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

SUMMARY RECORD OF THE FOURTH (4th) MEETING OF RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE HELD DURING 20-22nd FEBRUARY, 2019 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER THE PROVISIONS OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) NOTIFICATION, 2006.

The fourth meetingof the Re-ConstitutedExpert Appraisal Committee (EAC) for Industry-I Sector as per the provisions of the EIA Notification, 2006 for Environmental Appraisal of Industry-I Sector Projects was held during **20-22nd February, 2019** in the Ministry of Environment, Forest and Climate Change. The list of participants is annexed.

2.0 After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

3.0 The minutes of 3rdmeeting held during **9–11th January, 2019**were circulated and confirmed by the EAC.

20th February, 2019 (Teesta)

4.1 Establishment of Integrated Steel Plant [DRI Kilns (3,30,000 TPA), Induction Furnace with Concast (MS Billets/Hot metal for hot charging) along with 1 x 35 T Ladle Refining Furnace (LRF) & 1 x 3 Strand Billet Caster (3,56,400 TPA), Rolling Mill (3,56,400 TPA), Power Generation – 50 MW (24 MW through Waste Heat Recovery Boiler (WHRB) and 26 MW through Fluidized bed combustion (FBC) Boiler) **by M/s. Ankur Udyog Limited (Steel Division)** located at Plot No. AL-2, Sector 23, GIDA Industrial Area, Village Sahbazganj & Domharmafi, Tehsil Sahjanwa, District Gorakhpur, Uttar Pradesh [Online proposal No. IA/UP/IND/75680/2018; MoEF&CC File No. J-11011/416/2017-IA.II(I)] – **Environmental Clearance.**

M/s. Ankur Udyog Limited (Steel Division)has made an online application vide proposal no. IA/UP/IND/75680/2018dated 19th January, 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.

Details submitted by the Project Proponent

2. The proposed project of Mini Integrated Steel Plant of **M/s. Ankur Udyog Limited (Steel Division)**located at Plot No. AL-2, Sector 23, GIDA Industrial Area, Sahbazganj & Domharmafi Villages, Sahjanwa Tehsil, Gorakhpur District, Uttar Pradesh was initially

received in the Ministry on 2nd July 2018 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised in 34th EAC (Industry-1) meeting held on 6th to 7th August 2018 for prescribing ToR to the proposed project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on 20th August 2018 vide Lr. No. IA-J 11011/146/2017-IA.II(I).

3. The proposed Mini Integrated Steel Plant envisages manufacturing of the following units and products:

S.No.	Units		Product	Plant Configuration	Production Capacity
1.	DRI Kilns		Sponge Iron	2 x 500 TPD	3,30,000 TPA
2.	Steel Melt Shop (Induction furnace 1,080 TPD, Ladle Refining Furnace 1 x 35t & Billet Caster 1 x 3 Strand.		MS Billets / Hot metal for hot charging	1,080 TPD	3,56,400 TPA
3.	Rolling Mill		MS Re-Bars (TMT) & Structural Steel	1,080 TPD	3,56,400 TPA
4.	Power Generation	WHRB	Electricity	2 x 50 TPH	24 MW
		CFBC Boiler	Electricity	1 x 110 TPH	26 MW

4. The total land earmarked for the proposed project will be 79 acres (32 Ha.) The land has been taken on lease from Gorakhpur Industrial Development Authority (GIDA). No forest land involved. No River / stream passes through the plant area. It has been reported that no natural water body / stream exists in the plant area. A drain is passing adjacent to the Project Boundary in NE direction and no modification / diversion in the existing natural drainage pattern at any stage has not been proposed.

5. The topography of the area is flat and reported to lies between 26.75'3922° to 26.762708° North Latitude and 83.202008°to 83.207189°East longitude in Survey of India Topo sheet no. 63 N/1 at an elevation of 80 m AMSL. The ground water table reported to ranges between 1.47 to 4.49 m bgl below the land surface during the post-monsoon season and 4.38 to 7.66 mbgl below the land surface during the pre-monsoon season.

6. There are no notified National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve/ migratory routes for Birds within 10 Km. radius of the plant. There are no Schedule-I fauna exists in the study area.

7. Process details are provided in the EIA report and list of raw materials for the proposed project are given as below:

S.No.	Raw Material		Quantity (TPA)	Source	Mode of Transport
For DRI Kilns (Sponge Iron) – 3,30,000 TPA					
1	Iron Ore		2,37,600	Odisha, NMDC	By Rail
2	Iron Ore Pellets		2,97,000	Odisha	By Rail
3	Coal	Indian Coal	4,29,000	Jharkhand	By Rail
		Imported Coal	2,97,000	Indonesia / South Africa / Australia	Through sea route & Rail
4	Dolomite		16,500	Local Area	By road (through covered trucks)
For Steel Melting Shop (MS Billets) – 3,56,400 TPA					
1	Sponge Iron		3,30,000	Own generation	----
2	MS Scrap / Pig Iron		1,00,000	Local Area	By road (through covered trucks)
3	Ferro alloys		5,300	Local Area	By road (through covered trucks)
For Rolling Mill (TMT bars & Structural Steel) – 92,400 TPA (1 x 280 TPD) (through Re-Hearing Furnace)					
1	MS Billets		66,000 34,000	Own generation & Chhattisgarh, West Bengal, Local Area	---- By Rail / Road (through covered trucks)
2	Furnace oil (OR) Pulverized Coal		4,620 18,500	Local Market Jharkhand	By road (through covered trucks) By Rail
For Rolling Mill (MS Re-Bars & Structural Steel) – 2,64,000 TPA (through hot charging) 1 x 800 TPD					
1	Hot metal		2,90,400	Own generation	Internal online charging through CCM
For CFBC Boiler - Power Generation 26 MW					
1	Dolochar		99,000	Own generation	----
2	Coal	Indian Coal	1,40,400	Jharkhand, UP, MP	By rail
		Imported Coal	90,000	Indonesia / South Africa / Australia	Through sea route & Rail

S.No.	Raw Material	Quantity (TPA)	Source	Mode of Transport
3	Rice Husk	40,000	Local Market	By road (through covered trucks)

8. The targeted production capacity of the plant is Sponge Iron of 0.33 million TPA, TMT bars / Structural Steels of 0.35 million TPA & Power Generation of 50 MW.Imported Coal for would be supplied by **M/s. Kan Minerals, Visakhapatnam.** Imported Coal transportation will be done through Ship from Vizag port and from there directly into the site by Rail. Iron Ore, Iron Ore fines will be transported from Odisha by rail directly into the site**.** In the proposed project Railway siding at the site is envisaged.

9. Water requirement for the proposed project will be 1800 KLD, which will be sourced from Ground Water. Water drawl permission from CGWA is under process. Air cooled condensers will be provided in Captive power plant to significantly reduce the water consumption.

10. Total power required for the proposed plant operations will be 50 MW which will be sourced from the captive power plant of 50 MW. Power during construction and back up load of ~ 10 MW will be procured from state grid i.e. Purvanchal Vidyut Vitran Nigam Limited (PuVVNL)

11. Baseline Environmental Studies were conducted during winter season i.e. From 1st March to 31st May 2018. Ambient air quality monitoring has been carried out at 8 locations and the data submitted indicated: $PM_{2.5}$ (25.2 to 48.9 µg/m^3), PM_{10} (44.5 to 82.7 µg/m^3), SO_2 (7.4 to 14.8 µg/m^3), NOx (8.1 to 24.8 µg/m^3) & CO (394 to 1350 µg/m^3). The results of the modeling study indicates that the maximumincrease of GLC dueto the operation of proposed units & Vehicular emissions willbe 3.1 µg/m^{3}with respect to PM_{10}, 14.5 µg/m^3 with respect to SO_2, 14 µg/m^3 with respect to NOx& 2.3 µg/m^3 with respect to CO.

12. Ground water quality has been monitored in 8 locations in the study area are analyzed and the data submitted indicated pH: 7.2 to 8.1, Total Hardness: 211 to 283 mg/l, Chlorides: 158 to 206 mg/l, Fluoride: 0.75 to 1.1 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 4 locations in the study area and analyzed and the data submitted indicated pH: 7.3 to 7.8 and DO: 3.2 to 4.2 mg/l.

13. Noise levels are in the range of 44.40 dBA to 65.45 dBA during 1st March to 31st May 2018.

14. It has been reported that there are no people residing in the project site. The project is situated in Gorakhpur Industrial Development Area (GIDA). No R&R is involved.

15. It has been reported that the following Solid wastes will be generated from the project which will stored in storage yard above the ground level. Fly ash will be stored in Silo.

S.No.	Waste	Quantity (TPA)	Proposed method of disposal
1	Ash from DRI	59,400	Will be given to Cement Plants & Brick manufacturers.
2	Dolochar	99,000	Will be used in CFBC Boiler as fuel.
3	Kiln Accretion Slag	2,970	Will be used in road construction & given to brick manufacturers.
4	Wet scrapper sludge	15,180	Will be used in road construction & given to brick manufacturer.
5	SMS Slag	35,640	Slag from SMS will be crushed and iron will be recovered & then remaining non -magnetic material being inert by nature will be used as sub base material in road construction.
6	End Cuttings from Rolling Mill	10,692	Will be reused in the SMS
7	Mill scales from Rolling Mill	7,128	Mill scales will be given to nearby Ferro alloys manufacturing units / casting units.
8	Ash from Power Plant (with Indian Coal + dolochar)	1,00,305	Ash generated is being given to Cement Plants / Brick Manufacturers.
9	Ash from Power Plant (with imported Coal + dolochar)	66,381	Ash generated is being given to Cement Plants / Brick Manufacturers.

16. It has been reported that an area of **10.9 Ha. (27 Acres)** will be developed as green belt out of total plant area **79.0 acres (32 Ha.)** to attenuate the noise levels and trap the dust generated due to the project development activities.

17. Public Hearing of the project was held on 09-10-2018 at project site under the chairmanship of Shri. Vijendra Pandiyan (District Magistrate, Gorakhpur) for production of 0.33 million TPA of Sponge Iron, 0.35 million TPA of MS Billets, 0.35 million TPA of MS Re-Bars (TMT) / Structural Steels & Power Generation of 50 MW. The issues raised during public hearing are related to crop damage, control of Air pollution, Water Pollution, Plantation, Employment, CER etc.Thestatement of main issues raised by the public and response of the project proponent with action plan is furnished as below.

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
1.	Land which has been allotted by GIDA to the	Land has been taken on lease from Gorakhpur Industrial Development	----	----	----

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	proposed industry, that land was acquired from farmers, regarding which, no compensation has been received till date.	Authority (GIDA). Entire payment has been made by the company to GIDA for the entire land. Copy of the lease deed has been enclosed in the EIA report. Entire payment as per norms has been made by Gorakhpur Industrial Development Authority (GIDA) to all concerned farmers pertaining to the land on which the project is proposed.			
2.	Due to installing deep tube wells by the Industries for use of underground water, the underground water level is going down, due to which, the hand pumps of villagers are getting waterless.	The plant area is categorized as SAFE zone. The Average Annual rainfall in the area is 1221 mm. An application has been submitted to CGWA for drawl of ground water. Groundwater permission from the concern Authority for drawl of water will be obtained prior to commissioning of the proposed project. Rainwater harvesting measures proposed will help in augmentation of ground water table.	Within 3 months of commissioning of plant	Rs.15 Lakhs	---
3.	The nearby villagers are also not being employed in the industries. Therefore, all of us oppose the same.	Top priority will be given to local people in providing employment.	---	---	---
4.	Even though management is giving undertaking for controlling the same before	In the proposed project all required air emission control systems such as ESP, Bag filters, dust	Implemented parallel with implementation of the proposed project	Rs 28 Crores is earmarked for Environmental Protection	Rs. 185 Lakhs / Annum

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	setting up of industry, but, after the set up, same are not complied and nearby people get affected by the pollution.	suppression system, covered conveyers, pucca internal roads, Dust extraction system with bag filters will be installed and operated to comply with the SPCB norms. Interlocking system will be provided to ESP and whenever ESP fails, the raw material feed to the unit will be stopped and after rectification of the ESP only production in that unit will commence. Net Resultant Ground Level Concentrations are within the National Ambient Air Quality standards. Pucca internal roads will be laid to prevent fugitive dust emanation. Greenbelt development in 1/3rd of the total land area also reduces the emissions further. The wastewater generated from the Rolling Mill will be sent to settling tank and will be recycled back to the process. Closed loop cooling system will be adopted in DRI & SMS units. 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. Sanitary wastewater		Measures	

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		will be treated in septic tank followed by sub-surface dispersion. Solid wastes such will be stored in designated storage yard. Ash generated will be stored in silos only. There will not be any open storage of fly ash. Fly ash utilization will be in accordance with MOEF&CC notification. It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms. Health check up will be carried out in the villages periodically. Hence There will not be any adverse impact on health of the people in the area.			
5.	M/s. Gallant Ispat Ltd. is established and is in operation, which is situated adjacent to the proposed Industry in the western side. From the huge air pollution being generated from M/s. Gallant Ispat Ltd., the nearby people are being affected badly. A huge amount of ash is poured down on the terrace and residential	The issue is not related to the present proposal. However in the proposed project all required air emission control systems such as ESP, Bag filters (PTFE/glass fiber type), dust suppression system, covered conveyers, pucca internal roads, and Dust extraction system with bag filters will be installed and operated to comply with the SPCB norms. Interlocking system will be provided to	Implemented parallel with implementation of the project	In the proposed project Rs. 28 Crores is earmarked for Environmental Protection Measures	Rs.185 Lakhs / Annum

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	premises of the villagers, due to which, people are getting suffered from diseases like Asthema and T.B.	ESP and whenever ESP fails, the raw material feed to the unit will be stopped and after rectification of the ESP only production in that unit will commence. Bag houses will be designed for 50% excess volumetric flow rate. Net Resultant Ground Level Concentrations are within the National Ambient Air Quality standards. Pucca internal roads will be laid to prevent fugitive dust emanation. Greenbelt development in 1/3rd of the total land area also reduces the emissions further. Ash generated will be stored in silos only. There will not be any open storage of fly ash. Fly ash utilization will be in accordance with MOEF&CC notification. It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms. Health check up will be carried out in the villages periodically. Hence There will not be any adverse impact on health of the people in the area due to the proposed project.			

