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

SUMMARY RECORD OF THE SEVENTH (7th) MEETING OF RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE HELD DURING 29-31stMAY, 2019 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER THE PROVISIONS OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) NOTIFICATION, 2006.

The sixth meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Industry-1 Sector as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-1 Sector Projects was held during 29-31st May, 2019 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

31stMay, 2019

7.31 Change in technology from Rotary Kiln to Vertical Shaft Kiln for production of 500 TPD clinker and 500 TPD Cement grinding (closed circuit) by **M/s. K.R Associates** located at Dag 141, 142,143,144, 145, 146, & 151 of K.P. Patta No. 3, 19, 21, & 9 Village Ambher, 12th Mile Jorbat, Mouza Sonapur, District Kamrup, **Assam** - Proposal No. IA/AS/IND/79769/2018, MoEFCC File No.J-11011/139/2015-IAII(I) – **Environment Clearance - regarding**.

M/s. K.R. Associates made application vide online proposal no. IA/AS/IND/79769/2018 dated 18th May, 2019 along with the application in prescribed format (Form-2), copy of EIA report and other documents for seeking Environmental Clearance as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

7.31.2 The existing project, 500 TPD clinker (Rotary Kiln) unit and 500 TPD Cement grinding (closed circuit) of M/s. K.R Associate located at Dag 141, 142,143,144, 145, 146, & 151 of K.P. Patta No. 3, 19, 21, & 9 Village Ambher, 12th Mile Jorabat, Mouza Sonapur, District Kamrup, Assam was accorded environmental clearance vide Lr.No. J-11011/139/2015-IA II (1) dated 30/03/2017 and amended on 15/03/2017. The present proposal is for change in technology from Rotary Kiln to Vertical Shaft Kiln without increasing granted production capacity. Two nos. of VSK unit of 250 TPD will be installed instead of one Rotary Kiln. Changes due to change in technology from Rotary Kiln to Vertical Shaft Kiln is as below:

S.No.	Particulars	As per EC dated 30/03/2017 based on Rotary kiln technology	Proposed due to change in technology from Rotary to VSK	Remark
1.	Land	2.68 ha	2.68 ha	No change
2.	Project Cost	Rs. 148.5 Crores	Rs. 76 Crores	Cost is reduced as civil cost in case of VSK based cement plant is less.
3.	Capital cost of EPCM	Rs. 5.02 Crores	Rs. 3.2 Crores	Cost is reduced
4.	Recurring cost of EPCM	Rs. 0.74 Crores	Rs. 0.5 Crores	
5.	Cost of ECR	Rs. 3.72 Crores	Rs. 1.52 Crores	
6.	Water	17.6 KLD	124 KLD	Increase in water consumption.

S.No.	Particulars	As per EC dated 30/03/2017 based on Rotary kiln technology	Proposed due to change in technology from Rotary to VSK	Remark
7.	Power	3600 KW	3600 KW	No change
8.	Waste generation			
a.	Used/Spent oil	20 Lit/month	20 Lit/month	No change.
b.	Discarded bags	30,000 Nos./Month	30,000 Nos./Month	No change.
9.	Man power	110 Nos.	110 Nos.	No change.
10.	D. G. Set	2 x 600 kVA & 1 x 250 kVA	2 x 600 kVA & 1 x 250 kVA	No Change in D G set nos.
11.	Fuel			
a.	Coal	80 MT/Day	Not required	Coal will not be used.
b.	Coke Breeze	Not required	102 MT/Day	Coke breeze will be used in VSK.
c.	Diesel	100 Lit/hr	100 Lit/hr	No change.
12	Raw Material Requirement			
a.	Limestone	520 MT/Day	628 MT/Day	Increase in requirement
b.	Clay	60 MT/Day	110 MT/Day	
c.	Iron Dust	6.67 MT/Day	10 MT/Day	
d.	Fly Ash/Slag	96 MT/Day	80 MT/Day	Decrease in requirement
e.	Gypsum	12 MT/Day	8 MT/Day	

7.31.3 The Status of compliance of earlier EC was obtained from Regional Office, Shillong vide Lr. No. RO-NE/E/IA/AS/IN/80/308 dated 09/05/2019.

7.31.4 Proposal is for change in technology from Rotary Kiln to Vertical Shaft Kiln Technology without increasing production capacity.

7.31.5 Pulse Jet Type Bag Filter will be installed to control air emission from VSK plant.

7.31.6 Name of consultant: M/s. Envision Enviro Technologies Pvt. Ltd., Surat, Gujarat. Certificate no. NABET/EIA/1821/RA0102 valid up to 06.12.2020.

Observations and Recommendations **of the Committee:**

7.31.7 The Committee considered the proposal and after detailed deliberations, recommended the proposal for implementing change of technology from Rotary Kiln to Vertical Shaft as requested for by the PP.

7.32 Expansion-cum-modernization of Bokaro Steel Plant from 4.5 MTPA hot metal to 5.77 MTPA hot metal **by M/s Steel Authority of India Limited** (SAIL) located at Bokaro Steel City, **Jharkhand**- Proposal No. IA/JH/IND/6949/2008 MoEFCC File No. J-11011/99/2007-IAII(I) **– Environment Clearance - regarding**.

M/s. Steel Authority of India Limited has made an online application vide proposal no. IA/JH/IND/6949/2008 dated 30th March, 2019 along with copies of EIA/EMP report and Form – 2 seeking Environmental Clearance (EC) under the provisions of the 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.

Observations of the Committee

7.32.2 The Committee observed that the project proponent had not clearly presented the salient aspects of the implementation status of the existing EC, associated conditions thereof and status of compliance of the conditions. The Committee further noted the mismatch between plant configuration *and* contents of the ToRs. Moreover, ToRs points have not been adequately addressed in the EIA/EMP report. The project proponent requested for more time to address the lacunae in the present proposal, and sought additional time to review and revise its proposal.

Recommendations of the Committee

7.32.3 In view of the aforesaid, and after detailed deliberations, the Committee recommended to return the proposal in its present form to the project proponent to enable them review and revise the same.

7.33 Enhancement of production in the Steel Melting Shop [105600 TPA to 126720 TPA], billet/bloom/slab caster [103488 TPA to 124186 TPA] and Rolling Mill [TMT/Flat Round/ Wire Rod/Structural Mill/ Others] (102418 TPA to 121702 TPA] **by M/s Rungta Mines Limited** at Karakhendra Steel Plant located at village Karakhendra, District Keonjhar, **Odisha**. - [Proposal No. IA/OR/IND/100635/2019; MoEF&CC File No. J-11011/230/2016-IAII(I)] **- Environment Clearance under para 7(ii) of the EIA Notification, 2006 - regarding.**

M/s. Rungta Mines Limited has made an online application vide proposal no. IA/OR/IND/100635/2019 dated 29th March, 2019 along with Form – 2 seeking environmental clearance under the para 7(ii) of the EIA Notification, 2006 for the project mentioned above. The proposed enhancement in production falls under category 'B'. But it is treated as Category 'A' due to its proximity to interstate boundary of Odisha-Jharkhand (1.7 km) and the project is appraised at the Central level.

Details submitted by the project proponent

7.33.2 The proposal is for enhancement in the production of Steel Melting Shop [105600 TPA to 126720 TPA], billet/bloom/slab caster [103488 TPA to 124186 TPA] and Rolling Mill [TMT/Flat Round/ Wire Rod/Structural Mill/ Others] (102418 TPA to 121702 TPA] at Karakhendra Steel Plant at village Karakhendra of District Keonjhar, Odisha of M/s Rungta Mines Ltd. along with Form-I and Pre-feasibility Report. The proposed enhancement in production falls under category 'B'. But it is treated as Category 'A' due to its proximity to interstate boundary of Odisha-Jharkhand (1.7 km). Environmental clearance has been obtained from MOEF&CC vide letter no. J-11011/230/2016-IA. II(I) dated 15.01.2018. The sanctioned facilities and production along with present status of implementation are given below:

UNITS SANCTIONED IN EC LETTER DATED 15.01.2018

Sl.	Facilities	Production Capacity TPA	Present Status of implementation
1	Steel Melting Shop comprising: Induction Furnace (2X15T) with CCM (2 strand)	105,600	• 33 nos. foundation completed out of 36 nos. • Order placed for IF • Civil works for IF underway
	Billet / Bloom/ Slab caster	103,488	Order placed
2	TMT/ Flat/Round/ Wire Rod/ Structural Mill	101,418	Order yet to be placed, quotations invited

Now it is proposed to have the following enhancement in production:

i. Amendment by addition of further refining facility i.e. 1X20 T LRF to process 1,26,720 TPA in consonance with the proposed enhancement of 2X15 T IF.

ii. Capacity enhancement of SMS, Billets/ bloom/ slab casters and Rolling mill for Flat/ Round/ Wire rod/ Structural as follows:

PRODUCTION AS PER EC & PROPOSED EXPANSION IN PRODUCTION

S. No.	Plant Facilities	Production as per EC dated 15.01.2018 TPA	Proposed Production, TPA	Total Production, TPA	%tage increase
1.0	**Steel Melting Shop comprising:** Induction Furnace 2x15 T, LRF 1x20T (proposed in above amendment)	105,600	21,120	126,720	20%
2.0	Billets/ Bloom Caster/Slab Caster	103,488	20,698	124,186	20%

S. No.	Plant Facilities	Production as per EC dated 15.01.2018 TPA	Proposed Production, TPA	Total Production, TPA	%tage increase
	CCM (2 strand)				
3.0	Rolling Mill (TMT/ Flat/ Round/ Wire Rod/ Structural Mill/ others)	101,418	20,284	121,702	20%

7.33.3 The above expansion is possible because of following:

- In Induction Furnace, by using alumina based neutral lining (life-100 heats) instead of the conventionally used silica based acidic lining (life- 20 heats), the downtime is reduced. Furthermore, 100 heat life of neutral lining can be further increased to 350 heats by hot patching. The longer life of lining will reduce downtime and increase availability of 96 working hours. Hence, increase of production by 20% is easily feasible by utilizing the extra working time available to operate a standby furnace in addition to the operational furnaces above. For operation of a standby furnace simultaneously, additional electrical, bush bars and panel shall be installed.
- Billets/ Bloom Caster/Slab Caster CCM (2 strand) capacity will be increased by increasing the operating hours to cater to the higher output from IF-LRF. There will be no other change.
- The smallest 'direct' rolling mills that are currently manufactured by suppliers are 28 TPH. This configuration can easily cater to the increased output from IF-LRF-CCM by increasing the number of operating hours from average 11-12 hrs/day to 15 hours/day. There will be no other change.

The salient features for proposed enhancement in production are summarized as below:

Description	Existing as per EC dated 15.01.2018	After Expansion
Location	Village Karakhendra, District Keonjhar, Odisha	Same
Total Area	13.20 Acres	Same
Product	Billets/ Bloom/ Slab and TMT/ Flat/ Round/ Wire rod/ Structural steel/ other	Same
Working days	330 days	Same
Manpower	250	260
Implementation Schedule	-	24 month
Cost of the project	Rs. 83 crores	Rs 85 crores

Recirculating Water	758 KLD	1226 KLD
Daily make up water	Not estimated	104.6, say, 105 KLD
Waste water generation	42.2 KLD (including initial losses to clean the system)	4.7 KLD
Source of water	Industrial water - harvested rain water and deficit from Karo River, if required. Ground water sourced for domestic.	Same
Power requirement	15 MW	20 MW

7.33.4 The raw materials requirement for the proposed enhancement in production is furnished as below:

Sl. No.	Facilities	Raw Material	Unit	Required	Own Source	From outside Purchased
1	Steel Melt Shop					
	I.F.	DRI	TPA	1,19,266	1,19,266	-
		Pig Iron	TPA	13,774	-	13,774
		Scrap	TPA	13,774	-	13,774
		Product		**Produced**		**Sold to market**
2	Rolling mill	TMT	TPA	121702		121702

- Own source is the Karakolha sponge iron plant at a distance of 0.5 km aerially.
- Pig Iron & scrap will be purchased from open market
- Raw material and product will be transported through Road and Road-Rail combination (from nearest siding at Barbil-2.9 km aerially and Bolani-13.5 km aerially).

7.33.5 Due to the expansion, there will be no additional land requirement beyond 13.2 acres for which Environmental Clearance was accorded. There will be marginal increase in water requirement and total daily fresh water requirement shall become 105 KLD. Out of this, 4 KLD drinking water requirement will be met from ground water, for which permission has been obtained from CGWA. Balance 101 KLD shall be met through harvested rain water collected in raw water reservoir. Entire waste water will be reused within plant for sprinkling after treatment in OWS, settling tanks and common sump.

