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

Summary record of the twelfth (12th) meeting of re-constituted expert appraisal committee held during 21-23rd October, 2019 for environmental appraisal of Industry-I sector projects constituted under the provisions of Environmental Impact Assessment (EIA) notification, 2006.

The twelfth meeting of the Re-Constituted Expert Appraisal Committee (EAC) for Industry-1 Sector constituted as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-1 Sector Projects was held during 21-23rd October, 2019 in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim. The minutes of 11h meeting held during 24-25th September, 2019 were confirmed by the EAC as already uploaded on PARIVESH.

21st October, 2019

12.1 Modernization and Expansion of Existing Rourkela steel plant by Installation of New Power Evacuation System Static VAR Compensators and Lime Sizing Unit #2 by **M/s SAIL Rourkela Steel Plant** located at Rourkela Steel Plant, **District Rourkela, Odisha.** - [Online Proposal No. IA/OR/IND/117175/2019, File No. J-11011/66/2014-IA.II(I)] **– Environment Clearance under para 7(ii) of EIA Notification, 2006 - regarding.**

12.1.1 M/s. Steel Authority of India Limited, Rourkela Steel Plant (SAIL – RSP) has made an online application vide proposal no. IA/OR/IND/117175/2019 dated 11/09/2019 along with Form – 2 and sought for environmental clearance under para 7(ii) of EIA Notification, 2006 for the project mentioned above.

Details submitted by the project proponent

12.1.2 SAIL-RSP, has been granted Environmental Clearance (EC) for expansion cum modernization of their Integrated Steel Plant from 1.9 MTPA to 4.2 MTPA vide letter no. J-11011/757/2007- IA II(I) dated 29/01/2008. As a part of further modernization of steel Plant (4.2 MTPA) by addition of 3 MTPA Hot Strip Mill, 3.3MTPA Beneficiation and 2 MT Pellet Plant and Special Plate Plant (3,000 TPA to 15,000 TPA) within the premises of Rourkela Steel Plant was accorded EC vide MoEF&CC's letter no. J-11011/66/2014-IA II(I) dated 15/12/2016.

12.1.3 The status of implementation of earlier EC facilities & major installed existing units are furnished as below:

Sl. No.	Unit Name	Conf. as per EC	Proposed Configuration after amendment	Implementation status
1.	Ore bedding and blending plant	12 MTPA	12 MTPA	Completed
2.	Coke Ovens and coal chemicals	6 COBs = 2.17 MTPA	6 COBs = 2.17 MTPA	Completed

Sl. No.	Unit Name	Conf. as per EC	Proposed Configuration after amendment	Implementation status
3.	Sinter Plant	#1(1.5 MTPA)+ #2(1.57 MTPA)+ #3 (3.706 MTPA) = 6.776 MTPA	#1(1.5 MTPA)+ #2(1.57 MTPA)+ #3 (3.706 MTPA) = 6.776 MTPA	Completed
4.	Beneficiation Plant	3.3 MTPA	3.3 MTPA	Awaiting internal sanction of SAIL
5.	Pellet Plant	2.0 MTPA	2.0 MTPA	Awaiting internal sanction of SAIL
6.	Blast Furnace	BF#1, #4 &#5 = 4.5 MTPA	BF#1, #4 &#5 = 4.5 MTPA	Completed
7.	BOF Converters	2X60/66 T + 3X150 T	2X60/66 T + 3X150 T	Completed
8.	Ladle Furnace	1X60/66 T + 4X150 T	1X60/66 T + 4X150 T	Completed
9.	RH-OB	150 T	150 T	Completed
10.	Hot Metal Desulphurization	2 nos.	2 nos.	Completed
11.	Continuous Slab Casters	4 X Single strand+ 1x Single Strand = 4.2 MTPA	4 X Single strand+ 1x Single Strand = 4.2 MTPA	EC for new Caster#4 was recommended by EAC and EC is under progress.
12.	Hot Strip Mill	3.0 MTPA	3.0 MTPA	Completed
13.	Plate Mill	2.135 MTPA	2.135 MTPA	Completed
14.	Cold Rolling Mill	0.641 MTPA	0.641 MTPA	Completed
15.	ERW Pipe Plant	0.075 MTPA	0.075 MTPA	Completed
16.	Spiral Welded Pipe Plant	0.055 MTPA	0.055 MTPA	Completed
17.	Silicon Steel Complex	0.255 MTPA	0.255 MTPA	Completed
18.	Special Plate Plant	0.015 MTPA	0.015 MTPA	Completed
19.	Lime &Dolo Plant	6 VSKs : Lime = 0.4149 MTPA &Dolo = 0.130 MTPA	6 VSKs : Lime = 0.4149 MTPA &Dolo = 0.130 MTPA	Installation of a parallel 20 TPH Lime Sizing Unit without increasing the overall capacity proposed in present proposal.
20.	Oxygen Plant	2 x 180 T + 1 x 700 T	2 x 180 T + 1 x 700 T	Completed
21.	Sulphuric Acid Plant	125 TPD	125 TPD	EC for new sulphuric acid

Sl. No.	Unit Name	Conf. as per EC	Proposed Configuration after amendment	Implementation status
				plant was recommended by EAC and EC is under progress.
22.	Power Transmission to plant	220 KV lines from NSPCL to new HSM	220 KV lines from NSPCL to plant and HSM	New 220 KV line from NSPCL to Existing plant
23.	Static VAR Compensators (SVC)	-	New 85 MVAR and 20 MVAR SVCs	New SVCs

12.1.4 The present proposal involves installation of the following components:

i. Parallel 20 TPH Lime Sizing Unit without increasing its overall capacity.
ii. New 220 KV power transmission line from NSPCL to Existing plant.
iii. Static VAR Compensators (SVC).

12.1.5 Name of the Consultant: M/s. Mecon Limited (Sl. No. 103 in the List of Accredited Consultant Organizations (Alphabetically) Rev. 81, October, 2019).

Observations of the Committee

12.1.6 The Committee noted that the present proposal under consideration involves installation of the following components which does not attract the provisions of the EIA Notification, 2006.

i. Parallel 20 TPH Lime Sizing Unit without increasing its overall capacity.
ii. New 220 KV power transmission line from NSPCL to Existing plant.
iii. Static VAR Compensators (SVC)

Recommendations of the Committee

12.1.7 In view of the foregoing and after detailed deliberations, the Committee returned the instant proposal as the same does not attract the provisions of the EIA Notification, 2006. The Committee requested the Ministry to communicate its views to the project proponent.

12.2 Proposed Expansion of Sponge Iron /Sponge Pellets (2 Nos. of KILN), Billets/Ingots (2 Nos. of Furnace), TMT bars & Channel/Angle (Rolling & Section Mill), CPP (2 MW) and Waste Heat Recovery Boiler (4 MW) Manufacturing Unit in existing premises by **M/s. Nilkanth Concast Private Limited** located at Survey no. 221, Village Vadala, Taluka Mundra, **District Kutch, Gujarat** - [Online Proposal No. IA/GJ/IND/114302/2008, File No. J-11011/85/2008-IAII(I)] **– Environment Clearance – regarding.**

12.2.1 M/s.Nilkanth Concast Private Limited has made online application vide proposal no. IA/GJ/IND/114302/2008 dated 12th September, 2019 in the prescribed Form -2 along with copies of EIA/EMP report and other documents 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 proposal is appraised at Central level.

Details submitted by the project proponent

12.2.2 The proposed expansion project of M/s.Nilkanth Concast Private Limited was initially received in the Ministry on 23.06.2015 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-I) during its 45th meeting held on 11th – 12th August 2015 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 14th September 2015 vide Lr. No. J-11011/85/2008-IA II (I). Project Proponent submitted a revised proposal vide online application on 3rdMarch 2016 for seeking amendment in ToR letter dated 14.09.2015. The revised proposal was considered in the EAC (Industry–1) meeting held during 30th-31st March 2016 and the committee recommended to amend the ToRs for revised configuration as proposed with respect to expansion of billet/ingots, TMT Bars/Channel /Angels and Power generation capacity. Accordingly, the MoEF&CC issued an amendment to the ToRs vide letter dated 27th May 2016. Project Proponent made online application vide proposal No. IA/GJ/IND/28721/2015 dated 30th January 2019 for seeking extension of validity of ToRs. The proposal was considered in the EAC (Industry-1) meeting held during 27th February 2019 and was recommended to extend the ToRs for a period of one year. Thus, the validity of ToRs was extended up to 13thSeptember, 2019 vide letter dated 01.05.2019.

12.2.3 Based on the ToRs prescribed to the project, the project proponent submitted an online application for Environmental Clearance (EC) to the Ministry on 12th September 2019 vide proposal No. IA/GJ/IND/114302/2008.

12.2.4 The expansion project of M/s. Nilkanth Concast Private Limited located in Village: Vadala, Taluka: Mundra, Dist: Kutch, State Gujarat is for Expansion of 72,000 TPA Sponge Iron to 1,44,000 TPA by Installation of additional Two no. Kilns of 100 TPD each, Mild Steel (Ingots, Billets, TM Bars & Channel/ Angles) from 1,80,000 TPA to 3,60,000 TPA by installation of additional two nos. of Induction furnaces 20 T capacity each, Rolling & section mill, Captive power plant from 4MW to 6 MW and Waste Heat Recovery Power Plant (WHRB) from 6 MW to 10 MW.

12.2.5 The existing project was accorded environmental clearance vide lr.no. J-11011/85/2008 –IAII (I) dated 23.12.2008. The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide Lr. No. 5-54/2009(Env)/172, dated 15/03/2019. There are no non-compliances reported by Regional officer.

12.2.6 The proposed expansion capacity for different products are as below:

Sr. No.	Product	Existing Capacity (TPA)	Additional capacity as per ToR dated 14.09. 2015	Additional capacity as per amended ToR dated 27.05.2016	Total Capacity after Proposed Expansion
1	Sponge Iron	72,000 (2 X100 TPD)	72,000 (2X100 TPD)	--	1,44,000 (4 X100 TPD)
2	Mild Steel (Ingots,	1,80,000 (2X20T IF&	--	1,80,000 (2X20T IF &	3,60,000 (4X20T IF &

Sr. No.	Product	Existing Capacity (TPA)	Additional capacity as per ToR dated 14.09. 2015	Additional capacity as per amended ToR dated 27.05.2016	Total Capacity after Proposed Expansion
	Billets, TM Bars & Channel/ Angles)	Rolling mill)		Rolling mill)	Rolling mill)
3	Captive Power Plant (AFBC)	4 MW	--	2MW	6 MW
4	Waste Heat Recovery Boiler (WHRB)-Power Plant	6 MW	--	4 MW	10 MW

12.2.7 The total land in possession for the project is 35.38ha. No forestland is involved. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

12.2.8 The topography of the area is flat and reported to lies between 22°54'12.72"N to 22°54'10.33"N Latitude and 69°52'13.91"E to 69°52'18.33"E Longitude in Survey of India toposheet No. 42F/13 at an elevation of 15 m AMSL. The ground water table reported to ranges between 13.71 to 27.43 below the land surface during the post-monsoon season and 25.05 to 37.64 below the land surface during the pre-monsoon season.

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

12.2.10 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process.

Annual requirement of major raw materials

Raw Material	Quantity (TPA)			Source	Mode of Transport	Distance from Project site (Km)
	Existing	Proposed	Total			
1.) Sponge Iron						
Iron Pellets	102240	102240	204480	Local, Jindal Limited Rajasthan	Road	625
Coal	64,800	64,800	129600	Imported/ Kandla port	Sea / Road	35
Dolomite	2160	2160	4320	Local DhreeejiDolomite, Ahmedabad	Road	275

Raw Material	Quantity (TPA)			Source	Mode of Transport	Distance from Project site (Km)
	Existing	Proposed	Total			
2) Mild Steel, Ingots, Billets, MS Rolled Products, TMT Bars, Section						
Mild Steel, Ingots/Billets						
Sponge Iron	72,000	72,000	1,44,000	Inhouse	Conveyor	0.5 (Captive Production)
Scrap Mild Steel	77430	77430	154860	Imported (Kandla port)	Road	35
MS Rolled Products, TMT Bars, Section						
Billets	1,80,000	1,80,000	3,60,000	--	Conveyor	0.5 (Captive Production)
3) Captive Power Plant						
Coal	46800	23400	70,200	Imported (Kandla Port)	Road	35
Dolchar	5040	5040	10080	Imported (Kandla Port)	Road	35
4). DM Plant						
Caustic Flake	24 TPA	--	24 TPA	Local	Road	20
Sulphuric Acid	60 TPA	--	60 TPA	Local	Road	20
Hydrochloric Acid	36 TPA	--	36 TPA	Local	Road	20

12.2.11 The proposed expansion project is manufacturing of Sponge Iron from 72000 TPA (2 Nos. of Kiln 100 MT/Day each) to 144,000 TPA (4 Nos. of Kiln 100 MT/Day each), Mild Steel, Ingots, Billets, MS Rolled Products, TMT Bars, Channel/Angle from 1,80,000 TPA (2X20T of Furnace & Rolling Mill) to 3,60,000 TPA (4X 20 T Induction Furnace, Rolling & Section Mill), Captive Power Plant from 4 MW to 6 MW and Waste heat recovery boiler based Power Plant from 6 MW to 10 MW. The iron pellets for the plant would be procured from open market. The iron pellets transportation will be done through Road.

12.2.12 The water requirement of the project is estimated as 1450 m^3/day, out of which1293m^3/day of fresh water requirement will be obtained from the Gujarat Water Infrastructure Limited (GWIL) and the remaining requirement of 157m^3/day will be recycled. The permission for drawl of surface water is obtained from Gujarat Water Infrastructure Limited (GWIL) vide Lr. No. CS/Renewal/2015-16/2308/1828dated 8th September 2016 and Lr No. GWIL/Kutch/Ind. Conn/F.No 4259/1636 dated 16-09-2019.

12.2.13 The total power requirement of the project after expansion is estimated as 42.41 MW which will be sourced from the GEB, GETCO & captive power plant.

12.2.14 Baseline Environmental Studies were conducted during December to February 2016, October 2018 to December 2018 and additional one-month monitoring has been carried out for the month of June 2019. Ambient air quality monitoring has been carried out at 8 locations in the month of June and the data submitted indicated:

PM_{10} (59 µg/m^3 to 90 µg/m^3), $PM_{2.5}$ (22 to 42.0 µg/m^3), SO_2 (11 to 25 µg/m^3) and NO_x (13 to 28 µg/m^3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.69 µg/m^3 with respect to the PM_{10} and 1.72 µg/m^3 with respect to the SO_2 and 0.15 µg/m3 with respect to the NOx.

12.2.15 Ground water quality has been monitored in 8 locations in the study area and analyzed pH: 7.58 to 8.04, Total Hardness: 50 to 98 mg/l, Chlorides: 96 to 570. mg/l, Fluoride:0.6 to 1.5 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 2 locations, pH: 7.89 to 7.98 and DO: 3.5 to 3.63 mg/l.

12.2.16 Noise levels are in the range of 51.30 to 57.30 dB(A) for daytime and 40.47 to 50.20 dB(A) for nighttime.

12.2.17 No/ R&R is involved.

12.2.18 The major solid wastes for existing as well as Proposed Project are ESP and Bag filter collected dust, Slag from steel making, Ash from CPP and Coal Char / Dolochar from Sponge Iron Production.

S. No.	Solid Waste	Source	Quantity TPA	Utilization
1.	ESP and Bag filter dust	Sponge Iron Plant& RMH Units	14,400	Shall be used in Fly Ash brick Manufacturing.
2.	Ash	CPP	4914	Shall be used in Fly-Brick Manufacturing Unit
3.	Slag	Induction Furnaces	26460	Shall be used in Road construction and back filling.
4.	Coal Char/ DolChar	Sponge Iron Plant	10080	Shall be used in CPP
5	Metal Scrap	Rolling Mill	18000	Re-utilized in Induction Furnace

12.2.19 It has been envisaged that an area of 11.81 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.

12.2.20 It has been reported that the Consent to Operate from the Gujarat State Pollution Control Board obtained vide Lr. No.AWH-68553 dated 26th February 2015 and consent is valid up to 8th December 2019.

12.2.21 The Public hearing of the project was held on 20.12.2016 at project site under the chairmanship of Resident Additional Collector and Additional District Magistrate designation) for Expansion of 72,000 TPA Sponge Iron to 1,44,000 TPA by Installation of additional Two no. Kilns of 100 TPD each, Mild Steel (Ingots, Billets, TM Bars & Channel/ Angles) from 1,80,000 TPA to 3,60,000 TPA by installation of additional two nos. of Induction furnaces 20 T capacity each, Rolling & section mill, Captive power plant from 4 MW to 6 MW and Waste Heat Recovery Power Plant (WHRB) from 6 MW to 10 MW. The issues raised during public hearing are pollution control and employment. An amount of Rs. 67.5 Lakhs (1% of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues.

12.2.22 The capital cost of the project is Rs. 60 Crores and the capital cost for environmental protection measures is proposed as Rs. 400 Lakhs. The annual recurring cost

towards the environmental protection measures is proposed as Rs. 112 Lakhs. The detailed CER plan has been provided in the page No. 200 of Final EIA report. The employment generation from the proposed expansion is 395.

12.2.23 M/s. Nilkanth Concast Pvt. Ltd. has already developed 11.81 ha out of 35.38 ha as green belt i.e., 33.38%. In addition to this, 1.18 ha is reserved for further plantation. Total 12.99 ha. land will be developed as Green belt out of 35.38 ha (36.71%). M/s Nilkanth Concast Pvt. Ltd. has already planted 13,900 trees till date in its plant area. In addition to this 1500 more trees will be planted.

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

12.2.25 Name of the consultant: M/s. Pollution and Ecology Control Services [S.No.118, List of Accredited Consultant Organizations (Alphabetically) Rev. 81, October, 2019]

Observations of the Committee

12.2.26 The project proponent has constructed four wells for abstraction of ground water without obtaining permission from Central Ground Water Authority. The Committee also observed that Gujarat Pollution Control Board has issued seven show cause notices and one closure direction. The revocation of the said directions and closure direction is yet to be presented to the Committee.

Recommendations of the Committee

12.2.27 In view of the aforesaid and after detailed deliberations, the Committee deferred the consideration of the above proposal and sought following additional information for further consideration:

i. PP to liquidate existing ash stock and action plan for management of fresh generation of fly ash as per the provisions of the Fly ash notification, 1999 and its subsequent amendment from time to time.

ii. PP to obtain the revocation letter on all the show cause notices and closure direction issued by GPCB.

iii. PP to submit action plan for further reduction of RSPM besides the measures already taken.

iv. Permission for ground water drawl shall be furnished.