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
6.	All of us villagers are suffering from the water/air/noise pollution generated by Gallant Ispat Ltd.	Not related to this proposal. However, in the proposed project all required air emission control systems such as ESP, Bag filters (PTFE/glass fibre type), dust suppression system, covered conveyers, pucca internal roads, and Dust extraction system with bag filters will be installed and operated to comply with the SPCB norms. Interlocking system will be provided to ESP and whenever ESP fails, the raw material feed to the unit will be stopped and after rectification of the ESP only production in that unit will commence. Net Resultant Ground Level Concentrations are within the National Ambient Air Quality standards. Pucca internal roads will be laid to prevent fugitive dust emanation. Acoustic enclosures will be provided STG and the ambient noise levels will be with in the stipulated standards. Greenbelt development in 1/3rd of the total land area also reduces the air emissions further. It is proposed to develop more Greenbelt in the North East, East Directions.	Implemented parallel with implementation of the project	In the proposed project Rs. 28 Crores is earmarked for Environmental Protection Measures	Rs. 185 Lakhs / Annum

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		Health check up will be carried out in the villages periodically. Hence There will not be any adverse impact on health of the people in the area due to the proposed project.			
7.	PA's have not given the details of ETP/STP/WTP. ETP etc. in the EIA report. If these facilities not installed by the Industries, due to which the ground water is getting polluted.	The wastewater generated from the Rolling Mill will be sent to settling tank and will be recycled There will be no Effluent discharge from DRI & SMS units as closed loop cooling system is proposed to be adopted. 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. Sanitary wastewater will be treated in septic tank followed by sub-surface dispersion. ETP details are shown in chapter-10 of EIA report. Zero Liquid effluent discharge will be maintained in the proposed plant. No effluent will be discharged outside the plant premises. Ground water quality will be monitored every month and reports will be submitted to MOEF&CC, UPPCB.	Implemented parallel with implementation of the project	In the proposed project Rs 2.25 Crores is earmarked for Wastewater Management	Rs.14 Lakhs / Annum
8.	Due to the outflow of excessive	A drain passes just outside the plant	1st year of operation	Rs 10 lakhs	---

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	quantity of polluted water by the M/s. Gallant Ispat Ltd. through the drain flowing adjacent to it, the water quality of Aami River is also getting affected and aforesaid drain have been made very congested by the proposed Industry and M/s. Gallant Ispat Ltd. This drain was natural drain, which has been diverted and industry has been set up in it's place.	premises. No encroachment of drain by our company. As per the directions of the District Magistrate, the management has agreed to strengthen the drain that is passing adjacent to the proposed project site. Ground water quality has been monitored in Aami River and the water quality is in accordance with the norms.			
9.	Steel Industries are being established at the proposed place, whereas, earlier, this rumor was spread by the Govt. that textile industry would be established in this area belongs to Gorakhpur Industrial Area.	The company has been allotted the land in the State Govt. notified Industrial Area of Gorakhpur, by the Gorakhpur Industrial Development Authority (GIDA) in the year 2010 for setting up an Integrated Steel Plant and Textile industry. Copy of the lease deed has been enclosed in the EIA report. The land is being utilized for establishment of a mini integrated steel plant.	---	---	---

18. An amount of Rs.5.45 Crores(As per Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018) has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues. The details of CER proposed are as follows:

S.No.	Major Activity Heads	Years (Rs. in Crores)	Total Expenditure

		1st	2nd	3rd	(Rs.in Crores)
A	**Based on Social Impact Assessment (SIA)**				
1	Community & Infrastructure Development Programs (construction of 10 nos. of toilets in 5 nos. of schools in Sahjanwa Town, Jigna, Ujikar & Domhar villages under Swachh Bharat (10 nos. @ Rs 2 lakhs/toilet), renovation of 3 nos. of school buildings (Rs. 10 Lakhs), drainage facilities in Sahjanwa Town (20 lakhs), Maintenance & repairs of roads (Rs.50 Lakhs), Community Hall in Sahjanwa Town (Rs. 50 Lakhs).	0.5	0.5	0.5	1.5
2	for Health & Hygiene of the community (Medical Camps, Mineral Water plants, construction toilets in villages, PHC, Ambulance facility, Distribution of Medicines etc.)	0.3	0.3	0.3	0.9
3	A Community Centre will be established in the village which will consist of the following:				
i.	Vocational Training Institute with latest tools, machinery & softwares etc. for making them Industry ready.	0.15	0.15	0.1	0.4
ii.	Workshop centre with latest tailoring machines for training women (like tailoring, stitching etc.)	0.2	0.1	0.1	0.4
iii.	Skill development / Computer / IT Training Centre for improving computer knowledge and making Industry ready.	0.1	0.1	0.1	0.3
4	for Education & Sports (Merit Scholarships (for), construction of class rooms in schools, providing computers in class rooms, development of library facility)	0.1	0.1	0.1	0.3
5	Bore wells / RWH pits in nearby villages	0.05	0.05	0.05	0.15
6	Other Need based activities	0.5	0.5	0.3	1.3
	Sub Total – A	**1.90**	**1.80**	**1.55**	**5.25**
B	**Based on Public Consultation**				
1	Greenbelt development outside the Plant Boundary & in Village (4000 nos. will be planted and maintained)	0.05	0.03	0.02	0.1
2	Strengthening of Drain passing through adjacent to the Boundary	0.1	0.0	0.0	0.1
	Sub Total (B)	0.09	0.06	0.05	0.2
	Total (A+B)	**1.99**	**1.86**	**1.6**	**0.3**

19. The capital cost of the project is Rs.330 Crores and the capital cost forenvironmental protection measures is proposed as Rs. 28 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 185 Lakhs /annum. The employment generation is 500 people during operation of the proposed project and 1000 people during construction of the proposed units.

20. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

BREAK-UP OF BUDGET FOR ENVIRONMENTAL PROTECTION MEASURES

S.No	Item	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Lacs)
1.	**Air Emission Management**		
	ESPs	8.0	60
	Fume extraction systems with Bag filters	5.5	15
	Dust Extraction systems with Bag filters	1.0	5
	Chimneys	3.0	2
	CAAQS	1.2	1
	CEMS	1.5	1
	Water Sprinklers	0.2	1.5
	Environment Monitoring	0.5	12.5
	Total (A)	**20.9**	**98**
2.	**Wastewater Management**		
	ETP	1.85	10
	Settling ponds	0.1	1
	Garland drains	0.05	1
	Monitoring	0.1	2
	Total (B)	**2.25**	**14**
3.	**Solid waste Management**		
	Ash handling system	3.0	40
	Construction of Pucca Platform for storage	0.5	2
	Hazardous & Municipal solid waste storage	0.1	1
	Total (C)	**3.6**	**43**
4.	Greenbelt development, Land scaping Noise Management	0.25	10
5.	Rainwater Harvesting	0.15	--
5.	Occupational Health & Safety	1.0	20
TOTAL		**28.0**	**185**

20. Greenbelt will be developed in 10.9 Ha. (27 Acres) which is about 33% of the total land area proposed for the project. Greenbelt width varying from 10 to 130 m will be developed all around the plant consisting of at least 3 tiers around plant boundary will be

developed as greenbelt and green cover as per CPCB guidelines. Total of 17,000 nos. of saplings will be planted and nurtured in 10.9 hectares during the 1st monsoon soon after commencement of operation.

21. The proponent has mentioned that no litigation is pending against the project as on date. Writ petitions were filed before the Hon'ble High Court of Allahabad (Writ C no. 1110/2011 & 4513/2011) against land allotment by GIDA to **ANKUR UDYOG LIMITED.** The Hon'ble High Court of Allahabad after hearing the matter was pleased to dismiss the Writ petitions, vide its order dated 02-07-2018. After that TOR has been granted by the Ministry. Final EIA has been submitted online on 13th October, 2018. Subsequently Special Leave Petitions were filed before the Hon'ble Supreme Court of India (SLP (C) No. 27615/2018 & 30927/2018). The Hon'ble Supreme Court of India after hearing the matter was pleased to dismiss the petitions, vide its order dated 16-01-2019 stating that "**We see no reason to interfere with the well reasoned judgement of the High Court of Allahabad**".Consequent to the above order of the Hon'ble Supreme Court of India no litigation is pending against the project / land on which the project is proposed as on date.

22. Name of the consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd, Hyderabad [S.No. 117, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations of the Committee: -

23. The Committee noted that the details regarding transportation of raw materials, CER action plan, hydrogeology of the area etc., have not been adequately covered in the EIA/EMP report. Further, the approval from Competent Authority for the ground water drawl is yet to be obtained.

Recommendations of the Committee: -

24. After detailed deliberations, the Committee sought the following additional information for further re-consideration of the proposal.

i. Confirmation regarding the transportation of iron ore, fluxes and coal only by Rail by providing dedicated railway siding to the plant site.
ii. Explore the possibility of use of river water/ water from the other industries located in the Gorakhpur industrial area in order to reduce the ground water drawl.
iii. Scheme for ground water recharge more than the amount extracted from the ground shall be submitted. The recharge can be done within the factory premises and outside the factory premises also.
iv. Particulate matter emissions from the process stacks shall be less than 30 mg/Nm^3.
v. Point wise issues raised during the public hearing in verbatim shall be prepared along with time bound action plan with fund allocation for the implementation of the issues raised in public hearing.
vi. Scheme for achieving zero liquid discharge shall be submitted.

vii. CER action plan shall be reworked and submitted. This should include skill developmental program to ensure 70% employment of local inhabitants.

viii. Confirmation regarding use of FO only in reheating furnace.

ix. Study on hydrogeology of the area shall be submitted.

x. Permission for withdrawal of ground water shall be submitted.

4.2 Expansion of Existing Sponge Iron Plant – Final Configuration Sponge Iron Plant (3x100 TPD), Steel Making Shop, Induction Furnaces and Billet Caster (72000 TPA), Rolling mill (67,500 TPA), Iron Ore Crushing & Beneficiation Plant (2,01,000 TPA), Slag Crushing Plant for SMS Slag (12,000 TPA) & Captive Power Plant (15 MW) by **M/s. MAA Chhinnmastika Cement and Ispat Private Limited** at Village: Hehal, P.O.: Barkakhana, District: Ramgarh, Jharkhand [Online proposal No. IA/JH/IND/84413/2004; MoEF&CC File No. J-11011/215/2016-IA.II(I)] – **Environmental Clearance.**

M/s. MAA Chhinnmastika Cement and Ispat Private Limited has made an online application vide proposal no. IA/JH/IND/84413/2004dated 10th January, 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.

Details submitted by the Project Proponent

2. The proposed expansion project of M/s. Maa Chhinnmastika Cement and Ispat Private Limited is located at Village: Hehal, P.O.: Barkakana, District: Ramgarh, Jharkhand initially applied in the Ministry on 09.06.2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry-1) during its 8th meeting held on 27th& 28th June 2016. Accordingly, the Ministry of Environment, Forest & Climate Change (MoEF&CC had prescribed ToR to the project on 11.08.2016 vide Lr.No. J-11011/215/2016-IA.II(I).

3. The project of M/s. Maa Chhinnmastika Cement and Ispat Private Limited located in Village: Hehal, P.O.: Barkakana, District: Ramgarh, Jharkhand is for setting up of a new units; Steel Making Shop for production of 72000 TPA Billets, Rolling Mill for production of 67,500 TPA rolled products, Iron Ore Crushing & Beneficiation Plant of capacity 1,67,300 TPA throughput, Briquette Plant of capacity 27,000 TPA, Slag Crushing Plant for SMS Slag of capacity 12,000 TPA along with 15 MW Captive Power Plant. The existing project of DRI unit with for production of 90,000 TPA sponge iron through 3x100 TPD DRI Kiln was installed after getting NOC vide letter No. N-502 dated 16.09.2005 and subsequently CTO from JSPCB. The compliance of CTO was submitted to Jharkhand State Pollution Control Board (JSPCB), Ranchi. The proposed capacity for different products for site area as below:

Name of unit	No. of units	Capacity of each Unit	Production Capacity(TPA)
Existing Units			

Name of unit	No. of units	Capacity of each Unit	Production Capacity(TPA)
Sponge Iron Unit	3 DRI Kilns	100 T	90,000
Proposed Units			
Steel Making Shop, Induction Furnaces and Billet Caster	2	12 T	72,000
Rolling Mill – TMT Rebar Mill	15 Stand Mill with Direct Hot Charging	225 T	67,500
Power Plant Waste Heat Boilers AFBC Boiler	 3 1	 3 x 2 MW 1 x 9 MW	15MW
Iron Ore Crushing & Beneficiation Plant	Single stream (throughput)	80 – 100 TPH	167,300
Briquette Plant	1	90 TPD	27,000
Slag Crushing Plant for SMS Slag	Single stream	5 TPH	12,000

4. No additional land shall be required for the project. The project shall be installed within existing plant area of 12.42 Ha. No forest land 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.

5. The topography of the area is Gently undulating and reported to lies between 23° 36' 57.25" to 23° 37'16.62" N Latitude and 85° 25' 30.31" to 85° 25' 52.79" E Longitude in Survey of India topo sheet 73 E/6 & 73 E/10 at an elevation of 260 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.

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. 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.

7. 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 given as below:

Basic Raw Material Used

Raw Material Used	Quantity in TPA	Source	Mode of Transport Dist. from plant
For the Existing Sponge Iron Plant			
Iron Ore	167,300	West Singhbhum, Jharkhand & Barbil, Odisha	Mode: Road, Rail Approx. – 300 km

Raw Material Used	Quantity in TPA	Source	Mode of Transport Dist. from plant
Coal	144,000	Different Collieries of CCL	Mode: Road, Rail Approx. – 150 km
Dolomite	2300	Daltonganj, Jharkhand. Katni, M.P.	Mode: Road Daltonganj – 250 km Katni – 700 km
For the Proposed Project			
Non-coking Coal for Power Plant	45,000	Different Collieries of CCL	Mode: Road, Rail Approx. – 150 km

Process involved

Iron Ore Beneficiation, Briquette Plant, Sponge iron production through Coal based DRI Kiln (Existing), Billet Production through Induction Furnace & Billet Caster, Rolling of Billet in Rolling Mill for TMT Bar production and generation of 15 MW Power through 3 nos. of WHRB and 1 no. of AFBC Boiler.

Waste Generated in process(Unit - TPA)

Item	Generation	Utilization	
		Recycled / Reused	Sold
Power Plant			
Fly-Ash	18,000	-	18,000
Bottom Ash	7,000	--	7,000
Coal Fines	7,000	7,000	
Steel Making Shop			
Bag Filter Dust	2,200	2,200	--
Slag	13,200	1,320	11,880
Scale from Billet Caster	350	350	--
Rolling Mill			
Mill Scale	1,150	1,150	--
Iron Ore beneficiation plant			
Iron Ore fines	21,500	21,500	
Tailing waste (cake from Press Filter)	1,800	-	--
Total	**72,200**	**33,520**	**36,880**

8. The targeted saleable capacities of the TMT Bar, Billet and Sponge Iron will be 67,500 TPA, 1,500 TPA and 16,500 TPA respectively. The Iron ore for the plant would be procured from West Singhbhum, Barbil and other places of Jharkhand. The raw material transportation will be done through rail and road.

9. The water requirement of the project is estimated at 2080 m^3 /day will be met from Damodar River. The permission for drawl of surface water is filed to Damodar Valley Reservoir Regulation Committee, Govt. of Jharkhand on 12.04.2017 and the same is yet to be obtained.

10. The power requirement of the project is estimated 15 MW out of which 13.5 MW will be obtained from the Captive power plant and remaining balance power of 1.5 MW will be sourced from the Power Grid.

11. Baseline Environmental Studies were conducted during Post Monsoon Season i.e. from 01.10.2016 to 31.12.2016. Ambient air quality monitoring has been carried out at 8 locations during study period indicates: PM_{10} (45.20 to 96.40 µg/m^3), $PM_{2.5}$ (27.60 to 57.70 µg/m^3), SO_2 (7.7 to 16.10 µg/m^3) and NOx (22.10 to 27.90 µg/m^3). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 6.87 µg/m^3 with respect to the PM_{10}, 22.96 µg/m^3 with respect to SO_2 and 2.99 µg/m^3 with respect to the NOx.

12. Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.27 to 8.04, Total Hardness: 187.05 to 328.78 mg/l, Chlorides: 64.16 to 139.26 mg/L, Fluoride: 0.88 to 1.32 mg/L. Heavy metals are within the limits. Surface water samples were analyzed from 2 locations. pH: 7.78 to 7.80, DO: 5.5 to 5.9 mg/l and BOD: 11.60 to 13.09 mg/l. COD from 48.73 to 50.10 mg/l.

13. Noise levels are in the range of 52.18 to 55.36 dB(A) for day time and 40.16 to 44.84dB(A) for night time.

14. It has been reported that there are no people in the core zone of the project has been displaced. No R&R is involved.

15. It has been reported that a total of approx. 72,200 TPA waste will be generated due to the project, out of which 33,520 TPA will be reused and 36,880 TPA remaining will be sold. It has been envisaged that an area of 4.36 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.

16. 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-2204067 /2018/958 dated 06.06.2018 and consent is valid up to 31.12.2022.

17. The Public hearing of the project was held on 30.01.2018 at Rajkiyakrit Utkramit Madya Vidyalaya Village-Hehal, Sub Division: Patratu, P.O.- Barkakana, District-Ramgarh Jharkhand under the chairmanship of Mrs. Jyotsana Singh (Director-DRDA Ramgarh, an ADM Rank officer) for the expansion proposal. The issues raised during public hearing and response of the project proponent with action plan are pollution, potable drinking water,

employment etc. An amount of Rs 142 Lakhs (0.75% of Project cost) has been earmarked for CER based on public hearing issues.