7.33.6 Increase in total pollutant emissions from stack into the air are anticipated for PM_{10}, $PM_{2.5}$ and NO_2 but decrease in SO_2 will be there due to use of lower sulfur fuel. The maximum incremental GLCs will increase by 0.02 $\mu g/m^3$ for PM_{10}, 0.01 $\mu g/m^3$ for $PM_{2.5}$ and 0.01 $\mu g/m^3$ for NO_2. Bag filters shall be installed to comply to the emission norms.

7.33.7 Fugitive emissions will be controlled by keeping raw materials DRI & Scrap as well as finished products under covered sheds. There will be increase in traffic by approximately 28 trucks. The total solid waste generation will increase in form of slag (by 2859 TPA), mill scale (by 228 TPA) and BF dust (by 489 TPA). Slag and mill scale shall be 100% reutilized while BF dust shall be stored in designated solid waste area. Additional environmental management measures proposed are:

- Installation of the latest & state-of-the art bag filters compliant to 30 mg/Nm^3
- Solar lighting for all streets and parking area.
- Solar panels of roof top to minimize power consumption from own power plant at Karakolha (0.5 km away). This will reduce coal consumption in own CPP
- 1 ha green belt plantation outside project boundary

7.33.8 Project proponent submitted certified compliance report of EC dated 15.01.2018 from Regional Office, MOEF&CC, Bhubaneshwar. Project was monitored on 26.02.2019 by Dr. A.K.Gupta Scientist D , Regional Office Bhubaneswar and issued a compliance status report vide letter no. 101-1001/EPE/ dated 06.03.2019. The observations made in the Regional Office report is furnished as below:

i. Chose at least 2-3 feet plant saplings for better survival of the green belt development.
ii. Complete construction work of rain water storage pond before the monsoon season.
iii. Put up Environment & Safety signage boards in various prominent location of the project site.

In this regard, the project proponent informed that the necessary correction actions to the aforesaid observations have been taken and the compliance is under progress.

7.33.9 Public hearing for the existing project was conducted on 12.10.2017 and the issues raised in the public hearing are being carried out by the project proponent under various headings of environment, employment, health, supply of drinking water, electricity, road communication & others. Rs. 43.12 lakhs have been spent between Oct 2017 to Jan 2019.

7.33.10 Name of Environmental consultant: Min Mec Consultancy Pvt. Ltd. who is preparing and presenting reports as per the High Court of Delhi orders in LPA 110/2014 and CM No.2175/2014 (stay) and W.P.(C) 3665/2016.

7.33.11 The aforesaid proposal was considered in the 6th meeting of the Reconstituted Expert Appraisal Committee (Industry 1) held during 29-30th April, 2019 wherein the Committee advised the project proponent to furnish a closure report from Regional Office of MoEF&CC on the below mentioned non-compliances to enable further consideration of the proposal.

i. Project proponent shall plant broad leaved trees using 2-3 feet high saplings for improving the greenbelt.
ii. Rainwater harvesting structures shall be established by the project proponent before the onset of monsoon.
iii. Project proponent shall install signage for awareness about environment and safety in prominent locations of the project site.

7.33.12 The project proponent vide letter dated 11/05/2019 submitted a response of the Regional Office, Bhubaneshwar on the corrective action taken by them on the aforesaid non-compliances. As per the letter of the Regional Office, the project proponent has planted saplings having height of 2-3 feet along the plant boundary, construction of rain water harvesting structures have been undertaken and likely to be completed by before monsoon season and environment & safety boards have been kept at several locations of the plant site.

Observations of the Committee

7.33.13 The Committee satisfied with the corrective actions taken by the project proponent on the observed non-compliances.

Recommendations of the Committee: -

7.33.14 In view of the aforesaid and after detailed deliberations, the Committee recommended the proposal cited above for grant of Environmental Clearance under para 7(ii) of the EIA Notification, 2006. subject to following additional conditions:

i. All other terms and conditions mentioned in the earlier EC letter no. J-11011/230/2016-IA 11(I) dated 15/01/2018 shall remain unchanged.

7.34 Change in configuration of pelletization plant (2x1.32 MTPA to 1x2.64 MTPA) in the Integrated Steel Plant by **M/s Rungta Mines Limited** located at Village Kamanda, District Sundergarh of **Odisha**. - [Proposal No. IA/OR/IND/100564/2019; MoEF&CC File No. J-11011/434/2009-IAII(I)] **- Environment Clearance under para 7(ii) of the EIA Notification, 2006 - regarding.**

M/s. Rungta Mines Limited has made an online application vide proposal no. IA/OR/IND/100564/2019dated 28thMarch, 2019 along with Form – 2 seeking environmental clearance under para 7(ii) of the 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

7.34.2 M/s Rungta Mines Limited is operating an Integrated Steel Plant at village Kamanda, District Sundergarh, Odisha. Environmental Clearance for the plant was granted by MOEF&CC vide letter no. J-11011/434/2009-IA.II(I) dated 06.11.2017 and its enhancement in DRI, SMS, Caster and Rolling mill & configuration of SMS and power plant vide amendment letter no. J-11011/434/2009-IA.II.(I) dated 8.03.2019. The consolidated summary of the sanctioned facilities is given in Table 1.

TABLE 1: UNITS SANCTIONED IN EC LETTER DATED 06.11.2017 & ITS AMENDMENT DT. 08.03.2019

Sl. No.	Facility	Total Capacity(TPA)
1	**Beneficiation Plant**	1,200,000
2	Pellet Plant-1	600,000
	Pellet plant-2	2,640,000
	Sub Total	**3,240,000**
3	**Coal Washery**	924,000
4	**DRI Plant**	
	6X100 TPD	273,000
	1X300 TPD	136,500
	3X350 TPD	441,000
	2X500TPD	420,000
	Sub total	**1,270,500**
5	**Sinter Plant -**2x24 sqm	532,224
6	**Mini Blast Furnace**	
	2X262 CUM	458,500
	1X260 CUM	227,500
	Sub-total	686,000
7	**Coke Oven** (2 batteries of 70,000 TPA)	140,000
8	**SMS**	
	4X15T IF, 2x20 LRF	277,200
	9 X15T IF, 3x35T LRF	623,700
	Sub total	**900,900**
9	**Billet/ Slab/ Bloom Caster**	
	Caster 1	271,656
	Caster 1	271,656
	Caster 1	339,570
	Sub total	**882,882**
10	**Flat/ Round/ Wire Rod/ Structural Mill/ others**	
	Mill-1	260,790
	Mill-2	260,790
	Mill-3	325,987
	Sub total	**847,567**
11	**Ferro Alloy Plant (1x9 MVA + 1x18 MVA)**	
	Ferro Manganese OR	9 MVA= 18,000 18 MVA=36,000
	Silico Manganese OR	9 MVA= 14,400 18 MVA=28,800
	Ferro Chrome OR	9 MVA= 14,400 18 MVA=28,800
	Ferro Silicon	9 MVA= 6,400

Sl. No.	Facility	Total Capacity(TPA)
		18 MVA=12,800
	Briquette Plant for ferro chrome	88,320
	Briquette Plant for ferro manganese	111,360
12	Captive Power Plant	198 MW
	WHRB	87 MW
	AFBC / CFBC (1x20 MW+ 2x45.5 MW)	111 MW

7.34.3 In the ISP, 6X100 TPD, 1X300 TPD and 1X350 TPD DRI kilns, 4X15 T IF with CCM, 20 MW WHRB and 20 MW AFBC are already under operation. Construction of other manufacturing facilities is ongoing. The construction of pelletisation plant has not yet been started.

7.34.4 Now, company wishes to change the pelletisation plant module configuration from 2 nos. x1.32 MTPA to1 no. x 2.64 MTPA without any change in overall sanctioned capacity permitted as per EC dated 06.11.2017 & its amendment dated 08.03.2019.

7.34.5 The project proponent submitted an online application in the prescribed format i.e. Form-2 along with other reports to the Ministry on 28.03.2019 vide online application No. IA/OR/IND/100564/2019.

7.34.6 Due to change in configuration of the pelletisation plant from 2 nos. X1.32 MTPA to1 no. X 2.64 MTPA without any change in overall sanctioned capacity, there will be following advantages:

i. Reduction in land requirement for pellet plant from 55 acres to 30 acres.

ii. Reduction in specific fuel (furnace oil) consumption to 18 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.

iii. Reduction in specific power consumption to 50 Kwh/ton instead of 55 Kwh/ton due less number of equipment and more efficient use of equipment. Approximately 2 MW of electricity consumption is expected to reduce.

iv. Reduction in number of chimneys from four to two.

v. Half the number of transfer points for iron ore and pellet will be required.

vi. The structural steel consumption and civil work will reduce.

7.34.7 No additional water requirement will be there due to change in configuration. Reduction in total pollutant emissions from stack into the air are anticipated since total material handled and its air requirement remains same but specific fuel consumption will reduce. Number of stacks will reduce from four to two. Bag filters & ESPs shall be installed to comply to the emission norms. Fugitive emissions might reduce due to lesser transfer points. The total solid waste generation in form of dust (Iron Ore, Coke, Coal Fines, Limestone, Dolomite, Bentonite), will remain unchanged and will be 100% reused in sinter making within the ISP. No additional environmental management measures or funds for it shall be required.

7.34.8 The Regional Office of MoEF&CC has visited the plant and issued a compliance status report vide letter no.101-998/EPE/432 dated 27.11.2018. The observations of Regional Office are summarized as below:

i. It is required to speed up the construction of 150 KLD sewage treatment plant work.
ii. It has come to observed that PAs have assigned Indian Institute of Technology (IIT), Kharagpur on dated 21.09.2018 to prepare GHG emission inventory of the project. it is required to submit above report to Ministry and its regional office at the earliest
iii. It is required to strengthen and maintained the existing green belt with broad leaves native species of the plant especially all along the boundary of the plant

7.34.9 In this regard, the project proponent informed that the necessary correction actions to the aforesaid observations have been taken and the compliance is under progress.

7.34.10 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.

7.34.11 The aforesaid proposal was considered in the 6th meeting of the Reconstituted Expert Appraisal Committee (Industry 1) held during 29-30th April, 2019 wherein the Committee advised the project proponent to furnish a closure report from Regional Office of MoEF&CC on the below mentioned non-compliances to enable further consideration of the proposal.

i. 150 KLD STP is not commissioned.
ii. GHG inventory report has not been prepared and submitted.
iii. Improvement and strengthening of the green belt is yet to be done.

7.34.12 The project proponent vide letter dated 11/05/2019 submitted a response of the Regional Office, Bhubaneshwar on the corrective action taken by them on the aforesaid non-compliances. As per the letter of the Regional Office, the project proponent has submitted the GHG emission inventory report, sewage treatment plant of 150 KLD has been commissioned and strengthening & maintenance works for green belt is being regularly undertaken.

Observations of the Committee

7.34.13 The Committee satisfied with the corrective actions taken by the project proponent on the observed non-compliances.

Recommendations of the Committee: -

7.34.14 In view of the aforesaid and after detailed deliberations, the Committee recommended the proposal cited above for grant of Environmental Clearance under para 7(ii) of the EIA Notification, 2006. subject to following additional conditions:

i. All other terms and conditions mentioned in the earlier EC letter no. J-11011/434/2009-IA 11(I) dated 6/11/2017 and 8/3/2019 shall remain unchanged.

7.35 Integrated Steel Plant (2.85 MTPA Steel) of **M/s Rungta Mines Limited** located at Villages Jharbandh, Galpada and Tarkabeda, District Dhenkanal, **Odisha**. [Proposal No. IA/OR/IND/80884/2018; MoEF&CC File No. J-11011/309/2018-IAII(I)] **Environment Clearance – regarding.**

M/s. Rungta Mines Limited has made an online application vide proposal no. IA/OR/IND/80884/2018 dated 19th March, 2019 along with copies of EIA/EMP report and Form – 2 seeking Environmental Clearance (EC) under the provisions of the 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

7.35.2 The proposal from Dhenkanal Steel Plant of M/s Rungta Mines Limited located in Village Jharbandh, Galpada and Tarkabeda, District Dhenkanal, Odisha was initially received in the Ministry on 30.09.2018 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-1) during its meeting held on 26-28th November, 2018 and prescribed TORs to the project for undertaking detailed EIA study for the purpose of obtaining Environmental Clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed TORs to the project on 10.12.2018 vide letter no.J-11011/309/2018-IA.II.(I).

7.35.3 Based on the TOR prescribed for the project, public hearing has been held on 07.03.2019. After public hearing, the project proponent submitted an application for environmental clearance to the Ministry on 19.03.2019 vide application no. IA/OR/IND/80884 /2018.