12.3 Expansion in Production capacity (47850 to 13,850 TPA) of existing cement manufacturing plant (only grinding unit) by addition of ball mill by **M/s. New Century Cement Company** located at Village Pathrala, rural focal point, Tehsil & Dist. Bathinda, **Punjab** - [Online Proposal No. IA/PB/IND/101493/2017, File No. J-11011/622/2010-IAII(I)] **– Environment Clearance – regarding.**

12.3.1 M/s New Century Cement Company has made online application vide proposal no. IA/PB/IND/101493/2017dated 15th October, 2019 in the prescribed Form -2 along with copies of EIA/EMP report and other documents 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(b) Cement Plants under Category "A" due to the applicability of general condition of the EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the project proponent

12.3.2 The project of M/s New Century Cement Company located in Village Pathrala, Rural Focal Point, Tehsil &District Bathinda, Punjab was initially received in the Ministry on 25thJune, 2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its 20th meeting held on 10th – 12th July, 2017 and further considered in the 27th meeting of Expert Appraisal Committee (Industry) [EAC (I)] held during 3rd – 5th January, 2018 and prescribed TORs to the project for undertaking detailed EIA study for obtaining Environmental Clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 16th January, 2018 vide Lr. No. J-1011/622/2010-IA II (I)

12.3.3 Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 10th April, 2019 vide Online Application No. IA/PB/IND/101493/2017, File no.- J-11011/622/2010-IAII(I)

12.3.4 The proposal of M/s New Century Cement Company is for enhancement of production of Portland Pozzolana Cement from 47,850 to 1, 13,850 million tonnes per annum (million TPA). The existing project was accorded environmental clearance vide Lr. No. F. No. J-11011/622/2010-IA-II (I) dated 6th March, 2012.

12.3.5 The Status of compliance of earlier EC was obtained from Regional office, Chandigarh vide Lr. No. 5-370/2012-RO (NZ)/261dated 01.05.2019. There were some non-compliance reported by Regional officer and reply of the same has already been submitted. The proposed increase in capacity is given below:

Name of unit	No. of units	Capacity of each unit	Production capacity
Grinding unit (Ball mill)	1	200 TPD	66,000TPA

12.3.6 The total land required for the project is 0.5058 ha. The project is in Rural Focal Point. No agricultural, grazing land, waste land and forest land is involved. The entire land has been acquired for the project. The Lissara Drain passes through the project area. No river exists around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

12.3.7 The topography of the area is flat and reported to lies between 29º59'18.82"N to 29º59'17.23"N Latitude and to 74º46'21.93"E- 74º46'26.02"E Longitude in Survey of India topo sheet No. H43I12, H43I16, H43O9, H43O13 at an elevation of 220.6m AMSL. The ground water table to ranges between 2.24-20.76m bgl below the land surface during the post-monsoon season and 20.39-3.43m bgl below the land surface during the pre-monsoon season. The water requirement is 6 KLD.

12.3.8 No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc., are reported to be located in the core and buffer zone of the project.

12.3.9 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process are detailed in EIA report.

12.3.10 The targeted production capacity of the Pozzolana Portland Cement is 1, 13,850 TPA. It is a standalone grinding unit.

12.3.11 The water requirement of the project is estimated as 6 m^3/day, requirement will be met from the tube-well. The permission for drawl of groundwater is obtained from office of Sub Divisional Engineer vide Lr. No. 1265/12/17dated 18/12/2017.

12.3.12 The power requirement of the project is estimated as 500 MW, out of which 250 MW will be obtained from the PSPCL.

12.3.13 Baseline Environmental Studies were conducted during post monsoon season i.e. from October to December 2017. Ambient air quality monitoring has been carried out at 8 locations during October to December 2017 and the data submitted indicated: PM_{10} (60.1µg/m^3 to 92µg/m^3), $PM_{2.5}$ (21.5µg/m^3 to 50µg/m^3), SO_2 (6 to 12 µg/m^3) and NOx (15 to 25 µg/m^3). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 0.9µg/m^3 with respect to the PM_{10}, Nil with respect to the SO_2 and 13.8µg/m^3 with respect to the NOx.

12.3.14 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.31 to 7.50, Total Hardness: 215.6 to 260 mg/l, Chlorides: 24.1 to 45.46 mg/l, Fluoride ND to ND mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 2 locations. pH: 7.52 to 7.54; DO: 4.4 to 4.6 mg/l and BOD: 5 to 7 mg/l. COD from 38 to 39.2 mg/l.

12.3.15 Noise levels are in the range of 46.7 to 71.2 dB (A) for daytime and 36.4 to 68.4 dB (A) for nighttime.

12.3.16 No R&R is involved.

12.3.17 No solid waste is generated. An area of 0.1973ha 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.

12.3.18 Consent to Operate under the Air Act has been obtained from Punjab Pollution Control Board vide Certificate no.- CTOA/Renewal/BTI/2018/7990060 and consent is valid up to 30-06-2020

12.3.19 The Public hearing of the project was held on 17-07-2018 in industrial premises under the chairmanship of Ms. Sakshi Sawhney, IAS (Additional Deputy Commissioner). The issues raised during public hearing are related to noise pollution, unpaved roads and about the dust pollution caused by the industry. An amount of 9.5 Lakhs (5.9% of Project cost) has already been spent towards Enterprise Social Commitment.

12.3.20 The capital cost of the project is Rs. 1.6 Crores and the capital cost for environmental protection measures is proposed as Rs. 15 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.30 Lakhs. Under Enterprise Social Commitment, 9.5 Lakhs have already been spent. Another 0.9 Lacs has been earmarked for Corporate Environment responsibility. The employment generation from the project is 25.

12.3.21 Greenbelt is developed in 0.1973 Ha which is about 33% of the total acquired area. Total 200 no. of local and native species have already been planted as per CPCB/MoEF&CC, New Delhi guidelines.

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

12.3.23 Name of Consultant: - CPTL- EIA Division, Industrial area, Phase-7, Mohali (S. No. 26 in the QCI list, List of Accredited Consultant Organizations (Alphabetically)

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Observations and Recommendations of the Committee

12.3.24 After detailed deliberations, the Committee recommended the proposal for grant of Environmental Clearance under the provisions of the EIA Notification, 2006 subject to following specific conditions in addition to the applicable general conditions as per the Ministry's Office Memorandum no. 22-34/2018-IA.III dated 9/8/2018.

i. No ground water withdrawal would be permitted.

ii. Rainwater harvesting to the extent of 100% of actual annual water consumption would be achieved by the PP.

iii. Particulate emissions from the stack shall be limited to 30 mg/Nm^3.

12.4 Expansion of Integrated Steel Plant; Sponge Iron (from 297000 MTPA to 594000 MTPA), MS Billet (from 330000 MTPA to 653400 MTPA), Captive power (from 53 MW to 80.5 MW) and New Pellet plant establishment-792000 MTPA by **M/s. Gallant Ispat Limited** located at AL 5, Sector 23, GIDA Industrial Area, Tehsil Sahjanwa, District Gorakhpur, Uttar Pradesh- [Online Proposal No. IA/UP/IND/119401/2016, File No. J-11011/229/2008-IAII(I)] **– Environment Clearance –** regarding.

12.4.1 M/s Gallantt Ispat Limited has made online application vide proposal no. IA/UP/IND/119401/2016 dated 26th September, 2019 in the prescribed Form -2 along with copies of EIA/EMP report and other documents 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 proposal is appraised at Central level.

Details submitted by the project proponent

12.4.2 The expansion project proposal of M/s. Gallantt Ispat Limited located at AL-5, Sector 23, GIDA Industrial Area, Tehsil Sahjanwa, District Gorakhpur, Uttar Pradesh was initially received in the Ministry on 28th January, 2019 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Reconstitute Expert Appraisal Committee (Industry) [EAC (I)] during its 4th meeting held on 20th to 22nd February, 2019 and prescribed ToRs to the project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToRs to the project on 27th May, 2019 vide Lr. No. J-11011/229/2008-IA II (I).

12.4.3 Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 26th September 2019, vide Online Application No. IA/UP/IND/119401/2016.

12.4.4 The project of M/s Gallantt Ispat Limited located at AL-5, Sector 23, GIDA Industrial Area, Tehsil Sahjanwa, District Gorakhpur Uttar Pradesh is for Expansion of Integrated Steel Plant; Sponge Iron (from 297000 MTPA to 594000 MTPA), MS Billet (from 330000 MTPA to 653400 MTPA), Captive power (from 53 MW to 80.5 MW) and New Pellet plant establishment 792000 MTPA. The existing project was accorded environmental clearance vide Lr.no J-11011/229/2008-IA-II (I) dated 18th October, 2017.

12.4.5 The Status of compliance of earlier EC was obtained from Regional Office, Lucknow vide letter no. IV/Env/UP/Ind-154/459/ 2017/104 dated 19th September, 2019. There are no non-compliances reported by Regional officer. The proposed capacity for different products for site area as below:

Name of Unit	**Existing Capacity and configuration**	**Additional Capacity and configuration**	**Capacity after expansion and configuration**
Sponge Iron Plant	2,97,000 MTPA	2,97,000 MTPA	5,94,000 MTPA
	2 x 450 TPD	1 x 750 TPD & 1 x 150 TPD	2x 450 TPD, 1 x 750 TPD & 1 x 150TPD
M.S. Billets	3,30,000MTPA	3,23,400 MTPA	6,53,400 MTPA
	2 x 20 T* + 2 X 30 T	2x 22.5 T, 2 x 27.5 T	4 x 30 T, 2 x 22.5 T, 2 x 27.5 T
Captive Power Plant	53 MW (35 MW of FBC and 18MW of WHRB)	27.5 MW	80.5 MW (44.5MW of CFBC and 36 MW of WHRB)
Pelletization Plant	-	7,92,000 MTPA	7,92,000 MTPA
*Existing 2 x 20T Induction Furnace will be modified into 2 x 30 T after expansion.			
**MTPA refers to Metric Tons Per Annum			

12.4.6 The total land required for the project is 45.903 Ha which is an industrial land. No /forest land involved. The entire land has already been acquired for the project. No River passes through the project area (p./c). It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

12.4.7 The topography of the area is flat and reported to lie between 26º45'16.12" to 26°45'44.48"N Latitude and 83°11'37.63" to 83°12'15.71" E Longitude in Survey of India topo sheet No. 63N1, 63 N2, 63 N5 and 63 N6, at an elevation of 84 m AMSL. The ground water table reported to range between 2.5 to 4.49 m below the land surface during the post-monsoon season and 2.13 to 6.5 m below the land surface during the pre-monsoon season. The project area falls in Sahjanwa block which falls under Safe Category and stage of ground water development is 68.44%.

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

12.4.9 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process are shown below.

Basic raw materials used in the process:

S. No.	Raw Material	Consumption (TPA)			Source of Supply	Mode of Transport
		Existing	Additional	Total after Expansion		
SPONGE IRON PLANT						
1.	Iron Ore	237600	-	66528	Open market	Rail
2.	Pellets	237600	557172	794772	Self/ Manufacturer	Conveyer/Rail
3.	Coal	267300	267300	534600	Import/ Linkage auction/ Open Market	Rail
4.	Dolomite	14850	14850	29700	Open Market	Road
PELLETIZATION PLANT						
1.	Iron Ore Fines	-	883872	883872	Open Market	Rail
2.	Bentonite	-	6336	6336	Open Market	Road
3.	Lime Stone	-	7920	7920	Open Market	Road
4.	Dolomite	-	3960	3960	Open Market	Road
5.	Coal (for PGP/ mix)	-	43560	43560	Open Market	Rail
STEEL MELT SHOP DIVISION (INDUCTION FURNACE WITH CONTINUOS CASTER)						
1.	Sponge Iron	297000	297000	594000	In House	Conveyers
2.	MS Scraps	109267	91512	200779	Local Market	Road
3.	Ferro Alloy	4950	2891	7841	From Local Manufacturer	Road
CAPTIVE POWER PLANT						
1.	Coal	124740	89760	214500	Linkage auction/open market	Rail
2.	Rice Husk	83160	-	35244	Local Market	Road
3.	Dolochar	41580	38610	80190	In house	Conveyers

12.4.10 The targeted production capacity after expansion will be Sponge iron from 297000 MTPA to 594000 MTPA, MS Billet from 330000 MTPA to 653400 MTPA, Captive Power from 53.0 MW to 80.5 MW. A new pellet plant, 792000 MTPA capacity, will be installed. Iron ore fines/ coal for the plant will be procured from Open Market. The major raw materials viz., iron ore, coal is being/will be transported through Rail.

12.4.11 The total water requirement of the project is estimated as 6776 m^3/day (Existing 4254 m^3/ day + Proposed 2522 m^3/ day) which will be obtained from groundwater. Permission for withdrawal of ground water requirement for the existing unit has been obtained by CGWA NOC no. 21-4(161)/NR/CGWA/2008-908 dated 14thMay,

2018. The application for the withdrawal of additional water requirement was submitted to CGWB on 17thJune, 2019. As per the current status of the application, the same has been examined & recommended by CGWB to CGWA.

12.4.12 The total power requirement of the project is estimated as 80.5 MW (Existing 53.0 MW + Additional 27.5 MW) which is being / will be sourced from Captive Power Plant, WHRB & D.G. Set (for back-up) and 10.0 MW from Purvanchal Vidyut Vitran Nigam Limited for emergency requirement.

12.4.13 Baseline Environmental Studies were conducted during Summer Season i.e. from March to May, 2019. Ambient air quality monitoring has been carried out at 8 locations during March to May, 2019 and the data submitted indicated: PM_{10} (58.3 $\mu g/m^3$ to 93.6 $\mu g/m^3$), $PM_{2.5}$(26.5 to 54.5 $\mu g/m^3$), SO_2 (7.0 to 20.6 $\mu g/m^3$) and NOx (12.9 to 36.7 $\mu g/m^3$). The results of the modelling study indicates that the maximum increase of GLC for the proposed project is 3.65 $\mu g/m^3$with respect to the PM_{10}, 1.51 $\mu g/m^3$ with respect to the SO_2 and 0.9 $\mu g/m^3$ with respect to the NOx.

12.4.14 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.35 to 8.02, Total Hardness: 164.9 to 414.8 mg/l, Chlorides: 27.07 to 192.47 mg/l, Fluoride: 0.57 to 0.84 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 4 locations. pH: 7.45 to 8.08; DO: 5.2 to 7 mg/l and BOD: 2.4 to 14.0 mg/l. COD from 10.8 to 52.4 mg/l.

12.4.15 Noise levels are in the range of 52.6 to 68.9 L_{eq} dB(A) for day time and 41.4 to 62.6 L_{eq} dB(A) for Night time.

12.4.16 The expansion project will be executed in the existing plant premises & additional land (industrial) which is already acquired by the company and thus no R &R is involved.

12.4.17 The details of existing and additional solid & hazardous waste generation have been shown in the table below. It has been envisaged that greenbelt has already been developed in an area of 13.41 ha i.e. 33 % of the total plant area. During expansion, additional greenbelt will be developed in an area of 1.88 ha to attenuate the noise levels and trap the dust generated due to the project development activities. Therefore, 15.29 ha i.e. ~ 33.3% of the total plant area (45.903 Hectare), is being/ will be developed under greenbelt & plantation.

Solid & Hazardous Waste Generation & Management

Solid waste	Existing (TPD)	Total after Expansion (TPD)	Management
Dolochar	126.0	243	Dolochar is being/will be utilized in AFBC boiler for captive power generation and after expansion it would be managed through the same technique.
Slag	111.0	198	SMS Slag is being used in filling of Low-lying area and in road making and after expansion will be utilized in same way.
Ash & Dust	239.0	350	Fly ash from the Boiler and APCS is being/will be sold to Cement industry

Solid waste	Existing (TPD)	Total after Expansion (TPD)	Management
			and brick manufacturing unit
Ash-Pellet plant	-	20	Ash will be sold to cement manufacturers.

12.4.18 It has been reported that the Consent to Operate from the Uttar Pradesh Pollution Control Board (UPPCB) has been obtained for air vide letter no. H12172/C-6/Air Pollution/121/17/GKP dated 17.11.2017 and valid from 01.01.2018 to 31.12.2019 and for water vide letter no. H12171/C-6/Water Pollution- 121/17/GKP dated 17.11.2017 and valid from 01.01.2018 to 31.12.2019.

12.4.19 The Public hearing of the project was held on 22nd August, 2019 at 04:00 pm at plant site under the chairmanship of Shree Rakesh Kumar Shrivastav (Additional District Magistrate City, Gorakhpur) and Shree Pankaj Yadav (Assistant Environmental Engineer, UPPCB, Gorakhpur, UP for expansion of Integrated Steel Plant; Sponge Iron (from 297000 MTPA to 594000 MTPA), MS Billet (from 330000 MTPA to 653400 MTPA), Captive power (from 53 MW to 80.5 MW) and New Pellet plant establishment 792000 MTPA. The issues raised during public hearing are employment and environmental pollution. An amount of 452 Lakhs (of total capital cost i.e. Rs. 602.53 Crores) has been earmarked for Enterprise Social Commitment based on public hearing issues.

12.4.20 The capital cost of the project is Rs. 602.53 Crores and the capital cost for environmental protection measures is proposed as Rs. 35.44 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 4 Crores/annum. The detailed CSR plan has been provided in the EMP in its page No. 197 to 199. The total employment generation from the expansion is 405 persons (Existing 720 persons, Total employment after expansion will be 1125 persons).

12.4.21 About 13.41 ha i.e. ~33% of the existing plant area (40.5 ha) has already been developed under greenbelt & plantation. An additional area of 1.88 ha will be developed under greenbelt & plantation. Therefore, 15.29 ha i.e. ~ 33.3% of the total plant area (45.903 Hectare), is being/ will be developed under greenbelt & plantation. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary has been/ will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Presently 15026 trees are planted in the existing plant premises and as a part of expansion additionally 21319 trees will be planted. After expansion the density of plantation with the trees will be 2377 trees/ ha.

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

12.4.23 The Project Proponent and the accredited Consultant M/s. J.M. EnviroNet Pvt. Ltd. (Serial. No. 88) made a detailed presentation on the salient features of the project and informed that:

Observations of the Committee

12.4.24 The committee noted that a complaint dated 30.05.2019 against M/s Gallant Ispat Ltd was received in the Ministry related to violation of EC conditions and Consent to Operate and setting up of Joint Inspection Committee by Hon'ble National Green

Tribunal (NGT) in the case of Meera Shukla vs Muncipal Corporation, Gorakhpur & Others vide order dated 17.12.2018 in original application No. 116/2014. The Committee examined the complaint.