S. No.	Name & Village of Participant	Issues Raised	Action Plan		
			Commitment	**Time Frame**	**Budget**
	Mr Rustom Ansari, Mr. Mohd. Hakkim, Mr. Mannovar Aalam, Mr. Rajender badiya **Village – Chaingada** Mr. Prakash Giri, Mr. Ravinder Mundda, Mr Madeshvar Badiya, Mrs. Meena Devi, Mrs. Poonam Devi Mohd. Akhtar Ansari Mr. Balkeshwar singh Mr Yugal Kishor Mr. Rajeshwar Singh Mrs. Jatiley Devi, Mr Anwar Hussain **Village – Hehal** Mr Gangadar Badiya	• Pollution is affecting Crop, Cattles and near by habitation. • The environmental control equipment are not in working condition for all time • No CSR facility provided by Project proponent for social welfare development of the villagers.	• Company has already installed the 6 bag filter and 2 ESPs and for the propose project 1 ESP and 4 bag filter will be installed to control the pollution. • The sensible heat of DRI gas will be used in WHRB boilers and waste dolochar will be used in AFBC Boiler which will help in reducing the pollution. • Interlocking system with the pollution control facility shall be installed. • Pollution control equipment shall be regularly maintained • Plant shall be shut down when pollution control equipment is under maintenance • Medical facilities will be provided to the local villagers under CER activities. • Community Health Check-up programs such as periodically medical check-up camps, blood donation camps and health awareness programs on child and mother care, health and hygiene practices shall be conducted. • Efforts will also made by the company's management to keep the local area clean to reduce the spread of diseases. • Company will provide the infrastructure development facilities, Medical facilities, Education facilities, under the CER activity.	18 month 0.6-1 year	Budget Allocation for Air Pollution Control Equipment : Capital Cost : Rs. 700 lakhs Recurring Cost: Rs. 78 Lakhs/year Rs. 50 Lakhs

S. No.	Name & Village of Participant	Issues Raised	Action Plan		
			Commitment	**Time Frame**	**Budget**
	Village – Masmohna (Pere Panchyat) Mr. Nageshwar Mundda Village – Dhurgi (Panchayat)				
	Mr. Giri shankar Mehtao Village - Chanigada	• He asked for providing safe drinking due to pollution the Water is not potable	• Installation of Hand Pumps in Hehal, Chaingara, Masmohna, Durgi and Barakhana Villages • Cost of Installation of Hand Pump- No. of 4 hand Pumps in each Village 50,000x4x5villages=**Rs**.**10 lacs** • **Rain Water Harvesting System in villages**-Cost of the scheme- 50,000x2x5=about **Rs 5 lacs** • **Construction of Ponds in village** - Estimated Cost- **Rs 20 lacs**	1 year	Rs. 35.00 lakhs
	Mrs Bavita Devi, Mr. Vikram Malhaar, Mr. Bejnath Thakur, **Village - Hehal**	• Employment for the local people	• Expansion project will be generating around 396 direct employments and many indirect employments for the villagers. • Preferences will be given to villagers on the basic of their Qualification • Vocational Training Center for Educated youth of Hehal & Chaingara villages • Short term courses for skill up gradation for villagers • Training centers for Ladies (stitching, Embroidery, tailoring etc.)	1 year	Rs. 20.00 Lakhs

18. The capital cost of the project is Rs 161.42 crores (including 1.42 Crs. for CER) and the capital cost for environmental management is proposed as Rs 962 Lakhs. The annual recurring cost towards the environmental management is proposed as Rs 101.40 Lakhs/year. An amount of Rs 142 Lakhs (0.75% of Project cost) has been earmarked for CER based on

public hearing issues and need based assessment. The employment generation from the proposed project/expansion is 396.

19. Greenbelt will be developed in 4.36 Ha which is about 35.1% 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 guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Out of 4.36 ha. area earmarked for greenbelt development, at present 5000 nos. of trees have already been planted in 2.24 ha. area. Additionally, 6000 trees shall be planted covering area more than 2.12 Ha.

20. It was informed by the project proponent during the meeting that while finalizing the EMP for the project, a Briquette Plant of capacity 27,000 TPA has been considered to utilize the Tailing waste generated from the Iron Ore Beneficiation Plant and to utilize other solid wastes. Accordingly, capacity of the Iron Ore Beneficiation Plant is reduced from 2,01,000 TPA throughput to 1,67,300 TPA.

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

22. Name of Environment Consultant – **M/s. Vardan Environet, Gurgaon**[S.No. 156, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations of the Committee: -

23. The Committee noted that the details regarding lay out, transportation of raw materials, time bound action plan to the issues raised during public hearing and AAQ modelling etc., have not been adequately addressed in the EIA/EMP report. Further, the Committee also noted that approval from Competent Authority for the water drawl is yet to be obtained for the existing as well as proposed expansion activity.

Recommendations of the Committee: -

24. After detailed delibrations, the Committee sought the following additional information for further re-consideration of the proposal.

i. Annual production data for the last five years shall be submitted.
ii. Update the flow sheet for iron ore beneficiation plant shall be submitted.
iii. Details of quantity of raw materials and finished products to be transported through road and rail shall be submitted.
iv. Particulate matter emissions from the process stacks shall be less than 30 mg/Nm^3.
v. Confirmation that no reheating furnace shall be installed and no slime pond be provided.
vi. No ground water shall be abstracted for the project.
vii. Scheme for ground water recharge shall be submitted. The recharge can be done within the factory premises and outside the factory premises also.

viii. AAQ modelling shall be redone along with the reasons for reporting high level GLC_{max}22.96 µg/m^3 with respect to SO_2 shall be submitted.

ix. Autocad layout plan with appropriate legends and scale shall be submitted.

x. Scheme for 100% utilization of the solid waste inter-alia including slime management shall be submitted.

xi. Water drawl permission from the Competent Authority for the existing and expansion project activity shall be submitted.

xii. Authenticated English translation of public hearing proceedings shall be submitted as per point no. iii of generic ToR.

xiii. Point wise issues raised during the public hearing in verbatim shall be prepared along with time bound action plan with fund allocation for the implementation of the issues raised in public hearing.

xiv. Revised CER based on the issues raised in the public consultation and need based assessment.

4.3 Environmental Clearance for our proposed Asbestos based Brake Lining Manufacturing Plant (Two-wheelers- 6,67,000 PCS/day & commercial Vehicles - 5,400 Pcs/day) in an area of 0.405 Ha. (4050 Sq.m) taken on lease by **M/s. A.A. Friction Materials Private Limited** situated at Plot No. - 5, Sector-7, IMT Manesar, Gurgaon, Haryana [Online proposal No. IA/HR/IND/67766/2017; MoEF&CC File No. J-11011/477/2017-IA.II(I)] – **Reconsideration for grant of environmental clearance based on ADS reply.**

M/s. A.A. Friction Materials Private Limited has made an online application vide proposal no. IA/HR/IND/67766/2017dated 5th January, 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. 4(c) Asbestos milling and asbestos based productsunder Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

The proposal cited above was considered in 35th Meeting of the EAC (Industry-I) held during 17-18thSeptember, 2018. M/s. Perfact Enviro Solutions Pvt. Ltd. and M/s. Ecomen Laboratories Pvt. Ltd. (NABET accredited with sectoral experience) New Delhi have prepared the EIA report & presented the proposal before the Committee. After detailed delibrations, the Committee noted that the EIA report submitted to the Ministry is not in line with the Appendix-III of the EIA Notification 2006. Hence, the Committee decided to return the proposal.Subsequently,M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd, Hyderabad [S.No. 117, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019] have been appointed by the Project Authorities for revalidation of EIA report. The revalidated EIA report was submitted to the Ministry on 5th January, 2019.

Details submitted by the project proponent:

2. The proposed project of Asbestos based Brake Lining Manufacturing Plant of M/s. A.A. Friction Materials Private Limited at Plot No. 5, Sector-7, IMT Manesar, Gurgaon,Haryana was initially received in the Ministry on 30th August,2017 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised in 23rd EAC (Industry-1) meeting held on 9th to 10th October 2017 for prescribing ToR to the proposed project for undertaking detailed EIA study for obtaining environmental clearance. Accordingly, the Ministry of Environment, Forest and Climate Change had prescribed ToR to the project on 13th October 2017 vide Lr. No. J-11011/477/2017-IA II (I).

3. The proposed Asbestos based Brake Lining Manufacturing Plant (Two-wheelers-6,67,000 PCS/day & commercial Vehicles - 5,400 Pcs/day) is situated at Plot No. - 5, Sector-7, IMT Manesar, Gurgaon, Haryana. The total land earmarked for the proposed project will be 0.405 Ha. (4050 Sq.m) The land has been taken on lease from M/s. AADINATH OVERSEAS LLP. allotted by HSIIDC, Govt. of Haryana. No forest land involved. No River / stream passes through the plant area. It has been reported that no natural water body / stream exists in the plant area. A Drain is passing adjacent to the Project Boundary in NE direction and no modification / diversion in the existing natural drainage pattern has not been proposed.

4. The proposed Plant envisages manufacturing of the following products:

S.No.	Name of product	Production Capacity (in PCS/day)	Production Capacity (in PCS/Annum)
1	Two-wheeler Brake Lining (Asbestos based)	6,67,000	24,00,00,000
2	Commercial Vehicle Lining (Asbestos based)	5,400	19,20,000

5. The topography of the area is flat and reported to lies between 28.374964° to 28.375375° North Latitude and 76.918358° to 76.919275° East longitude in Survey of india Topo sheet no. 53 D/15 at an elevation of 238 M AMSL. The ground water table reported to range between 3.3 to 79.7 m bgl below the land surface during the post-monsoon season and 3.05 to 77.55 mbgl below the land surface during the pre-monsoon season.

6. There are no notified Biosphere reserve / Tiger Reserve/ migratory routes for Birds with in 10 Km. radius of the plant site. As per the letter dated 27/12/2018 of DFO, Gurugram, the proposed project site is located at 8.9 Kms from the boundary of Sultanpur National Park and outside the eco-sensitive zone of Sultanpur National Park. Schedule - 1 Species of Leopard, Indian Peafowl, Python & Indian Monitor Lizard are reported from the Buffer zone listed in of the Indian Wildlife (Protection) Act. Conservation plan is prepared and submitted to Principal Chief Conservator of Forests (PCCF), Panchakula, Haryana. Recommendations / comments of the Principal Chief Conservator of Forests (PCCF), Panchakula, Haryana have been obtained. As per their recommendation, a fund of Rs. 11.00 Lakhs to be spent for the

Plan Period i.e. 5 years and it would be funded by the Project Proponent i.e.M/s. A.A. Friction Materials Private Limited.

7. Detailed process provided in the EIA report and list of raw material for the proposed project is given below:

S.no.	Compound	Quantity (Kg/day)	Source	Distance w.r.t. site (in Kms.)	Mode of transportation
1.	Asbestos (White Chrysotile Asbestos Fibre)	11,500	The Asbestos fibre packed in HDPE bags imported from Kazakhstan	---	In Closed containers by ships & then by train to Garh Harasaru railway station thereafter by truck till site.
2.	Resin	1300	Bahadurgarh (Haryana)	65	By Truck
3.	Nitrile Butyl Rubber (NBR)	2500	Mumbai	1350	By Truck
4.	Discarded Waste / Friction Dust	2600	Bahadurgarh (Haryana)	65	By Truck
5.	Other (Mineral additives)	7600	Delhi	60	By Truck

8. The targeted production capacity of the plant is Asbestos based Brake Lining Manufacturing Plant (Two-wheelers- 6,67,000 PCS/day & commercial Vehicles - 5,400 Pcs/day). The Asbestos fibre packed in HDPE bags will be imported from Kazakhstan**.** Asbestos fibre will be transported in Closed containers by ships & then by train to Garh Harasaru railway station thereafter by truck to the plant site.

9. Water requirement for the proposed project will be 17.5 KLD. Water required for the proposed project will be supplied by HSIIDC. The total power requirement for operation of plant is 1110.05 KW, which will be sourced from Dakshin Haryana Bijli Vitran Nigam. D.G. sets of 2 x 500 KVA will be installed for emergency power supply.

10. Baseline Environmental Studies were conducted during winter season i.e. from 1st October 2017 to 31st December 2017 & collected for Additional One month i.e. from 1st October 2018 to 31st October 2018. Ambient air quality monitoring has been carried out latest at 8 locations and the data submitted indicated: $PM_{2.5}$ (42.7 to 53.2 µg/m^3), PM_{10} (72.4 to 89.8 µg/m^3), SO_2 (12.2 to 18.7 µg/m^3), NOx (25.4 to 39.2 µg/m^3), CO (1248 to 1786 µg/m^3) & Asbestos Fibre Count <0.02 to 0.034 f/cc. The results of the modeling study indicates that the maximumincrease of GLC dueto the operation of proposed units & Vehicular emissions

willbe 0.12 µg/$m^3$with respect to the PM, 0.2 µg/m^3 with respect to the SO_2, 0.5 µg/m^3 with respect to the NOx & 0.05 µg/m^3 with respect to the CO.

11. Ground water quality has been monitored in 8 locations in the study area are analyzed and the latest data submitted indicated pH: 7.0 to 7.8, Total Hardness: 143 to 377 mg/l, Chlorides: 77 to 388 mg/l, Fluoride: 0.38 to 0.88 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 2 locations in the study area and analyzed and the latestdata submitted indicated pH: 7.1 to 7.4 and DO: 3.8 to 4.9 mg/l.

12. The equivalent Noise levels (DAY-NIGHT) are in the range of 51.25 dBA to 70.44 dBA.

13. It has been reported that there are no people are residing in the plant. The project is situated in Sector-7, IMT Manesar, Gurgaon. No R&R is involved.

14. It has been reported that the following Solid wastes will be generated due to the project which will be stored in storage yard above the ground level.

S. No.	Type of Waste	QUANTITY	DISPOSAL
1	Recyclable (Lining)	150 Kg/day	Will be reused after grinding of solid waste into powder.
2	Packaging Material (Bag)	100 Kg/day	Will be trimmed in the shredder and reused in the process.
3	Chemical residue from Wet scrubber	1 Kg /day	Will be disposed to TSDF located in Faridabad

HAZARDOUS WASTE GENERATION& DISPOSAL

Sr No	Type of Waste as per Hazardous Waste Management Rules 2015	Quantity	Disposal
1	Friction Dust [Production of asbestos or asbestos containing materials (Schedule-I)]	500 Kg/day	Particles of mix will be collected through dust collector and reused in the process.
2	Used / spent oil [Industrial operations using mineral/synthetic oil as lubricant in hydraulic systems (Schedule-I)]	14 Liters/month	Will be given to a HSPCB approved recyclers

15. It has been reported that an area of **0.13 Ha. (1336 Sq.m)** will be developed as green belt out of total plant area **0.405 Ha (4050 Sq.m.)** to attenuate the noise levels and trap the dust generated due to the project development activities.

16. It has been reported that the Consent to Establish is yet to be obtained and will be obtained after receiving Environment Clearance from the Ministry as the proposed project is Greenfield project.

