M/s JRT Industries LLP** located at village Sila, Tehsil Mouza Silasundarighopa, District Kamrup, Assam [Proposal No. IA/AS/IND/99846/2019; MoEF7CC File No. J-11011/161/2019-IAII(I)] – **Environmental Clearance** – regarding.

16.29.1 M/s JRT Industries LLP made online application vide proposal No. IA/AS/IND/99846/2019 dated 12.02.2020 in prescribed From-2, EIA report and other documents for seeking Environmental Clearance (EC) for the proposed asbestos project mentioned above. The proposed project activity is listed in the schedule at Sl. No. 4 (c) Asbestos milling & asbestos based products under Category "A" of EIA Notification, 2006 and the project is appraised at the Central level.

Details submitted by the Project Proponent

16.29.2 M/s JRT Industries LLP proposes to install a new manufacturing unitforAsbestos Cement Sheets (Corrugated & Plain) & Non Asbestos Flat Sheets. It is proposed to set up the plant for 50,000 TPA (Asbestos Cement Corrugated Sheet 40,000 TPA + Asbestos Plain Sheet 10,000 TPA) & Non Asbestos Flat Sheets of capacity 30,000 TPA based on Hatschek technology.

16.29.3 The proposed unit will be located at Plot No. 43, 24, 25,122 ,149 ,580, 195,147, 522,353,439,392, Village: Sila, Taluka: Mouza Silasundarighopa, District: Kamrup, State: Assam.

16.29.4 The land area acquired for the proposed plant is 4.34 ha. No forestland is involved. The entire land has been acquired for the project. Of the total area, 1.43 ha (33.001 %) land will be used for green belt development.

16.29.5 No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve etc. are reported to be located in the study area. The area also does not report to form corridor for Schedule-I fauna.

16.29.6 Total project cost is approx. ₹ 71.75 Cr.

16.29.7 Employment generation from proposed project will be for 100 nos. of people through direct employment and 150 nos. of people through indirect employment.

16.29.8 The targeted production capacity of the Asbestos Cement Sheets is 0.05 MTPA and Non-asbestos Flat Sheets is 0.03 MTPA.

16.29.9 The electricity load of 1513.3 KW will be procured from Assam State Electricity Board and solar power. Company has also proposed to install 900 kVA & 320 kVA DG Sets.

16.29.10 Raw material and fuel requirement for proposed project are 64200 TPA and 6000 litre/month respectively. The requirement would be met by Local Industries (O.P.C. Cement), Russia (Asbestos Fibre), NTPC, Assam and West Bengal(Fly Ash), Local Suppliers (Paper Pulp) as well as Tasmania and Chile (Virgin Pulp). Fuel consumption will be mainly diesel.

16.29.11 Water Consumption for the proposed project will be 100 KLD. Domestic wastewater will be treated septic tank and soak pit.

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

16.29.13 Consultant**:** Ecomen Laboratories Pvt. Ltd. (Sl. no. 44 in list -1 of QCI/NABET list updated on 10.04.2019) Flat nos. 5-8, 2nd floor, Arif Chamber-V, Sector H, Aliganj, Lucknow-226024 (U.P.).

Observations and Recommendations of the Committee

16.29.14 The EIA report has several shortcomings and lacks in technical details, prima facie. The documents have not been mailed on time and none of the EAC members has received the documents. The committee, therefore, deferred the proposal and advised Project Proponent to send documents after necessary revisions for next meeting. The proposal was returned in the present form.

16.30 Modernization of SAIL Rourkela Steel Plant by adding new 125 TPD Sulphuric Acid Plant in place of old 60 TPD plant by **M/s. Steel Authority of India Limited** within the premises of Rourkela Steel Plant located at village Rourkela, District Sundargarh**, Odisha** – **Environmental Clearance –** regarding.

16.30.1 The proposal cited above was considered during the 7th meeting of **Expert Appraisal Committee [EAC] (Violation Sector) held on 17-18th May, 2018.** After detailed deliberations, EAC recommended the project for grant of Environmental Clearance

subject to the following specific conditions in addition to all generic conditions applicable for such projects:

i. The PP shall submit a bank guarantee equivalent to the amount of rupees 50 lakhs towards remediation plan and natural and community resource augmentation plan with State Pollution Control Board and submit the proof for the same to the Ministry.

ii. The PP shall submit the proof of credible action taken by the concerned state government/ state pollution control board under the provisions of the section 19 of the Environment Protection Act 1986 to the MoEF&CC.

iii. The PP shall submit the certified compliance report of the existing EC conditions from the Ministry's regional office to the MoEF&CC.