12.4.25 The Committee observed that as per the declaration submitted in the EIA report, the project proponent stated that *"there is no litigation pending against the project and/or any direction/ order passed by any Court of law against the project & land in which the project is set up and that for any such litigation whatsoever, the sole responsibilities will be borne by company".*

12.4.26 However, the Committee noted that a case (Original Application No. 116/2014; Meera Shukla Vs Municipal Corporation, Gorakhpur & Ors.) was filed in Hon'ble National Green Tribunal regarding the contamination of water bodies and ground water, specifically Ramgarh lake, Ami river, Rapti river and Rohani river in and around the District Gorakhpur. In this regard, the Hon'ble Tribunal vide order dated 23/8/2018 constituted a Monitoring Committee. The recommendations of the Monitoring Committee with respect to the existing unit of M/s. Gallant Ispat Limited as narrated in the Tribunal Order dated 17/12/2018 is as below:

i. M/s Gallant Ispat Ltd (Integrated Steel Plant), Gorakhpur may be saddled with exemplary cost of Rs. Fifty lakhs or more for having failed in following the norms provided by law (supra) while running the industry.
ii. M/s Gallant Ispat Ltd (Integrated Steel Plant), Gorakhpur be directed to ensure the compliance of all norms prescribed by law while running the industry within a month so that the citizens of the locality may not suffer any further from variety of problems and health hazards.
iii. A team from the Directorate of Medical Health Services, Government of UP may visit M/s Gallant Ispat Ltd (Integrated Steel Plant), Gorakhpur to make a survey of health problems of the citizens residing within 2 kms surrounding area of the industry and take remedial measures.
iv. The ground water of 2 kms surrounding area of M/s Gallant (spat Ltd (Integrated Steel Plant), Gorakhpur be tested by Ground Water Department of Government of India to find out the level of contamination, if any, within two months and the U.P. Government may take remedial measures as required.
v. M/s Gallant (spat Ltd (Integrated Steel Plant), Gorakhpur be directed to install an ambient air quality monitoring station expeditiously, say within two months.
vi. Let the District Level Environmental Impact Assessment Authority as well as the District Level Expert Appraisal Committee constituted as mentioned in 3(A) of the Notification dated 14.09.2006 as amended by Notification dated 15.01.2016 expeditiously within 3 months, if already not constituted.

Further in the order dated 17/12/2018, it is mentioned that *"…as regards the issue of taking action under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 by way of coercive measures against the industrial units/medical college for violation of statutory provisions and conditions for Consent to Operate, we direct the UPPCB to take appropriate action to ensure compliance and recover damages for the past violations. The amount suggested by the Committee may be treated as a proposal and final amount may be*

determined after following due procedure within one month. Steps for closure may be considered on merits. A report of compliance in this regard may be furnished to this Tribunal…"

12.4.27 In this regard, the Committee asked the PP to provide the present status of aforesaid case. In response to this, PP submitted a letter dated 23/10/2019 of Uttar Pradesh Pollution Control Board (UPPCB) wherein it is stated that UPPCB have sent their report of compliance to Hon'ble Tribunal on 2/05/2019 and 8/07/2019. The matter is further posted for hearing on 9/12/2019. However, no record has been made available by the PP regarding the corrective action taken by them on the recommendations of the Monitoring Committee.

Recommendations of the Committee

12.4.28 The Committee after detailed deliberations sought for the following additional information for further consideration of the proposal.

i. the PP shall furnish explanations regarding the reasons for not disclosing the case details in the final EIA report submitted to the Ministry.

ii. the PP shall furnish a comprehensive report regarding various corrective actions, with relevant details taken by them on the recommendations of the Monitoring Committee.

The Committee also requested the Ministry to obtain a status report from UPPCB on the aforesaid matter inter-alia a report regarding the status of compliance by M/s. Gallant Ispat Limited on the recommendations of the Monitoring Committee.

12.5 Expansion of Sponge Iron Plant production from 3,00,000 TPA to 3,75,000 TPA through process optimization by **M/s. MSP Steel and Power Limited** located at Jamgaon village, **Raigarh district, Chhattisgarh** [Online Proposal No. IA/CG/IND/90078/2018, File No. J-11011/267/2007-IAII(I)] **– Re-consideration for Environment Clearance under para 7(ii) of EIA Notification, 2006 based on ADS reply - regarding.**

12.5.1 M/s. MSP Steel and Power Limited has made an online application vide proposal no. IA/CG/IND/90078/2018 dated 25/05/2019 along with Form – 2 seeking environmental clearance under the provisions of 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.

12.5.2 The aforesaid proposal was considered in the 8th meeting of the Reconstituted Expert Appraisal Committee meeting held during 26th June, 2019 and the relevant portion of the minutes of the meeting is given below:

Proceedings of the 8th meeting of the REAC held on 26th June, 2019

Details submitted by the project proponent

M/s. MSP Steel and Power Limited was granted environmental Clearance by MoEF&CC vide letter No. J-11011/267/2007-IA II (I) dated 02/04/2009 for capacity expansion of Billet production from 95,000 to 695,000 TPA and Captive Power Plant from 16 MW to 52 MW. Subsequently, amendment to the environmental Clearance was issued on 9/9/2010 for change in the capacity of Pellet plant from 0.6 MTPA to 0.9 MTPA and Captive Power Plant from 20 MW to 44 MW (AFBC Boiler).

Thereafter, another amendment to the environmental Clearance was issued on 23/08/2012 for change in configuration of Steel Melting Shop within permitted production capacity of 672,172 TPA Billets and inclusion of 4.5 MW biomass based power plant.

It has been reported that following is the implementation status of the existing Environmental Clearance:

Facilities		**As per Environmental Clearance**		**Installed**	
		Units	**Annual Production Capacity in Tons**	**Units**	**Annual Production Capacity in Tons**
Sponge Iron Plant		4x300 TPD	400,000	3x300 TPD	300,000
Steel Melting Shop		3x15 Ton IF 5x8 Ton IF 1x18 Ton IF 2x35 Ton EAF	139,680 119,832 46,000 366,660 672,172	3x15 Ton IF 5x8 Ton IF 1x18 Ton IF	139,680 119,832 46,000 305,512
Sinter Plant		1x60 m^2	641,520	Not Installed	
Blast Furnace		1x450 m^3	400,000	Not Installed	
Iron Ore Beneficiation & Pellet		---	900,000	---	900,000
Coal Washery		---	720,000	---	360,000
Rolling Mill		---	480,000	---	273,000
Power Plant	WHRB	4x8 MW	32 MW	3x8 MW	24 MW
	AFBC	1x10 MW 1x34 MW	44 MW	1x10 MW 1x34 MW	44 MW
	Bio-mass	1x4.5 MW	4.5 MW	1x4.5 MW	4.5 MW
			80.5 MW		72.5 MW

The present proposal of M/s. MSP Steel and Power Limited is for enhancement of production of Sponge Iron from 3 nos. of installed DRI Kiln from 300,000 (production under the CTO) to 375,000 TPA (25% increase is proposed) without any increase in pollution load or any additional installation.

The certified compliance report for the existing EC conditions was issued by the Regional Office of the MoEF&CC's at Nagpur on 31/07/2018 wherein following non-compliances have been reported:

i. Specific condition no (vi) - it was observed that PP has adopted measures like water spray system at ground hopper of raw material feeding, bag-filter connected to the CHP of Power plant, bag-filter connected to stacks of Induction Furnace. However, measure for control of secondary fugitive emission needs to be further upgraded or strengthened by the PP, Housekeeping practices needs to be improved to keep the open areas of the premises tidy and to keep the secondary emissions under control Similarly water sprinkling system at the

transfer points along the roads need to be further strengthened as premises of the PP has been observed with substantial secondary fugitive emissions.

ii. Specific conditions no.(viii) and conditions no.(iii) of EC dated 09.09.2010 as per the details made available by the PP, it was observed that existing water consumption of the PP stands a 7278 m^3/day while with the proposed expansion the water consumption in future will increase to total requirement of the water has been proposed to be 8289 m^3/day. Details pertaining to the approval obtain by the PP for the consumption of additional water of 576.8 m^3/day was not made available by the PP.

iii. Condition no. (xv) Detail regarding monitoring reports on toxic metal content in the waste material and its composition. if any assessed by the PP, has not been made available by the PP.

iv. General Conditions no. (v) and Condition No. (vi) of EC dated 09.09.2010- No ETP has been installed by the PP to treat wastewater. The pp has informed that waste water generated from the DM plant is neutralized and re-used for dust suppression system and green belt development, it was observed that domestic waste water is treated in septic tank by sock pit within the premises and no waste water has been reported to be is discharged outside. The PP has informed that they have initiated the process for the settling up of an ETP within their premises for the treatment of the industrial wastewater.

After detailed deliberations, the Committee noted that closure report to the aforesaid non-compliances are yet to be obtained by the project proponent from the Regional Office.

The changes in raw material requirement for the proposed product enhancement is given below:

Existing Production – 3,00,000 TPA			**Proposed Production – 3,75,000 TPA**		
Raw Material	**Rate (T/T)**	**Raw Material Requirement (TPA)**	**Raw Material**	**Rate (T/T)**	**Raw Material Requirement (TPA)**
Iron Ore (10%)	1.68	50,400	Iron Ore (10%)	1.68	63,000
Pallet (90%)	1.4	3,78,000	Pallet (90%)	1.4	4,72,500
Coal Indian (100%) (38% ash)	1.4	4,20,000	Coal Indian (10%)	1.4	52,500
			Imported Coal (90%); (~20% ash)	0.76	2,56,000
Limestone	0.03	9,000	Limestone	0.03	11,250
Total Raw Material Requirement	**2.858**	**8,57,400**	**Total Raw Material Requirement**	**2.852**	**8,55,750**
Reduction in Raw Materials Requirement – 1,650 TPA					

There is reduction in raw material requirement of 395,610 TPA from the Existing EC and 1,650 TPA from the production quantity under the present CTO

Due to use of low ash content (20%) Imported coal the total raw materials quantity requirement has been reduced. As a result, more space in kiln is left to facilitate

processing of more iron ore / pellets resulting in greater productivity in the same Rotary kilns.

Pollution Load Comparison:

Now the company proposes to use high grade coal of low ash content (20%) instead of high ash content (42%) indigenous Coal of 'E'&'F' grades (present practice). This will significantly reduce the ESP dust load by around 38%.

The gross inlet dust load to the ESP will be reduced due to decrease in raw materials requirement and low ash content in Coal. As a result, particulate emission will remain within the level as permitted in the existing EC dated 02.04.2009.

Dust Load in ESP	**Dust load for the present production under CTO (300,000 TPA) in Tons**	**Dust load for the increased production (375,000) in Tons**
Iron Ore dust Fly-ash	22428 72324	28035 30073
Total load in Tons	**94752**	**58108**
Dust Load in ESP in kg/sec.	**3.27**	**2.01**
Reduction in Dust Load in ESP – 1.26 kg/sec		

Reduction in Solid Waste generation

Reduction of solid waste generation in the form of Char, Sludge & Dust as shown in the table below is primarily due to low ash content and coal with high Fixed Carbon, to be procured from the import sources.

Raw Material	**Quantity in TPA as per CTO**	**Quantity in TPA for proposed increased production**
Dolo Char	129,040	82490
Wet Scrubber Sludge	5900	3110
Pollution Control Equipment Dust	23400	10130
Total	**158,340**	**95,730**

There will be approx. 40% reduction in solid waste generation.

Power Consumption

Power Requirement of Sponge Iron Plant for production in CTO	**Power Requirement of Sponge Iron Plant for the proposed production**
90 Units per ton of Sponge Iron	51 Units per ton of Sponge Iron
27,000,000 kwh	19,125,000

It may be seen that even for the higher production, power requirement will be reduced by approx. 30%

Water Requirement

Water requirement for M/s MSP Steel & Power Limited as per the last EC/ EIA was 6701.2 m^3/day, however the present water requirement is 2739.73 m^3/day.

Water requirement of Sponge Iron Plant as per the EIA / Existing EC, as per present operating capacity under CTO and as per the proposed production are as follows:

Water Requirement for Sponge Iron Plant as per the EC (m^3/day)	**Water Requirement for Sponge Iron Plant as per CTO (m^3/day)**	**Water Requirement for Sponge Iron Plant as per proposed production (m^3/day)**
303	228	284

Water requirement will be less than 19 m^3/day from the water requirement of Sponge Iron Plant from the EIA / EC, however it will be 56 m^3/day more from the production under CTO. However, the same will be within the permitted quantity under the EC. Efficiency of existing Cooling Tower will be improved to minimise this gap.

Traffic Load Comparison

It may be noted that many units under the last EC have not been installed and the plant is operating on lesser capacity. Hence raw material requirement and finish product production is much less than the quantity of raw materials and production projected in EIA/EC. Hence, there will be lesser load on traffic due to transportation of these materials. Even for the proposed increase in production of DRI (from the present operating production), aggregate quantum of raw material requirement is less. Hence, even for the proposed DRI Production, load on traffic will be less.

Load on Traffic will be further reduced due to the proposed increased production of DRI, as Sponge Iron requirement in Steel Melting Shop from the market will be reduced proportionately, required to be transported.

Observations of the Committee held on 26th June, 2019

The committee noted that closure report from Regional Office on the observed non-compliances have not been furnished inter-alia including green belt development in 33% of the area. Pre-feasibility project report for the proposed capacity enhancement is not provided. Further, the material and energy balance, pollution load assessment for the proposed capacity vis-à-vis existing capacity has not been submitted.

Recommendations of the Committee held on 26th June, 2019

After detailed deliberations, the Committee deferred the consideration of the proposal cited above and sought following additional information for further consideration of the proposal:

i. Closure report from Regional Office on the observed non-compliances shall be furnished inter-alia including green belt development in 33% of the area.
ii. Material and Energy Balance for the proposed capacity enhancement including details of coal quality, iron ore quality and water balance shall be furnished.
iii. Pollution load assessment for the proposed capacity vis-à-vis existing capacity and the likely emission norms to be met including the details of Air Pollution Control Devices (APCD).
iv. Pre-feasibility project report for the proposed capacity enhancement shall be submitted.
v. Undertaking from project proponent stating that air cooled condenser shall be installed in place of water-cooling arrangement.

vi. Project proponent shall submit an Action plan for upgradation of Air Pollution Control Devices (APCD) and waste heat recovery capacity.

12.5.3 The project proponent has submitted the aforesaid additional information to the Ministry on 24/09/2019. The reply given by the project proponent is summarized as below:

ADS-1: Closure report from Regional Office on the observed non-compliances shall be furnished inter-alia including green belt development in 33% of the area.

Reply: Closure report issued by MoEF&CC, Regional Office (WCZ), Nagpur vide F.No. 5-189/2009(ENV)/5540 dated 23/07/2019 has been submitted. The report confirm that all partially complied conditions reported above are now being complied by M/s MSP Steel & Power Ltd.

The letter confirming that green belt has been developed in 33% area (16.84 Ha./41.60 acres) of total area of 51 Ha./126.07Acres has been submitted. Till date, 45099 plants have been planted.

ADS-2: Material and Energy Balance for the proposed capacity enhancement including details of coal quality, iron ore quality and water balance shall be furnished.

Reply: Raw Material requirement for Sponge Iron Plant is provided below.

Sl. No	Item	Per MT of Product	Requirement (TPA)		Source and Transportation
			For Existing 300,000 TPA Production with 100% Indian Coal	For proposed 375,000 TPA production with 90% Imported Coal and 10% Indian Coal	
SPONGE IRON PLANT					
1	Iron Ore (10%)	1.68	50,400	63,000	Purchase
2	Pellet (90%)	1.4	378,000	472,500	In-house
3	Indian Coal	1.4	420,000 (100%)	52,500 (10%)	
4	Imported Coal (90%)	0.76	--	256,500 (90%)	
5	Limestone	0.03	9,000	11,250	From Uttar Pradesh-by road
TOTAL			**857,400**	**855,750**	

Energy Balance

Energy balance due to change in dolo-char production

Sl. No	Parameters	Indian Coal (100%) 38% Ash & FC 36%	Imported Coal (90%) 20% Ash & FC 55%
		Present Production @ 300 TPD X 3 Kilns (335 days) = 3,00,000 TPA	**Proposed Production @ 375 TPD X 3 Kilns (335 days) = 3,75,000 TPA**
1.	Dolo-char generation per day in MT	385	246
2	Dolo-char generation per hour in Kg	16,040	246,000
3.	CV Gcal (Kcal / kg)	1200	2100
4.	Total GCV (Kcal)	19,250,000	21,525,000
Energy due to change in flue gas generation			
1.	Volume of Air fed to the Kiln per tons of Raw Material in Nm^3/hr./ton of raw material (Iron Ore & Pallets)	2500	2000
2.	Qty. of Iron Ore & Pallets per year in Tons (TPA)	428,400	535,500
3.	Raw materials required per hour (Tons/hr.)	53.3	66.6
4.	Gross volume of Air to WHRB in Nm^3/hr.	133,250	133,200

Due to use of high quality coal, dolo-char generation is reduced however total GCV is more due to high Fixed Carbon (FC) in the imported Coal. Hence, under the proposed change less coal will be required to generate the same power (44 MW) power generation from AFBC Boiler.

Volume of air fed to the DRI Kiln per hour is almost same and exit temperature of the flue gas is also same in both the cases, hence there will be no change in the heat value of flue gas entering to the WHRB.

Water Requirement / Water Balance

The required water in the process will for Industrial and domestic use. The required water will be available from nearby Kur Nala of Sapnai River, located 3.0 Km away from the plant.

Total water requirement of the entire plant after the proposed capacity enhancement of Sponge Iron Plant will be limited to 5550 m^3/day. Total water requirement will be less than 6701.2 m^3/day permitted under the EC.