17. Public Hearing of the project was held on 22-05-2018 at project site under the chairmanship of Shri. R.K. Singh (HCS) Additional Deputy Commissioner, Gurugram. The issues raised during public hearing are related to control of Asbestos Handling, Plantation, Wastewater treatment, Employment, CER etc., The Statement of main issues raised by the public and response of the project proponent with action plan is furnished as below:

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
1.	How many labours shall be engaged in the factory?	Total Manpower requirement is 250 including both Direct & Indirect employment.	----	----	----
2.	From where the labours shall come in the company?	Will be from nearby villages on basis of availability of qualification & skill.	----	----	----
3.	From where Asbestos is generated and purchased?	Asbestos Fibre will be sourced & purchased from Khazakisthan, Russia.	----	----	----
4.	What company will do for the nearby Villagers and employees?	Socio economic developmental activities will be carried out in the nearby villages under CER which includes construction of Toilets under swachh Bharat, Providing RO plant, skill developmental activities. Health check up will be carried out for all employees in the company every year. Medical health camps will be carried out periodically in the nearby villages.	Within 1 year	Rs.19 Lakhs	Rs.2 Lakh

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
5.	How Asbestos will be handled on initial stage	No manual handling or opening of fibre bag will be envisaged. Fibre bags will be mechanically lifted and kept in closed storage room. Whenever required, Fibre bags will be mechanically lifted from storage room and then will be transferred to conveyor belt to fully automatic opening bag opening machine. Empty bags are automatically transferred from Bag opening machine to shredder, where bags will be trimmed and will be reused in the manufacturing process.	----	----	----
6.	What provisions shall be provided for grinding section and heat moulding section where you are also providing fume extraction section?	For control of fugitive emissions, hoods will be provided at grinding section and will be channelized to bag filters. For control of emissions from Heat moulding section Wet scrubber will be provided.	Implemented parallel with implementation of the proposed project	Rs. 60 Lakhs is earmarked for Air Emission Management	Rs. 8 Lakhs / Annum
7.	Asked to give assurance that there will be technical locking that Air Pollution	Management has assured that whenever APCS fails, the raw material feed to the machinery will be stopped	Implemented parallel with implementation of the proposed project	Rs. 60 Lakhs is earmarked for Air Emission Management	Rs. 8 Lakhs / Annum

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	Control System will also start working simultaneously as soon as plant will process will start?	through an interlocking system. After rectification of APCS, the process will be restarted.			
	How you will manage the waste water generated from Wet Scrubber?	It will be chemical alkali based wet scrubber and small quantity of waste water generated will be will be recycled. The residue generated from Scrubber will be disposed off at TSDF.	Implemented parallel with implementation of the proposed project	Rs. 7 Lakhs is earmarked for Air Emission Management	Rs. 2 Lakhs / Annum
8.	Even after taking all appropriate action in case there occurs any release of Asbestos in the environment and any workers / person get affected by it then what other measures shall be taken?	There will not be any escape of Asbestos Fibre / dust into the Atmosphere as the entire operations are carried out in covered conditions. Masks will be provided to employees working in asbestos handling areas.	----	----	----
	What will be the area of dispersion of Asbestos which shall be covered under Public Liability Insurance Act, 1991.	There will not be any escape of Asbestos Fibre / dust into the Atmosphere as the entire operations are carried out in covered conditions.	----	----	----

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	How it will be ensured that PLI will be carried out by the company or not?	The company will get the insurance done under PLI Act and the documents of the same shall be submitted to HSPCB. Further, periodic compliances will be submitted to MoEF&CC / HSPCB.	----	----	----

18. An amount of Rs.19 Lakhs(As per Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018) has been earmarked for Corporate Environment Responsibility (CER) based on public hearing issues. The details of CER proposed are as follows:

S.No.	Major Activity Heads	End of 1st year (Rs. In Lakhs)
A	**Based on Social Impact Assessment (SIA)**	
1	for Health of the community (Construction of Toilets in Govt. High school, Kankrola Village – 2 nos. @ Rs.2.5 Lakhs)	5.0
2	For Skill development Providing required Tools & machines for carpentry, Tailoring, etc.	4.5
3	for Education & Sports a. Providing computers in Govt. Girls Sr. Secondary School, Kasan Village – 10 nos. @ Rs.20,000/- (Rs. 2 Lakhs). b. Providing Sport kits – Rs. 50,000/-	2.5
5	Greenbelt development outside the Plant Boundary & in the Villages of Kasan, Kankrola & Naharpur	0.5
6	Providing Mineral Water Plant in Kasan Village	4.5
B	**Based on Public Consultation**	
1	Conducting Medical Camps for nearby Village	2.0
	Total	**19.0**

19. The capital cost of the project is Rs.**9.5 Crores** and the capital cost for environmental protection measures is proposed as **Rs. 85 Lakhs**. The annual recurring cost towards the environmental protection measures is proposed as **Rs. 22 Lakhs /annum**. The employment generation is 250 people during operation of the proposed project and 50 people during erection / installation of proposed unit. The details of capital cost for environmental

protection measures and annual recurring cost towards the environmental protection measures is as follows:

BREAK-UP OF BUDGET FOR ENVIRONMENTAL PROTECTION MEASURES

S.No	Item	Capital Cost (Rs.in Lakhs)	Recurring Cost / Annum (Rs.in Lacs)
1.	**Air Emission Management**		
	Air Emission Control Systems	60	8
	Chimneys		
	Environment Monitoring		
2.	**Wastewater Management**		
	Settling tank & Wastewater analysis (sanitary wastewater)	2	
3.	**Solid waste Management**		
	Hazardous & Municipal solid waste storage	5	2
4.	**Greenbelt development, Land scaping Noise Management**	3	2
5.	**Occupational Health & Safety** (Medical Examination & PPEs etc)	15	10
	TOTAL	**85**	**22**

20. Greenbelt will be developed in 0.405 Ha. (4050 Sq.m) which is about 33% of the total acquired area. Greenbelt width varying from 3 to 6 m will be developed all around the plant boundary as per CPCB guidelines. Total of 650 saplings will be planted and nurtured in 0.405 Ha. with in 1 year after commencement of production.

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

22. Name of the consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd, Hyderabad [S.No. 117, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations and recommendations of the Committee: -

23.After detailed deliberation, the Committee recommended for environmental clearance under the provisions of EIA Notification, 2006 for the proposed Asbestos based Brake Lining Manufacturing Plant (Two-wheelers- 6,67,000 PCS/day & commercial Vehicles - 5,400 Pcs/day) in an area of 0.405 Ha. (4050 Sq.m) by **M/s. A.A. Friction Materials Private Limited** situated at Plot No. 5, Sector-7, IMT Manesar, Gurgaon, Haryana subject to following specific and general conditions:

A. Specific Conditions

i. Full face mask shall be provided to the workers in the plant.
ii. Asbestos fibre emission shall be restricted to 0.1 fiber/cc for eight hour exposure.
iii. Occupational health studies for all staff above 45 years age every quarterly and for staff with age below 45 once in six months.
iv. Fibre monitoring shall be carried out at the work zone and around the premises once in three months.
v. Insurance under PLI Act shall be obtained and submitted to the regulatory authorities concerned.
vi. Scheme for ground water recharge more than the amount extracted from the ground shall be submitted. The recharge can be done within the factory premises and outside the factory premises also.
vii. The bag filters installed should achieve the norms of 0.1 fibre/cc.

B. General Conditions

I. Statutory compliance:

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

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

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

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

v. The project proponent shall obtain a certificate from the supplier of Chrysotile fibre that it does not contain any toxic or trace metals. A copy of certificate shall be submitted to the Ministry of Environment, Forest and Climate Change.

vi. The project proponent shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in impermeable bags and under compressed condition.

vii. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.

II. Air quality monitoring and preservation

i. The project proponent shall install emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 913 (E) dated 24thOctober, 1989 as amended time to time (Asbestos) as amended from time to time through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions including asbestos fibre count in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited NIOH / ITRC / NCB or any other approved agency.

iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

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

v. The project proponent shall provide appropriate dust collectors to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle the same into the process.

vi. High Efficiency Particulate Air filters (HEPA) preceded by primary filters shall be installed on all asbestos contaminated areas.

vii. Total dust emission limit of 2 mg/Nm^3 as notified under the Environment (Protection) Act, 1986 shall be complied. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.

viii. Provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.

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

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

xi. Channelize through hood with proper suction arrangement, bag filter and stack the fugitive emissions generated from hopper of Jaw crusher and pulverizer.

xii. Separate truck parking area shall be provided and monitor vehicular emissions at regular interval.

xiii. Bring the cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer.

xiv. The bags containing asbestos fibre including damaged bags, if any shall be stored in enclosed area.

xv. Place the asbestos contaminated materials (non-encapsulated) for off-site removal in sealed packaging such as double sealed heavy duty (700 gauge) plastic bags, suitably labelled.

xvi. Empty and damaged fibre bags shall be shredded into fine particles in a bag-shredder and recycled into the process.

xvii. AC sheets shall be piled in wet condition only.

xviii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.

xix. Proper housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:

a. All monitoring transfer points shall be connected to dust extraction system.

b. Leakages or dust from machines and ducts shall be plugged.

c. Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.

d. Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises

xx. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants

III. Water quality monitoring and preservation

i. The project proponent shall install effluentquality monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. No. 913 (E)

dated 24thOctober, 1989 as amended time to time(Asbestos) as amended from time to time through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

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

iv. The water drawl shall not exceed 17.5 KLD.

v. Adhere to 'Zero Liquid Discharge.'

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

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

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

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

IV. Noise monitoring and prevention

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

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

V. Energy Conservation measures

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

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

VI. Waste management

i. The PP shall ensure that the entire solid waste generated including process rejects, cement, fly ash, dust from bag filters and empty asbestos bag shall be recycled back in the manufacturing process. There will be no solid waste disposal outside the plant premises. Asbestos fibres which cannot be further recycled due to contamination of iron dust shall be stored in HDPE lined secured landfill. The disposal facilities for asbestos waste shall be in accordance with the Bureau of Indian Standard Code.

ii. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

i. There shall be no manual handling/opening of asbestos fibre bags. The company shall install fully automatic asbestos fibre debagging system.

ii. To educate the workers, all the work places where asbestos dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.

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

iv. Regular medical examination of the workers and health monitoring of all the employees shall be carried out and if cases of asbestosis are detected, necessary compensation shall be arranged under the existing laws. The proponent shall create in-house facilities for spirometry test. A competent occupational health physician shall be appointed to carry out medical surveillance. Occupational health of all the workers shall be monitored for lung function test, Spirometry test, chest x-ray, sputum for acid-fast-bacilli (AFC) and asbestos body (AB), urine for sugar and albumen, bloat tests for TLC, DLC, ESR, Hb and records maintained for at least 40 years from the beginning of the employment or 15 years after the retirement or cessation of employment whichever is later. Occupational Health Surveillance shall be carried out as per the directives of the Hon'ble Supreme Court including the recent Kalyaneswari case

v. The project proponent shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

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

vii. The commitment made by the project proponent to the issues raised during Public Hearing shall be implemented by the proponent.

IX. Corporate Environment Responsibility

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

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

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

iv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Asbestos Based Plants shall be implemented.

X. Miscellaneous

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4.4 Expansion in Production capacity of Writing & Printing Paper from 300 TPD to 600 TPD & 14.0 MW Co-Gen Power Plant by **M/s. Satia Industries Ltd** located atSurvey No. R43//18,19/1,21,22,23. R61//26/1/1,1/1. R79//5/1,5/2,6,7. R78//1,2. Village – Rupana, Distt. Sri Muktsar Sahib, Punjab - [Proposal No. IA/PB/IND/89926/2018. MoEF&CC File. No. J-11011/196/2014-IA II (I)] – **Terms of Reference.**

M/s. Satia Industries Limitedhas made online application vide proposal no. IA/PB/IND/89926/2018 dated 28th December, 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above.The proposed project activity is listed at Sl. No. 5(i) Pulp and Paper Industry under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent:

2. The existing project was accorded environmental clearance vide letter no. J-11011/196/2014-IA-(II) I dated 29th May, 2018. Consent to Operate was accorded by Punjab State Pollution Control Board vide letter. no. CTOA/Fresh/MKS/2018/7687794 for Air and CTOW/Fresh/MKS/2018/7687650 for Water, validity of CTO is up to 31st March 2023.

3. The proposed unit will be located at Survey No. R43//18,19/1,21,22,23. R61//26/1/1,1/1. R79//5/1,5/2,6,7. R78//1,2. Village – Rupana, Distt. Sri Muktsar Sahib, Punjab.

4. The land area acquired for the proposed expansion is 3.856 Ha (Total 18.432 Ha), which is an agricultural land. No forestland is involved in the project. The entire land has been acquired for the project. Of the total area 6.083 ha, 33 % land will be used for green belt development.

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

6. Total project cost is approx Rs. 460 Crore rupees. Proposed employment generation from proposed project will be 500 direct employments and 1000 indirect employment.

7. The targeted production capacity of the expansion is 107400 TPA. The raw material for the plant would be procured from local/nearby (100-200km). The raw material

transportation will be done through road/sea route. The proposed capacity for different Products for new site area as below:

S.No.	Name of Unit	No. of Units	Existing	Proposed	Total Capacity
			Capacity of each unit	Capacity	
1.	Power Boiler (TPH)	3	75+75+50	75	275 TPH
2.	Chemical Recovery Boiler (TPH)	2	50+25	25 to 75	125 TPH
3.	Paper Manufacturing (TPD)	4	75+75+150	300	600 TPD
4	CPP (MW)	4	12.5+12.5+5*	14	44

*standby

8. The electricity load of 44 MW will be produced from own CPP. No DG Set will be installed. Proposed raw material and fuel requirement for project are agro based raw material like wheat straw, sarkanda, cotton sticks, wood based raw material like wood and vaneer chips, bamboo chips, imported waste paper and wood pulp for pulp and paper making. The requirement would be fulfilled by local area as well as by import. Fuel consumption will be mainly Rice husk/Black Liquor.

9. The existing water consumption is 16,000 m^3/day. Water Consumption for the proposed project will be 7500 m^3/day and waste water generation will be 6864 m^3/day. Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reused after membrane filtration.

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

11. Name of the consultant: M/s. Eco Chem Sales & Services, Surat [S.No. 38, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations and recommendations of the Committee: -

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

i. Specific water consumption shall not exceed 40 m^3 per tone of production and effort be made to reduce the water consumption further.
ii. Lime kiln shall be provided to recycle lime sludge.
iii. Permission for water withdrawal from the canal shall be submitted.
iv. Public Hearing to be conducted by the concerned State Pollution Control Board.

v. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

vi. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.5 Proposed Modernization & Expansion of clinker from 2.0 MTPA to 2.21 MTPA, cement from 3.0 MTPA to 4.0 MTPA by **M/s. Dalmia Cement (Bharat) Limited** located at Village-Govindapuram, Taluk & District-Ariyalur, Tamil Nadu - [Proposal No. IA/TN/IND/90171/2018. MoEF&CC File. No. J-11011/751/2007-IA II (I)] – **Terms of Reference.**

M/s. Dalmia Cement (Bharat) Limited has made online application vide proposal no. **IA/TN/IND/90171/2018**dated 31st December, 2018along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(b) Cement Plants under Category "A" EIA Notification, 2006and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2. M/s. Dalmia Cement (Bharat) Limited (DCBL) proposes to go for the Modernisation & Upgradation of Ariyalur Cement Plant from existing 2.0 MTPA Clinker to 2.21 MTPA and Cement from existing 3.0 MTPA to 4.0 MTPA. It is proposed to expand the plant for enhanced Clinker and Cement Manufacturing based on improvement of the existing Pyro Processing Systems, modernization of the machineries and also Pollution Control Measures upgradations.

3. The existing project was accorded environmental clearance vide Lr.no. J-11011/751/2007-IA II (I) dated 19.06.2008. Consent to Operate was accorded by Tamil Nadu State Pollution Control Board vide Lr. No. 1808112162606 (Water Act) and 1808212162606 (Air Act) dated 14.12.2018 with validity upto 31.03.2019.

4. The proposed unit will be located at Village: Govindapuram, Taluk &District:Ariyalur, State: Tamil Nadu.The land area acquired for the existing Cement Plant is 112.06 Ha (out of 204.78 Ha) and no additional land is required for the Proposal. Out of 112.06 Ha, 0 Ha is an agricultural land, 0 Ha is grazing land and 112.06 Ha is others (Industrial Land). No Government Land/Forest Land is involved. The entire land has been acquired for the project. Of the total area of 112.06 Ha, 38.10 Ha (34 %) land is used for green belt development.

5. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. There are 6 Reserved Forests (RFs) from

9.0-15 km distance from the Plant viz. Vannankurichi RF- 9.0 km-East, Manageri RF-12.2 km-East, Kunnam RF, 12.0 km, Northwest, Vilangudi RF-13.0 km-Southeast, Sedalavadi RF, 13.3 km-Northeast and Chittali RF, 14.4 km-Northwest.

6. Total Project Cost is about Rs. 116.37 Crores for the Proposal now. Employment generation of the Plant is 626 direct employment and 165 Indirect employment.

7. The targeted production capacity of the Clinker is 2.21 million TPA and the Cement is 4.0 million TPA. The Ore/Limestone for the plant would be procured/sourced from DCBL Captive Limestone Mines in nearby Trichy and Ariyalur Regions. The ore transportation will be done through Road. The proposed capacity for different products for new site area is as below:

Name of Unit	No. of Units	Capacity of each Unit	Production Capacity
Clinker	Existing 1 Kiln	2.00 MTPA	2.21 MTPA
	Proposed-Same Kiln	0.21 MTPA	
Cement	Existing	3.00 MTPA	4.00 MTPA
	Proposed Addition	1.00 MTPA	
Captive Thermal Power Plant	Existing	27 MW	27 MW
	Proposed	-	

8. The electricity load of 23.0 MW is met from existing CPP of 27 MW and also through TANGEDCO Grid (10.1 MW). Company has also installed DG sets of 3x625 KVA in CPP.