7.35.4 The project is for 2.85 million TPA (Phase I-1.45 MTPA; Phase II-1.40 MTPA) production capacity from an Integrated Steel Plant. The project previously had an Environment Clearance vide Letter No. J-11011/241/2009-IA.II(I)dated 02.08.2010 for a capacity of 1.9 MTPA, the validity of which will lapse on 1st August, 2020 while the construction of the units within it would be still ongoing till the expiry of the validity period. The validity extension of Environmental Clearance was accorded by the Ministry vide letter no. J-11011/241/2009-IA.II(I) dated 20/09/2018. Hence, the project proponent decided to apply for fresh ToR for a larger production of 2.85 MTPA.

7.35.5 The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneshwar vide Lr. No. 101-639/EPE dated 25.02.2019. It states that status of compliance of the stipulated EC conditions could not be ascertained as the major project work is yet to be started. However, observations made by the Regional Office and the corrective action taken by the project proponent are summarized as below:

S.No.	Observations of Regional Office of MoEF&CC	Corrective action by the Project Proponent (PP)
i.	It has been found that PAs are in process to construct one water storage pond, which will also be using for the storage of surface runoff / rain water coming out from the reserved forest (RF) hillock, which is situated near North west side of the project. Therefore, it is requested to construct one or more rain water collection pond near the existing hillock, for easily collection and storage of rain water /surface water coming out from the existing hillock during rainy time , which will be used for various activities including development of green belt etc.	PP will construct one more rain water harvesting pond for easier collection and storage of rain water runoff from the existing hillock during rain time and stored water shall be used for development of green belt, sprinkling and process, after settlement/ treatment.
ii.	It is requested to take consultation/ approval from various competent authorities (including CGWA etc) for the collection and utilization of the huge quantity of the rain water coming out from the RF hillocks, which is situated near west north side of the project .	PP has already employed M/s Skylark, Bangalore for hydro-Geological survey for entire plant area to assess total rain water / storm water during rainy season. Based on their report, the submission will be made to Irrigation Department for approval of our storm water

S.No.	Observations of Regional Office of MoEF&CC	Corrective action by the Project Proponent (PP)
		drainage plan.
iii.	It is also requested to provide significant quantity of rain water to local farmers for cultivation of paddy.	PP is creating passes for rain water to pass from plant side to villagers for cultivation of paddy, hence, there will be no decline in rain water availability to farmers. Additionally, ponds will be constructed as part of CER & CSR in the agricultural fields, if desired by the respective Gram Panchayats.
iv.	It has been found that PAs have not yet started plantation work on the project side, therefore, it is requested to conduct massive plantation drive during coming monsoon period, details information on development of green belt should also submitted to this regional office	PP is planning for plantation on 40 acres land covering 40,000 plantation of land before start of monsoon season
v.	It is required to constitute Environment Management cell (EMC) at project level.	PP is in the process of establishing full-fledged Environment Management cell (EMC) before operation of the plant. The personnel will be hired as per organization chart proposed in EMP.
vi.	It is required to conserve top soil of the project and use it for the development of green belt.	During construction, PP is removing top soil & keeping in separate pile for use in plantation purpose.

7.35.6 After detailed deliberations, the Committee satisfied with the corrective action of the project proponent.

7.35.7 The proposed capacity for different products of the 28.85 MTPA Integrated Steel Plant is given 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

Sl. No.	Plant facilities	Units	Phase 1	Phase 2	Total
	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	1X40TPH+1X235TPH
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 batteries X 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		7X20TIF+4X20T LRF	-	7X20T 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		1X90T EAF+1X90T LRF	1X160T EAF and 1X160 T LRF	1X90 T + 1X160 T EAF and 1X90 T + 1X160 T LRF
8.3	Continuous Casting Machine	MTPA	1.207	1.207	2.415

Sl. No.	Plant facilities	Units	Phase 1	Phase 2	Total
	(Billets/ Bloom Caster/ Slab)				
	Configuration		1 nos. X 3 strands	2nos.X3 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/ Coil/ Wire & Bar Mill/ Wire Rope	MTPA	0.450	0.400	0.8500
	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/hr	10X3000 Nm^3/hr	20X3000 Nm^3/hr
11	Oxygen Plant	MTPA	0.035	0.063	0.098
	Configuration		1X 100 TPD	1X 180 TPD	1X100 +1X 180 TPD
12	Lime Plant	MTPA	0.105	0.1995	0.3045
	Configuration		1 X 300 TPD	1 X 570TPD	1X300 + 1X 570 TPD
13	Cement Plant	MTPA	0.884	0.802	1.686
	Configuration		1 X 2600 TPD	1X 2300 TPD	1X2600+1X2300 TPD
14	Captive Power Plant	MW	217	168	385
14.1	Waste Heat Recovery Boiler (WHRB) based Captive Power	MW	67	68	135

Sl. No.	Plant facilities	Units	Phase 1	Phase 2	Total
	Plant (CPP)				
a	DRI Kiln exit gas based	MW	44	24	68
	Configuration		2X 50 + 2X 60 TPH	2X 60 TPH	2X 50 + 2X 60 TPH
b	MBF Gas based	MW	11	20	31
	Configuration		1 X 50 TPH	1 X 90 TPH	1 X 60 +1 X 90 TPH
c	Coke Oven Gas based	MW	12	24	36
	Configuration		1 X 60 TPH	1 X 100 TPH	1X 60 + 1 X 100 TPH
14.2	AFBC/CFBC based CPP	MW	150	100	250
	Configuration		2X125+2X250 TPH	2X250 TPH	2X125+4X250 TPH

7.35.8 The land required for the proposed plant is 674.65 acres. Out of this, 540.705 acres is private land and 67.790 acres is Government land. Both these land have been acquired through IDCO and converted to industrial use. Balance 66.270 acres land is pending with Tehsildar-cum-LAO, Hindol. Additionally, 9.85 acres of private land in village Jharband and 3.05 acres of private land in village Nimabahali have been allotted to the company for construction of approach road outside the project area. 7.8 acres of forest land is present within the project area. Stage II forest clearance has been obtained from MOEF&C vide letter no. 5-ORB207/2014-BHU dated 02.07.2015. The land use of the project area is given as below:

Land use of project area

Sl. No.	Name of the Village	Private Land	Government Land					Grand Total
			Leasable	Gochar	Communal	Forest	Total	
1	Jharbandh	261.565	44.030	17.390	12.330	7.540	81.290	342.855
2	Tarkabeda	175.870	9.840	0.380	15.170	0.260	25.650	201.520
3	Galapada	103.270	1.800	16.710	8.610	0.000	27.120	130.390
	Grand Total	**540.705**	**55.670**	**34.480**	**36.110**	**7.800**	**134.060**	**674.765**
	Possession Taken	540.705	40.040	19.950	0.000	7.800	67.790	608.495
	Balance	0.000	15.630	14.530	36.110	0.000	66.270	66.270

7.35.9 No river passes through the project area. Only first order seasonal stream passes through project area and it has been reported that six village tanks exist within the project area. These will get disturbed due to construction, management of which shall be done through storm water drainage system.

7.35.10 The topography of the area is flat and reported to lie between 20°45'14''to 20°46'24''N Latitude and 85°17'12''to 85°18'45''E Longitude in Survey of India Open Series Maps No. F45T1,F45T2,F45T5 &F45T6. The average ground elevation of the project area is 75-95 m AMSL. The ground water table reported to ranges between 1.42 m below the land surface during the post-monsoon season and 8.61 m below the land surface during the pre-monsoon season. There will not be any ground water withdrawal for industrial activities. Further, the stage of groundwater development has been calculated as 4.6% in study area and thereby this is designated as safe area.

7.35.11 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. The Chandka Dampur WLS is located at a distance of 26 km from the site. Site specific wildlife conservation plan has been prepared and approved by PCCF (WL) vide letter no 3188/1 WL-SSP-10/2015 dated Bhubaneswar 9.04.2015.

7.35.12 The process of manufacturing will be steel through both DRI as well as Blast furnace routes. There will be installation of Beneficiation plant (5.4 MTPA), Pelletisation plant (2.948 MTPA), Coal Washery (4.141 MTPA), DRI plant (1.547 MTPA), Sinter plant (1.663 MTPA), Mini Blast furnace (1.559 MTPA), coke oven plant (1.12 MTPA), SMS (2.464 MTPA), casters (2.415 MTPA), Rolling mills & Ductile pipe plant (2.85 MTPA), Producer Gas Plant (480 million Nm3), Oxygen Plant (0.098 MTPA), Lie plant (0.3045 MTPA), Cement plant (1.686 MTPA) and Captive Power Plant 385 MW (135 MW WHRB + 250 MW AFBC/CFBC based). The major raw materials to be used for proposed will be 6,394,385 TPA iron ore, 1,092,504 TPA coal. Of the various solid wastes generated in the plant, 100% recycling/ reusing will be done for sponge iron plant dust, char, sinter plant dust, blast furnace slag, blast furnace sludge & flue dust, SMS slag & flue dust, rolling mill rejects & mill scales and coke oven dust. Only beneficiation tailings, washery rejects and kiln accretion will have to disposed in designated solid waste area. Ash will be generated from captive power plant which will be disposed as per Fly Ash Notification. A fly ash brick plant will also be installed for fly ash management.

7.35.13 The targeted production capacity of the finished steel from rolling mill is 2.85 million TPA. The iron ore for the plant would be procured from own mines /OMC/other private Mines located in Odisha/ Jharkhand. Limestone, quartzite, dolomite will be purchased from Rourkela and manganese ore will be sourced from own mines located in Odisha. The ore transportation will be done through road initially in Phase-I and later by rail, once railway siding is constructed in Phase-II. The raw materials requirement for the 2.85 MTPA steel plant is given as below:

Sl. No.	Raw materials	Total			Stock Days	Area in acre
		Required	Own source	From outside (purchased)		
1	Bentonite & Clay Component	67,543	0	67,543	15	0.12
2	Char	285,248	285,248	0	7	0.12
3	Clinker	777,443	777,443	0	10	0.94
4	Coal (max. when Indian coal used)	4,844,956	1,731,894	4,576,808	5	2.69
5	Coking Coal	1,691,200	0	1,691,200	10	1.99
6	Coke	951,143	951,143	0	5	0.56
7	Coke breeze & fines	216,373	0	216,373	10	0.25
8	Dolomite	537,581	0	537,581	7	0.80
9	DRI	1,547,000	1,547,000	0	5	1.82
10	Flocculant	270	0	270	10	0.00
11	Fly Ash from Middlings & Char	356,055	356,055	0	10	0.21
12	Gypsum	33,412	0	33,412	10	0.10
13	Hot metal	1,559,250	1,559,250	0		-
14	Iron ores & fines (all types)	12,523,824	5,526,956	6,996,868	5	11.18
15	Iron Ore BF Grade	657,195	0	657,195	10	1.93
16	Limestone	1,902,049	0	1,934,689	10	5.69
17	Liquid Metal from Furnace	2,464,000	2,464,000	0		-
18	Middlings from Coal Washery	1,759,908	1,759,908	0	5	1.04
19	Mill scale (from CCM/RM/SM/DPP)	23,323	23,323	0	15	0.21
20	Others	7,774	0	7,774	10	0.07
21	Pig iron	78,222	0	78,222	10	0.69
22	Quartz	81,081	0	81,081	10	0.24
23	Semi-finished products	2,500,000	2,414,720	85,280	10	0.75
24	Sinter	1,662,570	1,662,570	0	5	1.96
25	Steel Scrap	29,293	0	29,293	10	0.26
26	Slag Generation from MBF	467,775	467,775	0	10	0.83
27	Silica component	31,098	0	31,098	10	0.09
	Total	**37,088,226**	**21,527,285**	**17,024,688**		**34.54**

7.35.14 The make-up fresh water requirement for the project is estimated to be 2950 m3/hr for industrial & drinking uses, which will be obtained from Bramhani River. Water allocation committee has recommended the drawl of surface water from Brahmani River as per recommendation of 54th Water Allocation Committee, Office of The Engineer In Chief, Water Resources, Bhubaneshwar, Odisha. The waste water generated within the plant will be 545.4 m3/hr, which will be suitably treated and reused for green belt, dust suppression, ash quenching and brick plant.

7.35.15 The power requirement for the project is estimated to be around 385 MW, all of which will be available from the captive power plant comprising of WHRB (135 MW) and AFBC/CFBC (250 MW).

7.35.16 Base line Environmental Studies were conducted during summer season i.e.from March to May 2018. Ambient Air quality monitoring has been carried out at 8 locations and the data submitted indicated: PM10 (39.6 to 71.0 µg/m3), PM2.5 (22.8 to 42.7 µg/m3), SO2 (6.3 to 16.1 µg/m3) and NO2 (9.04 to 21.7 to µg/m3).

7.35.17 The results of the modeling study for stack emissions indicates that the maximum increase of GLC for the proposed project is 28.49 µg/m3 with respect to the PM10, 54.95 µg/m3 with respect to the SO2 and 23.18 µg/m3 with respect to NOx.