Total water requirement breakup (unit wise) for the existing operation and after the proposed expansion is given below:

Water requirement break up

Units	Final Installed Capacity	Existing m^3/day	For Expansion m^3/day	Total Make-up water m^3/day
Pallet Plant	900000 TPA	683	-	683
DRI Plant	300000 TPA	228	56 (for additional 75,000 TPA production)	284
SMS with CCM	305512 TPA	185	-	185
Rolling Mill	273000 TPA	103	-	103
C.P.P. (72.5 MW) WHRB AFBC Bio-mass	 24 MW 44 MW 4.5 MW	4002	-	4002
Coal Washery*	360000 TPA	283	-	283
For Domestic use		10	-	10
TOTAL		**5494**	**56**	**5550**

** Coal Washery is not in operation at present*

Material Balance and Water balance flow chart has been submitted with the ADS reply documents. Iron Ore, Pellets and Coal analysis report has also been submitted.

ADS-3 Pollution load assessment for the proposed capacity vis-à-vis existing capacity and the likely emission norms to be met including the details of Air Pollution Control Devices (APCD)

Reply: Use of high grade coal of low ash content (20%) instead of high ash content (38%) indigenous Coal of 'E'&'F' grades (present practice), will significantly reduce the ESP dust load by around 38%.

The gross inlet dust load to the ESP will be reduced due to decrease in raw materials requirement and low ash content in Coal. As a result, particulate emission will remain within the level as permitted in the existing EC dated 02.04.2009.

Dust Load in ESP	Dust load for the present production under CTO (300,000 TPA) in Tons	Dust load for the increased production (375,000) in Tons
Iron Ore dust Fly-ash	22428 72324	28035 30073
Total load in Tons	94752	58108
Dust Load in ESP in kg/sec.	3.27	2.01
Reduction in Dust Load in ESP – 1.16 kg/sec		

Hence, no change or modification of existing pollution control equipment is required and the existing 3 nos. of ESPs (one with each DRI Kiln) will continue to meet the prescribed standards.

Traffic Load Comparison

It may be noted that many Units under the last EC have not been installed and the plant is operating on lesser capacity. Hence raw material requirement and finish product production is much less than the quantity of raw materials and production projected in EIA/EC. Hence, there will be lesser load on traffic due to transportation of these materials. Even for the proposed increase in production of DRI (from the present operating production), aggregate quantum of raw material requirement is less. Hence, even for the proposed DRI Production, load on traffic will be less.

High Grade Coal (equal to B grade) is to be imported from South Africa to Indian Ports at Paradip / Vizag/ Gangavaram Ports by Ship and then to be transported by rail up to company's own private railway siding which is within the plant site.

As per Existing EC		As per proposed Change	
Raw Materials (Iron Ore, 100% Coal & Limestone) TPA	8,57,400	Raw Materials (Iron Ore, 10% Coal & Limestone). Remaining Coal will be transported by Ship & Rail) TPA	5,99,250
Finished Product TPA	300,000	Finished Product TPA	375,000
Total (TPA)	11,57,400	Total (TPA)	9,74,250
No. of Trucks / year	38,580	No. of Trucks / year	32,475

**Truck Capacity is taken as 30 Tons*

Overall reduction in Number of Trucks is 6,105 per year. The emission factors of Bharat Stage VI from CPCB are taken in to consideration while assessing the vehicle emission load. The reduced emission load data for the proposed capacity is provided in the table below:

Vehicle Type	**Emission factors (g/kmhr)**			
	CO	**NOx**	**HC**	**PM**
Heavy Diesel Vehicles	2.1	5	1.6	0.1

(Source: CPCB Norms)

Type of Vehicle	**No. of trucks**	**CO Emission g/kmhr**	**NOx Emission g/kmhr**	**PM Emission g/kmhr**	**HC Emission g/kmhr**
As per existing EC					
Heavy Vehicles (Trucks / Dumpers)	38580	81018	192900	61728	3858

As per proposed change					
Heavy Vehicles (Trucks / Dumpers)	32475	68198	162375	51960	3248
Reduction in Pollution Load (gm/km.hr)		-12820	-30525	-9768	-610

Thus, it can be seen that overall emissions are reduced for the proposed capacity enhancement.

ADS-4: Pre-feasibility project report for the proposed capacity enhancement shall be submitted.

Reply: The pre-feasibility report prepared for the proposed capacity expansion of the Sponge Iron Plant has been submitted to the Ministry.

ADS-5: Undertaking from project proponent stating that air cooled condenser shall be installed in place of water cooling arrangement

Reply: With regard to the suggestion / direction of EAC for installation of Air Cooled Condensers (ACC) in our existing CPP operating with Water Cooled Condensation (WCC) since 2010–11, we most humbly submit the factual position favorable for WCC in our case is given below:

i. The area in Raigarh (CG) where our unit is situated, is under safe zone so far the underground water source is concerned.

ii. Under phase – I, the unit has been drawing only 2 MCM water from nearby Kur Nala, a potential and perennial source of surface water, out of 15 MCM water sanctioned by the State Govt. Copy of letter dt. 11.11.2009 is enclosed.

iii. ACC will emit hot air to the atmosphere constantly which would have adverse impact in the surrounding area and in the adjoining forest area / green vegetation.

iv. The area in Raigarh (CG) where our unit is situated, is under safe zone so far the underground water source is concerned

v. Whereas steam will be precipitated from WCC will form a part of natural water cycle and thereby hydrological balance will take place.

vi. The underground water source of the region gets recharged due to nearness of our plant to back-water / catchment area of Hirakud dam and 3 other rivers namely Sapnai, Kelo and Mand within 20 / 25 kms radius.

vii. Apart from major technical modification, suitable space is not available within the existing premises for installation of bulk size ACC in alignment with the boiler of existing CPP, besides, the investment required for setting up of huge ACC by replacing the WCC and the cost of additional quantum of land would be too high to establish a positive cost benefit analysis.

In consideration of the facts above stated, the condition / suggestion for installation of ACC may kindly be dispensed with.

ADS-6: Project proponent shall submit an Action plan for up-gradation of Air Pollution Control Devices (APCD) and waste heat recovery capacity.

Reply: Action plan for up-gradation of Air Pollution Control Devices and waste heat recovery capacity have not been considered since there is no increase in pollution load as discussed before and no appreciable change in flue gas generation from the proposed capacity expansion which is also discussed before under Energy Balance.

Observations of the Committee:

12.5.4 The committee observed that the additional information furnished by the project proponent is adequate except the installation of air cooled condenser in place of water cooling arrangement.

Recommendations of the Committee

12.5.5 After detailed deliberations, the committee recommended the project for grant of Environmental Clearance under para 7(ii) of EIA Notification, 2006 for expansion of sponge iron production as mentioned above subject to the following additional conditions:

i. No groundwater drawl is permitted.

ii. Air cooled condenser in power plant shall be used.

iii. Emission levels from Bag filter and ESP shall be 30 mg/Nm^3 and 50 mg/Nm^3 respectively.

iv. PP committed for the use of imported coal only. However, the Committee felt that during the non-availability of imported coal, PP shall be using Indian coal. Therefore, the pollution control equipment shall be designed for use of Indian coal.

v. Zero liquid discharge shall be adopted.

vi. 100 % waste utilization shall be followed.

vii. Green belt shall cover plantation of 50,000 saplings in and around the plant site in a time frame of five years.

12.6 Expansion of 4×100 TPD DRI Unit by addition of 2x12 T (245 TPD) Induction Furnaces, 240 TPD Billet Caster, 16 MW CPP based on 4x9 TPH WHRB & 50TPH AFBC by **M/s. Sri Venkatesh Iron & Alloys (India) Limited** located at village Lapanga, P.O. Bhadaninagar, **District Ramgarh, Jharkhand** [Online proposal No. IA/JH/IND/83979/2004; MoEF&CC File No. J-11011/417/2007-IA.II(I)] **– Re-consideration for Environment Clearance based on ADS reply - regarding.**

12.6.1 M/s. Sri Venkatesh Iron & Alloys (India) Limited has made an online application vide proposal no. IA/JH/IND/83979/2004dated 24thJanuary, 2019 along with copies of EIA/EMP report and Form – 2 seeking 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.

12.6.2 The aforesaid proposal was considered in the 5th meeting of the Reconstituted Expert Appraisal Committee meeting held during 27-29th March, 2019 and the relevant

portion of the minutes of the meeting is given as below:

Proceedings of the 5th REAC meeting held during 27-29th March, 2019

Details submitted by the project proponent

The proposed expansion project of M/s Sri Venkatesh Iron & Alloys (India) Limited is located at Village: Lapanga, P.O. Bhadaninagar, Dist: Ramgarh, Jharkhand initially applied in the Ministry on 17.08.2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-1) during its 22nd meeting held on 11th September, 2017 and accordingly, the MoEF&CC had prescribed ToR to the project on 19.09.2017 vide Lr.No. J-11011/417/2017-IA. II (I).

The project of M/s Sri Venkatesh Iron & Alloys (India) Limited located in Village: Lapanga, P.O. Bhadaninagar, Dist: Ramgarh, Jharkhand is for setting up of a new unit for production of 72,000 TPA Billets through 2 nos. of 12 Ton Induction Furnaces & 2x6/11 m Continuous Casting Machine (CCM) along with Captive Power Plant (CPP) of 16 MW. The existing project for production capacity of 120,000 TPA sponge iron through 4x100 TPD DRI Kiln was installed in 2005 (prior to the EIA Notification 2006), environmental clearance as per EIA Notification, 1994 was not required as the project cost was less than 100 crores and the plant was setup after obtaining CTE from JSPCB vide letter No. N-432 dated 16.07.2005 and subsequently CTO from JSPCB. The compliance of CTO was submitted to the Jharkhand State Pollution Control Board (JSPCB), Ranchi.

The proposed capacity for different products for site are as below:

Units	Facilities	Production (TPD)	No. of days of operations	Production (TPA)
Existing Units				
Sponge Iron unit	4x100 T DRI Kiln	400	300	1,20,000
Proposed Units				
Steel Melting Shop (SMS)	2x12 T Induction Furnace	245	300	73,500
	Billet Caster (2 strand)	240	300	72,000
Captive Power Plant (CPP)	WHRB AFBC	8 MW 8 MW	300	16 MW

No additional land shall be acquired for the project and the entire project shall be installed within existing plant area of 5.82 ha. No forestland is involved. It has been reported that no water stream/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

The topography of the area is Gently undulating and reported to lies between 23°38'25.235" to 23°38'33.062"N Latitude and 85°23'45.472" to 85°23'56.318"E Longitude in Survey of India topo sheet 73 E/6 at an elevation of 338 m AMSL. The

ground water table reported to ranges between 1.6 to 5.9 mbgl during the post-monsoon season and 2.25 to 11.19 mbgl during the pre-monsoon season.

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. List of flora & fauna issued by Ramgarh Forest Division mentions that there are no endangered flora and fauna or Schedule-1 species in the region.

The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process.

Basic Raw Material Used

Raw Material Used	Quantity in TPA	Source
For the Existing Plant		
Iron Ore	192,000	From mines in Odisha-by rail rake & then by road
Non-coking Coal	156,000	From various mines of CCL and e-auction – by Rail rake and/or road
Dolomite	3,600	From Uttar Pradesh-by road
For the proposed Project		
Non-coking Coal for Power Plant	45,000	From various mines of CCL

Process involved

Sponge iron production through Coal based DRI Kiln (Existing), Billet Production through Induction Furnace & Billet Caster and generation of 15 MW Power through 3 nos. of WHRB and 1 no. of AFBC Boiler.

Waste Generated in the proposed project

Item	Generation	Utilization	
		Recycled / Reused	Sold
Steel Making Shop			
Bag Filter Dust	2,730	-	2,730
Slag	13,200	1,320	11,880
Scale from Billet Caster	500		500
Power Plant			
Fly-Ash	41,400	-	41,400
Bottom Ash	5,100	--	5,100
Coal Fines	4,000	4,000	-
Total	**66,930**	**5,320**	**61,610**

The targeted saleable capacities of Billets and Sponge Iron are 72,000 and 46,500 TPA respectively. The Iron ore & Coal for the plant would be procured from the mines in Odisha. The raw material transportation will be done through rail and road.

The water requirement of the project is estimated as 1410 m^3 /day requirement will be obtained through Damodar River. The permission for drawl of water is yet to be obtained from Damodar Valley Corporation.

The power requirement of the project is estimated 15.80 MW out of which14.4 MW will be obtained from the Captive power plant and remaining balance power of 1.4 MW will be sourced from the Power Grid.

Baseline Environmental Studies were conducted during Post Monsoon Season i.e. from 01.10.2017 to 31.12.2017. Ambient air quality monitoring has been carried out at 8 locations during study period indicates: PM10 (52.00 to 87.60 μg/m^3), PM2.5 (22.10 to 48.70μg/m^3), SO_2 (10.20 to 26.90 μg/m^3) and NOx (4.60 to 11.30 μg/m^3). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 3.80 μg/m^3 with respect to the PM_{10}, 22.31 μg/m^3 with respect to SO_2 and 1.37 μg/m^3 with respect to the NOx.

Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.46 to 8.08, Total Hardness: 198.20 to 332.20 mg/l, Chlorides: 75.53 to 143.00 mg/L, Fluoride: 0.82 to 1.43 mg/L. Heavy metals are within the limits. Surface water samples were analyzed from 5 locations. pH: 7.75 to 8.10, DO: 5.30 to 7.60 mg/l and BOD: <5 to 21.57 mg/l. COD from 10.63 to 81.14 mg/l.

Noise levels are in the range of 51.35 to 64.63 dB (A) for day time and 41.45 to 54.27 dB (A) for night time.

No R&R is involved as no land has been acquired for the project.

It has been reported that a total of approx. 66,930 TPA waste will be generated due to the project, out of which 5,320 TPA will be reused and 61,610 TPA remaining will be sold. It has been envisaged that an area of 1.93 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.
It has been reported that the latest Consent to Operate from the Jharkhand State Pollution Control Board was obtained vide Lr. No. JSPCB/HO/RNC/CTO-2618475/2018/1663dated 25.10.2018 and consent is valid up to 31.12.2019.

The Public hearing of the project was held on 09.06.2018 at Middle School of Bhadaninagar, District- Ramgarh, Jharkhand under the supervision of Mrs. Jyotsana Singh (Director-DRDA Ramgarh, an ADM Rank officer) for the expansion proposal. The issues raised during public hearing are regarding employment, pollution, CSR activities by the plant, potable drinking water, land requirement for the project. An amount of Rs 87 Lakhs (1% of Project cost) has been earmarked for CER based on public hearing / Socio-economic issues.

The capital cost of the project is Rs86.67 Crores and the capital cost for environmental management is proposed as Rs 593.50 Lakhs. The annual recurring cost towards the environmental management is proposed as Rs 61 Lakhs/year. An amount of Rs 87 Lakhs (1% of Project cost) has been earmarked for CER based on public hearing issues and need based assessment. The employment generation from the proposed project of expansion is 150.

Greenbelt will be developed in 1.93 Ha which is about 33% of the total acquired area. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total numbers of plants required to cover 1.93 ha area is 4,800.

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

Name of Environment Consultant – **M/s Vardan Environe**t. [S.L. No. 154,List of Accredited Consultant Organizations (Alphabetically) Rev. 74, March 07, 2019]

Observations of the Committee held during 27-29th March, 2019

The Committee noted that the details regarding transportation of raw materials, impact assessment on existing traffic load, and CER action plan has not been submitted. Further, the Committee also noted that the unit has not obtained water drawl permission for the existing as well as for the expansion project from the Competent Authority.

Recommendations of the Committee held during 27-29th March, 2019

After detailed deliberations, and in view of the aforesaid shortcomings, the Committee sought the following additional information from the project proponent for further re-consideration of the proposal.

i. Ground water withdrawal permission from the Competent Authority for the existing plant shall be submitted by the project proponent with an undertaking stating that no ground water shall be utilized for the expansion project.
ii. Permission from Damodar Valley Corporation for withdrawal of water from Damodar River shall be submitted.
iii. Scheme for rain water harvesting shall be submitted.
iv. Action plan for implementation of CER activities shall be submitted.
v. Action plan for briquetting of dust collected from plant shall be submitted.
vi. Existing conditions of the road to be used for transportation of raw materials and finished products inter-alia including its dimensions along with photographs shall be furnished.
vii. Exact quantity of raw materials and products to be transported by different modes such as road and rail respectively shall be furnished.

12.6.3 The project proponent has submitted the aforesaid additional information to the Ministry on 25/09/2019. The reply furnished by the proponent is summarized as below:

ADS-1: Ground water withdrawal permission from the Competent Authority for the existing plant shall be submitted by the project proponent with an undertaking stating that no ground water shall be utilized for the expansion project.

Reply: Permission for drawl of 0.604 MCM / year (1655 m^3/day) surface water from Damodar River has been granted by Central Water Commission, DVRR Unit on

01.07.2019. This permitted quantity will meet the water requirement of existing plant as well as for the proposed expansion.

Undertaking on Non Judicial Stamp Paper that "No ground water will be used for operation of the plant after the expansion" has been submitted.

ADS-2: Permission from Damodar Valley Corporation for withdrawal of water from Damodar River shall be submitted

Reply: Permission for drawl of 0.604 MCM/year (1655 m^3/day) surface water from Damodar River has been granted by Central Water Commission, DVRRC Unit on 01.07.2019. The copy of the permission has been submitted.

ADS-3: Scheme for rain water harvesting shall be submitted

Reply: Rain Water Harvesting Scheme of M/s Venkatesh Iron & Alloys (India) Ltd., approved by Ground Water Directorate, Water Resource Deptt., Jharkhand vide letter No. OWD/237/2019/395 dated 20/08/2019 for harvesting of 39332m^3/annum of water has been submitted.