16.30.2 Proposal was processed on file based on EAC recommendations and Ministry vide letter dated 30/07/2018 sought documents from M/s. SAIL on aforesaid point no. ii and iii. SAIL submitted its response on 8/11/2018 which was examined in the Ministry and thereafter Ministry vide letter dated 11/12/2018 again sought for the proof for credible action taken by the concerned State Government/SPCB under the provisions of section 19 of the Environment (Protection) Act, 1986.

16.30.3 M/s. SAIL vide e-mail dated 23/09/2019 submitted the credible action taken report of District Collector wherein the District Collector has filed a case in the District court of Rourkela [Case No. 2 (c) CC case no. 110/2019] against the SAIL Officials under section 19 of the Environment (Protection) Act, 1986 for establishment of 125 TPD Sulphuric Acid Plant at Rourkela Steel Plant, Rourkela, Orissa.

16.30.4 Based on the reply furnished by RSP and EAC recommendations, the file was processed for grant of Environment Clearance.

16.30.5 Meanwhile, in one of the proposal, Industry 2 sector vide letter dated 30/05/2018 issued a letter to M/s. Green Star Fertilizers stating that production of raw material/intermediate product is not covered under the ambit of the EIA Notification, 2006. Based on this, SAIL vide letter dated 11/11/2019 addressed a letter to the Ministry requesting for the following:

a. Issue a clarification stating that 125 TPD sulfuric acid plant is not coming under the purview of EIA Notification, 2006.

b. Waiver off Bank Guarantee of INR 50 Lakhs.

c. Withdrawal of case filed against the SAIL Officials.

16.30.6 Subsequently, the matter was referred to the EAC – Violation sector for their views on the letter dated 11/11/2019 of M/s. SAIL. The proposal was considered by the EAC (Violation) in its 30th meeting held on 04/02/2020 wherein the EAC (Violation) opined that since the proposal under consideration was originally appraised by the Sectoral EAC (Industry-1) in its 10th and 18th meetings held on 28-31st August 2016 and 5th May 2017 respectively and recommended the TORs under the provisions of the Ministry's Notification S.O.804 (E) dated 14.3.2017, it would be appropriate to obtain the comments of EAC (Industry-I) on the representation of PP vide letter dated 11.11.2019 under reference.

16.30.7 Accordingly, the proposal was placed before the EAC – Industry 1 for the comments. During the meeting the Member Secretary apprised the Committee that Sulfuric Acid Plant as a standalone unit does not attract the provisions of the EIA Notification,

2006. Further, apprised that no separate Environment Clearance (or) amendment in EC is required for setting up of activities which do not attract the provisions of the EIA Notification, 2006, in the premises of project/activities which are operating with prior EC.

16.30.8 In view of the foregoing and after detailed deliberations, the comments/views of EAC - Industry 1 Sector are given below:

A. According to the records submitted by the project proponent at the time of consideration for grant of EC, M/s. SAIL was operating a sulfuric acid plant of 60 TPD since August 1990 within the premises of Rourkela Steel Plant (RSP) prior to the enactment of EIA Notification, 1994 and 2006. The sulfuric acid is used in the steel plant for the following purpose:

   i. Ammonia from coke oven gas is removed in the Spray Saturators where sulphuric acid is sprayed over coke oven gas to produce ammonium sulphate which is sold as fertilizer under the brand name "RAJA KHAD". The bulk requirement of sulphuric acid is in the Ammonium Sulphate Plant for the removal of ammonia from coke oven gas.

   ii. Pickling of Hot Rolled Coils for producing Cold Rolled Coils/sheets and also used for water treatment in the steel plant's captive Power Plant.

B. As per the existing Environment Clearances accorded by the Ministry vide letters dated 29/01/2008 and 15/12/2016, Sulphuric acid plant was not mentioned. However, M/s SAIL has mentioned the same in its EIA/EMP report of year 2006. Moreover, for re-rolling plant, which is mentioned in the report, pickling takes place through Sulphuric acid only.