7.35.18 Existing traffic study summary carried out at Nimabahali Chowk (NH-55) is furnished as below:

Traffic vehicle	**No. of vehicles per day**	**Equivalence Factor**	**Equivalent Passenger Car Unit (PCU)**
H.M.V.	6990	3.0	20970
L.M.V.	2991	1.0	2991
Two/three wheelers	1904	0.5	952
Cycles	640	0.5	320
Grand Total	**12525**		**25233**

7.35.19 The road from project site till NH is 5 m wide while the NH is presently 7.5 m. The present traffic load is 84.11% of the maximum capacity as per IRC norms. It was reported during the meeting that NH is undergoing widening from Cuttack till Sambalpur resulting in a 23.5 m wide cross section. It will comprise of 8.5 m wide carriageways for both directions separated by 2.5 m median. There will be 2 m wide shoulders in either side.

7.35.20 It has been reported that incremental traffic due to plant operation on road has been considered for the first phase only since it is expected that the railway siding will become operational by second phase. The truck movement has been assumed 50% for 20T trucks and 50% for 25T in raw material, 100% as 25 T for product and 100% as 20 T for solid waste. In addition, there will be 25KL fuel tankers containing LSHS. The worst case scenario for coal has been considered i.e. Indian coal, wherein higher truck movement will take place. Accordingly, the traffic assessment estimation is given as below:

Summary of truck transportation (to & fro trucks per day)	50%	50%	**100%**
	20T	25 T	**Total**
1. Due to raw materials			
(a) with South African Coal (with equivalent coal input reduction in washery, Coal from DRI purchased from outside)	1050	840	1890
(b) with India Coal (when equivalent coal comes from washery to DRI internally)	1172	938	2110
(c) LSHS for reheating & other uses	0	10	10
2. Solid waste			
Reused Outside plant boundary	140		140
Disposed Outside plant boundary	0		0
3. Product	0	318	318
GRAND TOTAL (for Indian coal)	**1312**	**1266**	**2578**

7.35.21 Incremental GLC due to emissions from vehicles & tyre-airborne dust on roads due to traffic (In phase-1 only till Railway siding becomes operational) is given as below:

Pollutant	**Incremental value (µg/m^3)**
$PM_{2.5}$	4.70
PM_{10}	16.70
SO_2	57.39
NO_2	29.47

7.35.22 Ground water quality has been monitored in 8 locations in the study area and results indicate pH in range of 6.6-7.5, total hardness between 249-546 mg/l, Chloride between 27-245 mg/l, Fluoride between 0.2-0.73 mg/l and Heavy metal are within the permissible limits. Surface water samples have been monitored in 11 locations in the study area. pH was in range of 7.4-7.9, DO between 6.7-6.9mg/l, BOD between 5-25 mg/l and COD between 14-39 mg/l.

7.35.23 Noise level are in the range of 48.12 to 52.16 dBA for day time and 39.12 to 42.51 dBA for night time.

7.35.24 It has been reported that there is displacement of 54 families which have been rehabilitated & resettled as per R&R Policy, Government of Odisha. Compensation has already been paid through IDCO.

7.35.25 It has been reported that a total of 8 MTPA of waste will be generated due to the project, out of which 5.5 MTPA will be re-used within and outside the plant. Middlings, char, dusts from pollution control systems, various slags, mill scales and ash will be reused. Only 2.5 MTPA comprising beneficiation tailing, washery reject and kiln accretion will be dumped in the earmarked dump yard. It has been envisaged that an area of 90 ha 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.

7.35.26 The Public hearing of the project was held on 07.03.2019 at Tehsil Office, Hindol under the chairmanship of Additional District Magistrate for production of 2.85 million TPA of finished steel. The main issues raised during public hearing are related to employment opportunity, education, drinking water facility, development of village roads, cleaning of village ponds, pension for senior citizen, adequate air pollution and water pollution control measures, provision of primary health center facility, ambulance, ITI and afforestation, etc. The issues raised during the public hearing and response given is furnished as below:

Issues raised during the public hearing and response given

S. No.	**Main Issue raised in PH**	**Action Plan proposed**	**Budgetary provision as on 29-04-2019**		**Timeline of implementation**	
			Capital cost	Annual Recurring	To	From
1	Employment & training	• There will be a total requirement of 2600 persons to be employed for the operation of the project at full capacity. •	Cost of ITI construction Rs 1.5 crore	• Wages, PF, Medical and Bonus will be paid as per prevalent Labour Laws.	• ITI construction has already commenced. • • Employment	Simultaneous recruitment will take place as the sub-units of plant get commissioned till all units are fully

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		• The construction work for the initial phase of the project based on the EC dated 02.08.2010 has commenced in 2018 and 3 displacees and 200 local persons have been taken as unskilled manpower by the construction contractor. This is more 50% of the currently deployed construction workers. • Already 3 persons have been employed in the project, on payroll. • Gradually, direct and indirect hiring will take place with the commencement of the plant in 2020 for which preference will be given as follows: • Displaced families (54 nos.) opting for job • Land losers (of 450 holdings)		• Operation cost of ITI shall be approx. Rs. 19.5 lakhs/annum	for construction has already begun but recruitment for operation will begin on completion of few units in 2020 & receipt of CTO	commissioned to full capacity

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		opting for job • Local villagers • Company is constructing ITI & interested local villagers will be trained to make them employable in the plant when the construction is completed & operation commences. Those opting out of job will be supporting for vocational training.				
2	Health	• Purchase of ambulance (already done as on 15.03.2019). • Post the contact number for the ambulance at Panchayat house/ community centre in the villages • Construction of about 10 bedded hospital with facilities in Jharbandh	• Capital cost, as part of CER for • Ambulance(s) in 1st, 3rd & 5th years- total Rs. 45 lakhs • 10 bed hospital - Rs. 8.1 crore • Veterinary centre- Rs. 20 lakhs	• As part of CSR for: • One Ambulance- Rs. 3 lakhs • 10 bed hospital, free consultations & free medicines - Rs. 50 lakhs • Veterinary centre- Rs. 9 lakhs • Awarene	Provide from 1st year of construction	Continue till plant operates

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		village. • Provide free consultation and medicines to displacees & land losers at proposed hospital of the company and subsidised facilities to all other villagers. • Conducting mobile health/ awareness camp for protection against prevalent common diseases/ family planning camp (Doctor, para-medical staff and free supply of medicines) • Provision of veterinary doctor and centre for animals.		ss Camps/ health camps- Rs 1.2 lakhs • Financial help to critical medical cases - variable on need basis, provisioned Rs. 1 lakh		
3	Education	• Development of infrastructure in schools by construction of boundary walls, park/ playground,	• Rs. 32 lakhs	• Rs. 2 lakhs	• Since start of construction	Infrastructure development will be completed commensurate with completion of plant

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		toilets & any new classroom/ building, maintenance of the same				construction. Other activities will be continued till plant operates
		• plantation & beautification in and around school premises	• Rs. 5 lakhs	• Rs. 0.6 lakhs		
		• Providing sets of desk, bench with back rest and shelf, blackboard, and other furniture	• Rs. 14 lakhs	• Rs. 1 lakh		
		• Scholarship to meritorious students		• Rs. 0.6 lakhs		
		• Financial support to needy students		• Rs. 0.6 lakhs		
		• Adult education centre	• Rs. 5 lakhs	• Rs. 1.2 lakh		
		• Distribution of Bags, Study Material (Slate, Globe, Maps Charts, Exercise Book, Duster, Chalk etc.) as per requirement of school	• Rs. 7 lakhs	• Rs. 1 lakh		

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
4	Peripheral development activities - (i) Livelihood	• vocational training centre • Training to people for improvement of agriculture • Soil moisture conservation works and rain water harvesting near agricultural land	• Rs. 1.35 crores	• Rs. 12.8 lakhs approx.	• Since start of constructio n •	Infrastructure development will be completed commensurat e with completion of plant construction. • Other activities will be continued till plant operates
	(ii) Roads	• Construction of approach roads inChandrashe kharpur, Beruanpal, Jharbandh, Madhupur, Tarkabera and Kadela villages • Also maintenance of roads, where required in phased manner in collaboration with local Panchayat and Govt. schemes. • Solar based street lights	Rs. 4.4 crores	Rs. 44 lakhs approx.		
	(iii) Drainage	• Constructiono f drainage system in villages in	• Rs. 103 lakhs	• Rs. 3.6 lakhs		

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		phased manner • Covering of open drains in collaboration with local Panchayat heads and Govt. schemes.				
	(iv) Sanitation & solid waste management	• Swachh Bharat Mission has initiated construction of toilets, hence, Rungta MinesLtd. will focus on improvement of overall hygiene & cleanliness with following: • Awareness camps about solid waste segregation and household composting • Purchase of dustbins for garbage collection for solid waste disposal. • Purchase of anti mosquito fumigation machine.	• Rs. 23.25 lakhs	• Rs. 4.7 lakhs		

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		• Intensive awareness drive among residents to prevent water logging and mosquito breeding				
	(v) Sports, culture and others	• Construction of community centre • Sponsorship to Sports events& players, cultural events • Provide sports equipment • Tree sapling distribution	• Rs. 95lakhs	• Rs. 14 lakhs approx		
5.	Green belt and plantation	• Greenbelt Plantation shall be done in an area of 222.67 acres in the project area. • Sapling of fruit bearing trees shall be distributed to the villagers as per their requirement • avenue plantation and plantation in village shall be carried out	• Green belt- Rs 225.28 lakhs	• Green belt- Rs. 36.88 lakhs/annum. • Tree distribution/ plantation in community- Rs. 0.5 lakh/ year	Since start of construction	Within 5 years of start
6.	Drinking water	• Construction	Rs. 265 lakhs	Rs. 13.3 lakhs	Since start of	Infrastructure development

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		of Water storage tanks • Purchase of water tankers • Water supply through mobile water tankers during festivals and dry season to local villages • Water supply through pipeline • Construction of pond for Rain Water Harvesting & recharge. • Deepening and cleaning of ponds		approx.	constructio n	will be completed commensurat e with completion of plant construction. • Other activi ties will be conti nued till plant opera tes
7	Pond cleaning & constructio n	• Company shall clean and maintain ponds regularly in future also • Construction and maintenance of ghats in commonly used ponds will be undertaken.	• Rs. 64 lakh	Rs.0.5 lakhs/ annum	Since start of constructio n	• On need basis, throu ghout the plant life
		• Construction of pond in Nimabahli	• Rs. 22 lakhs	• Rs. 0.2 lakhs / annu m	1st year of operation	• Befor e end of 2020

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
8	Pollution control	• **Water pollution control-** Waste water generated within the plant will be utilised after treatment and no process water will be discharged. ETP, oil water separator, common monitoring basin, septic tanks, etc shall be provided with different sub-units and centrally also, and at different locations within the project site • **Air pollution control** - (a) ESP and Bag Filters will be installed to control particulates emission below 30 mg/Nm^3. (b) Stack heights of 30 m to 110 m will be provided for	• Rs. 98.67 crores	Rs. 23.75 crores/ annum	On commencement of construction of plant, the installation of control equipments will commence. Their operation will start with commissioning.	Their operation will continue till the end of the project life during operation

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		dispersion of pollutants. • **Fugitive emission control-** Few raw material and all product stock yards will be covered and floor will be impervious • **Transportation emissions -** Transport of raw material will be by road through covered trucks. Vehicles will have PUC checks and be well maintained. Railway siding is proposed to start construction with construction of phase-II, thus reducing traffic load on road • **Green belt/ green cover** will be developed over 33% of the plant area.				

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		• Solid waste - All the solid waste from the plant will be reused within or outside the plant except tailing from beneficiation plant, reject from washery and kiln accretion from DRI, which will be disposed within the plant on designated solid waste yard provided with lining, garland drain and its ETP. • Company will follow the mitigation measures as detailed in Chapter 4 of EIA/EMP Report to protect				
9.	CSR	CSR activities related to : • Drinking Water • Health • Eradicating Poverty • Education • Vocationa	• 2% of the average profit from the plant of previous three years, as per The Companies Act 2013. Till the time Company shows profit, the capital expenditure shall be met through CER fund.		• Since start of construction	• Till the plant is operational

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		l Training/ Livelihood Projects • Environment / Ecology /NRM • Culture & Tradition/ Heritage • Contribution to PMNRF & Welfare of SC, ST, OBC etc. • Rural Development Projects shall be undertaken				
10	Delay in project	The concern regarding delay is noted and submits that the Company has tried to work as quickly as possible in view of the various hurdles related to land acquisition, resettlement, market conditions, cancellation of coal block allocation, etc. The construction work for the initial phase of				

S. No.	Main Issue raised in PH	Action Plan proposed	Budgetary provision as on 29-04-2019		Timeline of implementation	
		the project based on the EC dated 02.08.2010 has commenced in 2018 and the first sub-units will become operational in 2020. Company will be completing construction at earliest.				