ADS-4: Action plan for implementation of CER activities shall be submitted

Reply: CER Budget of 95 Lakhs has been allocated for the activities, worked out for the issues raised in Public Hearing and Social need assessment during SIA Study. Following is the action plan for the same:

Sl. No.	Area of Concern	Name of the Village	Action Plan	Budget Allocated (in Lakhs)	Time Frame
1	Employment	Lapanga Chikor Chaingara Hehal Bhurkunda	• Vocational Training Center for; 1. Skill development for self-employment like Sewing, candle making, embroidery, handicraft etc. 2. Industrial training for youth	15	6 months
2	Health Care	Lapanga Hehal Nimi	• Ambulance facility (24x7) at Hehal and Lapanga villages • Cost of an Ambulance- Rs.5 lakhs x 2 villages = 10 lakhs • Setup of Generic Medicine Shop at	20	10 months

Sl. No.	Area of Concern	Name of the Village	Action Plan	Budget Allocated (in Lakhs)	Time Frame
			Lapanga and Nimi villages= Rs.5 lakhs x 2 villages = Rs.10 lakhs		
33	Educational Development	Sirki Hehal Bhurkunda Chaingara	• Construction of Toilets in Primary Schools of Hehal, Chaingara, Sirki and Bhurkunda. • Cost of Toilet construction – Rs.2.0 lakh x 4 villages= Rs. 8 lakhs • Infrastructure development in schools (school furniture, drinking water facility etc.) – Rs. 4 lakhs. • Development of Playgrounds at primary schools of Chaingara and Sirki villages – Rs.2 lakhs x 2 villages = Rs.4 lakhs	16	10 months
4	Drinking Water Facility	Lapanga, Bhadaninagar, Sirki Chikor	• Installation of Hand Pumps, 3 nos. at each villages of Lapanga, Bhadaninagar, Sirki, Chikor = Rs.1 lakhs x 3 x 4 villages = Rs.12 lakhs	12	18 months
5	Infrastructure Facility	Lapanga	• Construction of road at Hehal, Lapanga& Saki villages = Rs. 11 lakhs • Providing LED bulbs and fans to public buildings at	18	18 months

Sl. No.	Area of Concern	Name of the Village	Action Plan	Budget Allocated (in Lakhs)	Time Frame
			Lapanga, Hehal and Saki villages = 300 x 100 + 600 x 70 + 28000 = Rs. 1 lakh • Construction of cattle sheds in Saki, Hehal and Lapanga villages = Rs.2 lakhs x 3 villages = Rs. 6 lakhs		
6	Community Development	Bhurkundam Hehal Sirki Nimi Saki	• Rain Water harvesting Ponds in Bhurkunda, Hehal, Sirki, Nimi and Saki village • Estimated cost = 5 villages x Rs.2 lakhs = approximately Rs. 10 lakhs • Step up of Transformers at Nimi and Saki villages. Estimated cost = Rs.2 lakhs x 2 villages = Rs.4 lakhs	14	18 months
Total				**95**	**18 months**

ADS-5: Action plan for briquetting of dust collected from plant shall be submitted

Reply: Sri Venkatesh Iron and Alloys (India) Limited has included installation of Briquette Plant of capacity 7850 TPA in the existing proposal to utilize 5,000 TPA iron ore fines and 2730 TPA of Bag Filter dust. Details revised Raw Materials requirement, project cost, layout map, land-use and solid waste management due to inclusion of Briquette Plant is given in the scheme submitted, are as follows:

A. Raw Material Requirement:

There will be change in Raw Material Requirement after the proposed expansion considering Briquetting Plant of capacity 26 TPD. Due to installation of Briquette Plant the iron ore requirement will be reduced from 192000 TPA to 184200 TPA. The

revised raw material requirement is given below:

Sl. No.	Item	Per MT of Product	Requirement (TPD)	Requirement (TPA)	Source
BRIQUETTE PLANT (26 TPD – 7850 TPA) – PROPOSED					
1	Iron Ore Fines	0.64	16.7	5000	In house
2	Bag Filter Dust	0.35	9.1	2730	In-house
3	Bentonite	0.01	0.4	120	Purchase from Gujarat
TOTAL		***100***	***26.2***	***7850***	
SPONGE IRON PLANT (400 TPD – 120,000 TPA) – EXISTING					
1	Iron Ore	1.54	614	1,84,200	Purchase from Mines in Odisha
2	Pallet	0.06	26	7,850	In-house
3	Non-Coking Coal	1.3	520	1,56,000	Purchased from various mines of CCL and e-auction
4	Limestone/Dolomite	0.03	12	3,600	From Uttar Pradesh-by road
TOTAL		**2.93**	**1,172**	**3,51,600**	
INDUCTION FURNACE PLANT (245 TPD – 73,500 TPA) – PROPOSED					
1	Sponge Iron	1.0	245	73,500	In-house
2	Pig Iron, Purchased & Return Steel Scrap	0.24	58.33	17,500	In-house + Purchased
TOTAL		**1.24**	**298.33**	**91,000**	
CONTINUOUS CASTING MACHINE (240 TPD – 72,000 TPA) – PROPOSED					
1	Liquid Steel	1.0	245	73,500	In-house
TOTAL		**1.0**	**245**	**73,500**	
CAPTIVE POWER PLANT - 16 MW (PROPOSED)					
AFBC Boiler – 8 MW					
1	Char (CV – 2000 kcal/kg)	0.40/Unit	100	30000	In-house
2	Coal (CV – 3600 kcal/kg)	0.60/Unit	150	45000	Purchased
TOTAL		**1.0/Unit**	**250**	**75000**	
WHRB – 8 MW					
1	DRI Gas	4 x 25000 Nm^3/hr			In-house

Solid Waste Management Plan:

To utilize Iron Ore fines, Bag Filter dust, M/s. SVIAL shall install Briquetting Plant of capacity 26 TPD.

Solid Waste	Generation	Utilization	Sold	Remarks
Sponge Iron Plant (Existing)				

Solid Waste	Generation	Utilization	Sold	Remarks
Dolo-Char (TPA)	30,000	30,000	-	Shall be used in AFBC Boiler
Iron ore fines (TPA)	5,000	5,000	-	Shall be used in proposed Briquette Plant
Coal Fines(TPA)	4,000	4,000	-	Used in DRI Kilns
Power Plant				
Fly-ash from WHRBs (TPA)	21,000	--	21,000	Shall be sold to Fly ash Brick / Blocks making company and Cement Plant
Fly-ash from AFBC Boilers (TPA)	20,400	_	20,400	Shall be sold to Fly ash Brick / Blocks making company and Cement Plant
Bottom Ash (TPA)	5,100	-	5,100	Given free of cost to nearby Brick Kilns for use in Kiln as fuel
Coal Fines from Coal handling area (TPA)	4,000	4,000	--	Shall be used in AFBC Boiler
Steel Melting Shop (Induction Furnace and CCM)				
Slag (TPA)	13,200	1,320	11,880	Metal recovery is approx. 10 %, shall be used in process. Remaining slag shall be crushed and used as aggregates as construction material.
Bag filter dust (TPA)	2,730	2,730	-	Shall be used in the proposed Briquette Plant.
Scale (TPA)	500	-	500	Shall be sold to the nearby Sinter Plants
TOTAL	**105,930**	**46,930**	**58,880**	**Reuse approx. 44.3 %, Sold/Disposed 55.4%**

Revised Project Cost:

Total cost of the existing sponge iron plant and proposed facilities (including Briquette Plant) will be 132.49 Crs., which include cost of the existing plant Rs. 41.82 Crs. Details of the total cost of proposed and existing plant is given below:

Sl. No.	Details	Existing Rs. (In Crores)	Proposed Rs. (In Crores)
1	Land and Site development incl.	0.20	-

Sl. No.	Details	Existing Rs. (In Crores)	Proposed Rs. (In Crores)
	Boundary		
2	Office Building, Infrastructure, Shed Civil etc.	4.90	2.50
3	Plant & Machinery (including Briquette Plant)	36.72	80.30
4	Contingencies	-	7.87
Total		**41.82**	**90.67**
Total Cost (Existing + Proposed)		**132.49**	
Budget for Corporate Environment Responsibility (CER)		0.95	
Project Cost including CER		**91.62**	

Revised Land Use Breakup

The revised land use breakup of the plant site after inclusion of Briquette Plant is provided below:

Sl. No	Type of Use	Area (ha.)
1	Plant area after expansion	2.55
2	Administrative offices and other buildings.	0.06
3	Roads and Paved Area	0.48
4	Storage and solid waste handling area	0.77
5	Briquette Plant area	0.03
6	Greenbelt and open area	1.93
Total Land Acquired		**5.82**

Revised Material Balance and Layout plan were submitted.

ADS-6: Existing conditions of the road to be used for transportation of raw materials and finished products inter-alia including its dimensions along with photographs shall be furnished.

Reply: The raw material and finished product of Sri Venkatesh Iron and Alloys (India) Pvt. Ltd. is transported through roads which are well connected with SH-2.

The road from the industry's entry gate is 0.6 km long and 8-meter-wide road which connects with 9-meter-wide village road. This village road connects to SH-2 after 2.6 km. The raw material is then transported through SH-2 which is 24 m wide four lane road to Ramgarh (12 km) in East direction and Patratu (17 km) in West direction from the village road.

The photographs of Road used for raw material transportation along with the transportation map has been submitted.

ADS-7: Exact quantity of raw materials and products to be transported by different modes such as road and rail respectively shall be furnished

Reply: Raw material details along with transportation details are provided below:

Sl. No.	Item	Per MT of Product	Requirement (TPA)	Source and Transportation	Distance from source (KM)	
SPONGE IRON PLANT (400 TPD – 120,000 TPA) - EXISTING					**Rail**	**Road**
1	Iron Ore	1.6	1,84,200	From mines in Odisha-by rail up to Railway siding & then by road	Within 300 kms. (100% by Rail – 184,220 TPA)	Within 6-10 kms.
2	Non-Coking Coal	1.3	1,56,000	From various mines of CCL and e-auction – by Rail rake and/or road	Within 80 kms. (approx.70% by Rail - 110000 TPA)	Within 170 kms. (approx. 30% by Road - 46000 TPA)
3	Limestone/Dolomite	0.03	3,600	From Uttar Pradesh-by road	-	Within 400 kms. (100% by Road – 3600 TPA)
INDUCTION FURNACE PLANT (245 TPD – 73,500 TPA) – PROPOSED						
1	Pig Iron, Purchased Scrap	0.24	16,500	Purchased	-	Within 180 kms. (100% by Road – 16500 TPA)
CAPTIVE POWER PLANT - 16 MW (PROPOSED)						
1	Coal (CV – 3600 kcal/kg)	0.60/Unit	45,000	Purchased	Within 80 kms. (approx. 85% by Rail - 38500 TPA)	Within 170 kms. (approx. 15% by Road - 6500 TPA)
BRIQUETTE PLANT – 26 TPD (PROPOSED)						
1	Bentonite	0.015 /ton	120	Purchased from Gujarat		Within 1800 kms. (100% by Road)

Finished Product Transportation Details

Sl.No.	Item	Production (TPA)	Transportation to	State	Mode	Distance from Source (kms.)
1	Sponge Iron	46,500	Meerut Road, Vehlana, U.P	Uttar Pradesh	Road	1312
			Abdul Rahmanpur Road, Didarganj, Patna City	Bihar	Road	286
			Riico Industrial Area, Bhiwadi,	Rajasthan	Road	1206

Sl.No.	Item	Production (TPA)	Transportation to	State	Mode	Distance from Source (kms.)
			Rajasthan			
			416,Luby Circular Road, City Center, Dhanbad	Jharkhand	Road	141
			At-Routa, Po-Marar, Ramgarh Cantt		Road	28
			44,Nai Anaj Mandi, Rewari, Haryana	Haryana	Road	1247
			Jarout Road, Ambala City, Haryana		Road	1447
			34-35,Ard Complex, Sector-13, R.K.Puram, New Delhi	Delhi	Road	1212
			Bongabari, V.Nagar, Purulia, West Bengal	West Bengal	Road	132
2	MS Billets	72,000	Beekay Steel Industries Ltd, Adityapur Industrial Area,Gamharia,Seraikela-Kharsawan, Jharkhand	Jharkhand	Road	134
			Saluja Steel & Power Private Ltd, Netajee Chowk,Giridih,Jharkhand	Jharkhand	Road	164
			Mongia Steel Limited, Po. Burhiadih, Tundi Road, P.S.-GiridihGiridih Jharkhand	Jharkhand	Road	162
			Yash Alloys Private Limited, 3,Middleton Row 3rd Floor, Block-G Kolkata West Bengal	West Bengal	Road	393

Observations of the Committee:

12.6.4 The committee observed that the additional information furnished by the project proponent is adequate.

Recommendations of the Committee

12.6.5 After detailed deliberations, the committee recommended the project for grant of Environmental Clearance under the provisions of EIA Notification, 2006 subject to the following specific conditions in addition to the applicable general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018.

i. No groundwater drawl is permitted.

ii. Zero liquid discharge shall be adopted.

iii. 100 % waste utilization shall be followed.

iv. Particulate emission levels from the stacks shall be limited to 30 mg/Nm^3.

12.7 Expansion in Sponge iron Plant (6,00,000 TPA to 7,80,000 TPA) & Mini Blast Furnace with Oxygen Plant (3,00,000 TPA to 3,90,000 TPA) by process optimization & increasing number of working days/annum by **M/s. Orissa Metaliks Private Limited** located at village Gokulpur, P.O.Shyamraipur, P.S.Kharagpur, District **West Medinipur, West Bengal** [Online Proposal No. IA/WB/IND/107252/2019, File No. J-11011/227/2007-IAII(I)] – **Re-consideration for Environment Clearance under para 7(ii) of EIA Notification, 2006 based on ADS reply - regarding.**

12.7.1 M/s. Orissa Metaliks Private Limited has made an online application vide proposal no. IA/WB/IND/107252/2019 dated 18thJune, 2019 along with Form – 2 seeking environmental clearance under the provisions of 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.

12.7.2 The salient features of the proposal are given as below:

i. The instant proposal involves enhancement of sponge iron production from 6,00,000 TPA to 7,80,000 TPA and existing Mini Blast Furnace from 3,00,000 TPA to 3,90,000 TPA by process optimization & increasing no of working days in a year.

ii. Certified Compliance for the existing unit was obtained from Eastern Regional Office of MoEF&CC, Bhubaneswar vide letter number 102-179/07/EPE dated 14thMay, 2019. The action taken report was submitted to Regional office of MoEF&CC which was examined & sent to MoEF&CC, New Delhi vide File No. 102-179/07/EPE/981 dated 6thJune, 2019 by RO, MoEF&CC, Bhubaneswar.

iii. Due to increase in the production capacity of MBF from 3,00,000 TPA to 3,90,000 TPA and DRI plant from 6,00,000 TPA to 7,80,000 TPA there will no incremental increase in pollution load as the existing APC devices are sufficient enough to keep the emission within CPCB permissible limit. All the major stacks are equipped with online continuous monitoring system to ensure the desired efficiency of the respective control systems.

iv. The additional Blast Furnace gas that will be generated will be 100 % used in the Pellet Plant. Also, the emission rate because of the proposed expansion will decrease because of less dust load in feed due to reduction in coal consumption and use of high purity Fe content material (iron ore pellet instead of iron ore fines).

v. Due to the use of high-grade raw material to enhance the production capacity per Sq. meter dust load on APC device will be reduced, so there will be no increase in stack emission. On an average the emission from existing DRI kilns after production enhancement will be between 50-55 mg/ Nm^3 well below CPCB permissible standard. With this proposed expansion there will be no additional pollution load.

vi. Public hearing for the existing project was held on 20/11/2007 as per the provisions laid down in the EIA Notification, 2006.

12.7.3 The aforesaid proposal was considered in the 8th meeting of the Reconstituted Expert

Appraisal Committee meeting held during 26th June, 2019 and the relevant portion of the minutes of the meeting is given as below:

Proceedings of the 8th REAC meeting held during 26th June, 2019

Details submitted by the project proponent

The Ministry of Environment, Forest and Climate Change has accorded Environmental Clearance to M/s. Rashmi Metaliks Limited vide letter no. J-11011/228/2007-IA.II.(I) dated 12/06/2008 for setting up of steel plant (5,00,000 TPA, MBF&SMS) at village Shyamraipur, Gokulpur, Kharagpur, Paschim Medinipur, West Bengal. Subsequently, the EC was amended by the Ministry vide letter dated 10/12/2008, 12/02/2015, 6/01/2017 and 30/08/2018. The EC was transferred in the name of M/s. Orissa Metaliks Private Limited vide dated 06.01.2017

It has been reported that following are the unit configuration and production capacity of the existing units:

Name of the Units	**Existing Facility & Production Capacity**	**Name of Product**
Sponge Iron Plant (DRI Kiln)	6,00,000 TPA (6 x 100 + 1 x 350 + 1 x 600 + 1 x 500 TPD)	Sponge Iron
WHRB Based CPP	52 MW (6 X 10 + 1 X39 TPH+2 X60) TPH	Power
AFBC Based CPP	6 MW	Power
CFBC Based CPP	25 MW	Power
Mini Blast Furnace with Oxygen plant	3,00,000 TPA (1 x 320 m^3)	Pig Iron/ Molten Metal

The present proposal of the company is to enhance the production capacity of existing sponge iron plant from 6,00,000 TPA to 7,80,000 TPA and existing Mini Blast Furnace from 3,00,000 TPA to 3,90,000 TPA by process optimization & increasing no of working days in a year. The details of the existing and proposed production details are furnished as below:

Name of the Units	**Existing Production & Configuration (As per earlier EC)**	**Additional Production**	**Total Production After Expansion**
Sponge Iron Plant (DRI Kiln)	6,00,000 TPA (6 x 100 + 1 x 350 + 1 x 600 + 1 x 500)	1,80,000 TPA	7,80,000 TPA (6 x 100 + 1 x 350 + 1 x 600 + 1 x 500)
Mini Blast Furnace with Oxygen plant	3,00,000 TPA (1 x 320 m^3)	90,000 TPA	3,90,000 TPA
WHRB Based CPP	52 MW (6x10 + 1x39 + 2x60 TPH)	-	52 MW

Name of the Units	Existing Production & Configuration (As per earlier EC)	Additional Production	Total Production After Expansion
AFBC Based CPP	6 MW	-	6 MW
CFBC Based CPP	25 MW	-	25 MW

Observations of the Committee held during 26th June, 2019

The committee noted that compliance to the existing Environmental Clearance conditions with respect to green belt development in 33% of the area, rainwater harvesting in 13 tube wells are yet to be verified by the concerned authorities. Further, the document inter-alia containing material and energy balance, pollution load assessment for the proposed capacity vis-à-vis existing capacity has not been submitted by the project proponent which are essentially required by the EAC for making due diligence under para 7(ii) of the EIA Notification, 2006.

Recommendations of the Committee held during 26th June, 2019

In view of the aforesaid and after detailed deliberations, the Committee deferred the consideration of the above proposal and sought following additional information for further consideration:

i. Compliance report from West Bengal Ground Water Resources Department regarding rain water harvesting/recharging around the 13 tube wells.
ii. Compliance report from Regional Office of the MoEF&CC regarding the status of green belt development in the existing unit.
iii. Process modification, material and energy Balance envisaged for the proposed capacity enhancement including details of coal quality, iron ore quality and water balance.
iv. Pollution load assessment for the proposed capacity vis-à-vis existing capacity and the likely emission norms to be met including the details of Air Pollution Control Devices (APCD).
v. Explore the possibility of using surface water instead of ground water drawl from the tube wells shall be furnished.