C. Over a period of time, to meet the increase in demand of Sulphuric Acid for the new facilities installed during the "1.9 MTPA to 4.2 MPTA Expansion phase" and degradation of existing Sulphuric Acid plant, it was proposed to install a new 125 TPD Sulphuric Acid plant with State-of-the-Art technology. Subsequently, after getting CTE from OSPCB (No: 8428/IND-II-NOC-5621 dated 7/5/2013) RSP has installed a new 125 TPD Sulphuric Acid Plant within the existing premises. However, OSPCB had asked RSP to get clarification about applicability of EC for the Sulphuric Acid Plant from MoEF&CC.

D. It has been brought to the notice of the EAC that Industry 2 sector of MoEF&CC issued a letter to M/s. Green Star Fertilizers Limited on 30/05/2018 stating that project involving expansion of one of the intermediate product is not covered under the purview of the EIA Notification, 2006, and as such, there is no requirement of Environment Clearance to the said project as standalone. Based on this SAIL vide letter dated 11/11/2019 addressed a letter to the Ministry requesting to Issue a clarification stating that 125 TPD sulfuric acid plant was not covered by the provisions of EIA Notification, 2006.

E. In view of the afore-mentioned details brought to its notice, the Committee considered the request of the SAIL for clarification on application of the provisions of the EIA Notification, 2006 to the 125 TPD Sulfuric Acid unit in

Rourkela Steel Plant. However, the Committee could not reach a conclusion on the issue as the details of the proposal of M/s Green Star Fertilizers Limited considered by EAC Industry 2 Sector were not readily available. The Committee was of the view that detailed deliberations on the request of SAIL would be required in order to enable the EAC to take a considered view in the matter in light of the details of the case of M/s Green Star Fertilizers Limited considered by EAC Industry 2 sector.

Hence, the Committee deferred the proposal and recommended to consider the same in the forthcoming EAC Meeting. The Committee requested the Ministry to inform the project proponent to circulate the EIA/EMP document and present the same during the next EAC meeting for consideration of the Committee.

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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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LIST OF PARTICIPANTS IN 16th MEETING OF EAC (INDUSTRY-1) HELD ON 24-25 FEBRUARY,2020

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE	
			24/02/2020	25/02/2020
1	Dr. Chhavi Nath Pandey, IFS(Retired) Email: pandeychhavinath55@gmail.com	**Chairman**	PRESENT	← ABSENT →
Members				
2.	, Representative of Central Pulp and Paper Research Institute, Saharanpur. Email: director.cppri@gmail.com, bipin_thapliyal@yahoo.com	**Member**	DR. K. SINGH.	
3.	, Representative of Indian Meteorological Department, New Delhi. Email: siddhartha.singh77@gmail.com	**Member**	Siddhartha Ph 24/02/2020	Siddha Ph 25/02/2020
4.	Dr. G. Bhaskar Raju Email: gbraju55@gmail.com	**Member**	← ABSENT →	
5.	Dr. Jagdish Kishwan, IFS (Retd.) Email: jkishwan@gmail.com	**Member**		
6.	Dr. G.V. Subramanyam Email: sv.godavarthi@gmail.com	**Member**		
7.	Shri. Ashok Upadhyay Email: ahupadhy@rediffmail.com	**Member**		
8.	Shri. R.P. Sharma Email: rpsh3@hotmail.com	**Member**	Rajendra Sh.	Rajendra Sh.
9.	Dr. Sanjay Deshmukh Email: docsvd@yahoo.com	**Member**		← ABSENT →

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE	
			24/02/2020	25/02/2020
10.	Prof. S.K. Singh Email: sksinghdee@gmail.com **singhsk@email.com**	**Member**		← ABSENT →
11.	Dr. R. Gopichandran Email: r.gopichandran@vigyanprasar.gov.in	**Member**	← ABSENT →	
12.	Shri. Jagannath Rao Avasarala Email: avasaralajagan@gmil.com	**Member**	← ABSENT →	
13	Shri. J.S. Kamyotra Email: kamyotra@yahoo.co.in	**Member**	JSKamyotra 24/02/2020	JSKamyotra 25/02/2020
14.	Shri. Aravind Kumar Agrawal Director, MoEF&CC Email: dirind-moefcc@gov.in	**Member Secretary**		

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