9. Proposed raw material and fuel requirement for project are 4.20 MTPA Limestone, 0.224 MTPA Petcoke and 0.299 MTPA Imported Coal. The requirement would be fulfilled by existing Captive Mines. Fuel consumption will be mainly for Ash Addition in Clinkerisation.

10. Water Consumption for the proposed project will be an additional 200 KLD to existing 1,400 KLD. There is no trade effluent generation from the Cement Plant. The Complex generates about 340 KLD Domestic wastewaters in total and CPP generates 200 KLD wastewater. Domestic wastewater is treated in the Combined STP of 200 KLD capacity and Industrial wastewater generated from CPP is treated in a Neutralisation Pit (6.0x7.5x2.5 m size) and reused fully in the Cement Plant.

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

12. Name of the consultant: M/s. J. M. Environet Pvt. Ltd., Gurugram [S.No. 90, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations and recommendations of the Committee: -

13. After detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at <u>Annexure I read with additional ToRs at Annexure-2:</u>**

i. Explore the possibility of limestone transportation through belt conveyor/rail/any other eco-friendly transport system.

ii. Green belt shall be developed in 40 % of the total project area.

iii. Public Hearing to be conducted by the concerned State Pollution Control Board.

iv. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

v. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.6 Expansion of production of TMT bars from 1,05,000 MTD to 1,91,250 MTD, MS angles of 43,750 MTD **by M/s. Crest Steel Una Private Limited** at VPO Karluhi, Tehsil Amb, District Una, Himachal Pradesh - [Proposal No. IA/HP/IND/75806/2018. MoEF&CC File. No. IA-J-11011/240/2018-IA-II(I)] – **Terms of Reference.**

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

4.7 Proposed Expansion Project by adding Iron Ore Beneficiation Plant -0. 6 MTPA, Sponge Iron 2 X 100 TPD, Induction Furnace 2 X 15 TPD, Rolling Mill 120000 TPA, Captive Power Plant 15 MW (WHRB – 8 MW + AFBC – 7 MW) **by M/s. Bhadrashree Steel and Power Private Limited** at Kunikeri village, Koppal Taluk & District, Karnataka - [Proposal No. IA/KA/IND/91002/2019. MoEF&CC File. No. IA-J-11011/45/2019-IA-II(I)] – **Terms of Reference.**

1. M/s. Bhadrashree Steel and Power Private Limited has made online application vide proposal no. IA/KA/IND/91002/2019dated 9th January, 2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

2. The project proponent along with their EIA concultant namely M/s. MetamorphosisSM Project Consultants Pvt. Ltd.[S.No. 104, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019] made a presentation before the Committee.

Observations of the Committee

3. The Committee noted that the environmental clearance for the existing 60,000 TPA sponge iron manufacturing unit has been accorded by the Forest and Ecology Department, Government of Karnataka vide letter no. FEE-81 ECO 2008 dated 15/04/2009. Further, the Committee also that the unit is under operation since 2009 with requisite consents from KSPCB.

Recommendations of the Committee: -

4. After detailed deliberations, the Committee recommended that Ministry may seek clarification from Forest and Ecology Department, Government of Karnataka regarding the grant of environmental clearance to M/s. Bhadrashree Steel and Power Private Limited for establishment of 60,000 TPA sponge iron manufacturing unit as such units are covered under the schedule 3(a) of the EIA Notification, 2006 and require prior environmental clearance from MoEF&CC.

5. Therefore, the proposal is deferred for the want of additional information from Forest and Ecology Department, Government of Karnataka.

4.8 Expansion of Sponge Iron Plant (6,00,000 TPA to 13,20,000); Ferro Alloy Plant (72,000 TPA to 1,44,000) with Briquette plant and addition of New Steel Melting Shop- (9,00,000 TPA) with Slag crushing unit, Hot Rolling Mill- (5,50,000 TPA; Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA); Lime Dolime Plant- (200 TPD); Oxygen Plant- (200 TPD); CPP- [45 MW to 159 MW (50 MW Coal & Dolochar Mix based and 109 WHRB] **by M/s. Rashmi Cement Limited** at at Mouja-Jitusole (J.L No.-702 & 703), Junglekhas (J.L. No.731) and Baghmundi (J.L. No.928), Village-Jitusole, PS-Jhargram, District- Paschim Midnapore, West Bengal – **Amendment in Terms of Reference with respect to Production quantities**

1.0 M/s. Rashmi Cement Limited has made online application vide proposal no. IA/WB/IND/69919/2017dated 13th November, 2018 seeking amendment in the ToR accorded by the Ministry vide letter no. F.No. J-11011/604/2008- IA-II(I) dated 27th February, 2018.

2.0 The proposal cited above was considered during the 1st meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 26-28th November, 2018. The Committee recommended for amendment in ToR with respect to the production quantities of various process units. While processing the proposal in the Ministry, following points were noted:

i. In the subject DRI plant capacity is mentioned as 13,20,000 TPA. Whereas in the presentation made before the Committee, the DRI capacity is mentioned as 14,75,000 TPA and in the table submitted to the Ministry, the DRI capacity is mentioned as 14,90,000 TPA.

ii. The capacities of various units mentioned in the subject matter of ToR letter dated 27/02/2018, minutes of the meeting held on 26-28th November, 2018are not in consonance with each other.

3.0 In view of the above, Ministry has referred the proposal back to the EAC for fresh consideration.

Details submitted by the Project Proponent

4.0 M/s Rashmi Cement Limited proposes to go for amendment in TOR for inclusion for revised production and unit configuration of DRI plant. It proposes to Increase the production capacity of existing (10 x 100 + 1 x 350 + 1 x 600 TPD) sponge iron plant from 6,00,000 TPA to 8,00,000 TPA and proposed upcoming sponge iron plant (3 x 600 TPD) from 5,40,000 TPA to 6,90,000 TPA making it total 14,90,000 TPA instead of 11,25,000 TPA. The project proponent submitted an application in the prescribed format along with Revised Form-1, PFR and other reports to the Ministry online on 13th November 2018 vide Online Application No. IA/WB/IND/69919/2018. But due to non-consonance of DRI configuration and various other units and mismatching of project name with subject matter of ToR letter dated 27.02.2018 a ADS was raised by your good office. In this connection reply was made vide letter dated 28.12.2018.

5.0 The existing project was accorded environmental clearance vide File No-. J-11011/604/2008.I A II (I) dated 12.02.2009 &07.07.2017 and ToR for expansion project was awarded vide File No- J -11011/604/2008.I A II (I) dated 27.02.2018. Consent to Operate was accorded by West Bengal State Pollution Control Board vide Co No-102823 issued vide memo No-5683-hl-co-5/10/0399 dated 14-12-2016 validity of CTO is up to 31-Dec-2021**.**

6.0 The existing unit located at Mouza – Jitusole (J.L No.-702 & 703), Junglekhas (J.L. No. 731) and Baghmundi (J.L. No.928), at Village: Jitusole, P.O – Garhsalboni, P.S – Jhargram, District: Paschim Medinipur, State: West Bengal.

7.0 No additional land is required for the proposed amendment proposal.

8.0 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.

9.0 There will be no additional cost incurred for getting “Amendment in TOR”. It will remain same as510 Crores rupees. For the proposed enhancement in sponge iron production is 50 numbers direct and 100 number indirect; the total manpower requirement after the expansion will be 1050 direct employment and 2100 indirect employment.

10.0 The targeted production capacity of the revised proposal is Sponge Iron Plant (6, 00,000 TPA to 14, 90,000 TPA); Rest of the production figure for different units will remain same as per the awarded ToR figure. The Iron ore for the plant would be procured from

Barbil-Joda, Orissa (from our current mines owner like, Rungta Mines, Sirajuddin Mines & TP Sahoo Mines), Iron ore pellet from captive production and Coal would be procured from E-Auction or Imported. The ore transportation will be done through Rail/Ship/ Road. The proposed capacity for different products for new site area as below:

Configuration for which ToR awarded			**Amendment Desired** Enhancing the production capacity of existing sponge iron plant capacity by change in the raw material mix and increasing annual working days						**Final Configuration for which TOR Desired**		
			Existing Unit			**Proposed New Unit**					
Plant	***Config.***	***Cap.***	***Plant***	***Existing Permission as per EC***	**Additional Production**	***Plant***	***Permission as per TOR***	**Additional Production**	***Plant***	***Config.***	***Capacity***
DRI	10 x 100 + 1 x 350 + 4 x 600 TPD	**1125000 TPA**	DRI (10 x 100 + 1 x 350 + 1 x 600 TPD)	6,00,000 TPA	2,00,000 TPA	DRI (3x600 TPD)	5,40,000 TPA	1,50,000 TPA	DRI	10 x 100 + 1 x 350 + 4 x 600 TPD	**14,90,000 TPA**
SAF(Ferro Alloy Plant) with FeCr Briquette Plant	8 x 9 MVA	**96000 TPA**	No Change						SAF(Ferro Alloy Plant) with FeCr Briquette Plant	8 x 9 MVA	**96,000 TPA**
SMS with Slag Crushing	8 x 20 T I.F. with L.R.F, AOD & CCM	**570000 TPA**							SMS with Slag Crushing	8 x 20 T I.F. with L.R.F, AOD & CCM	**5,70,000 TPA**
Hot Rolling Mill	****	**250000 TPA**							Hot Rolling Mill	****	**2,50,000 TPA**
Cold Rolling Mill/ Wire Drawing with Pickling Line & Continuo	****	**300000 TPA**							Cold Rolling Mill/ Wire Drawing with Pickling Line & Continuo	****	**3,00,000 TPA**

Configuration for which ToR awarded			**Amendment Desired**		**Final Configuration for which TOR Desired**		
			Enhancing the production capacity of existing sponge iron plant capacity by change in the raw material mix and increasing annual working days				
			Existing Unit	**Proposed New Unit**			
us Galvanising Line					us Galvanising Line		
Captive Power Plant	88 MW WHRB based + 1 x 25 MW CFBC	**113 MW**			Captive Power Plant	88 MW WHRB based + 1 x 25 MW CFBC	**113**

11.0 The proponent also requested to change the subject matter as follows:

"Expansion of Sponge Iron Plant (6,00,000 TPA to 14,90,000 TPA); Ferro Alloy Plant (72,000 TPA to 96,000 TPA) with Briquette plant and addition of New Steel Melting Shop- (5,70,000 TPA) with Slag crushing unit, Hot Rolling Mill- (2,50,000 TPA; Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA) and Captive Power Plant- [45 MW to 113 MW (25 MW Coal & Dolochar Mix based and 88 WHRB]".

Instead of

"Expansion of Sponge Iron Plant (6,00,000 TPA to 13,20,000); Ferro Alloy Plant (72,000 TPA to 1,44,000) with Briquette plant and addition of New Steel Melting Shop- (9,00,000 TPA) with Slag crushing unit, Hot Rolling Mill- (5,50,000 TPA; Cold Rolling Mill with Pickling line & Galvanizing line- (3,00,000 TPA); Lime Dolime Plant- (200 TPD); Oxygen Plant- (200 TPD); CPP- [45 MW to 159 MW (50 MW Coal & Dolochar Mix based and 109 WHRB]".

12.0 The electricity load for the ToR awarded project of 187.4 MW. Additional 9.2 MW power will be required for proposed proposal making total power requirement 196.6 MW. Power will be procured from proposed and operational Captive Power Plant and the remaining will be drawn from WDSEDCL/Open Access. Company has also proposed to install 10 Number DG Set of 720 KVA.

13.0 Raw materials requirement details are as **:**

Sr.	Name of the	Quantity (TPA)	Source	Mode of

No.	Raw Materials	Existing (As per TOR approved	For Proposed Proposal	Total		Transportation
1	Iron ore lump	**5,06,250**	(-) 59,250	**4,47,000**	Applied for captive iron ore mines Alternate source: Purchased from	Train
2	Iron ore Pellet	**11,81,250**	(+) 6,06,750	**17,88,000**	From other unit of group company	By Road
3	Non-coking	**14,35,200**	(-) 1,58,000	**12,77,200**	CCL, MCL & Imported	Ship/Train
4	Coke	**62,400**	---	**62,400**	Imported	Ship/Train
5	Dolomite	**57,690**	(+) 35,550	**93,240**	From Birmitrapur, Orissa / Bilaspur, CG	Train
6	Limestone	**40,279**	---	**40,279**	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP	Train
7	Manganese ore	**2,49,600**	---	**2,49,600**	Captive mines in Balaghat, MP	Train/By Road
8	Chromium Ore	**2,11,200**	---	**2,11,200**	Orissa, Jharkhand	Train/By Road
9	Quartzite	**24,000**	---	**24,000**	From Belpahar Orissa / Bilaspur, Raipur CG	Train
TOTAL		**37,67,869**	(+) 4,25,050	**41,92,919**		

Fuel consumption will be mainly **Electricity & Diesel (If required).**

14.0 The existing plant water requirement for EC Sanctioned Sponge iron configuration after surrendering some units (10 x100 + 1 x 350 +1 x 600 TPD) and 48,000 TPA Ferro with 43 MW CPP is 744 KLD and additional water requirement for ToR approved capacity is 3792 KLD making it in total 4536 KLD. For additional 3, 50,000 TPA Sponge Iron productions no additional fresh water will be used. The Cooling tower Blow down will be used in DRI Plant. Domestic waste water will be treated in **Septic Tank followed by Soak Pit** and Industrial waste water generated will be treated and reused in the **process and for green belt development and dust depression after treatment.**

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

Observartions and recommendations of the Committee: -

16.0 After detailed deliberations, the Committee recommended for the amendment in the ToR dated 27/02/2018 as mentioned at paragraph 7 and 8 above.

4.9 Proposed expansion of Silica Sand Production (Glass grade) & LPG Storage capacity for Glass manufacturing unit **by M/s. Gujarat Guardian Limited** at Village Kondh, Valia Road, Tal: Ankleshwar - 393001, Dist: Bharuch, Gujarat. [Online Proposal No.

IA/GJ/IND/66896/2017, MoEF&CC File No. J-11011/382/2017-IA.II(I)] – **Amendment in Terms of Reference with respect to Production quantities**

M/s. Gujarat Guardian Limited has made online application vide proposal no. **IA/GJ/IND/66896/2017**dated 4th January, 2019 sought for the amendment in the ToR accorded by the Ministry vide letter no. J-11011/382/2017-IA.II(I) dated 21/08/2017.

Details submitted by the project proponent

2. M/s. Gujarat Guardian Limited has requestedfor amendment in TORs because of following reasons:

1. To indicate the End Use of Sand Processing Plant Product by addition of non-EC Float Glass Manufacturing Line with capacity 4,00,00,000 m^2/Annum i.e. Total Capacity becomes 6,50,00,000 m^2/Annum.
2. To include the Non-EC Interlinked Project (addition of Float Glass Manufacturing Line 2) in the FORM 1.
3. To update the Line Item 7 of Form 1 with respect to attracting General Condition as N/A.
4. To submit Revised Water Balance.
5. To submit Revised Stack & Vent Details.
6. To submit Revised Power & Fuel Details.
7. To submit Revised Hazardous Waste and Solid (Non-Hazardous) Waste Details.
8. To submit Revised Raw Material Details.
9. To submit Revised Cost & Area Details including Green Belt Area.