12.7.4 The project proponent has submitted the aforesaid additional information to the Ministry on 05/10/2019. The reply submitted by the proponent is summarized as below:

1. Compliance report from West Bengal Ground Water Resources Department regarding rain water harvesting/ recharging around the 13 tube wells.

Latest Compliance report from Water Resources Investigation & Development Department (SWID), Office of Geologist, Govt. of West Bengal issued vide memo no-179, dated 01.10.2019.

As per the report, out of 13 nos. 12 nos of bore wells are in operation and 01 no. bore well is under construction phase.

As per the compliance report the unit is complying with the conditions mentioned in the permit issued by SWID for lifting ground water.

2. Compliance report from Regional Office of the MoEF&CC regarding the status of green belt development in the existing unit.

Company has obtained compliance report from Regional Office of MoEFCC regarding status of greenbelt development in the existing unit vide letter no. 102-179/07/EPE/1802 dated 04.10.2019. As per the report, the company has planted 5000 nos of trees as committed earlier with 1250 nos of trees inside the plant premises. A dedicated team is engaged for maintaining and caring the developed greenbelt in a proper way.

3. Process modification, material and energy Balance envisaged for the proposed capacity enhancement including details of coal quality, iron ore quality and water balance.

Company is proposing expansion by process optimization & increasing no. of working days from 300 to 335 days in a year without any additional land requirements or change in plant configuration or change in volume of Blast Furnaces and DRI Plant in existing plant premises.

DRI Plant Capacity Enhancement: -

Reduction in kiln accretion: -

i. **Use of better quality raw material**

Iron ore Pellet: - Iron ore Pellet **(Fe-64 to 67%, Al_2O_3+SiO_2<7 %, P -<0.06-0.07%, Cao+Mgo -<0.6 -0.7 %, T.I- 92-93%)** instead of iron ore lumps **(Fe-61-63%, Al_2O_3+SiO_2<7 %, T.I- 72-75%).** Iron ore pellet has low gangue content, high tumbler index and low abrasion index as compared to iron ore lumps. Low tumbler index means fine generation is high which is more prone to accretion formation.

Good quality coal: Imported coal with less ash content and high carbon content **(F.C-50-60%, V.M-23-24%, Ash-18-20%, S-0.5-0.6% and C.V-5500-6100 Kcal/kg**).Ash plays an most important role in the accretion formation it value should be as low as possible.

Maintaining kiln operation condition: Since the formation of accretion is high temperature phenomena, therefore a temperature profile should be maintained within the bed of solids such that the temperature level is moderated below the sintering temperature of the solid throughout the kiln length and is maximized consistent with non-sintering through about the reduction zone.

By increasing the fusion temperature of the complex compound which sticks to refractory wall by adding suitable additives (dolomite)

ii.Increasing annual working days from 300 to 330 days

Basis for increase in production capacity from 6, 00,000 TPA to 7, 80,000 TPA

		Current (Burden as per Iron Ore)		**Proposed (Burden as per Pellet)**		**Increase/ Decrease**
1	Raw Material Consumption	Sized Iron Orelumps -	1.80 T/T	Sized Iron Ore Lumps	0.30 T/T	(-) 0.49
		--	--	Iron ore Pellet	1.40 T/T	

		Current (Burden as per Iron Ore)		Proposed (Burden as per Pellet)		Increase/ Decrease
		Coal	1.30 T/T	Good Quality Coal (Indigenous (0.18 T/T) & Imported (0.72 T/T)	0.9 T/T	T/T
		Dolomite	0.06 T/T	Dolomite	0.07 T/T	
		Total Feed	**3.16 T/T**	**Total Feed**	**2.67 T/T**	
2	Difference in burden = $\frac{0.49}{3.16}$ x 100 =					15.5 %
3	Revised Capacity of DRI considering 330 days annual working days **= 2050 TPD x 1.155 x 330 days = 7,81,358 TPA**					**7,81,358 TPA**

However, the company proposes to maintain the maximum capacity at 7, 80,000 TPA as per EC.

- ***Material Balance***

Proposed Material Balance for 7, 80,000 TPA production
(By using 6 x 100 TPD + 1 x 350 TPD + 1 x 600 TPD + 1 x 500 TPD DRI Kiln)

S. No.	Raw Material	Quantity (t/t)	Input TPA	Product	Quantity (t/t)	Output TPA
1	Iron ore Pellet	1.40	10,92,000	Sponge Iron	1.00	7,80,000
				Char &Dolochar	0.19	1,48,200
2	Sized Iron ore lumps	0.30	2,34,000			
3	Good Quality Coal (Indigenous (0.18 T/T) & Imported (0.72 T/T)	0.90	7,02,000	DRI Fines	0.11	85,800
				Dust from Settling Chamber	0.07	54,600
4	Dolomite	0.07	54,600	Kiln Accretion	0.008	6,240
				Dust from ESP	0.07	54,600
				LOI	1.22	9,53,160
Total			**20,82,600**			**20,82,600**

- ***Energy Balance***

S. N	Particulars	Current	Proposed		Increase/Decrease (Energy)
1	Raw Material Detail	Indigenous coal	Imported Coal	Indigenous coal	
2	Consumption (TPA)	7,80,000	5,61,600	1,40,400	**(-) 142.86 Mcal energy reduction in one ton DRI production.**
	Consumption (TPH)	108.3	88.64		
3	Calorific Value (Kcal/kg)	4000	6000	4000	
	Fixed Carbon (Avg.)	30%	50%		
	Volatile Matter	30%	25%		
4	Production of DRI (TPH)	83.33	98.48		
5	No of working hours per annum	7200	7920		
6	**Total Heat Input**	**Heat Output (M.**	**Total Heat Input**	**Total Heat Input**	

S. N	Particulars		Current		Proposed			Increase/Decrease
	(Mcal) considering the major chemical equation $3C+3O_2$--- $3CO_2$ $3CO_2$ $+3C$----6 CO $2Fe_2O_3$ $+6CO$--- $4Fe+6CO_2$ For 1 kg Spongetheoretical requirement of Coal-0.64 Kg. But current coal requirement is 1.3 kg. Excess coal (0.66 kg) is used as fuel to supply the heat required to make up additional losses.		**Cal)**		**(Mcal)** For 1 kg Sponge theoretical requirement of Coal-0.64 Kg. But proposed coal requirement is 0.9 kg. Excess coal (0.26 kg) is used as fuel to supply the heat required to make up additional losses.		**(Mcal)**	
	Heat from Coal as Reduction (53.32 TPH X 1365.38 Kcal)	**72.80 Mcal**	Heat loss to moisture + H_2	**9.50 Mcal**	Heat from Coal as Reduction (63.03 TPH X 1706 Kcal)	**89.6 Mcal**	Heat loss to moisture + H_2	**5.36 Mcal**
	Heat from Coal used as fuel (54.98 TPH X 2640 Kcal)	**145.15 Mcal**	Heat Loss with Flue Gas	**78.99 Mcal**	Heat from Coal used as fuel (25.61 TPH X 1300 Kcal)	**33.29 Mcal**	Heat Loss with Flue Gas	**44.54 Mcal**
			Sensible heat with Sponge Iron (considering ambient temp 20ºC and reaction temperature 1065ºC)	**9.92 Mcal**			Sensible heat with Sponge Iron (considering ambient temp 20ºC and reaction temperature 1065ºC)	**11.72 Mcal**
			Sensible heat with char (considering ambient temp 20ºC	**4.62 Mcal**			Sensible heat with char (considering ambient	**3.71 Mcal**

S. N	Particulars		Current		Proposed		Increase/Decrease
			and reaction temperature 1065°C)			temp 20°C and reaction temperature 1065°C)	
			GCV with Char	**66.95 Mcal**		GCV with Char	**37.75 Mcal**
			Skin loss (combination of radiation and convention loss)	**45.83 Mcal**		Skin loss (combination of radiation and convention loss)	**18.62 Mcal**
			Heat loss through door opening	**2.14 Mcal**		Heat loss through door opening	**1.20 Mcal**
	TOTAL	**217.95 Mcal**	**TOTAL**	**217.95 Mcal**	**TOTAL** **122.9 Mcal**	**TOTAL**	**122.9 Mcal**
7	Electrical Energy Consumption per ton of DRI		95Kwh x 2200 Kcal/ Kwh	**209 Mcal**	Electrical Energy Consumption per ton of DRI	81 Kwh x 2200 Kcal/ Kwh	**178 Mcal**
8	**Total Energy in one ton DRI production (Mcal)**		**443.76 Mcal**		**Total Energy in one ton DRI production (Mcal)**	**300.9 Mcal**	
9	**Thermal Efficiency**		**34.1%**		**Thermal Efficiency**	**56.75%**	

Mini Blast Furnace (MBF) Plant Capacity Enhancement

- **Process Detail**

OMPL currently has a mini blast furnace (MPF – 1 x 320 m^3) plant of capacity 3, 00,000 TPA. The company now proposes expansion in the mini blast furnace (MPF) plant of capacity from 3, 00,000 TPA to 3, 90,000 TPA.With in-house experience in operating the blast furnace and experience gathered from similar blast furnaces, it has been confirmed that the hot metal production can go up to 3,90,000 TPA (up to 30 %) by using 320 m^3 MBF. This production increase can be achieved through:

I. Improved quality of burden - Charging high Fe content pellet (Fe-64 to 67%, $Al_2O_3+SiO_2$<7 %, P -<0.06-0.07%, Cao+Mgo -<0.6 -0.7 %, T.I- 92-93%) by reducing sinter & iron ore lumps consumption.

II. Coke Rate reduction: Increased injection of wind volume, oxygen enriched blast, recuperator results in increase of Hot Blast temperature resulting decrease in coke consumption. Improve coke rate results in reduction of slag generation rate giving additional volume fro molten metal production.

III. Increasing no of working days from 300 to 335 days per annum.

IV. Better process control in operations and use of good quality of refractories (without any change in blast furnace – physical expansion or change of product mix).

- ***Material Balance***

Proposed Materials Balance for 3, 90,000 TPA MBF

Name of the Input Materials	Quantity input in (TPA)	Name of the output Materials	Quantity output in (TPA)
Iron Ore Pellet (@1.15 t/t)	4,50,800	Hot metal	3,90,000
Iron Ore Lump (@0.12 t/t)	46,400	Slag	1,48,200
Sinter (@0.22 t/t)	87,200	Dust & Sludge	1,70,000
Coke & Coal Dust (@0.40 t/t)	1,56,000	LOI, etc.	2,43,400
Quartzite (@0.41 t/t)	1,59,900		
Pyroxenite (0.03 t/t)	11,700		
B.F. Gas	639.25 Nm^3		
Total	**9,51,600**		**9,51,600**

- ***Energy Balance***

S. No	Particulars	Current		Proposed				Increase/Decrease (Energy)
1	Raw Material Detail	Coke		Coke				
2	Consumption (TPA)	1,95,000		1,56,000				
	Consumption (TPH)	27.08		19.40				
3	Calorific Value (Kcal/kg) (Avg.)	7000		7000				
4	No of working hours per annum	7200		8040				
5	Production of Hot Metal (TPH)	41.66		48.50				
	Total Heat Input **(Mcal/T of hot metal)**		Total Heat output **(Mcal/T of hot metal)**		Total Heat Input **(Mcal/T of hot metal)**		Total Heat output **(Mcal/T of hot metal)**	
	Energy from Coke	4550	Sensible Heat of Hot metal	696.73	Energy from Coke	2800	Sensible Heat of Hot metal	696.73
	Energy from Combustion Air	49.26	Sensible Heat in V.M	3.09	Energy from Combustion Air	521.61	Sensible Heat in V.M	3.09
	Energy from Slag Production	84.03	Heat need to vaporize Moisture	65.20	Energy from Slag Production	53.20	Heat need to vaporize Moisture	98.55
			Latent heat in B.F. Gas	1009.32			Latent heat in B.F. Gas	1131
			Sensible Heat in B.F. Gas	33.38			Sensible Heat in B.F. Gas	67.83
			Total heat in Dust	1303.28			Total heat in Dust	204.29
			Sensible heat in Slag	253.95			Sensible heat in Slag	253.95
			Summation of BF reactions	359.26			Summation of BF reactions	359.26
			Other heat loss through surface radiation	959.08			Other heat loss through surface radiation	653.23

(-) 1341.48Mcal/ Ton of energy reduction per ton of hot metal production.

			& convectio n				& convectio n		
	TOTAL	**4683.29**	**TOTAL**	**4683.29**	**TOTAL**	**3374.8 1**	**TOTAL**	**3374.81**	
	Electrical Energy Consumption per ton of DRI		125Kwh x 2200 Kcal/ Kwh	**275Mc al**	Electrical Energy Consumption per ton of DRI		110 Kwh x 2200 Kcal/ Kwh	**242Mcal**	
7	**Total Energy consumption per ton hot metal production (Mcal/T)**		**4958.29**		**3616.81**				

Source: International journal of Mineral Processing and Extractive Metallurgy, Oct2017

Overall water Balance and source

Existing water requirement for operational plant is 3065 KLD. The company has water withdrawal permission of 3789 KLD ground water from SWID, West Bengal. Also company has got 4490 KLD withdrawal permission of surface water from Kansabati River and3500 KLD from Kharagpur Municipality. The total length of the river pipeline project is 5 km. Till date 4.5 km pipe line laying work has been executed and remaining 0.5 km work under progress. After completing the water pipeline project, management will gradually phase out the ground water withdrawal.

4. Pollution load assessment for the proposed capacity vis-à-vis existing capacity and the likely emission norms to be met including the details of Air Pollution Control Devices (APCD).

With this proposed expansion there will be no increase in the pollution load to that existing. The overall pollution load assessment is:

Particular	Unit	Existing	Proposed (post capacity increase)	Increase / Decrease	(%) Pollution load decrease
Total Average PM Discharge	gm/hr	28,985	27,375	(-) 1,610	5.5
Total Average SO_2 Discharge	gm/hr	2,17,514	2,14,408	(-) 3,106	0.97
Total Average NO_x Discharge	gm/hr	98,502	96,322	(-) 2,180	2.2
Total Reduction in fine/ dust handling	TPA	4,75,896	2,14,776	(-) 2,61,120	57.9
Total reduction in traffic movement per day	Nos.	238	207	(-) 31	13.0

Company has a full-fledged Pollution Control System installed in the Plant in order to meet the emission level less as per CFO condition. All the major stacks are equipped with online continuous monitoring system to ensure the desired efficiency of the respective control systems.

To keep the Stack emission from DRI kiln as 50 mg/ Nm^3, existing APC devices will be upgraded. T.R. rating of the ESP will be improved and additional field in ESP will be introduced to meet the emission norms. Also, in secondary emission point sources (cooler discharge, raw material handling etc.) number of bags will be increased.

5. Explore the possibility of using surface water instead of ground water drawl from the tube wells shall be furnished.

Company has got 4490 KLD withdrawal permission of surface water from State Water Investigation Directorate (SWID), West Bengal from Kansai River.

Total length of the pipeline from Kansabati river to plant is 5 km. Till date 4.5 km pipe line laying work has been executed and remaining 0.5 km work under progress.

After completing the water pipeline project, management will gradually phase out the ground water withdrawal.

Apart from surface water from Kansai River, OMPL has permission of 3500 KLD waste water use permission from Kharagpur Municipality. The permission is issued vide Memo no- 1186/KM dated 02-11-2018.

Observations of the Committee:

12.7.5 The committee observed that the additional information furnished by the project proponent is adequate.

Recommendations of the Committee

12.7.6 After detailed deliberations, the committee recommended the project for grant of Environmental Clearance under para 7(ii) of EIA Notification, 2006 for enhancement in sponge iron production and blast furnace as mentioned above subject to the following additional conditions:

i. Surface water shall be taken from Kansai River. No ground water shall be abstracted after completion of Kansai river pipeline.

ii. Emission levels from Bag filter and ESP shall be 30 mg/Nm^3.

iii. PP committed for the use of imported coal only. However, the Committee felt that during the non-availability of imported coal, PP shall be using Indian coal. Therefore, the pollution control equipment shall be designed for use of Indian coal/ higher pollution load.

iv. Zero liquid discharge shall be adopted.

v. 100 % waste utilization shall be followed.

vi. Green belt shall cover 33% of the total area in the plant site.

12.8 Proposed Expansion of existing Sponge Iron & Power Plant by installation of 1x350 TPD DRI kiln to produce 1,05,000 TPA of sponge iron with 8 MW WHRB facility, induction Furnaces of 4x30 T to produce 4,18630 TPA of Billets/ hot Metal & Narrow Hot Strip Mill of 4,00,000 TPA of **M/s Agarwal Sponge & Energy Pvt. Ltd**., located at Village Kudathini, **Taluk &District Bellary, Karnataka** [Online Proposal No. IA/KA/IND/118028/2019, File No. J-11011/908/2007-IAII(I)] **– Prescribing of Terms of Reference – regarding.**

12.8.1 The project proponent submitted application in the prescribed format along with Form-1 and other reports to the Ministry online on 14th September 2019 vide online application No. IA/KA/IND/118028/2019 to propose ToRs for undertaking detailed EIA study 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.

Details submitted by the project proponent

12.8.2 Agarwal Sponge & Energy Pvt. Ltd., proposed for Expansion of existing Sponge Iron & Power Plant by installation of 1x350 TPD DRI kiln to produce 1,05,000 TPA of Sponge iron with 8 MW WHRB facility, Induction Furnaces of 4x30 T to produce 4,18,630 TPA of Billets & Narrow Hot Strip Mill of 4,00,000 TPA. It is proposed to manufacture the above products based on the following technology.

- Installation of additional 1x 350 TPD kiln to produce 1,05,000 TPA of Sponge iron
- Power generation through WHRB – 8 MW
- New Induction Furnaces 4 x 30 T to produce 4,18,630 TPA of M.S. Ingots
- Narrow Hot Strip Mill – to produce 4,00,000 TPA of H.R. Coils/Strips.

12.8.3 The existing plant was accorded Environment Clearance vide F.No.J-11011/908/2007-1AII (I) dated 11.12.2008. Renewal of Consent to Operate was accorded by KSPCB vide dated 27.09.2017 and valid upto 30.06.2022.

12.8.4 The existing plant is located in Sy. No. 899/A, 899/B, 900 of Kudathini (V), Bellary (Taluk &District), Karnataka over an extent of 20 Acres.