7.35.27 The capital cost of the project is Rs 7837.90 crores and the capital cost for environmental protection measures is proposed as Rs. 98.66 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 237.4 lakhs per annum. The total employment generation from 2.85 MTPA steel plant will be 2600 person. The capital expenditure on CER will commensurate with the investment and shall be Rs. 23.85 crores in 5 years on the basis of MOEF&CCs office memorandum dated 01.05.2018, for brownfield projects. The CER action plan is given as below:

CER action plan

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. Roads	a) Construction of approach roads in Chandrashekharpur, Beruanpal, Jharbandh, Madhupur, Tarkabera and Kadela villages	70	70	70	70	70	350
	b) Also maintenance of roads, where required in phased manner in collaboration with local Panchayat and Govt. schemes	7	7	9	10	12	45
	c) Solar based street lights	5	5	11	12	12	45
Sub Total 1							**440**
2.Drainage	a) Construction of drainage system in villages in phased	10	10	15	15	15	65

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
	manner						
	b) Covering of open drains in collaboration with local Panchayat heads and Govt. schemes.	7	7	7	7	10	38
Sub Total 2							**103**
3. Sanitation & solid waste management	a) Awareness camps about (i) solid waste segregation and household composting (ii) prevention of water logging and mosquito breeding	0.75	0.75	0.75	1.5	1.5	5.25
	b) Purchase of dustbins, wheel barrow, sweeping equipment, etc for garbage collection for solid waste disposal.	0.5	0.5	0.5	1	1	3.5
	c) Purchase of anti-mosquito fumigation machine.	0.5				0.5	1
	d) Provide support for cleaning staff to clean village roads and common areas periodically.	1.5	1.5	3	3.5	4	13.5
Sub Total 3							**23.25**
4. Drinking Water	a) Construction and maintenance of ghats in commonly used ponds.	11	11	12	15	15	64
	b) Construction of Water storage tanks	4	4	5	5	7	25
	c) Purchase of water tankers.	11		11		11	33
	d) Water supply through mobile water tankers during festivals and dry season to local villages.	3	3	7	7	7	27
	e) Construction of pond in Nimabahali	22	0	0	0	0	22
	f) Deepening and cleaning of existing ponds	1		1		2	4
	g) Water supply through pipeline	30		30		30	90
Sub Total 4							**265**

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
5 Market access and local livelihood means	a) Contruction of vocational training centre to build capacity for self-employment [for Ladies (stitching, embroidery, tailoring, pickles, etc), for Men (mushroom farming, dairy improvement, poultry farming, fish rearing, bee keeping, etc)]				25	35	60
	b) Establishing companys own Industrial Training Centre in the locality for providing training on skill development and employment.	50	50	50			150
	c) Training to people for improvement of agriculture and construction of training centre					5	5
	d) Soil laboratory for local farmers, soil quality improvement works, soil moisture conservation works and rain water harvesting near agricultural land		15	15	20	20	70
Sub Total 5							**285.00**
6. Education	a) Expansion of existing of schools to higher levels (middle/ High) as per requirement	20		20		20	60
	b) Construction (phase-wise) of primary school in Chandrashekharpur in consultation with government scheme.		35		35	35	105
	c) Development of infrastructure in schools by construction of boundary walls, park/ playground, toilets & any new classroom/ building, maintenance of the same	10		10		12	32
	d) plantation & beautification in and around school premises				2	3	5

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
	e) Providing sets of desk, bench with back rest and shelf, blackboard, and other furniture	2	2.5	2.5	3.5	3.5	14
	f) Scholarship to meritorious students						0
	g) Financial support to needy students						0
	h) Adult education centre	5					5
	i) Distribution of Bags, Study Material (Slate, Globe, Maps, Charts, Exercise Book, Duster, Chalk etc.) as per requirement of school	1	1	1.5	1.5	2	7
Sub Total 6							**228**
7. Health Care	a) Construction of 10 bedded hospital in consultation with statutory regulatory bodies/ government scheme.			200	260	350	810
	b) Purchase of ambulance.	15		15		15	45
	c) Provide free consultation and medicines to displacees and land losers and subsidy to other villagers at proposed hospital of the company.						0
	d) Provision of veterinary doctor and centre for animal health					20	20
	e) Financial help to critical medical cases						0
	f) Conducting mobile health/ awareness camp for protection against prevalent common diseases/ family planning camp (Doctor, para-medical staff and free supply of medicines)	5	5.5	9	9	9	37.5
Sub Total 7							**912.5**
8. Sports, Culture and others	a) Construction of community centre, sports centre, recreation rooms, stage, cultural spaces, etc	16		16		20	52

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
	b) Sponsorship to Rural Sports events						0
	c) Sponsorship to local talent to participate at state & national levels						0
	d) Construction & improvement of sports field and parks	10		15		15	40
	e) Provide equipment to village level teams in crickets, football and badminton		1.5		1.5		3
	f) sponsorship of cultural events during festivals						0
	g) Celebrating Earth day and awareness program for sustainable development and environment protection						0
	h) Pension to senior citizens of displacees and land losers						0
	i) Tree distribution/ Plantation in community	1	1	1.5	1.5	1.5	6.5
	Sub Total 8						**101.5**
	Grand Total (1+2+3+4+5+6+7+8)	**319.25**	**231.25**	**537.75**	**506**	**764**	**2358.2**

7.35.28 Green belt will be developed in 222.67 acres (90.11 ha) which is about 33% of the total area. A 10 m wide green belt, consisting of at least 3 tiers around boundary will be developed as green belt and green cover as per CPCB/ guidelines. Local and native species will be planted with a density of 2500 trees per ha. Total 2.25 lakh trees will be planted and nurtured in 90.11 ha in 5 years.

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

7.35.30 Name of consultant: Min Mec Consultancy Private Limited, New Delhi. MinMec is preparing and presenting reports as per the High Court of Delhi orders in LPA 110/2014 and CM No.2175/2014 (stay) and W.P.(C) 3665/2016.

7.35.31 The aforesaid proposal was considered in the 6th meeting of the Reconstituted Expert Appraisal Committee (Industry 1) held during 29-30th April, 2019 wherein the Committee sought the following additional information from the project proponent for further consideration of the proposal.

i. Document from Competent Authority indicating the status of land acquisition of 66.270 acres of land within the plant site as proposed in the EIA report shall be submitted.
ii. Action plan to conserve the water bodies within the plant site shall be furnished.
iii. Ambient Air Quality modeling has to be reworked, and submitted to the Ministry considering desulphurization of heat recovery gases and switching over to 100% hot charging thereby minimizing the use of reheating furnaces.
iv. CER table shall be revised as per Ministry's O.M. dated 1/5/2018 using the norms for the green field project and action plan for completion of CER activities within a time frame of five years shall be furnished.
v. Action plan for completion of greenbelt within a time frame of 3 years shall be furnished.
vi. Project proponent shall furnish an undertaking, confirming that railway siding shall be provided within 5 years or at the time of commissioning of the plant, whichever is earlier.

7.35.32 Point wise reply to the aforesaid additional details were uploaded by the project proponent online on Parivesh web portal on 14th May, 2019. Brief summary of the same as presented during the meeting is given as below:

i. Document from Competent Authority indicating the status of land acquisition of 66.270 acres of land within the plant site as proposed in the EIA report shall be submitted.

Reply: Acquisition of66.27 acres land is under process and is in advanced stage for allotment. A letter in this regard obtained from Tehsildar, Hindol has been submitted.

ii. Action plan to conserve the water bodies within the plant site shall be furnished.
Reply: Total six seasonal ponds within the project area. Two lie in the land being acquired from Jharband village (no. 1 & 2), one in Galpada (no. 3) and three in Tarkabeda (no. 4, 5 & 6) villages. Four ponds (no. 1, 4, 5 & 6) are within/ very near the earmarked green belt area will be conserved and developed as water bodies. Other two ponds (no. 2 & 3) are located amidst the facilities to be setup and will be conserved till the facilities are setup. Subsequently they will be relocated outside the project area and conserved as water bodies, where they will have utility for the villagers.

iii. Ambient Air Quality modeling has to be reworked, and submitted to the Ministry considering desulphurization of heat recovery gases and switching over to 100% hot charging thereby minimizing the use of reheating furnaces.
Reply: AAQ modeling has been reworked out the details are furnished as below:

Pollutant	**Base line value**	**Submitted in EIA, March 2019 for 2.85 MTPA ISP (µg/m^3)**		**Revised modelling results for 2.85 MTPA ISP (µg/m^3)**		**Decrease in incremental GLC**
		Increment GLC	**Resultant GLC**	**Increment GLC**	**Resultant GLC**	
	(a)	**(b)**	**(a)+(b)**	**(c)**	**(a)+(c)**	
$PM_{2.5}$	42.7	16.38	59.08	9.36	52.06	42.9%
PM_{10}	71.0	28.49	99.49	16.28	87.28	42.9%
SO_2	16.1	54.95	71.05	44.46	60.56	19.1%
NO_2	21.7	23.18	44.88	17.91	39.61	22.7%

iv. CER table shall be revised as per Ministry's O.M. dated 1/5/2018 using the norms for the green field project and action plan for completion of CER activities within a time frame of five years shall be furnished.

Reply: An amount of INR 47.19 Crores has been earmarked for the CER related activities and details are given as below: .

Sector	**Proposed intervention**	**Capital cost in CER (Rs. Lakhs)**					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
1. Peripheral Development Activities							
(i) Roads	a) Construction of approach roads in Chandrashekharpur-3 km, Beruanpal-1 km, Jharbandh-4 km, Madhupur-2 km, Tarkabera-3km and	140	250	250	250	250	1140

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
	Kadela villages-3.5 km						
	b) Also maintenance of roads, where required in phased manner in collaboration with local Panchayat and Govt. schemes	10	10	11	12	12	55
	c) Solar based street lights	5	5	11	12	12	45
	Sub Total 1 (i)						**1240**
(ii) Drainage	a) Construction of drainage system in villages in phased manner Chandrashekharpur-3 km, Beruanpal-1 km, Jharbandh-4 km, Madhupur-2 km, Tarkabera-3km and Kadela villages-3.5 km	50	50	50	50	50	250
	b) Covering of open drains in collaboration with local Panchayat heads and Govt. schemes.	7	7	7	7	10	38
	Sub Total 1 (ii)						**288**
(iii) Sanitation & solid waste management	a) Awareness camps about (i) solid waste segregation and household composting (ii) prevention of water logging and mosquito breeding	0.7	0.7	0.7	1.5	1.5	5.1
	b) Purchase of dustbins, wheel barrow, sweeping equipment, etc for garbage collection for solid waste disposal.	0.5	0.5	0.5	1	1	3.5
	c) Purchase of anti mosquito fumigation machine.	0.5					0.5
	d) Provide support for cleaning staff to clean village roads and common areas periodically.	1.5	1.5	3	3	3	12
	Sub Total 1 (iii)						**21.1**
1. Peripheral Development Activities							

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
(iv). Sports, Culture and others	a) Construction of community centre, sports centre, recreation rooms, stage, cultural spaces, etc	30		30		40	100
	b) Sponsorship to Rural Sports events						0
	c) Sponsorship to local talent to participate at state & national levels						0
	d) Construction & improvement of sports field and parks	10		15		15	40
	e) Provide equipment to village level teams in crickets, football and badminton		1.5		1.5		3
	f) Tree distribution/ Plantation in community	2	2	2.5			6.5
	Sub Total 1 (iv)						**149.5**
2. Drinking Water	a) Construction and maintenance of ghats in commonly used ponds.Jharbandh-4 No Ponds, Galapada-3 No ponds, Talkabeda-3 No Ponds	10	15	20	25	30	100
	b) Construction of Water storage tanks -Jharbandh-4 nos, Galapada-3 No, Tarkabera-3 Nos	10	10	10	20	20	70
	c) Purchase of water tankers. Jharbadh-1 No, Galapeda-1 No, Tarkabera-1 No	20	20	20			60
	d) Water supply through mobile water tankers during festivals and dry season to local villages.	3	3	7	7	7	27
	e) Construction of pond in Nimabahali, Jharbandh, Tarkabera, Galapada	50	55	55	55	0	215
	f) Deepening and cleaning of existing ponds	15		17		20	52