3.0 Amendment required with respect to proposed expansion units

Sr. No.	Name of Unit	Name of Product	Existing Capacity	Additional Proposed Capacity	Total Proposed Capacity	Remarks
1	Glass Manufacturing Unit	Float Glass Mirror, Lacquered Glass, Coater Glass	2,50,00,000 m^2/Annum	4,00,00,000 m^2/Annum	6,50,00,000 m2/Annum	-
2	Silica & Sand Production Unit	Silica Sand (Glass	33,120 MT/Month (13500	53,380 MT/Month	86,500 MT/Month	-

Sr. No.	Name of Unit	Name of Product	Existing Capacity	Additional Proposed Capacity	Total Proposed Capacity	Remarks
		Grade) & By-Products (Coarse, Fines & Rejects)	MT/Month + 19620 MT/Month)			
3	LPG Storage	-	225 MT (4 x 56.25 MT of Length = 16.2 m & Diameter = 3200 mm)	495 MT	720 MT (6 x 120 MT of Design Pressure = 21 Kg/cm^2, Overall Length = 24000 mm, Tank ID = 4010 mm, Tank Shell = 28 mm Thick, Dished End= 18 mm Thick)	The Existing &Proposed LPG Storage Yard will be merged and the Total Capacity (Existing + Proposed) will be 720 MT

4.0 Amendment required with respect to proposed raw material requirement

Sr. No.	Raw Material	Consumption Quantity Per Month			
		UOM	Permitted	Proposed Additions	Total
Float Glass					
1	Sand	MT	14,000	21,315	35,315
2	Soda Ash	MT	4,500	6,900	11,400
3	Dolomite	MT	3,800	5,790	9,590
4	Limestone	MT	1,400	2,160	3,560
5	Feldspar	MT	850	1,300	2,150
6	Salt Cake	MT	215	330	545
7	Carbon	MT	21	32	53
8	Cullet	MT	6,000	8,500	14,500
9	EP/Filter Dust	MT	-	300	300
Wet Coater					
1	Raw Glass	Sq. Meter	5,83,000	-	5,83,000
2	Washing & Polishing Chemicals	Kg	2,062	-	2,062
3	Tin Sensitizer	Litre	119	-	119
4	Palladium Sensitizer	Litre	45	-	45

Sr. No.	Raw Material	Consumption Quantity Per Month			
		UOM	Permitted	Proposed Additions	Total
5	Silver Solution Silver Nitrate	Litre Kg	2,600 1,088	-	2,600 1,088
6	Reducer/ Silver less solution	Litre Litre	4,830 2,920	-	4,830 2,920
7	GMPA & GMPB	Litre	1,190	-	1,190
8	Paint	MT	68	-	68
9	Ortho-Xylene	Litre	9,971	-	9,971
10	HCL-32%	Litre	11,393	-	11,393
11	Caustic-32%	Litre	13,508	-	13,508
12	Ferric Sulfate	Kg	256	-	256
13	Copper Sulphate Pentahydrate	Kg	1,440	-	1,440
14	Potassium Sodium Tartrate	Kg	20	-	20
15	Iron Powder	Kg	50	-	50
16	Sulphuric Acid	Kg	230	-	230
Lacquered Glass					
1	Raw Glass	Sq. Meter	1,50,000	-	1,50,000
2	Washing and polishing chemical	Kg	200	-	200
3	Adhesion Promoter	Litre	50	-	50
4	Paint	MT	10	-	10
A	GLASSOLUX NG 9003 PURE WHITE	Kg	2,500	-	2,500
B	GLASSOLUX NG 2105 Sapphire	Kg	2,500	-	2,500
C	GLASSOLUX NG 3004 Burgundy	Kg	2,500	-	2,500
D	GLASSOLUX NG 6113 Fluo green	Kg	2,500	-	2,500
E	GLASSOLUX NG 9005 Black	Kg	2,500	-	2,500
F	Ivory	Kg	2,500	-	2,500
G	Red	Kg	2,500	-	2,500
5	Ortho-Xylene	Litre	1,000	-	1,000
Sand Beneficiation Plant					
1	Raw Silica Sand	MT	33,120	53,380	86,500
Coater Glass					
1	Raw Glass	Sq Meter	5,83,333	-	5,83,333
2	Washing and polishing chemical	Kg	2,000	-	2,000
3	Zr	Kg	20	-	20
4	Si – 8 wt % Al	Kg	300	-	300
5	Nb – 10 wt % Zr	Kg	140	-	140
6	Ni – 20 wt % Cr	Kg	180	-	180
7	Ag	Kg	100	-	100
8	TiOx	Kg	5	-	5
9	Sn	Kg	80	-	80
10	Zn – 2 wt % Al	Kg	20	-	20

Sr. No.	Raw Material	Consumption Quantity Per Month			
		UOM	Permitted	Proposed Additions	Total
11	Ar	m^3	800	-	800
12	O2	m^3	100	-	100
13	N2	m^3	500	-	500
14	Vacuum Pump Oil	Litre	400	-	400
15	Sand Blasting Material	MT	5	-	5
Emission Control System					
1	Aqueous Ammonia	MT		350	350
2	Hydrated Lime	MT		85	85

5. Amendment required with respect to water consumption and wastewater generation

Sr. No.	Usage	Water Consumption (KL/day)			
		(As per Earlier TORs)	As per new CCA 2018	Proposed Float line 2	Final (Considering New Expansion)
1.	Domestic	350	350	120	470
2.	Process	25	25	25	50
3.	Boiler	NA	NA	NA	NA
4.	Cooling & Chilling	400	200	300	500
5.	Washing	775	1245	-250	995
6.	Gardening	100	100	50	150
7.	For dust quenching	0	0	533	533
	Total	**1650**	1920	778	2698 – 650(WWTP) = 2048

Sr. No.	Section	Wastewater Generation (KL/day)				
		As per Earlier TORs	As per new CCA 2018	Proposed changes in existing wastewater generation	Proposed Float line 2	Final (Considering New Expansion)
1.	Domestic	205*	205*	205	205	410*
2.	Process	0	0	0	0	0
3.	Boiler	NA	NA	NA	NA	NA
4.	Cooling & Chilling (Existing)	150	150	125	200	325
5.	Washing	566	816	650	0	650
6.	Gardening	0	0	0	0	0

Sr. No.	Section	Wastewater Generation (KL/day)				
		As per Earlier TORs	**As per new CCA 2018**	**Proposed changes in existing wastewater generation**	**Proposed Float line 2**	**Final (Considering New Expansion)**
	Total	**921**	1171	980	405	1385

* 450 KL/day of domestic wastewater is/will be treated in STP or stored in soak pit or septic tank and then used for gardening

Proposed waste water recycling plant capacity

Float plant 1: 500 KLD

Float Plant 2: 200 KLD

Total ETP or waste water recycling capacity: 700 KLD & out of that 650 KLD will be recycled. Revised water balance has been submitted.

6. Amendment required with respect to Power requirement and source of power

Power requirement will be 12.7 MW (Existing = 8.7 MW + Additional Proposed = 5 MW) which will be taken from GEB. 4 Nos. of (155 KVA each) &2 Nos. of (2.5 MW each), 2 Nos. of (500 KVA) & 3 Nos. of (2.1 MW each) DG Sets will be kept for emergency power back up.

7. Amednment required with respect to fuel requirement

S.No	Fuel	Quantity		
		Existing	Additional	**Total Proposed**
1	Natural Gas	6000 m^3/hr	10000 m3/hr	16000 m^3/hr
2	LPG	4 MT/hr	6.4 MT/hr	10.4 MT/hr
3	Diesel	1515 Ltrs /Hr	2025 Ltrs/Hr	3540 Ltrs /Hr

8. DETAILS OF STACKS & VENTS: Flue Gas Stacks

S. No.	Sources of Emission	Type of Fuel	As Per CTE	As per CCA (2018)	Additional	Total	Proposed Stack height	APCM
1.	Melting Furnace (Existing)	Natural Gas	5990 m3/Hr.	5990 m3/Hr.	--	5990 m3/Hr.	91 m	Low NOx Burner. Low sulfur fuel.
		LPG	3.89	3.89	--	3.89		

S. No.	Sources of Emission	Type of Fuel	As Per CTE	As per CCA (2018)	Additional	Total	Proposed Stack height	APCM
			MT/Hr.	MT/Hr.		MT/Hr.		
2	Melting Furnace (Proposed)	Natural Gas	-	--	9985 m3/Hr.	9985 m3/Hr.	54 m	Low NOx burner and low sulfur fuel. In addition, an Emission Control System (ECS) may be installed if needed to meet SO2 and NOX emission limits or, alternatively, for other reasons even if not required to meet limits. If installed, the ECS would consist of a scrubber, electrostatic precipitator (EP), and selective catalytic reduction system or, alternatively, a catalyst impregnated ceramic

S. No.	Sources of Emission	Type of Fuel	As Per CTE	As per CCA (2018)	Additional	Total	Proposed Stack height	APCM
								filter.
		LPG	-	--	6.21 MT/Hr	6.21 MT/Hr		
3.	DG Set (2 Nos of 2.5 MW)	Diesel	1200 Lit/Hr	1200 Lit/Hr.	-	1200 Lit/Hr.	30 m	NA
4.	DG Set (3 Nos of 2.1 MW)	Diesel	-	-	1800 Lit/Hr.	1800 Lit/Hr.	30 m	NA
5.	DG Set (1 No. of 500 KVA)	Diesel	135 Lit./Hr.	135 Lit./Hr.	-	135 Lit./Hr.	14 m	NA
6.	DG Set (1 No. of 500 KVA)	Diesel	-	-	135 Lit./Hr.	135 Lit./Hr.	14 m	NA
7.	LPG Hot water generator (2 Nos)	LPG	0.11 MT/Hr.	0.11 MT/Hr.	-	0.11 MT/Hr.	12 m	NA
8.	LPG Hot water generator (2 Nos)	LPG	-	-	0.19 MT/Hr.	0.19 MT/Hr.	12 m	NA
9.	Diesel Engines (1 and 2 of 155 KVA each)	Diesel	90 Lit./Hr. (Total for both)	90 Lit./Hr. (Total for both)	-	90 Lit./Hr. (Total for both)	12 m (Existing)	NA
10.	Diesel Engines (3 and 4 of 155 KVA	Diesel	90 Lit./Hr. (Total for	90 Lit./Hr. (Total for	-	90 Lit./Hr. (Total for	11 m (Existing)	NA

S. No.	Sources of Emission	Type of Fuel	As Per CTE	As per CCA (2018)	Additional	Total	Proposed Stack height	APCM
	each)		both)	both)		both)		
11.	Diesel Engine, (4 nos. for) (open loop (1), emergency water system (1) fire system (2))	Diesel	180 Lit./Hr.	180 Lit./Hr.	-	180 Lit./Hr.	12 m (Proposed)	NA
12.	Open loop and Emergency engines (FL2)	Diesel	-	-	90 Lit./Hr.	90 Lit./Hr.	12 m	NA
13.	Glass Edge Burner (Existing)	Natural Gas	10 m3/Hr.	10 m3/Hr.	--	10 m3/Hr.	16 m	NA
14	Glass Edge Burner (Proposed)		-	-	15 m3/Hr.	15 m3/Hr.	16 m	NA

9. HAZARDOUS WASTE GENERATION AND DISPOSAL

S. No.	Items	Category as per HW Rules	Quantity As per CCA 2018	Additional Proposed	Total	Treatment and Disposal Method
1	Used Oil	5.1	25 KL/Year	25 KL/ Year	50 KL/ Year	Sending to Registered Refiners for recycle / reuse / Incineration
2	Waste residue containing oil	5.2	20 MT/ Year	20 MT/ Year	40 MT/ Year	Send to GPCB registered TSDF for land Filling or Incineration

3	Process wastes, residues & debris from production and/or industrial use of paints, pigments, lacquers, varnishes, plastics and inks	21.1	20 MT/ Year	-	20 MT/ Year	Send to licensed disposal company Recycle as a fuel or Incineration
4	Spent solvents from the production and/or industrial use of solvents	20.2	5 MT/ Year	-	5 MT/ Year	Send to licensed disposal company Recycle as a fuel or Incineration
5	Discarded Containers & barrels contaminated with hazardous wastes/chemicals	33.1	240 MT/ Year	-	240 MT/ Year	Collection, Storage, transportation, Disposal by selling to Registered Vendors for recycle/ reuse
6	Discarded Bags / Liners contaminated with hazardous wastes/chemicals					
7	Furnace/reactor residue and debris	1.1	60 MT/ Year	90 MT/ Year	150 MT/ Year	Collection, Storage, transportation, Disposal by landfill at authorized TSDF
8	Inorganic Tin compounds	B 17	1 MT/ Year	1.5 MT/ Year	2.5 MT/ Year	Send to licensed disposal company for Recycling / landfill
9	Spent catalyst and molecular sieves	1.6	4 MT/ Year	-	4 MT/ Year	Send to licensed disposal company for Recycling / landfill
10	Spent ion exchange resin containing toxic metal (upcoming 1200 KL Ro resin to be added	35.2	15 MT/ Year	-	15 MT/ Year	Collection, Storage, transportation, Disposal by landfill at authorized TSDF or recycle
11	Chemical sludge from waste water	35.3	5 MT/	695 MT/ Year	700 MT/	Collection, Storage,

	treatment		Year		Year	transportation, Disposal by landfill at authorized TSDF
12	Coater Sand Blasting Debris	Z32	75 MT/ Year	-	75 MT/ Year	Collection, Storage, transportation, Disposal by landfill at authorized TSDF

10. Solid (Non-Hazardous) Wastes:

S. No	Waste Type	Existing	Proposed Additions	Total	Disposal Method
1.	Mirror and Lacquered Cullet	100 MT/Month	-	100 MT/Month	Sell as non-hazardous waste for recycling / reuse
2.	Bad Batch	100 MT/Month	150 MT/Month	250 MT/Month	Recycling/reuse /Landfill
3.	G-Core	100 KG/Month	150 KG/Month	250 MT/Month	Reuse in-house for water neutralization / landfill / recycling / reuse
4.	Rejected Sand	2200 MT/Month	3500 MT/Month	5700 MT/Month	Recycling in house / selling to water treatment plant and construction industry / Landfill
5.	Lagoon reclaim waste	7000 MT/Month	8000 MT/Month	15000 MT/Month	Recycling in house by having sales to various end users like foundries, resin coated sand manufacturers, ceramics and tiles manufacturers, filter bed manufacturers, construction industry etc / and /or at construction Landfill
6.	Cullet	2500 MT/ month	4000 MT/Month	6500 MT/Month	Recycling in house / Sell to recyclers
7.	Sludge Generation from	1 MT/Month	1 MT/Month	2 MT/Month	Using as manure in-house

S. No	Waste Type	Existing	Proposed Additions	Total	Disposal Method
	STP				
8.	Furnace refractory waste, Wool, Mud, Cement etc.	10 MT/Month	20 MT/Month	30 MT/Month	Sent for Construction site land filling/recycle/reuse
9.	Cullet Dust	40 MT/Month	60 MT/Month	100 MT/Month	Sent for Construction site land filling/recycle/reuse
10.	E-waste	250 KG / Month	400 KG / Month	650 KG / Month	Sold to GPCB approved recycler
11.	Trash and Packaging material waste	20 MT/Month	30 MT/Month	50 MT/Month	Sold to scrap vendor
12.	Metal Scrap	10 MT/Month	25 MT/Month	35 MT/Month	Sold to scrap vendor
13.	Solid waste from flue gas treatment (EP or Filter Dust)	-	300 MT/Month	300 MT/Month	Reused as a raw material

11. Amendment required with respect to the following in the original proposal:

- To include the Non-EC Interlinked Project (addition of Float Glass Manufacturing Line) in the FORM 1
- To update the Line Item 7 of Form 1 with respect to attracting General Condition as N/A.
- Addition of 46 Crore in the EC project cost (New sand plant + LPG storage) as we have now included the cost of utilities, roads, amenities and surrounding area development, etc. in the project cost. The above cost does not include the project cost of non-EC interlinked float line 2.

Observartions of the Committee

12. The Committee noted that the project proponent has entirely changed the scope of the project and such revision requires fresh consideration.

Recommendations of the Committee: -

13. After detailed delibrations, the Committee recommended to reject the aforesaid ToR amendment proposal and requested the project proponent to submit Form I and Pre-feasibilty report for fresh consideration of the proposal.

4.10 Expansion by installation of 1.0 MTPA Steel Plant, 40 MW (2x20 MW) waste heat Recovery, 40 MW coal based captive power plant & 500 TPD Air Separation Plant in the existing ferro alloy plant of **M/s. The Sandur Manganese & Iron Ores Ltd**., located at village Hanumanhalli, Danapur Mandal, Taluk Hospet, District Bellary, Karnataka[Online proposal No. IA/KA/IND/23395/2014; MoEFCC File No. J-11011/205/2014- IA-II(I)] **Amendment in the environmental clearance conditions with respect of CDQ in Coke oven plant**

M/s. The Sandur Manganese & Iron Ores Limited vide online application made vide proposal no. IA/KA/IND/23395/2014dated 15th January, 2019 sought for the amendment in the conditions stipulated in the environmental clearance accorded by the Ministry vide letter no.J–11011/205/2014–IA–II(I) dated 25thJune, 2018.