12.8.5 Existing plant is having 20 Acres (8.09 Ha.) of land. The proposed expansion will be taken up partly in the existing plant premises and partly in additional land of 24.09 Acres (9.74 Ha.). Total land will be 44.09 Acres (17.83 Ha.) involving Sy. Nos. 899/A, 899/B, 900, 902/B, 907/A, 907/B. The entire land has been acquired by the management. Of the total area, 15.0 Ac. of land will be developed with greenbelt. No Forest land is involved in the existing land & additional land.

12.8.6 No National park/Wild life sanctuary/Biosphere reserve/tiger reserve/Elephant reserves are reported to be located in the core and buffer zone of the plant site. The area also does not report to form corridor for Schedule-I fauna. Chikkantapur RF (SW), Toranagallu RF (NWW), Bellary RF (S) are exists within 10 Km. radius of the plant.

12.8.7 Total cost for proposed expansion project is Rs. 390 Crores. Proposed employment generation from proposed expansion project will be 250 nos. direct employment and 300 nos. indirect employment.

12.8.8 The targeted production capacity of the total plant is 0.4 million TPA. The Iron ore for the plant would be procured from Bellary. The ore transportation will be done through by road (through covered trucks). The proposed capacity for different products & capacities after proposed expansion project as below:

S. No.	Details	Total Capacity as per the EC issued vide dated 11.12.2008	Implementation Status	Present Proposal	Production capacities After Present Proposal
1.	DRI Kiln for Production of Sponge Iron	90,000 TPA (3x100 TPD)	90,000 TPA (In operation)	1,05,000 TPA (1x350 TPD)	1,95,000 TPA (3x100 TPD & 1x350 TPD)
2.	Induction furnace with CCM & LRF to produce billets / hot Metal	----	----	4,18,630 TPA (4x30 T)	4,18,630 TPA (4x30 T)
3.	Rolling Mill to produce Hot Strips / Coils	----	----	4,00,000 TPA	4,00,000 TPA
4.	Power generation through WHRB	6 MW	6 MW (in operation)	8 MW	14 MW
5.	Power Plant through FBC Boiler	6 MW	6 MW (in operation)	-----	6 MW
Note : Initially 2 x30 T IFs will be installed in Phase-1 & additional 2 x 30 T IFs will be installed in Phase-2. Rolling Mill will be installed once the 4x30 T IFs are commissioned.					

12.8.9 The total power requirement for the existing & expansion project will be 59.2 MW, this will be met partly from 20 MW captive power plant & Balance Power requirement of 39.2 MW will be sourced from the state grid. Company has also proposed to install DG Set for emergency Backup supply.

12.8.10 Proposed raw material requirement for proposed expansion project are Iron Ore (OR) Iron Ore Pellets, Dolomite, Coal, Pig Iron & Scrap. Requirement would be fulfill by external purchase.

S.No.	Raw Material	Quantity	Source	Mode of Transport
For DRI Kilns (Sponge Iron) of 1,05,000 TPA				
1	Iron Ore (OR) Iron Ore Pellets	1,57,000 TPA (OR) 1,47,000 TPA	Bellary	By road (through covered trucks)

S.No.	Raw Material		Quantity	Source	Mode of Transport
2	Coal	Indian Coal	1,36,500 TPA	Open Market	By road (through covered trucks)
		Imported Coal	87,360 TPA	Indonesia/ South Africa/ Australia	Through sea route, Rail & Road
3	Dolomite		6,300 TPA	Local Area	By road (through covered trucks)
For Steel Melting Shop (MS Billets) – 4,18,630 TPA					
1	Sponge Iron		1,95,000 TPA	Own generation	----
2	Sponge Iron		1,32,000 TPA	Nearby plants in Bellary	By road (through covered trucks)
3	Scrap		1,11,150 TPA	(Purchased from Local Area + in-house)	By road (through covered trucks)
4	Pig Iron		28,500 TPA	Local Area	By road (through covered trucks)
For Rolling Mill (HR coils & Strips) – 4,00,000 TPA					
1	MS Billets		4,18,630 TPA	Own generation	By Conveyor
2	Furnace oil		8320 KL	Local Market	By road (through covered trucks)

12.8.11 Water consumption for the proposed expansion project will be 1540 KLD and It is proposed to utilize the Treated sewage from the Sewage Treatment Plant (STP) of Govt. of Karnataka, Bellary. Sanction letter is yet to be received from Karnataka Water Supply & sewage Board.

12.8.12 The wastewater generated from the DRI plant, SMS & Rolling Mill will be sent to settling tank and will be recycled back to the process through closed-circuit cooling system.

12.8.13 Effluent from power plant will be treated and after ensuring compliance with SPCB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt development.

12.8.14 Domestic wastewater will be treated in proposed STP and there will be no

wastewater will be discharged outside the plant premises.

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

Observations and recommendations of the Committee

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

i. EMP and EIA report to be prepared considering that no ground water shall be allowed to be abstracted.

ii. Additional facility of AFBC boiler to consume additional dolochar from 350 TPD kiln shall be furnished.

iii. Zero liquid discharge shall be adopted.

iv. Rain water harvesting to the extent of 100 % of annual water consumption shall be submitted.

v. 100 % waste utilization shall be followed.

vi. Green belt shall cover 33% of the total area in the plant site.

12.9 Proposed expansion of steel plant-New Installation of DRI Kilns (Sponge Iron from 3,46,500 TPA), Expansion of Induction Furnace (Ms Billets from 55, 500 TPA to 4,12,500 TPA), New Installation of Rolling Mill (TMT Bars/Structural Steel from 3,96,000 TPA), New Installation of WHR based Power Plant from 24 MW, New Installation of CFBC based Power Plant 20 MW] by **M/s. AMMAN-TRY Sponge & Power (P) Limited** located at Sirasanambedu Village, Mandal Pellakur, District SPSR Nellore, Andhra Pradesh -[Online Proposal No. IA/AP/IND/112316/2019, File No. J-11011/308/2019-IAII(I)] **– Prescribing of Terms of Reference – regarding.**

12.9.1 The project proponent submitted application in the prescribed format along with Form-1 and other reports to the Ministry online on 25th July, 2019 vide online application No. IA/AP/IND/112316/2019 to propose ToRs for undertaking detailed EIA study 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.

Details Submitted by the Project Proponent

12.9.2 **AMMAN-TRY Sponge & Power (P) Limited** proposed to go for expansion of Steel Plant – New Installation of DRI Kilns (Sponge Iron of 3,46,500 TPA), Expansion of Induction Furnace (MS Billets from 55,500 TPA to 4,12,500 TPA), New Installation of Rolling Mill (TMT Bars/ Structural steel of 3,96,000 TPA), New Installation of WHR based Power Plant of 24 MW, New Installation of CFBC based Power Plant of 20 MW]. It is proposed to manufacture the above products based on the following technology.

Unit	Description
DRI Kiln	Manufacturing of Sponge Iron using Iron ore, Limestone and dolomite as raw materials & Coal as fuel.
Induction Furnace	Manufacturing of MS Billets using Sponge Iron,Scrap, Ferro Alloys as raw materials.
TMT/Structural steels	Manufacturing of TMT bars/Structural steels using MS Billets/Ingots as raw material.
Power generation	Power generation through WHRB by utilizing hot waste flue gases from DRI kilns. Power generation through CFBC boiler using coal, Dolochar as fuel.

12.9.3 The existing plant was accorded Environment Clearance vide order No. SEIAA/AP/NLR-16/2008 Dated 29th June, 2010 By State Environment Impact Assessment Authority, Andhra Pradesh. Renewal of Consent to Operate was accorded by Andhra Pradesh Pollution Control Board vide dated 27th March, 2018, validity upto 30th April, 2023.

12.9.4 The existing plant is located in Sirasanambedu Village, Pellakur Mandal, SPSR Nellore District, Andhra Pradesh.

12.9.5 Total land after expansion is: 104.68 Acres (42.36 Ha.) = 85.40 (Existing) + 19.28 Acres (additional). Total land already acquired by the company. Of the total area, 33% of land will be developed with greenbelt. No Forest land is involved in the existing land & additional land.

12.9.6 No Reserve Forest exists within 10 Km. radius of the plant site. Nelapttu Bird Sanctuary is present at a distance of 7.3 Kms. From plant site. No National park/Wild life sanctuary/Biosphere reserve/tiger reserve/Elephant reserves are reported to be located in the core and buffer zone of the plant site.

12.9.7 The estimated project cost for the proposed expansion project is about Rs. 494.7 Crores. The project creates employment to about 330 persons directly once the whole plant comes to the operational stage and about 300 persons during construction stage.

12.9.8 The targeted production capacity of the total plant is 0.396 million TPA. The proposed capacity for different products & capacities after proposed expansion project as below:

S.No.	Unit & Products	EXISTING CAPACITY			Proposed Expansion	After Expansion
		E.C was issued by SEIAA, A.P. Dated 29/06/2010	CTO obtained from APCCB	Dropping proposal		
1	Sponge Iron (DRI Kilns)	54,000 TPA (2x90 TPD)	--	54,000 TPA* (2x90 TPD)	3,46,500 TPA (3x350 TPD)	3,46,500 TPA

2	MS Billets (Induction Furnaces)	1,11,000 TPA (4x12 MT)	55,500 TPA	55,500 TPA*	**3,21,500 TPA** (1x24 MT & 2x30MT) **Up gradation of Existing Furnace to increase production from 55,500 TPA to 91,000 TPA** (**Increase by 35,500 TPA**)	4,12,500 TPA
3	TMT Bars/Structural steel (Rolling mill)	60,000 TPA (1x200 TPD)	--	60,000 TPA* (1x200 TPD)	3,96,000 TPA (1x1200 TPD)	3,96,000 TPA
4	Power plant WHRB CFBC	4MW 4MW	--	4MW* 4MW*	24 MW 20 MW	24 MW 20 MW 44 MW
***- These units are proposed to drop now from existing Environmental clearance order issued vide dated 29th June, 2010. Because the validity of existing EC order is only up to 29th June, 2020.**						

12.9.9 Power required for the existing plant is being met from State Electricity Board. Power required for the proposed expansion project will be met partly from proposed 44 MW power plant and remaining from State Electricity Board. Company has also proposed to install DG Set for emergency Backup supply.

12.9.10 The raw material required for the proposed expansion project will be Iron ore, Dolomite, Coal, Ferro alloys, Scrap. The ore transportation will be done through by rail & road (through covered trucks). The following the details.

Raw Material		**Quantity (TPA)**	**Sources**	**Mode of Transport**
For DRI Kilns (Sponge Iron – 3,46,500TPA)				
Iron ore		5,54,400	Bellary	By rail & road(through covered trucks)
Dolomite		45,045	Kadapa	By road(through covered trucks)
Coal	Indian	4,50,450	SCCL, Telangana	By rail & road(through covered trucks)
	(or)			
	Imported	2,88,288	South African and Australian	Through sea route, rail route & by road
For Induction Furnace (MS Billets – 4,12,500 TPA)				
Sponge Iron		3,81,944	In-house generation	By road(through covered trucks)

Raw Material		**Quantity (TPA)**	**Sources**	**Mode of Transport**
			and purchase from other sponge iron units	
Scrap		1,15,740	Chittoor district	By road(through covered trucks)
Ferro Alloys		6,134	Chittoor district	By road(through covered trucks)
For Rolling Mill (TMT bars & Structural Steel – 3,96,000 TPA)				
MS billets		4,12,500	In-house generation	--
Furnace oil		13,068	Chennai	Tankers
For CFBC Boiler [Power - 20 MW]				
Dolochar		1,03,950	In-house generation	--
Coal	Indian (100 %)	1,26,000	SCCL, Telangana	By rail & road(through covered trucks)
	(or)			
	Imported (100 %)	84,000	South African and Australian	Through sea route / rail route / by road

12.9.11 Water required for the existing project is 27 KLD and same is being sourced through Ground water resources. Water required for the expansion project will be 721 KLD and same will be sourced through Ground water resources. Water permission from State Ground Water Authority will be obtained before the commencement of the expansion project.

12.9.12 The wastewater generated from the DRI plant, SMS & Rolling Mill will be sent to settling tank and will be recycled back to the process through closed-circuit cooling system. Effluent from power plant such as boiler blow down, DM Plant regeneration. Initially the acidic and alkaline effluent streams coming from cation and anion units of DM plant will be neutralized in a neutralization tank. Service water will then pass through an Oil Separator to remove the oil content in the effluent. The pH of Boiler blow down will be between 9.5 and 10.5. Hence this effluent stream will be neutralized in a neutralization tank before mixing with other effluent streams. Treated effluent will be used for ash conditioning, dust suppression and for greenbelt development. The sanitary wastewater will be treated in STP.

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

Observations and recommendations of the Committee

12.9.14 After detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA study in addition to the generic ToR enclosed at **Annexure I read with additional ToRs at**

Annexure-2:

i. No diversion of the drain and disturbance of the flood plain passing through the site.

ii. Landscaping of the area around the drain shall be done.

iii. Zero liquid discharge shall be adopted.

iv. Rain water harvesting to the extent of 200 % of annual water consumption shall be submitted.

v. 100 % waste utilization shall be followed.

vi. Green belt shall cover 33% of the total area in the plant site.

vii. Wildlife conservation plan shall be prepared in consultation with Chief Wildlife Warden.

12.10 Proposed Greenfield Cement Plant of capacity 2.0 MTPA Clinker & 3.0 MTPA Cement, 7 MW Waste Heat Recovery Plant and 43 MW Thermal Power Plant by **M/s. Nuvoco Vistas Corp. Ltd.** located at Village Ravur, Taluka Chittapur, District Kalaburagi, **Karnataka** - [Online Proposal No. IA/KA/IND/118234/2019, File No. J-11011/306/2019-IAII(I)] **– Prescribing of Terms of Reference – regarding.**

12.10.1 The project proponent submitted an application in the prescribed format along with Form-1and other reports to the Ministry online on17.09.2019 vide Online Application No. IA/KA/IND/118234/2019 to propose ToRs for undertaking detailed EIA study under the provisions of 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" EIA Notification, 2006 and the proposal is appraised at Central level.

Details Submitted by the Project Proponent

12.10.2 M/s.Nuvoco Vistas Corporation Ltd (formerly Lafarge India Limited) has proposed to setup a green field integrated Cement Plant based on state-of-the-art technology near Ravur Village, Chittapur Taluk, Kalaburagi District of Karnataka. NVCL has obtained Environmental Clearance (EC) for the Project on 30th September, 2009 which was further extended 5 years upto 30th September, 2019. But the project has been delayed due to various reasons. Due to expiry of the EC validity on 29th Sep 2019, NVCL proposes to obtain fresh Environmental Clearance for the proposed Cement Plant.

12.10.3 NVCL has obtained Environmental clearance (EC) for the Project vide MoEFCC letter no. J-11011/822/2007-IA, II (1) dt 30.09.2009 in the name of Lafarge lndia Pvt. Ltd for setting up of a Greenfield Cement Plant for production 2.0 MTPA Clinker, 3.0 MTPA Cement along with 43 MW Captive Power Plant and the validity of EC extended for another 5 years by the MoEFCC up to 29-9-2019 vide Letter nos. J-11011/822/2007-IA, II (1) dt 06.02.2015and J-11011/822/2007-IA, II (1) dated 04.09.2017. EC was valid up to 29.09.2019.

12.10.4 The Integrated Cement Plant (i.e., including thermal power plant, railway siding,

colony, and other allied facilities) will be located over an area of about 150 Ha out of which about130 ha has been acquired by the company through direct purchase from private land owners and about 15 Ha land through KIADB by paying adequate compensation. No forest land involved. Out of the total land area acquired, 45 ha (33%) land will be used for green belt development.

LAND BREAKUP

S.No.		Area (ha.)
1	Cement plant & CPPs	20.00
2	Raw Material Storage areas	10.00
3	Water Pond	4.00
4	Railway Siding	13.00
5	Parking area	6.00
6	Colony	21.00
7	Space around the plant site	16.00
8	Greenbelt	45.00
9	Future Expansion	15.00
Total		**150**

12.10.5 There are no wild life sanctuaries, national parks, elephant/tiger reserves within 10km radius of the study area.The10 km radius is not having any corridor for Schedule-I fauna.

12.10.6 Total capital Investment Cost is Rs. 1500 Crores (includes CER cost of Rs 15.50 crores and Environmental Management Plan cost of Rs 150 crores).The plant and mine will give employment to about 1500 people (250 direct and 1250 indirect).

12.10.7 The targeted production capacity of the 2.0 MTPA Clinker and 3.00 MTPA is Cement (OPC/PPC/PSC/CC) with captive power generation of 43 MW Captive Coal based Thermal Power Plant & 7 MW Waste Heat Recovery Power Plant within the cement plant. The limestone for the plant would be procured from captive limestone mines. The ore transportation will be done through Conveyor. The proposed capacity for different products for new site area as below:

Nameof unit	No. of units	Capacity ofeachUnit	Production Capacity
Clinker	1	2.0 MTPA	2.0 MTPA
Cement	1	3.00 MTPA	3.00 MTPA
Coal based thermal power	1	43 MW	43 MW
Waste Heat Recovery Power Plant (WHRB)	1	7 MW	7 MW

12.10.8 The total power requirement of the cement plant including colony will be met from the proposed 43 MW Coal Based Captive Power Plant & 7 MW Waste Heat Recovery Power Plant. 2 X 1250 kVA diesel fired DG sets will be installed as standby power supply units. These DG sets will be operated only when there is power supply failure. HSD will be used for power generation in DG Sets.

12.10.9 The source and requirement of raw material and fuel are given below:

Item		Requirement MTPA	Source	Mode of Transport
Limestone		3.00	Captive mines (includes performance enhancer quantity)	Closed Belt Conveyor/ Dumpers/ Tippers
Bauxite/laterite		0.166	Belgaum, Goa & Kolhapur area Tandur,Vatlemanapally,Nawabpet (Andhra Pradesh); Kodambal, Humnabad , Gajarkot and Bellary(Karnataka)	Trucks
Gypsum		0.150	SPIC and Sterlite Industries, Tuticorin, RCF Ltd., Bombay, EID Pary India Ltd., Chennai &Coramandel Fertilizers Ltd., Vizag.	Trucks
Coal/ Petcoke	Cement plant	0.360 0.175	**Coa**l: Singareni and WCL coal mines or imported coal. **Petcoke**: Mangalore Refinery & Petrochemicals Ltd, Mangalore.	Rail Rail / Road
Coal	Power plant	0.323	Singareni and WCL coal mines	Rail
Ash requirement for PPC		0.850	From captive power plant and Raichur Thermal Power Station, NTPC Ramagundam and NTPC Sholapur etc.	Bulkers

12.10.10 Total water requirement of the integrated plant is estimated to be about 1600 m3/day. The requirement will be met from river Kagina. Permission for drawl of water will be obtained from concerned department. Wastewater generation is only from domestic use and the same will be treated in Sewage Treatment Plant before reuse it for green belt development and dust control purposes.