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
	g) Water supply through pipeline in the village Tarkabera-1 No Pipeline, Jharbandh-1 No pipeline, Galapada-1 No pipeline	50		50		50	150
	Sub Total 2						**674**
3. Employment and Training	a) Contruction of vocational training centre to build capacity for self-employment [for Ladies (stitching, embroidery, tailoring, pickles, etc), for Men (mushroom farming, dairy improvement, poultry farming, fish rearing, bee keeping, etc)]				25	35	60
	b) Establishing companys own Industrial Training Centre in the locality for providing training on skill development and employment.	60	90	100			250
	c) Training to people for improvement of agriculture and construction of training centre					5	5
	d) Soil laboratory for local farmers, soil quality improvement works, soil moisture conservation works and rain water harvesting near agricultural land		15	15	20	20	70
	Sub Total 3						**385**
4. Education	a) Expansion of existing of schools to higher levels (middle/ High) as per requirement Jharbandh-3 nos, Galapada-2 No, Tarkabera-2 Nos	30		30		30	90
	b) Construction (phase-wise) of primary school in Chandrashekharpur in consultation with government scheme.		35		35	35	105

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
	c) Development of infrastructure in schools by construction of boundary walls, park/ playground, toilets & any new classroom/ building, maintenance of the same	10		10		12	32
4. Education	d) plantation & beautification in and around school premises	2	2	2			6
	e) Providing sets of desk, bench with back rest and shelf, blackboard, and other furniture	2	2.5	2.5	3.5	3.5	14
	f) Adult education centre	5					5
	g) Distribution of Bags, Study Material (Slate, Globe, Maps, Charts, Exercise Book, Duster, Chalk etc.) as per requirement of school	1	1	1.6	1.6	2.2	7.4
	Sub Total 4						**259.4**
5. Health Care	a) Construction of 20 bedded hospital in consultation with statutory regulatory bodies/ government scheme.			300	550	750	1600
	b) Purchase of ambulance.	15		15		15	45
	c) Provision of veterinary doctor and centre for animal health					20	20
	d) Conducting mobile health/ awareness camp for protection against prevalent common diseases/ family planning camp (Doctor, para-medical staff and free supply of medicines)	5	5	9	9	9	37

Sector	Proposed intervention	Capital cost in CER (Rs. Lakhs)					
		Year 1	Year 2	Year 3	Year 4	Year 5	Total
	Sub Total 5						**1702**
	Grand Total (1+2+3+4+5)	**545.2**	**581.7**	**1044.8**	**1089.1**	**1458.2**	**4719**

v. Action plan for completion of greenbelt within a time frame of 3 years shall be furnished.
Reply: The action plan for completion of green belt within a time frame of three years has been submitted.

Year	Area, ha	No. of trees
1st	30.00	75,000
2nd	22.61	56,525
3rd	37.50	93,750
Total	90.11	225,275

vi. Project proponent shall furnish an undertaking, confirming that railway siding shall be provided within 5 years or at the time of commissioning of the plant, whichever is earlier.
Reply: The company commits to construction of railway siding by the end of 5th year after receipt of EC or commissioning of full capacity of the plant, whichever is earlier.

Observations of the Committee:

7.35.33 The committee noted that additional information furnished by the project proponent is satisfactory and adequate.

Recommendations of the Committee: -

7.35.34 After detailed deliberations, the Committee recommended for environmental clearance under the provisions of EIA Notification, 2006 for the project cited above subject to following specific and general conditions:

A. Specific conditions

i. Project proponent shall ensure that 80% Sulphur is removed from the coke oven waste gases from the heat recovery boiler. PP shall also prepare an SOP for monitoring the removal and reduction of Sulphur in coke oven.

ii. Greenbelt development shall be completed in 3 years by the project proponent by using local broadleaved tree species.

iii. Project proponent shall ensure that the railway siding is established within a period of 5 years or before commissioning of the full capacity of the plant, whichever is earlier.

iv. Project proponent shall ensure that the proportion of hot charging in rolling mill is not be less than 80 %.

v. CER activities shall be completed within a timeframe of 3 years by the project proponent.

B. General conditions

I. Statutory compliance:

i. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.

ii. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

iii. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.

iv. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012(Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.

iii. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g.

PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120˚each), covering upwind and downwind directions.

iv. The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.

v. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

vi. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

vii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

viii. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.

ix. Secondary emission control system shall be provided at SMS Converters.

x. Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.

xi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

xii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

xiii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

xiv. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).

xv. Land-based APC system shall be installed to control coke pushing emissions.

xvi. Monitor CO, HC and O_2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xvii. Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

xviii. In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NOx control facility shall be provided to meet the prescribed standards.

xix. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.

xx. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

xxi. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.

xxii. The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter. (*to be decided on case to case basis depending on type and size of plant*)

xxiii. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.

iv. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;

v. Adhere to 'Zero Liquid Discharge'

vi. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

vii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

viii. Tyre washing facilities shall be provided at the entrance of the plant gates.

ix. CO_2 injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning.

x. The project proponent shall practice rainwater harvesting to maximum possible extent.

xi. Treated water from ETP of COBP shall not be used for coke quenching.

xii. Water meters shall be provided at the inlet to all unit processes in the steel plants.

xiii. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

i. The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces.

ii. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens;

iii. Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines.

iv. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

v. Use hot charging of slabs and billets/blooms as far as possible.

vi. Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300°C.

vii. Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed.

viii. Restrict Gas flaring to < 1%.

ix. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;

x. Provide LED lights in their offices and residential areas.

xi. Ensure installation of regenerative type burners on all reheating furnaces.

VI. Waste management

i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.

ii. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.

iii. Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).

iv. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

v. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.

vi. Used refractories shall be recycled as far as possible.

vii. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.

viii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.

ix. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.

x. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens

xi. Kitchen waste shall be composted or converted to biogas for further use.(*to be decided on case to case basis depending on type and size of plant*)

VII. Green Belt

i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant

ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

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

iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

IX. Corporate Environment Responsibility

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Iron and Steel plants shall be implemented.

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other

orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

xvi. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

7.36 Asbestos Fiber Cement Plant (1,20,000 TPA) by **M/s. Ramco Industries Limited** located at Industrial area, Bihiya, District Bhojpur, Bihar [Proposal No. IA/BR/IND/20372/2010, MoEF&CC File No. J-11011/17/2010-IA.II(I)] – **Amendment in Environmental Clearance – reg.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant.

7.37 Manufacturing of Ingots/Billets(60,000TPA) by **M/s. Khushkhera Steel Private Limited** situated at SP-29, F20-24, RIICO Industrial Area, Bhiwadi, Alwar Rajasthan [Proposal No. IA/RJ/IND/105003/2019, MoEF&CC File No. J-11011/214/2015-IA.II(I)] **– Validity extension of Terms of Reference – regarding.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant.

7.38 Modernization cum expansion of Induction Furnace (2,05,000 TPA to 6,00,000 TPA) and Rolling Mill (3, 69,000 TPA to 6,00,000 TPA) by **M/s Agarwal Foundries Pvt. Ltd** at Sy. No. 158 (part) 159 (part), 166, 170, village Chetlagoraram Mandal Toopran, District Medak, **Telangana.** [Online proposal No. IA/TG/IND/105440/2019; MoEFCC File No. IA-J-11011/214/2018-IA-II(I)] – **Amendment in Terms of Reference – regarding.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant

7.39 Expansion, Modernization of existing facilities along with integration of existing environmental clearances [Sponge Iron Plant - 6,50,000 TPA; Capacity enhancement of Steel Melting Shop from 4,00,000 TPA to 7,00,000 TPA; Power generation – 73 MW; Ferro Alloys – 16,500 TPA; Pig iron – 33,000 TPA; H.B. Wire – 1,00,000 TPA; Oxygen & Nitrogen plants; Fly ash brick plant, Iron ore beneficiation – 10,00,000 TPA; Rolling Mill – 4,00,000 TPA; Induction Furnace for Casting in place of Arc Furnace–5,000 TPA; Iron Ore Pellet Plant – Capacity enhancement from 21,00,000 TPA to 24,00,000 TPA; Coal Gasification System - 60,000 Nm3/hr to 92,000 Nm3/hr; Slag Crushing Plant – 1,75,000 TPA and Mineral grinding unit – 2,00,000 TPA) by **M/s. Godavari Power and Ispat Limited** located at 428/2, Phase-I, Industrial Area, Siltara, Raipur, **Chhattisgarh** [Online proposal No. IA/CG/IND/105580/2019; MoEFCC File No. J-11011/326/2005-IA-II(I)] – **Amendment in Terms of Reference – regarding.**

M/s. Godavari Power and Ispat Limited has made online application vide proposal no. IA/CG/IND/105580/2019 dated 16thMay, 2019 along with revised Form I and pre-feasibility project report and sought for amendment in the Terms of Reference (ToR) accorded by the Ministry vide letter no. F.No. J-11011/326/2005- IA-II(I) dated 8th May, 2019.

Details submitted by the project proponent

7.39.2 M/s. Godavari Power and Ispat Limited has been granted Terms of Reference (ToR) for Expansion, Modernization of existing facilities along with integration of existing environmental clearances located at 428/2, Phase-I, Industrial Area, Siltara, Raipur, Chhattisgarh vide letter no. J-11011/326/2005-IA.II (I) dated 8th May, 2019 for the following facilities:

Sl. No.	Name of the Unit	Existing granted capacity (TPA)	Capacity granted for expansion / modernization vide TOR letter dated 08/05/2019 (TPA)
1	Sponge Iron	6,50,000	6,50,000 (1 x 350 TPD & 3 x 500 TPD Kilns)
2	Steel Billet	4,00,000	Modernization & capacity enhancement 7,00,000 (7 MT x 10, 12 MT x 6, 15 MT x 6 & 30 MT x 4)
3	Power generation (AFBC/WHRB & Biomass Power Plant)	73 MW (28 MW + 25 MW + 20 MW)	73 MW (48 MW + 25 MW) Modernization by installation of one new energy efficient TG set of 48 MW (+1 standby 10 MW) + 25 MW (all Existing TGs are to be retained for exigencies)
4	Ferro Alloys or Pig Iron	16,500 or 33,000	16,500 or 33,000
5	H.B. Wire	1,00,000	1,00,000
6	Oxygen Plant	12,00,000 NM^3	12,00,000 NM^3
7	Nitrogen Plant	45,00,000 NM^3	45,00,000 NM^3
8	Fly Ash Brick Plant	1,65,00,000 Nos.	1,65,00,000 Nos.
9	Iron Ore Beneficiation Plant	10,00,000	10,00,000
10	Rolling Mill	4,00,000	4,00,000
11	Arc Furnace	5,000	5,000 To be revised to Induction Furnace for Casting including Engineering & Fabrication
12	Iron Ore Pelletization Plants along with coal gasification plant	21,00,000 (Existing 2 Units: Kiln-I of 6,00,000 TPA & Kiln-II of	24,00,000 (within which 22,00,000 TPA will be Pellet + 2,00,000 TPA will be Magnetite Powder) along with Coal Gasifier of

Sl. No.	Name of the Unit	Existing granted capacity (TPA)	Capacity granted for expansion / modernization vide TOR letter dated 08/05/2019 (TPA)
		15,00,000 TPA) along with 60,000 Nm3/hr coal gasification plant.	92,000 Nm^3/hr
13	Slag Crushing Plant	-	1,75,000
14	Mineral Grinding Plant	-	2,00,000

7.39.3 M/s. Godavari Power and Ispat Limited has made online application vide proposal no. IA/CG/IND/105580/2019 dated 16th May, 2019 along with revised Form I and pre-feasibility project report and sought for following amendment in the Terms of Reference (ToR) dated 8/05/2019.

i. Enhancement in production capacity of existing Iron Ore Beneficiation Plant from 10,00,000 TPA to 32,84,000 TPA
ii. Enhancement in production capacity of existing H.B. Wire unit from 1,00,000 TPA to 2,00,000 TPA
iii. Amendment in proposed raw material and fuel requirement &Amendment in Water / Power consumption for the proposed project

Final existing and proposed configuration after amendment of TOR is as follows :

Sl. No.	Name of the Unit	Existing granted capacity (TPA)	Capacity granted for expansion / modernization vide TOR letter dated 08/05/2019 (TPA)	Final Capacity after approval of this Proposal for TOR Amendment (TPA)
1	Sponge Iron	6,50,000	6,50,000 (1 x 350 TPD & 3 x 500 TPD Kilns)	6,50,000 (1 x 350 TPD & 3 x 500 TPD Kilns)
2	Steel Billet	4,00,000	7,00,000 (7 MT x 10, 12 MT x 6, 15 MT x 6 & 30 MT x 4)	7,00,000 (7 MT x 10, 12 MT x 6, 15 MT x 6 & 30 MT x 4)
3	Power generation (AFBC/WHRB & Biomass Power Plant)	73 MW (28 MW + 25 MW + 20 MW)	73 MW (48 MW + 25 MW)	73 MW (48 MW + 25 MW)
4	Ferro Alloys or Pig Iron	16,500 or 33,000	16,500 or 33,000	16,500 or 33,000