Details submitted by the project proponent

2. The project proponent along with their EIA concultant namely M/s. Mecon Limited.[S.No. 103, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019] made a presentation before the Committee.

3. MoEFCC vide letter F. No. J-11011/205/2014-IA-II(I) dated 25thJune, 2018 accorded Environmental Clearance (EC) for expansion of its existing Ferro Alloys Plant by installation of 1.0 MTPA Integrated Steel Plant comprising of Sinter Plant, Blast Furnace, Steel Melt Shop, Coke Oven Plant & WHRB, Rebar Mill and Oxygen Plant.

4. After the grant of Environmental Clearance on 25/06/2018, detail engineering and site activities started. Presently, the project is under implementation as per the envisaged schedule.

5. The details of the amendment sought are given as below:

Condition No.	Condition details	Amendment sought
Sl No 6. (Energy Conservation)	(b) The PP shall provide CDQ (Coke Dry Quenching) for coke quenching for both recovery and non-recovery type coke oven.	Allow for installation of Modified wet quenching as envisaged at the EIA and detail engineering stage.
SI.No.7	Clause 7: The CDQ system shall be installed along with power generation facility from waste heat recovery from hot coke.	

6. The project proponent expressed their inability to install CDQ due to the following constraints:

a. Inconsistency in steam output from CDQ boiler due to:
   - Smaller Capacity of Coke oven (less heat availability)
   - Longer cycle time (Non Recovery: 36 - 40 hrs)
   - Lower coke output per pushing (17 t/pushing)
   - Longer time interval between two pushing (20 to >30 min)

- Variation in coking time (due to absence of external heating & variation in blend)
- Planned Maintenance / Shut-down of critical equipment

b. Inconsistency in steam output parameters & quantity from one CDQ- Boiler -TG configuration will result in malfunctioning / tripping of TG.
c. Larger breakdown hours per annum in Recovery Coke Oven as per M/s CIMFR Report, April 2015, resulting in turbine tripping.
d. Problems are more pronounced in Non-Recovery Coke Oven with one CDQ- Boiler-TG configuration.

7. In this regard, project proponent has also submitted the detailed environmental appraisal report to the Ministry.

Observartions and recommendations of the Committee: -

8. After detailed delibrations, the Committee recommended the Ministry to place the proposal before the policy section of IA Division for taking appropriate view in the matter.

21st February, 2019 (Teesta)

4.11 Up gradation of existing Wet Iron Ore Grinding System to Beneficiation Circuit in the Operational 1.2 MTPA Iron Ore Pellet Plant **by M/s. MSPL Limited** located at Survey no. 2, 8, 9, 12 to 15, 132, 136 & part of 5, 6, 7, 16, 17, Village: Halavarthi, Tehsil: Koppal, District: Koppal, Karnataka [Online proposal No. IA/KA/IND/26038/2014; MoEF&CC File No. J-11011/383/2014-IA.II(I)] – **Environmental Clearance.**

M/s. MSPL Limited has made an online application vide proposal no. IA/KA/IND/26038/2014dated 1st February, 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.

2. The aforesaid proposal was considered in the 33rd meeting of the Expert Appraisal Committee meeting held during 9-11th July, 2018 wherein the the committee observed following:

i. The baseline data collected was of more than 3 years old and as per the Office Memorandum No. J-11013/41/2006-IA-II (I) dated 29th August 2017, the baseline data shall not be older than 3-year.
ii. The EMP posted on the website was draft report and not as per the generic structure envisaged in the EIA Notification, 2006
iii. Issues raised during the public hearing was not integrated in the EMP

iv. Specific ToR Points ii, iii, v and Standard ToR points, 7, 9, 11 and Sector specific ToR points 3,8,10, 17,18,20 were not addressed properly.

v. No quantitative and specifications details regarding proposed pollution control equipment was provided.

vi. Details of FAEs and accreditation of consultant was not given at Chapter-11.

vii. Plant layout presented at page 14 was not legible

viii. Location, number, details of the post-project monitoring was not provided.

3. The project proponent along with their EIA consultant namely M/s. Pollution and Ecology Control Services, Nagpur [S.No. 118, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019] made a presentation before the EAC.

Observations of the Committee: -

4. The Committee observed that the issues raised during 33rd meeting held on July, 2018 has not been again addressed satisfactorily.

Recommendations of the Committee: -

5. After detailed deliberations and request of the project proponent, the Committee recommended to reconsider the proposal after incorporating one-month fresh environment data (physical) and satisfactory response to the aforementioned issues.

4.12 3.5 MTPA Integrated Steel Plant including 295 MW CPP **by M/s. Aaress Iron and Steel Private Limited** at village Halavarthi, Tehsil Koppal, District Koppal, Karnataka [Online proposal No. IA/KA/IND/27952/2015; MoEF&CC File No. J-11011/161/2015-IA-II(I)] – **Environmental Clearance.**

M/s. Aaress Iron and Steel Private Limited has made an online application vide proposal no. IA/KA/IND/27952/2015dated 1st February, 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.

2. The project proponent along with their EIA consultant namely M/s. Pollution and Ecology Control Services, Nagpur [S.No. 118, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019] made a presentation before the EAC.

Observations of the Committee: -

3. The committee noted that the proposal per se has merit from environmental perspective, However, EIA/EMP submitted to the Ministry is not in accordance with the QCI/NABET norms.

Recommendations of the Committee: -

4. After detailed deliberations, the Committee recommended to reconsider the proposal after revising the EIA/EMP report by incorporating the following points:

i. Structure of the EIA/EMP report and signature of the functional area experts shall be in accordance of the QCI/NABET requirement.
ii. Point wise compliance to the specific, generic and additional ToR conditions shall be ensured after incorporating one-month fresh environment data (physical).
iii. Details regarding case filed before the Hon'ble Supreme Court and its present status shall be submitted.

4.13 Proposed Steel Plant [800 TPD Pellet Plant; 600 TPD DRI; 1000 TPD Induction Furnace; 17 MW Power Plant (12 MW WHRB and 5 MW FBC)] **by M/s. Genext Steels Private Limited** at Village Bagodara Tehsil Baula District Ahmedabad State Gujarat- [Proposal No IA/GJ/IND/70023/2017; File No. IA-J-11011/501/2017-IA.II(I)] – **Environmental Clearance.**

M/s. Genext Steels Private Limited has made an online application vide proposal no. IA/GJ/IND/70023/2017dated 1st February, 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.

2. The project proponent along with their EIA consultant namely San Envirotech Pvt. Ltd., Ahmedabad [S.No. 134, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019] made a presentation before the EAC.

Observations of the Committee: -

3. The Committee noted that the EIA/EMP report has been prepared by M/s. San Envirotech Pvt. Limited, Ahmedabad who is accredited by QCI/NABET for Metallurgical Industries [3(a)] for Category 'B' project instead of Metallurgical Industries [3(a)] for Category 'A' project. Hence, the Committee recommended to return the proposal in present form.

Recommendations of the Committee: -

4. After detailed delibrations, the Committee recommended to return the proposal in present form.

4.14 Proposed expansion of existing secondary lead manufacturing unit from drained battery waste from 19350 TPA to 40,000 TPA along with By-products Silver - 13 TPA, Gold - 0.03 TPA, Bismuth - 2.1 TPA, Telurium - 1.1 TPA, PP Chips - 6.2 TPA and Proposed production of Primary lead Metal from Lead Ore Concentrate & lead from secondary lead recycling unit for production of 60,000 TPA Primary Lead & By-Product viz: Sulphuric Acid -52,000 TPA, Zinc Oxide- 15,000 TPA and Copper Matte – 2600 TPA **by M/s. Axora Resources Limited** at Sy No.: 151/1, 151/2, 151/3, 151/4, 147, 148 & 150 Routhusuramala village, Thottambedu mandal, Chittoor district, Andhra Pradesh [Proposal No. IA/AP/IND/91386/2019. MoEF&CC File. No. IA-J-11011/44/2019-IA-II(I)] – **Terms of Reference.**

M/s.Axora Resources Limitedhas made online application vide proposal no. IA/AP/IND/91386/2019dated 1st February, 2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 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

2. M/s. Axora Resources Ltd. is planning for proposed expansion of Non-ferrous Metal Extraction Plant (Lead - both Primary & Secondary and Tin) at Sy No.: 151/1, 151/2, 151/3, 151/4, 147 & 148, Routhusuramala village, Thottambedu mandal, Chittoor district in Andhra Pradesh.

3.It is submitted that the above mentioned proposal was considered in the 32nd meeting of Expert Appraisal Committee (Industry-1) of Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India, held on 13th June, 2018 for consideration to appraise the project **(item no. 32.36)** for prescribing Terms of Reference (TOR). In the said meeting the Committee observed viz. **"The prefeasibility report was lacking in the identification and addressing the specific environmental issues in the proposed project. The committee advised to submit revised pre-feasibility report inter alia including specific environmental issues in the proposed project, specific ToR proposed for the project; aspect-impact analysis of the process including HIRA shall be submitted. Therefore, the proposal is returned in the present form"**.

4. Accordingly, the project proponent submitted the TOR Application along with draft revised TOR and Pre-feasibility Report to the Ministry online on 12th January, 2019 vide Online Proposal No. IA/AP/IND/91386/2019.

5. The existing project was accorded Consent to Establish (NOC) vide Order No. CTR-1233/PCB/ZOK/CFE/2017 dated 06.01.2018 &Order No. CTR-1233/PCB/ZO-KNL/CFE/2018 dated 04.07.2018 from Andhra Pradesh State Pollution Control Board and validity of NOC is up to 7 years from the date of issue i.e. 05.01.2025. The production details are presented below.

Sl. No.	Products	Capacity
1	Refined Lead	19,350 TPA
2	Silver	12 TPA
3	Gold	0.025 TPA
4	Bismuth	2 TPA
5	Tellurium	1 TPA
6	Oxygen (for internal consumption)	25 TPD
7	Tin	600 TPA
8	Antimony	1800 TPA
By product		
9	PP Chips	0.25T/Month

6. Consent to Operate (CTO) has already been awarded to M/s ARL by Andhra Pradesh Pollution Control Board (vide Order No. CTR-1233/APPCB/ZO-KNL/CFO/2018 dated 12.10.2018) to conduct activities as furnished below,

Sl. No.	Products	Capacity
1	Refined Lead	19,350 TPA
By product		
2	PP Chips	0.26T/Month

7. The proposed expansion project is located at Sy No.: 151/1, 151/2, 151/3, 151/4, 147, 148 & 150 Routhusuramala village, Thottambedu mandal, Chittoor district, Andhra Pradesh

8. Land area required for proposed primary Lead & Tin project has been estimated to be around 13.3 Hectares (33.0 acres). Land area for the existing secondary lead recycling plant along with its expansion part of the project is around 7.3 Hectares (18.0 acres). Therefore, total land area required for the entire project shall be 20.6 Hectares (51.0 acres).Of the total area 6.8 ha (33%) land will be used for green belt development.

9. The Kambakam Reserve Forest is located at a distance of 7.5 km from the site.

10. Total project cost is approx. Rs. 675 Crore. The employment generation from the proposed expansion project will be 1050 in total.

11. The targeted production capacity of the Proposed Expansion of Non-ferrous Metal Extraction Plant (Lead - both Primary & Secondary and Tin) is as follows,

- **Proposed expansion of existing secondary lead manufacturing unit (19,350 TPA to 40,000 TPA) from drained battery waste along with the by-products furnished below,**
  Silver -13 TPA
  Gold- 0.03 TPA
  Bismuth- 2.1TPA
  Telurium – 1.1 TPA
  PP chips– 6.2 TPA

- **Proposed production of primary lead metal from Imported lead ore concentrate mix., lead from secondary lead recycling / drained battery waste from existing unit for production of 60,000 TPA primary lead and by-products furnished below,**
  Sulphuric Acid - 52,000 TPA
  Zinc Oxide - 15,000 TPA
  Copper Matte - 2600 TPA
  Silver – 60 TPA
  Gold - 0.2 TPA

- **Proposed production of Primary tin metal from tin ore concentrate for production of 3,200 TPA Tin**

- **Captive Power plant: 4 MW capacity (based on Waste Heat Recovery Boiler utilizing waste heat from Oxidation, Reduction and Fuming furnaces).**

12. Total power requirement for the proposed expansion project (Lead - both Primary & Secondary and Tin) is around 14 MW (4 MW for Secondary lead recycling process + 10 MW for Primary Lead & Tin process). 4 MW shall be sourced from Waste Heat Recovery system and the rest will be sourced from Southern Power Distribution Corporation.

13. Proposed raw material and fuel requirement for project are:

(A) List of raw materials consumed per annum in Metric Tonnes for proposed expansion of existing secondary lead manufacturing unit (19,350 TPA to 40,000 TPA),

S.N	RAW MATERIALS	TOTAL PRODUCTION SECONDARY LEAD (40,000 TPA)
1	Used drained batteries	31000
2	Lead residues	41350
3	CI Boring s & Mill scales	5050
4	Soda Ash	4340
5	Charcoal & Coke fines	5800

6	Lime stone	3620
7	Silica	2900
8	Caustic soda	77
9	Sodium Nitrate	39
10	Sulphur	39
11	Hydro Fluorosilicic acid	115

(B) The major raw materials for proposed Primary Lead & Tin production, which will be handled consists of Ore Concentrates of Lead & Tin, Quartz stone, Lime Stone, Coal & Coke fines etc. The annual requirement of the major raw materials is presented below,

1. Lead ore/concentrate – 1,10,000 TPA
2. Tin Concentrate – 6,000 TPA

Fluxes, Fuels & Other minor raw materials,

1. Quartz Stone – 10,000 TPA
2. Coal fines – 13,800 TPA
3. Coke Powder – 9,160 TPA
4. Lime Stone – 6000 TPA
5. Oxygen (produced in house) – 23,558 TPA
6. Vanadium Pentoxide – 8.4 TPA
7. Hydrofluosilicic acid - 240 TPA
8. Sodium carbonate – 561 TPA
9. Heavy Oil – 6,000 TPA

14. Water Consumption for the proposed project will be 3470 kld (Domestic Water Demand – 102 kld &Industrial Water Demand – 3368 kld). Domestic waste water will be treated in STP and industrial waste water generated will be treated in ETP and reused totally.

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

16. **Consultant Details:**

Envirotech East Pvt. Ltd.

NABET Accreditation as per QCI NABET list of 8th February, 2019:
Sl. No. 54, Page No.: 55, Sector No. 8, Metallurgical Industries (Ferrous & Non-ferrous) - both Primary & Secondary, Category-A

Observations and Recommendations of the Committee: -

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

i. Authorization/Registration under the Hazardous and Other Wastes Management Rules, 2016 shall be submitted.

ii. Only surface water shall be used and no groundwater abstraction is permitted.

iii. Facility for intermittent storage of hazardous waste in compliance to the Hazardous and Other Wastes Management Rules, 2016 shall be submitted.

iv. All dust collected from various emission points would be recycled.

v. The entire run off from the premises shall be treated.

vi. Proper scheme of green belt development shall be submitted.

vii. Public Hearing to be conducted by the concerned State Pollution Control Board.

viii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

ix. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.15 Expansion of Integrated Steel Plant; MS Billet (from 330000 MTPA to 653400 MTPA), Captive power (from 53 MW to 80.5 MW), Sponge Iron (from 297000 MTPA to 594000 MTPA) and New Pellet plant establishment-792000 MTPA **by M/s. Gallantt Ispat Limited** at AL-5 Sector 23 GIDA Industrial Area, Sahjanwa, District – Gorakhpur Uttar Pradesh [Proposal No. IA/UP/IND/93041/2019. MoEF&CC File. No. J-11011/229/2018-IA (II)] – **Terms of Reference.**

M/s. Galantt Ispat Limited has made online application vide proposal no. IA/UP/IND/93041/2019dated 9th January, 2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 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

2. M/s Gallantt Ispat Limited, proposes to install expansion of existing Integrated Sponge Iron Plant, Steel Melting Shop (Induction Furnace), Captive Power plant along with proposed palletisation plant unit. It is proposed to setup the plant for capacity (expansion): Sponge Iron from 297000 MTPA to 594000 MTPA, Steel Billets from 330000 MTPA to 653400 MTPA, Captive Power from 53.0 MW to 80.5 MW and Proposed Pellet Plant of 792000 MTPA at AL-5 Sector 23 GIDA Industrial Area, Sahjanwa, District – Gorakhpur.