12.10.11 KIADB acquired land has been leased out to Nuvoco for 99 years and has given possession of the land on 27/2/2017.

12.10.12 One of the land owners have filed a court case against KIADB and also made company as one of the respondent. The details of the case is as under:

a) Name of the court – High Court of Karnataka, Kalaburgi Bench
b) Case No – 201685 & 201689- 2017
c) Orders/ directions of the court, if any and its relevance with the proposed project. - No

Observations and recommendations of the Committee

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

i. Emission norms shall conform to the (G.S.R. No. 612 (E) dated 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement)and 10thMay, 2016(Co-processing Cement); S.O. 3305 (E) dated 7thDecember 2015 (Thermal Power Plants) as amended from time to time.

ii. Air cooled condenser shall be incorporated in the project design.

iii. Cumulative impact assessment of captive mines and plant shall be carried out.

iv. Detailed hydrogeological study shall be carried out.

v. Action plan for use of alternate fuels to the maximum extent possible shall be furnished.

vi. Scheme for Rain water harvesting to the extent of 200% of annual water consumption shall be furnished.

vii. Action plan for the use alternate fuel to the maximum extent possible shall be furnished in the EIA report.

viii. No ground water abstraction is permitted.

12.11 Proposed Integrated Cement Project - Clinker (2 x 3.5 MTPA), Cement (2 x 3.5 MTPA), CPP (2 x 30 MW), WHRS (2 x 18 MW) and D.G. Set (2 x 6 MW) **by M/s. UltraTech Cement Limited** at Villages: Basawa&Turkani Johdi (Khirod), Tehsil: Nawalgarh, District: Jhunjhunu (**Rajasthan**) - [Online Proposal No. IA/RJ/IND/118706/2019, File No. J-11011/307/2019IAII(I)] – **Prescribing of Terms of Reference** – regarding.

12.11.1 The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 20th Sept, 2019 vide Online Application No. IA/RJ/IND/118706/2019 to propose ToRs for undertaking detailed EIA study under the provisions of 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" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the project proponent

12.11.2 M/s UltraTech Cement Ltd. had proposed Integrated Cement Plant (Cement - 5.5 MTPA, Clinker - 4.08 MTPA) Captive Power Plant - 75 MW (3 x 25 MW) and Limestone Mines (3461.2 ha & 1153.4 ha) with production capacity of 7.0 MTPA at Villages: Basawa, TurkaniJohdi, Sundon Ki Dhani, Khirod, Kemro Ki Dhani and Mohanbari&Beri, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the same was obtained vide letter no. J-11011/18/2008-IA. II (I) dated 03rd June, 2009.

12.11.3 Due to some unavoidable reasons and acquisition of M/s Jaypee Cement Limited (JAL/JCCL) and Binani Cement Limited, the project was delayed and could not implemented within the EC validity period.

12.11.4 Now, M/s. UltraTech Cement Limited is proposing the same cement project with change in production capacity & area and applying afresh for obtaining Environmental Clearance having subject matter as "Proposed Integrated Cement Project - Clinker (2 x 3.5 MTPA), Cement (2 x 3.5 MTPA), CPP (2 x 30 MW), WHRS (2 x 18 MW) and D.G. Set (2 x 6 MW) at Villages: Basawa&TurkaniJohdi (Khirod), Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) by M/s. UltraTech Cement Limited". It is proposed to set up the plant based on dry process technology.

12.11.5 The existing project was accorded environmental clearance vide letter no. J-11011/18/2008-IA. II (I) dated 03rd June, 2009 in the name of Grasim Industries Limited; further the EC was transferred in the name of M/s. UltraTech Cement Ltd. (UTCL) and validity was extended for another 5 years vide letter dated 31st Dec., 2014.

12.11.6 The proposed unit will be located at Village: Basawa & Turkani Johdi (Khirod), Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan).

12.11.7 The land area acquired for the proposed plant is 164.69 ha; out of which 0.05 ha is Government land and 164.64 ha is Private land. No forest land is involved. Out of the total land area (164.69 ha); Purchased area is 70.55 ha, Land under Acquisition through RIICO Award 93.61 ha & Land to be purchased is 0.53 ha. Out of the total project area, 54.34 ha (33%) will be used for greenbelt development.

12.11.8 No National Park / Wildlife Sanctuary / Biosphere Reserve/ Tiger Reserve/ Elephant Reserve, 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.

12.11.9 Total project cost is approx. 2500 Crores rupees (Phase-I: 1500 Crores and Phase-II: 1000 Crores). Proposed employment generation from proposed project will be 300 direct employment. In addition, approx. 3000 contract labours will also be employed during construction; which will be sourced from nearby villages.

12.11.10 The targeted production capacity of Integrated Cement Project: Clinker (2 x 3.5 MTPA), Cement (2 x 3.5 MTPA), CPP (2 x 30 MW), WHRS (2 x 18 MW) and D.G. Set (2 x 6 MW). The Limestone for the plant would be transported through covered conveyer belt. Iron Ore/ Red Ochre/ Laterite will be transported by road / rail; Gypsum will be transported by rail/road and Fly ash will transported by road. The proposed capacity for different products for new site area is as below:

Unit	Phase - I	Phase - II	Total capacity
Clinker (MTPA)	3.5	3.5	7.0
Cement (MTPA)	3.5	3.5	7.0
CPP (MW)	30	30	60
WHRS (MW)	18	18	36
D.G. Set (MW)	6	6	12

12.11.11 The electricity load of 80 MW will be sourced from Proposed Captive Power Plant, WHRS & Rajasthan State Electricity Board. Company has also proposed to install 12 MW DG Set.

12.11.12 Proposed Raw materials required for the project are Limestone; which will be sourced from Captive Limestone Mine. Iron Ore/ Red Ochre/ Laterite will be sourced from Narayani, Chittorgarh; Gypsum from FCI (Khal Mines) & RSMM, Bikaner; RSMM, Nagore; Fly ash will be sourced from CPP, JPL & APCPL (NTPC), Jhajjar; RGTPP, Hissar. Fuel for Proposed Cement Plant will be Indian & Imported Coal and Indian & Imported Petcock, sourced from South Africa, Indonesia, SECL, IOCL refinery at Panipat, Reliance refinery at Jamnagar, Fuel for

CPP will be Indian & Imported Coal sourced from South Africa, Indonesia, SECL.

12.11.13 Water Consumption for the proposed project will be 3000 KLD; which will be sourced from Ground Water and permission from CGWA has already been obtained. No waste water will be discharged from the Cement plant. Domestic wastewater will be treated in STP and treated water will be used for greenbelt development / plantation. Waste water from CPP & RO reject will be collected in neutralization pit and after neutralization; it will be used in fly ash quenching; which will be further used in Cement manufacturing process.

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

Observations and recommendations of the Committee

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

i. Emission norms shall conform to the (G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement)and 10th May, 2016(Co-processing Cement); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time.

ii. Air cooled condenser shall be incorporated in the power plant design.

iii. Cumulative impact assessment of captive mines and plant shall be carried out.

iv. Detailed hydrogeological study shall be carried out.

v. Action plan for use of alternate fuels to the maximum extent possible shall be furnished.

vi. Scheme for Rain water harvesting to the extent of 200% of annual water consumption shall be furnished.

vii. Action plan for paving and widening of village roads near by the plant site shall be furnished.

12.12 Expansion of Integrated Steel Plant from 0.3 MTPA to 0.5 MTPA, 4.7 to 29.7 MW Waste Heat Recovery Power plant and Proposed 30 MW Waste Heat Recovery Power Plant and proposed 0.3 MTPA Coke Oven Plant by **M/s. Sona Alloys Pvt Ltd** (SAPL) located at C-1, MIDC, MIDC Estate, Lonand, Tehsil Khandala, **Dist. Satara, Maharashtra** - [Online Proposal No. IA/MH/IND/118921/2019, File No. J-11011/827/2007-IAII(I)] – **Prescribing of Terms of Reference** – regarding.

12.12.1 The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry. vide proposal No. IA/MH/IND/118921/2019 dated 22nd Sep 2019 to propose ToRs for undertaking detailed EIA study 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.

12.12.2 M/s. Sona Alloys Pvt Ltd (SAPL) proposes to install Expansion of Integrated Steel Plant from 0.3 MTPA to 0.5 MTPA, 4.7 to 30 MW Waste Heat Recovery Power Plant and proposed 0.3 MTPA Coke Oven Plant. It is capacity enhancement & de-bottlenecking.

12.12.3 The existing project was accorded environmental clearance vide lr.no. F. No. J-11011/827/2007- IA II (I) dated February 5, 2008. Consent to Operate was accorded by The Maharashtra pollution Control Board vide Consent Order no. 1.0/BO/CAC-CELL/UAN NO: 0000011918-16/CAC 1712000017 dated 04.12.2017 validity of Consent to Operate is up to 30.09.2021.

12.12.4 The proposed unit will be located at Lon and MIDC area, Dist. Satara, Maharashtra.

12.12.5 The land area acquired for the proposed plant is 54.8 Ha out of which 18.39 ha is an green belt/agricultural land (54.8 MIDC, Government of Maharashtra Land). No/forestland involved. The entire land has been acquired for the project. Of the total area 18.39. ha (33 %) land will be used for green belt development.

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

12.12.7 Total project cost for integrated steel plant with coke oven project is Rs. 566 Cr and waste heat recovery power plant is Rs 37.94 Cr. rupees. Proposed employment generation from proposed project will be approx. 200-300 direct employment and 300-400 indirect employment.

12.12.8 The targeted production capacity of the Integrated Steel Plant from 0.3 MTPA to 0.5 MTPA, 4.7 to 30 MW Waste Heat Recovery Power Plant and proposed 0.3 MTPA Coke Oven Plant. The ore for the plant would be procured through E-auction. The ore transportation will be done through Road .(Rail/Road/Conveyor/Slurry Pipeline). The proposed capacity for different products for new site area as below:

Sr. no	**Products**	**Quantity**		
		Existing (MT/Annum)	**Proposed (MT/Annum)**	**Total (MT/Annum)**
1	Pig Iron/Hot metal (HM)	337000	163000	500000 tons HM
2	Sinter Plant	478900	478900	957800
3	Oxygen plant	1800	4000	5800 nm3/hr
4	Steel melt shop -Billets	315750	150000	465750
5	Rolling Mill – Wirerod mill/TMT/ Alloy steel bars str sections	240000	150000	390000
6	Forging unit	0	50000	50000

7	Coke oven plant	0	300000	300000
8	Waste heat recovery power plant	4.7	25.3	30 MW

12.12.9 The total connected load is 77 MW with MSEDCL. Out of total connected load 30 MW will be installed from Waste heat recovery plant.

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

Plant Unit	**Annual capacity**	**Material**	**Specific consumption (Kg/t)**	**Annual requirement (tons)**	**Source of supply**	**Mode of supply**
Sinter Plant	937,200	Iron ore fines	833	780688	Local	By road
		Limestone	40	37488	Local	
		Lime	45	42174	Local	
		Dolomite	60	56232	Local	
		Coke breeze	60	56232	Local	
		Flue dust	21	19681	Own generation	
		Mill scale	6	5623	Local	
		Sand/quartzite fines	10	9372	Local	
Blast Furnace	514,500	Lump ore	360	185220	Local	By road
		Coke	480	246960	Imported	
		PCI coal	120	61740	Imported	
		Manganese ore	10	5145	Local	
		Quartz	20	10290	Local	
		Sinter	1440	740880	Sinter Plant	Internal
0.5MTPA Beneficiation Plant	330,000 (ore concentrate)	Ore fines	1500	500000	Local	By road
Pellet Plant	300,000	Ore concentrate	1100	330000	Local	Internal
		Lime stone	25	7500	Local	By road
		Bentonite	7	2100	Local	
		Anthracite coal	18	5400		
Steel Melt Shop	625,000	Hot metal	773	483125	MBF	Internal
		DRI	340	212500	Local	By

Plant Unit	Annual capacity	Material	Specific consumption (Kg/t)	Annual requirement (tons)	Source of supply	Mode of supply
						road
		Revert scrap	48	30000	Own generation	Internal
		Purchased scrap	-	-	Local	
		Calcined lime	70	43750	Local	By road
		Calcined dolomite	35	21875	Local	
		Injection coal	20	12500	Local	

12.12.11 The basic raw material for coke oven plant is low grade coal which is proposed to be imported from Australian coal mines. Raw material consumption parameters for the coke oven plant. Annual requirement for coal is 400000 MT.

12.12.12 The requirement would be fulfilled by imported coal which will be import the coal

12.12.13 Water Consumption for the proposed project will be 3600 m^3/day and waste water generation will be 50m^3/day. Domestic waste water will be treated Sewage treatment plant. and industrial waste water generated will be treated effluent treatment plant and reused in process.

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

Observations of the Committee:

12.12.15 Proposed layout for expansion is very congested and proper engineering drawing is to be prepared with land use details.

12.12.16 Modified wet quenching is not indicated in the proposed coke plant.

12.12.17 Greenbelt development plan has not been submitted

Recommendations of the Committee:

12.12.18 After detailed deliberations, the committee returned the proposal in the present from.

12.13 Proposed 0.30 MTPA Iron ore pellet plant by **M/s Narayani Pellets Pvt Ltd**., located at Kh. No. 311, Village Mohadi, Taluka Nagbhir, District Chandrapur, **Maharashtra** [Online Proposal No. IA/MH/IND/120983/2019, File No. J-11011/305/2019-IAII(I)]– **Prescribing of Terms of Reference** – regarding.

12.13.1 The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 9th October 2019 vide Proposal No. IA/MH/IND/120983/2019 to propose ToRs for undertaking detailed EIA study 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.

Details submitted by the project proponent

12.13.2 M/s. Narayani Pellets Pvt Ltd. proposes to install manufacturing unit for Iron Ore Pellets. It is proposed to set up the plant for production of 3,00,000 TPA (0.3 MTPA) iron ore pellets. The proposed unit will be located at Village: Mohadi Taluka: Nagbhir, District:. Chandrapur, State: Maharashtra.

12.13.3 The land area acquired for the proposed plant is 2.9 Ha. No forestland involved. The entire land has been acquired for the project. Of the total area 0.96 ha (33%) land will be used for green belt development.

12.13.4 There is 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.

12.13.5 Total project cost is approx. Rs.40 Crore. Proposed employment generation from proposed project will be 90-100.

12.13.6 The targeted production capacity of the proposed pellet plant will be 0.3 million TPA. The ore for the plant would be procured from mines or local market. The ore transportation will be by Road. The proposed capacity is given below:

Name of unit	No. of units	Production Capacity
Kiln	1	0.3 million TPA

12.13.7 The power requirement for the Pellet Plant is 5 MVA and is being met by the Maharashtra State Electricity Board.

12.13.8 Proposed raw material and fuel requirement for project are given below: -

Sl. No.	**Raw material**	**Size (mm)**	**Annual Requirement, MT**	**Probable Source**
1	Iron Ore Fines	0 - 10	306000	Mines/Local Market
2	Bentonite	0.074	4500	Gujarat
3	Coke/Coal	0 - 6	3900	Indian Coal, WCL
4	Flux - Dolomite	0 - 50	4800	Local Market

12.13.9 Water Consumption for the proposed project will be 200 KLD and the solid waste generated from the pellet plant will be reused. Domestic wastewater will be treated in Packaged Type STP and the wastewater generated from the process will be treated in settling tank and reused in the process.

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

12.13.11 Consultant: Pollution and Ecology Control Services, Sl. No. in the QCI list: 118

Observations of the Committee:

12.13.12 The Committee observed that the prefeasibility report does not include the details of gasifier, the detailed process and the corresponding scoping of environmental aspects.

Recommendations of the Committee

12.13.13 After detailed deliberations, the committee recommended to return the proposal in the present form.

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ANNEXURE –1

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

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

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

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

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

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

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

6. **Environmental Status**

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

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

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

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

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

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

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

viii. Soil Characteristic as per CPCB guidelines.

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

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

xi. Socio-economic status of the study area.

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

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

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

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

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete

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

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

vi. Measures for fugitive emission control

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

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

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

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

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

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

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

8. **Occupational health**

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

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

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

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

9. **Corporate Environment Policy**
   i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
   ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
   iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
   iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

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

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

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

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

<u>The following general points shall be noted:</u>
   i. All documents shall be properly indexed, page numbered.
   ii. Period/date of data collection shall be clearly indicated.
   iii. Authenticated English translation of all material in Regional languages shall be provided.

iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.

v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.

vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report

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

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

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

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ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

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

ADDITIONAL ToRS FOR PELLET PLANT

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

ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

i. A note on pulp washing system capable of handling wood pulp shall be included.
ii. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
iii. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for *Eucalyptus/Casuarina* to produce low kappa (bleachable) grade of pulp.
iv. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
v. A commitment that no extra chlorine 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 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 12th MEETING OF EAC (INDUSTRY-I) HELD ON 21-23 OCTOBER, 2019

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE		
			21/10/2019	22/10/2019	23/10/2019
1	Dr. Chhavi Nath Pandey, IFS(Retired) Email: pandeychhavinath55@gmail.com	**Chairman**			
Members					
2.	, Representative of Central Pulp and Paper Research Institute, Saharanpur. Email: director.cppri@gmail.com	**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**	ABSENT	ABSENT	ABSENT
5.	Dr. Jagdish Kishwan, IFS (Retd.) Email: jkishwan@gmail.com	**Member**	21.10.2019	22.10.2019	23.10.2019
6.	Dr. G.V. Subramanyam Email: sv.godavarthi@gmail.com	**Member**	21.10.19	22.10.19	23.10.19
7.	Shri. Ashok Upadhyaya Email: ahupadhy@rediffmail.com	**Member**	ABSENT	ABSENT	ABSENT
8.	Shri. R.P. Sharma Email: rpsh3@hotmail.com	**Member**			
9.	Shri. Sanjay Deshmukh Email: docsvd@yahoo.com	**Member**	ABSENT	ABSENT	ABSENT

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE		
			21/10/2019	22/10/2019	23/10/2019
10.	Prof. S.K. Singh Email: sksinghdee@gmail.com **singhsk@email.com**	Member		22/10/19	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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