Sl. No.	Name of the Unit	Existing granted capacity (TPA)	Capacity granted for expansion / modernization vide TOR letter dated 08/05/2019 (TPA)	Final Capacity after approval of this Proposal for TOR Amendment (TPA)
5	H.B. Wire	1,00,000	1,00,000	**2,00,000**
6	Oxygen Plant	12,00,000 NM^3	12,00,000 NM^3	12,00,000 NM^3
7	Nitrogen Plant	45,00,000 NM^3	45,00,000 NM^3	45,00,000 NM^3
8	Fly Ash Brick Plant	1,65,00,000 Nos.	1,65,00,000 Nos.	1,65,00,000 Nos.
9	Iron Ore Beneficiation Plant	10,00,000	10,00,000	**32,84,000**
10	Rolling Mill	4,00,000	4,00,000	4,00,000
11	Arc Furnace	5,000	5,000 To be revised to Induction Furnace for Casting including Engineering &Fabrication	5,000
12	Iron Ore Pelletization Plants along with coal gasification plant	21,00,000 (Existing 2 Units: Kiln-I of 6,00,000 TPA & Kiln-II of 15,00,000 TPA) along with 60,000 Nm3/hr coal gasification plant.	24,00,000 (within which 22,00,000 TPA will be Pellet + 2,00,000 TPA will be Magnetite Powder) along with Coal Gasifier of 92,000 Nm^3/hr	24,00,000 TPA (within which 22,00,000 TPA will be Pellet + 2,00,000 TPA will be Magnetite Powder) along with Coal Gasifier of 92,000 Nm^3/hr
13	Slag Crushing Plant	-	1,75,000	1,75,000
14	Mineral Grinding Plant	-	2,00,000	2,00,000

Final existing and proposed Raw Material requirement (Post-expansion and after amendment of TOR) :

Sl. No.	Facilities with capacity (Post-expansion & TOR amendment)	Raw Materials	Quantity (Post-expansion) (TPA) as per TOR letter	Quantity (TPA) after this TOR Amendment
1	Sponge Iron – 6,50,000 TPA	Pellet	9,42,500	9,42,500
		Coal	6,50,000	6,50,000
		Dolomite	19,500	19,500
2	Steel Billets – 7,00,000 TPA	Sponge Iron	7,60,960	7,60,960
		Scrap	92,030	92,030
		Calcined Lime	5,954	5,954
		Silico Manganese	10,480	10,480
3	Power generation (AFBC, WHRB & Biomass based)- 73 MW	Coal	1,13,225	1,13,225
		Dolochar	2,678	2,678
		Rice Husk	1,67,111	1,67,111
4	Ferro Alloys – 16,500 TPA or Pig Iron – 33,000 TPA	Manganese Ore	34,650	34,650
		High Mn Slag	6,600	6,600
		Dolomite	495	495
		Quartz	1,320	1,320
		Coke / Steam Coal	9,900	9,900
		Electrode Paste	495	495
		MS Item	165	165
		Lancing Pipe	50	50
5	H.B. Wire – 1,00,000 TPA	MS Wire Rods	**1,01,500**	**2,03,000**
6	Oxygen - 12,00,000	Atmospheric Air	4,16,670	4,16,670

Sl. No.	Facilities with capacity (Post-expansion & TOR amendment)	Raw Materials	Quantity (Post-expansion) (TPA) as per TOR letter	Quantity (TPA) after this TOR Amendment
	Nm3 & Nitrogen - 45,00,000 Nm3 gas plants			
7	Fly Ash Brick Plant – 165.00 lakh Nos.	Fly Ash	70,000	70,000
		Lime & Gypsum	15,000	15,000
		Granulated Ferro Alloys Slag	7,000	7,000
		Sand	8,000	8,000
8	Iron Ore Beneficiation Plant – 32,84,000 TPA	Crushed Iron Ore	**10,00,000**	**32,84,000**
9	Rolling Mill – 4,00,000 TPA	Steel Billets	**4,00,000**	**4,25,500**
10	Induction Furnace for Casting / Fabrication – 5,000 TPA	Steel Scrap & Borings	**4,520**	**2,511**
		Pig Iron & Silicon	**500**	**277**
		Ferro Manganese	**30**	**16.5**
		Ferro Silicon Magnesium	**20**	**10.5**
		Inoculants	**10**	**3.3**
		Silica Sand	**500**	**250**
		Bentonoide	**5**	**2.5**
		Coal Dust	**30**	**15**
11	Iron Ore Pellet Plant			

Sl. No.	Facilities with capacity (Post-expansion & TOR amendment)	Raw Materials	Quantity (Post-expansion) (TPA) as per TOR letter	Quantity (TPA) after this TOR Amendment
	Total proposed capacity - 24,00,000 TPA (with in which 22.00 lac will be manufacture of pellet & 2.00 lac manufacture of magnetite powder)			
	Manufacture of Pellets – 22.00 lac TPA	Iron Ore Fines DRY including Return Fines	22,88,000	22,88,000
		Bentonite/ Binder	22,000	22,000
		Lime Stone / Dolomite	35,200	35,200
	Manufacture of Magnetite Powder – 2.00 lac TPA	Magnetite Ore	2,00,000	2,00,000
12	Gasification System for Pellet Plant – 92,000 Nm3/hr	Coal	2,86,364	2,86,364
		F. Oil	**2,300 KL**	**F. Oil / Ignite Oil / LDO as and when required not exceeding 2,300 KL**
13	Mineral Grinding – 2,00,000 TPA	Mineral Ore	2,00,000	2,00,000

Final existing and proposed Water requirement (Post-expansion and after amendment of TOR) :

Sl. No.	Facilities (Post-expansion)	Quantity of Water as per TOR letter (KL/Day)	Quantity of Water after this TOR Amendment (KL/Day)
1	Sponge Iron	2900	2900
2	Steel Billets	5000	5000
3	Power generation	6132	6132
4	Ferro Alloys or Pig Iron	160	160

Sl. No.	Facilities (Post-expansion)	Quantity of Water as per TOR letter (KL/Day)	Quantity of Water after this TOR Amendment (KL/Day)
5	H.B. Wire	**5**	**7**
6	Oxygen & Nitrogen gas plants	38	38
7	Fly Ash Brick Plant	30	30
8	Iron Ore Beneficiation Plant	**100**	**800**
9	Rolling Mill	100	100
10	Induction Furnace for Casting / Fabrication	5	5
11	Iron Ore Pellet Plant	1700	1700
12	Gasification System for Pellet Plant	900	900
13	Slag Crushing Plant	10	10
14	Mineral Grinding Plant	Nil	Nil
15	*Others*		
	Domestic	170	170
	Fire	30	30
	Environmental Activities (Water Sprinkling, Plantation, etc.)	Waste water generation from the processes will be reutilized after treatment in ETP	
	Total	**17280**	**17982**
	Post expansion water requirement as per plant operational efficiency (92%)	**15898 KLD**	**16543 KLD**

Final existing and proposed Power requirement (Post-expansion and after amendment of TOR) :

Sl. No.	Power Consuming Points	Quantity of Power requirement as per TOR letter (in MW)	Quantity of Power requirement after this TOR Amendment (in MW)
1	Sponge Iron	4.5	4.5
2	Steel Billets	80	80
3	Power Plant (Auxiliary consumption)	7	7

4	Ferro Alloys	**20**	**21.5**
5	Fly Ash Brick Plant		
6	Oxygen & Nitrogen Gas Plants		
7	H.B. Wires		
8	Iron Ore Beneficiation	**2**	**4**
9	Rolling Mill	7	7
10	Induction Furnace for Casting	0.5	0.5
11	Iron Ore Pellet Plant with Gasification system	15	15
12	Slag Crushing Unit	1	1
13	Mineral Grinding Unit	1.5	1.5
	Total	**138.5**	**142**

Land Area :

7.39.4 The land area of the company is 93.825 ha (231.848 acres) in Siltara Industrial Area, Raipur. This Industrial Area is developed by CSIDC Ltd. **No additional land is required for the current amended proposals.** Since the Iron Ore Beneficiation is the part of Iron Ore Pellet Plant, hence no separate land, building and common utilities are considered.

Project Cost :

7.39.5 Total project cost will be approx. 2035.00 Crores (Post-expansion & after TOR Amendment)

Observations and recommendations of the Committee

7.39.6 The Committee considered the proposal, and after detailed deliberations, recommended the proposal for amendment of the original ToRs for enhancingcapacity of the beneficiation plant and of HB wire with the following specific ToRs in addition to ToRs prescribed originally vide Ministry's letter dated 8/05/2019.

i. Project proponent shall undertake rainwater harvesting, and shall also ensure that the water so channelized is more than the water consumption of 800 KLD in the plant.
ii. Liberation analysis of the iron ore using a standard methodology shall be furnished by the project proponent.

7.40 Greenfield Steel Plant (Pellet Plant- 600000 TPA, DRI plant 420000 TPA, Billet Making using Induction Furnaces-400000 TPA, Automotive Components Manufacturing Facility-120000 TPA using Billets, Ferroalloy Plant-52000 TPA, and Captive Power Plant- 34 MW using WHRB and AFBC) by **M/s. Pushp Steels & Mining Pvt Ltd** located at Borai Industrial Growth Centre, Rasmara, District Durg, **Chhattisgarh** [Online proposal No. IA/CG/IND/85734/2018; MoEFCC File No. J-11011/393/2018-IA-II(I)] – **Amendment in Terms of Reference – regarding.**

M/s. Pushp Steels & Mining Private Ltd has made online application vide proposal no. IA/CG/IND/85734/2018 dated 1st May, 2019 along with revised Form I and pre-feasibility project report and sought for amendment in the Terms of Reference (ToR) accorded by the Ministry vide letter no. F.No. IA-J-11011/393/2018- IA-II(I) dated 18th December, 2018.

Details submitted by the project proponent

7.40.2 M/s. Pushp Steels & Mining Private Ltd has been granted Terms of Reference (ToR) for establishing Greenfield Steel Plant (Pellet Plant- 600000 TPA, DRI plant 420000 TPA, Billet Making using Induction Furnaces-400000 TPA, Automotive Components Manufacturing Facility-120000 TPA using Billets, Ferroalloy Plant-52000 TPA, and Captive Power Plant- 34 MW using WHRB and AFBC) at Borai Industrial Growth Centre, Rasmara, District Durg, Chhattisgarh vide letter no. .No. IA-J-11011/393/2018- IA-II(I) dated 18th December, 2018 for the following facilities:

Name of Unit	No of Unit	Capacity of Each Unit	Total Production Capacity
Pellet Plant	1	600000 TPA	600,000 TPA
DRI Plant	2 1	350 TPD 500 TPD	400,000 TPA
Induction Furnace	4 3	15 tons 12 tons	320,000 TPA
Ferroalloy Plant	3	9 MVA	52,000 TPA
Press Machines (for automotive components making)	1 1 1 2	125 tons 60 tons 40 tons 25 tons	120,000 TPA
Captive Power Plant	2 1 1	8 MW (WHRB) 10 MW (WHRB) 8 MW (AFBC)	34 MW

7.40.3 M/s. Pushp Steels & Mining Private Ltd has made online application vide proposal no. IA/CG/IND/85734/2018 dated 1st May, 2019 along with revised Form I and pre-feasibility project report and sought for amendment in the Terms of Reference (ToR) dated 18/12/2018. The proposed amendment details are as below:

Name of Unit/ product	No of Unit	Capacity of Each Unit	Total Production Capacity	PROPOSED AMENDMENT
As per TOR approved dated 18-12-2018				
Pellet Plant (iron ore pellets)	1	600000 TPA	600,000 TPA	Iron ore beneficiation cum pellet plant Total production - 600,000 TPA

Name of Unit/ product	No of Unit	Capacity of Each Unit	Total Production Capacity	PROPOSED AMENDMENT
As per TOR approved dated 18-12-2018				
DRI Plant (sponge iron)	2 1	350 TPD 500 TPD	400,000 TPA	1 x 200 TPD 1 x 350 TPD 1 x 500 TPD DRI Plant (sponge iron) Total Production 350,000 TPA
Captive Power Plant (electricity)	2 1 1	8 MW (WHRB) 10 MW(WHRB) 8 MW (AFBC)	34 MW	1 x 5 MW (WHRB) 1 x 8 MW (WHRB) 1 x 12 MW (WHRB 2 x 5 MW (AFBC) Total Generation 35 MW

Observations and recommendations of the Committee

7.40.4 The Committee considered the proposal, and after detailed deliberations, recommended the proposal for amendment of the original ToRs accorded by Ministry vide letter dated 18/12/2018.

7.41 Expansion of cement plant with clinker 1.485 MTPA to 3.485 MTPA and Cement 1.65 MTPA to 5.00 MTPA by installation of new unit –II for additional clinker production of 2.0 MTPA and Cement of 3.35 MTPA of **M/s The India Cements Ltd** located at Village Chilamkur, Yerrakuntla Mandal, District YSR Kadapa, Andhra Pradesh [Online proposal No. IA/AP/IND/105923/2019; MoEFCC File No. J-11011/126/2011-IA-II(I)] – **Amendment in Terms of Reference – regarding.**

M/s The India Cements Ltd made an online application in the prescribed format along with Form-1 and other reports to the Ministry online on 20th May 2019 *vide* Online Application No. IA/AP/IND/105923/2019for seeking amendment in prescribed ToRs to undertake EIA study for proposed expansion of the existing cement plant as per EIA Notification 2006. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

7.41.2 The Project Proponent proposed to increase Clinker Production from 1.485 MTPA to 3.485 MTPA and Cement Production from 1.65 MTPA to 5.00 MTPA by installation of new line within the existing Cement Plant located near Chilamkur village in Yerraguntla Mandal, Y.S.R. Kadapa district of Andhra Pradesh. The Ministry prescribed ToRs for undertaking the EIA study for expansion project vide letter even no. dated 18th January 2017.

7.41.3 Subsequently, the Project Proponent made application on 2ndAugust 2018 for amendment of prescribed ToRs for change in capacities in the proposed expansion,

i.e., clinker from 1.485 MTPA to 5.15 MTPA and cement from 1.6 MTPA to 7.0 MTPA. The proposal was considered in the 35thEAC (Industry -1) meeting held during 17th-18thSeptember 2018 and recommended for amendment.

7.41.4 Now, the Project Proponent wants to retain the prescribed ToRs for expansion of original capacity proposed earlier, i.e., from 1.485 MTPA to 3.485 MTPA and Cement Production from 1.65 MTPA to 5.00 MTPA.

Observations and Recommendations of the Committee:

7.41.5 The Committee considered the proposal, and after detailed deliberations, recommended the amendment sought in the original ToRs by the PP.

7.42 Setting up of Ferro Alloys Manufacturing Units Phase-I (1x5 MVA) and Phase-II (2x9 MVA) **by M/s Sahara Ferro Alloys Limited** at Growth Centre Bobbili, Vizianagaram District in **Andhra Pradesh** [Online proposal No. IA/AP/IND/104312/2019; MoEFCC File No. J-11011/387/2008-IA-II(I)] **– Validity extension of environmental clearance – regarding.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal may be considered subject to satisfactory explanation of the reasons of absence by the applicant.

7.43 Expansion of existing Pig Iron Plant of 3 Lac TPA and a 60,000 TPA Foundry by addition of Coke Oven Plant (4.0 Lakhs TPA) and Captive Power Plant (WHRB-30 MW) **by M/s Kirloskar Ferrous Industries Limited** at Bevinhalli, District Koppal, **Karnataka** [Online proposal No. IA/KA/IND/105317/2019; MoEFCC File No. J-11011/123/2010-IA-II(I)] **– Validity extension of environmental clearance – regarding.**

M/s. Kirloskar Ferrous Industries Ltd has made an online application vide proposal no. IA/KA/IND/105317/2019dated 14th May, 2019 along with copies of EIA/EMP report and Form – 6 seeking extension of validity of environmental clearance under the provisions of the 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 proposal is appraised at Central level.

7.43.2 The Project Proponent was accorded Environmental Clearance for Expansion of existing Pig Iron Plant of 3 Lac TPA and a 60,000 TPA Foundry by addition of Coke Oven Plant (4.0 Lakhs TPA) and Captive Power Plant (WHRB-30 MW) vide letter J-11011/123/2010-IAII(I) dated 4th September 2012.

7.43.3 Establishment of the Coke oven project including captive power plant (WHRB) could not be completed within the validity period of EC due to various unforeseen reasons viz., fluctuating market prices in coking coal and unstable FOREX.

7.43.4 The Project Proponent has taken up the implementation of Coke Oven project on Fast Track since April 2017.

7.43.5 It is reported that completion of laying of Railway Siding with a project cost of Rs. 18.18 crores which is required for transportation of coal for the subject proposal.

7.43.6 The implementation of 2.0 LPTA coke oven and 20MW WHRB based captive power plant is already in progress with target timeline for commissioning of the project by end of March 2020 and balance for the balance capacity by September 2022

Observations and Recommendations of the Committee:

7.43.7 The Committee considered the proposal, and after detailed deliberations, recommended for extension of validity of Environmental Clearance by 3 years till 3rd September 2022.

7.44 Proposed expansion cum modification of 0.85 MTPA Integrated Steel Plant with 184 MW CPP **by M/s Super Smelters Limited** at Jamuria Industrial Estate in Village Ikra, PO – Mondalpur, Distt Paschim Bardhaman, **West Bengal** [Online proposal No. IA/WB/IND/105757/2019; MoEFCC File No. J-11011/86/2008-IA-II(I)] – **Amendment in environmental clearance – regarding.**

M/s. Super Smelters Limited has made online application vide proposal no. IA/WB/IND/105757/2019dated 18th May, 2019 along with Form I sought for amendment in the Environmental Clearance accorded by the Ministry vide letter no. F.No. J-11011/86/2008-IA-II(I)dated 12th February, 2019 regarding change in configuration of the pellet plant from 2x0.6 MTPA to (1x0.8 MTPA and 1x0.4MTPA).

Details submitted by the project proponent

7.44.2 M/s. Super Smelters Limited (SSL) has an existing integrated steel plant with operating capacity of 0.312 MTPA steel rolling mill, 0.6 MTPA pellet plant, 2 x 100 TPD & 3 x 300 TPD DRI Kilns, 2 x 25 T IF, 2 x 9 MVA (Fe-Cr) SAF along with 59 MW captive power plant (22 MW WHRB & 37 MW CPP)] at Jamuria Industrial Estate, Village Ikra, PO. Mondalpur, Tehsil Jamuria, District Paschim Bardhaman, West Bengal. Environment Clearance for the same was obtained from MoEF&CC, New Delhi vide letter no. J-11011/86/2008-IA II (I) on 1st August, 2008 and validity extended on 19thMay, 2016.

7.44.3 In 2019, the company obtained Environment Clearance from MoEFCC, New Delhi for expansion cum modification of 0.85 MTPA integrated steel plant with 184 MW Captive Power Plant vide letter no. J-11011/86/2008-IA II (I) on 12thFebruary, 2019.

7.44.4 The details of the existing operating capacity and the production capacity for which environmental clearance has been accorded are given as below:

Unit	Existing Operating Capacity	Granted Capacity as per EC vide Letter no. J-11011/ 86/ 2008-IA II (I) dated 12.02.2019
Sinter Plant	0	690000 TPA Sinter (1 x 60 m^2 & 1 x 15 m^2)
Coal Washrey	0	0.9 MTPA (405000 TPA Clean Coal 342000 TPA Middling's)
Rolling Mill	0.312 MTPA Steel	0.85 MTPA Steel (0.312 MTPA, 0.396 MTPA & 0.142 MTPA)

Unit	Existing Operating Capacity	Granted Capacity as per EC vide Letter no. J-11011/ 86/ 2008-IA II (I) dated 12.02.2019
CPP WHRB	22 MW	51 MW
Iron Ore Beneficiation	0	2 MTPA (1200000 TPA Fe Concentrate)
Pellet Plant	0.6 MTPA	1.20 MTPA (2 units of 0.6 MTPA Each)
MBF	0	380 m^3 & 65 m^3 (458000 TPA HM/Pig)
Lime Plant	0	120 TPD (10000 TPA CaO)
Oxygen Plant	13 TPD	120 TPD (3600 m^3/hr)
DRI Kilns	2 x 100 TPD 3 x 300 TPD	672000 TPA Sponge Iron (2x100 TPD, 3x300 TPD, 2x500 TPD); Working days 320 days
IF	2 x 25 T	Total Capacity as 712000 TPA Steel (4 x 25 T & 4 x 20 T); Working days 330 days
SAF	2 x 9 MVA Ferro Alloys	4 x 9 MVA (Fe-Cr), 1 x 9 MVA (Fe-Mn), 1 x 9 MVA (Si-Mn)
AOD	0	1X45 T (142000 TPA)
CPP- FBC	37 MW	133 MW
Coke Oven	0	0.5 MTPA (500000 TPA)

7.44.5 The reasons for the proposed amendment in configuration of the pellet plant is given as below:

i. Company found that production capacity of existing pellet plant can be increased from 0.6 MTPA to 0.8 MTPA without incurring any change in the existing facility or any extra pollution load by increasing the swelling index of bentonite, using CBM as fuel, by TPM, Kaizen & IMS, keeping source of Iron ore fixed & using higher grade of iron ore fines which helps to maximize the production and also by decreasing the moisture in filter cake. Also, the breakdown time for operating the plant has reduced over the course of time.

ii. In view of the above, the company is now desirous of obtaining amendment in the Environment clearance with respect to Capacity of units of Pellet plant by modification in existing pellet plant within integrated steel plant. The overall capacity of the pellet plant will remain same i.e. 1.2 MTPA only.

Unit	Granted Capacity as per EC vide Letter no. J-11011/ 86/ 2008-IA II (I) dated 12.02.2019	Proposed Capacity after amendment
Pellet Plant	**1.20 MTPA (2 units of 0.6 MTPA each)**	**1.20 MTPA (A unit of 0.8 MTPA & a unit of 0.4 MTPA)**

iii. Proposal is for amendment in EC with respect to capacity of units of pellet plant by modification in existing pellet plant. Because of this amendment there will be no change in the production capacity from that existing and there will be no change in the total requirement of raw material, fuel, water or incremental concentration.

iv. Total capacity of pellet plant was 1.2 MTPA (2 units of 0.6 MTPA each). Now with this amendment the capacity of pellet plant will remain same i.e. 1.2 MTPA only the configuration will change from 2 units of 0.6 MTPA each to a unit of 0.8 MTPA & a unit of 0.4 MTPA.

Observations and recommendation of the Committee

7.44.6 The Committee considered the proposal, and after detailed deliberations, recommended the proposal for change in configuration of the pellet plant as sought by the PPwith the following specific condition.

i. The PP shall ensure that the existing 0.6 MTPA pelletisation plant is upgraded to 0.8 MTPA and the capacity of second plant of 0.6 MTPA is reduced to 0.4 MTPA with a view to maintaining the overall production capacity at 1.2 MTPA.

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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 (Quantative) from raw material to products to be provided
   - x. Hazard identification and details of proposed safety systems.
   - xi. Expansion/modernization proposals:
     - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&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 30thMay, 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

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

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)
Co-ordinates (lat-long) of all four corners of the site.
Google map-Earth downloaded of the project site.

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.

Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
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)
A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area

i. Geological features and Geo-hydrological status of the study area shall be included.
ii. 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)
iii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
iv. 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).

The following general points shall be noted:

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

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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

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. 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

3. 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.
4. 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.
5. A commitment that no extra chlorine basebleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills.Plan for reduction of water consumption.

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
INDUCTION/ARC FURNACES/CUPOLA FURNACES 5TPH OR MORE

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

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 7th MEETING OF EAC (INDUSTRY-I) HELD ON 29th to 31st MAY, 2019

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE		
			29th	30th	31st
1	Dr. Chhavi Nath Pandey, IFS(Retired) Email: pandeychhavinath55@gmail.com	**Chairman**	ABSENT	ABSENT	ABSENT
Members					
2.	, Representative of Central Pulp and Paper Research Institute, Saharanpur.	**Member**	ABSENT	ABSENT	ABSENT
3.	, Representative of Indian Meteorological Department, New Delhi.	**Member**	ABSENT	ABSENT	ABSENT
4.	Dr. G. Bhaskar Raju Email: gbraju55@gmail.com	**Member**	29/5	30/5	31/5/19
5.	Dr. Jagdish Kishwan, IFS (Retd.) Email: jkishwan@gmail.com	**Member**	29.05.2019	30.05.2019	31.05.2019
6.	Dr. G.V. Subramanyam Email: sv.godavarthi@gmail.com	**Member**	ABSENT	ABSENT	31.05.2019
7.	Shri. Ashok Upadhyaya Email: ahupadhy@rediffmail.com	**Member**	29/5/19.	30/5/19	31/05/2019
8.	Shri. R.P. Sharma Email: rpsh2@hotmail.com	**Member**			
9.	Shri. Sanjay Deshmukh Email: sanjaydeshmukh@mu.ac.in	**Member**	ABSENT	ABSENT	ABSENT

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE		
			29th	30th	31st
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	ABSENT	ABSENT
12.	Shri. Jagannath Rao Avasarala Email: avasaralajagan@gmil.com	**Member**			
13	Shri. J.S. Kamyotra Email: kamyotra@yahoo.co.in	**Member**			
14.	Shri. Aravind Kumar Agrawal Director, MoEF&CC Email: dirind-moef@gov.in	**Member Secretary**			

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