3. The existing project was accorded environmental clearance vide letter no. F. No J – 11011 / 229 / 2008 - IA. II(I) dated 18th October 2017. Consent to Operate was accorded by Uttar Pradesh State Pollution Control Board vide Letter. no. 272/17.11.17 (Air) and Letter No. 267/17.11.17. Validity of CTO is up to 31st December 2019.

4. The proposed expansion will be done in existing unit located at AL-5 Sector 23 GIDA Industrial Area, Tehsil: Sahjanwa, District: Gorakhpur State: Uttar Pradesh.

5. The land area acquired for the proposed plant is 45.9 Ha. Out of which 66.7 % of area is used for plant machinery, storage of raw material, infrastructure, transport and storage final products and 33.3 % of total project land is already developed as green belt.

6. There is no any National Park/WL /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.

7. Total project cost is approx 602.53 Crore rupees. Proposed employment generation from proposed project after expansion will be 405 direct employment and 750 indirect employment.

8. The targeted production capacity after expansion will be Sponge Iron from 297000 MTPA to 594000 MTPA, Steel Billets from 330000 MTPA to 653400 MTPA, Captive Power from 53.0 MW to 80.5 MW. A new pellet plant will be installed of 792000 MTPA capacity. Iron ore fines/ coal for the plant will be procured from Open Market. Raw material (Iron ore fines/ coal) will be transported through Railway rakes.

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

Sr No.	**Proposed**	**Existing**	**Proposed expansion**	**Total Manufacturing Capacity (after expansion)**
1	Sponge Iron Plant with a capacity of 2,97,000 MTPA (addition of one Kiln of 750 MT/Day and one Kiln of 150 MT/Day with existing two Kilns of 450 MT/Day)	297000 MTPA	297000 MTPA	594000 MTPA
2	Pelletisation Plant	New Establishment of 792000 MTPA		
3	M. S. Billets via induction Furnace, Continuous Caster Machine, Laddle Refining Furnace Route (653400 MT Steel Billets with 2 Induction Furnace of 22.5 MT, 2 Induction Furnace of 27.5 MT, 4 Induction Furnaces of 30 MT (330 working days & 9 Heats/Day).	330000 MTPA	323400 MTPA	653400 MTPA
Captive Power Plant				
	Particular	**Existing**	**Proposed**	**Total**
4	CPP	53 MW	27.5 MW	80.5 MW

10. Power requirement 81 MW after expansion. The above demand will be met from own Captive power plant of (80.5 - 100 % Self Consumption) with 10 MW of UPPCL power. DG Set Details 02 nos. 1000KVA, 01 nos. 630 KVA, 01 nos. 2000 KVA and 01nos. 1250 KVA.

11. Required Raw material and its sources are given below :

Sr. No.	Material	Existing Consumption	Total Consumption after expansion	Source
Sponge Iron Plant				
1	Iron Ore	237600 MTPA	66528 MTPA	Open Market
2	Pellets	237600 MTPA	794772 MTPA	Self / From Manufacturer
3	Coal	267300 MTPA	534600 MTPA	Import/ linkage auction/Open Market
4	Dolomite	14850 MTPA	29700 MTPA	Open Market
Palletisation Plant				
1.	Iron Ore Fines	-	883872 MTPA	Open Market
2.	Bentonite	-	6336 MTPA	Open Market
3.	Lime Stone	-	7920 MTPA	Open Market
4.	Dolomite	-	3960 MTPA	Open Market
5.	Coal	-	43560 MTPA	Open Market
Steel Melt Shop Division (Induction Furnace with Continues Caster)				
1	Sponge Iron	297000 MTPA	594000 MTPA	Self
2	MS Scraps	109267 MTPA	200779 MTPA	Open market
3	Ferro Alloy	4950 MT	7841 MT	Open Market
Captive power Plant (AFBC)				
1	Coal	124740 MTPA	214500 MTPA	Linkage Auction/ Open Market
2	Rice Husk	83160 MTPA	35244 MTPA	Open Market
3	Dolochar	41580 MTPA	80190 MTPA	Self Generated

12. Water consumption for the proposed project after expansion will be 6776 KLD and waste water generation will be nil. Domestic waste water is being treated in Sewage treatment plant of adequate capacity same will be utilised after expansion also and industrial

waste water generated will be treated in neutralisation pit and after treatment 100 % recycling will be done.

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

14. Name of EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd., Jaipur QCI Accredited [S.No. 45, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019]

Observations and recommendations of the Committee: -

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

i. Confirmation regarding the transportation of iron ore, fluxes and coal only by Rail by providing dedicated railway siding to the plant site.
ii. Explore the possibility of use of river water/ water from the other industries located in the Gorakhpur industrial area in order to reduce the ground water drawl.
iii. Scheme for ground water recharge more than the amount extracted from the ground shall be submitted. The recharge can be done within the factory premises and outside the factory premises also.
iv. Particulate matter emissions from the process stacks shall be less than 30 mg/Nm3.
v. Scheme for achieving zero liquid discharge shall be submitted.
vi. Confirmation regarding use of FO only in reheating furnace.
vii. Study on hydrogeology of the area shall be submitted.
viii. Permission for withdrawal of ground water shall be submitted.
ix. Revised layout plan for maximising the greenbelt around the plant site.
x. Public Hearing to be conducted by the concerned State Pollution Control Board.
xi. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
xii. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.16 Proposed Expansion of Sponge Iron unit from 5500 MT/M to 20500 MT/M, Billets production from 12333 MT/M to 36333 MT/M, expansion of Rolling Mill from 12000 MT/M to 36000 MT/M, WHRB based power generation from 4 MW to 12 MW and AFBC based power generation from 4 MW to 21 MW Unit in existing premises **by M/s. A.S.R. Multimetals Pvt. Limited** at Village Chhadwada, Taluka Bhachau, District Kutch, Gujarat [Proposal No. IA/GJ/IND/93403/2019. MoEF&CC File. No. J-11011/251/2007- IA II (I)] – **Terms of Reference.**

M/s. A.S.R. Multimetals Pvt. Limited has made online application vide proposal no. IA/GJ/IND/93403/2019dated 29th January, 2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 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

2. M/s. A.S.R. Multimetals Pvt. Ltd proposes expansion of existing manufacturing unit for Sponge Iron from 5500 MT/Month to 15000 MT/Month, M.S. Billets from 12333 MT/Month to 24000 MT/month, TMT Bars from 12000 MT/Month to 24000 MT/Month and Power Generation (AFBC) from 4MW to 17 MW and WHRB from 4 MW to 8 MW. The project proponent submitted an application in the prescribed format along with Form-1 and other reports to the Ministry online on 29th January 2019 vide Online Application No. IA/GJ/IND/93403/2019. Earlier Online application made vide proposal no. IA/GJ/IND/85547/2015 dated 26th December 2018 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006.

3. The committee noted in 3rdMeeting of EAC (Industry –I) held on 9-11 January 2019, that the baseline data is older than 3 years by the time of application for EC to the Ministry as per the Office memorandum issued by the Ministry. Hence, the committee recommended for rejection of the proposal and advised the PP to obtain the fresh ToRs.

4. The existing project was accorded environmental clearance vide lr.no. J- 11011/ 251/2007-IA II (I) dated 31st March 2008Consent to Operate was accorded by Gujarat Pollution Control Board vide lr. no. AWH-55787,No.PC/CCA-KUTCH-359(3)/GPCB validity of CtO is up to 13/05/2023.

5. The proposed unit will be located atSurvey nos. 394/2, 398, 399 & 400, 394/1(P), 395, 397Village: Chhadwada, Taluka: Bhachau, District:Kutch, State:Gujarat.

6. The total land in possession is 31.47 Ha. No forestland involved. The entire land has been purchased for the project. Of the total area 10.38 ha (33%) land will be used for green belt development.

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

8. Total project cost is approx Rs. 250 Crore rupees. Proposed employment generation from proposed project will be 400 direct employment and 800 indirect employment.

9. M/s. A.S.R. Multimetals Pvt. Ltd proposes expansion of existing manufacturing unit for Sponge Iron from 5500 MT/Month to 20500MT/Month, M.S. Billets from 12333 MT/Month to 36333 MT/month, TMT Bars from 12000 MT/Month to 36000 MT/Month and

Power Generation (AFBC) from 4MW to 21 MW and WHRB from 4 MW to 12 MW. The ore for the plant would be procured from open market. The ore transportation will be done through Road.

10. The electricity load of 31 MW will be sourced from Captive generation and State Electricity Board. Company has also proposed to install 3 nos of DG Set for standby purposed.

11. Proposed raw material and fuel requirement for project are Iron Ore, Sponge iron, scrap, billets and coal. The requirement would be fulfilled by local market as well as imported. Fuel consumption will be mainly coal and dolachar.

12. Water Consumption for the proposed project will be 1000 KLD and waste water generation will be 280 KLD. About 20 KLD of domestic waste water will be treated in Packaged Type STP and industrial waste water generated will be treated in settling tank and reused.

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

14. Name of the consultant: M/s. Pollution and Ecology Control Services, Nagpur [S.No. 118, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations of the Committee

15. The proponent sought for exemption from conducting frepublic hearing as the earlier public hearing was conducted on 7/08/2018. However, the Committee did not agree to the request of the project proponent.

Recommendations of the Committee: -

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

i. No abstraction of groundwater is allowed.
ii. Ground water recharging more than the water consumed in the plant shall be carried out.
iii. Detailed traffic study considering the volume of the traffic due to other activities in the study area.
iv. Approval for the surface water withdrawal from the competent authority
v. Public Hearing to be conducted by the concerned State Pollution Control Board.
vi. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

vii. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.17 Expansion of MS billet from 2,37,600 MTPA to 5,61,600 MTPA, TMT bars from 2,00,000 MTPA to 4,20,000 MTPA, MS structures from 92,160 MTPA to 1,80,000 MTPA and wire rod of 4,20,000 MTPA **by M/s. Galwali Ispat Udyog Private Limited** at Narain Nagar Industrial Estate, Bazpur Road, Kashipur, Udham Singh Nagar, Uttarkhand [Proposal No. IA/UK/IND/93400/2019. MoEF&CC File. No. IA-J-11011/43/2019-IA-II(I)] – **Terms of Reference.**

M/s. Galwali Ispat Udyog Private Limited has made online application vide proposal no. IA/UK/IND/93400/2019dated 29th January, 2019 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

The project proponent along with their EIA consultant made a presentation before the EAC.

Observations of the Committee

3. The Committee noted that the proposal submitted by the project proponent is incomplete as the requisite project details has not been incorporated in the pre-feasibility report.

Recommendations of the Committee: -

4. After detailed deliberations, the Committee recommended to return the proposal in present form.

4.18 Proposed Integrated Cement Project - Clinker (3.0 MTPA), Cement (2.5 MTPA), CPP {54 (2x27) MW}, WHRS (15 MW) and D.G. Set (1000 KVA) **by M/s. Dalmia Cement (Bharat) Ltd** at Village: Jamuna, Tehsil: Rampur Baghelan, District: Satna (Madhya Pradesh) [Proposal No. IA/MP/IND/93273/2019. MoEF&CC File. No. IA-J-11011/42/2019-IA-II(I)] – **Terms of Reference.**

M/s. Dalmia Cement (Bharat) Limited has made online application vide proposal no. **IA/MP/IND/93273/2019**dated 30th January, 2019along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 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

2. M/s. Dalmia Cement (Bharat) Ltd. proposes to install a new/ Greenfield Integrated Cement Project: Clinker (3.0 MTPA), Cement (2.5 MTPA), CPP {54 (2x27) MW}, WHRS (15 MW) and D.G. Set (1000 KVA) at Village: Jamuna, Tehsil: Rampur Baghelan, District: Satna (Madhya Pradesh). It is proposed to set up plant based on dry process technology.

3. The proposed unit will be located at Village: Jamuna, Tehsil: Rampur Baghelan, District: Satna (Madhya Pradesh).

4. The land area required for the proposed Project is 101.5 ha; out of which 98.35 ha is private agricultural land and rest 3.15 ha is Govt. land. No forest land is involved. The entire land is yet to be acquired for the proposed project. Out of the total project area, 33.5 ha (33%) will be used for green belt development/plantation. The proposed Plant shall require about 72 ha for setting up of the plant & allied infrastructure. Additionally, an area of 24 ha (33% of the plant area) is earmarked for Green belt development. A linear covered conveyor belt is proposed over an area of ~5.5 Ha (~3.7 km length) which includes 1.5 ha of linear plantation along the conveyor belt. Thus total land required for the proposed project is ~ 101.5 ha. However, apart from above proposed green belt area, Plantation along roads, Gardens, Lawns etc. will be undertaken. Total cumulative Green belt/plantation area will be 33.5 ha (33% of 101.5 ha).

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

6. Total project cost is approx. Rs. 1875 Crores. Proposed employment generation is approx. 865 (direct) and indirect about 1000-1500.

7. The targeted production capacity of Integrated Cement Project: Clinker (3.0 MTPA), Cement (2.5 MTPA), CPP {54 (2x27) MW}, WHRS (15 MW) & D.G. Set (1000 KVA). Part of the clinker will be transported to split Grinding Unit (GU) of 2.5 MTPA proposed to be setup in Uttar Pradesh (near Rae Bareilly). Application for EC for said GU is yet to be filed. The Limestone requirement for the plant would be met from three Captive Limestone Mines in Satna Dist. viz., (i) Proposed Bairiha Limestone Mine (ML area 575.830 ha) with peak production capacity of 4.0 MTPA (limestone) at Villages: Bairiha, Patarhai & Janardanpur, Tehsil: Rampur Baghelan, (ii) Proposed Jamuna Limestone Mine (ML area 89.234 ha) with peak production capacity of 0.5 MTPA (limestone) at Village – Jamuna, Tehsil – Rampur Baghelan and (iii) Proposed Pagra-Jhiriya Limestone Mine (ML area 395.965 ha) with peak production capacity of 1.5 MTPA (limestone) at Village-Pagra, Jhiriya Kothar, Jhiriya Bajpain & Jhiriya Koparihan, Tehsil- Amarpatan. The Limestone transportation will be done through covered Conveyor Belts (by road initially and during emergency/breakdown situation). Limestone from remotely located Captive Pagra-Jhiriya Limestone Mine will be transported by road. The proposed capacity for different products for new site area is as below:

Name of Unit	Proposed Capacity
Clinker (MTPA)	3.0
Cement (MTPA)	2.5

Name of Unit	Proposed Capacity
Captive Power Plant (MW)	54 (2 x27)
WHRS (MW)	15
D.G. Set (KVA)	1000

8. The electricity load of 55 MW will be sourced from proposed CPP {54 MW (2x27)}, WHRS (15 MW) and also from State Grid at Tapa sub-station. It is also proposed to install 1000 KVA DG set for backup and emergency.

9. Raw materials required for the proposed project are: 1) Limestone which will be sourced from Proposed Captive Limestone Mines (a) Bairiha Limestone Mine, (b) Jamuna limestone Mine and (c) Pagra-Jhiriya Limestone Mine, 2) Clay & Shale will be purchased from local market; 3) Laterite/Bauxite/Iron Ore will be purchased from Katni; 4) Fly ash will be sourced from Captive Power Plant/Vindhyachal Power Plant/NTPC Power Plant/Sanjay Gandhi Thermal Power Plant; 5) Gypsum will be sourced from Bikaner, Rajasthan. Fuel will be Indian & Imported Coal and Indian & Imported Petcoke, sourced from SECL/Open Market/ E-auction & other Petrochemical Refineries and USA, Indonesia, Saudi Arabia etc. respectively.

10. Water Consumption for the proposed project will be 3000 KLD; which will be sourced from Ground water & Local authorities. No waste water will be discharged from the cement plant. Domestic wastewater generated from Plant will be treated in septic tank via soak pit and domestic wastewater generated from colony is proposed to be treated in STP and the treated water will be utilized for greenbelt development/ plantation. Wastewater generated from CPP and RO reject will be treated in ETP. Treated water will be reused for landscaping, dust suppression etc.

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

13. Name of the consultant: M/s. J. M. Environet Pvt. Ltd., Gurugram [S.No. 90, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations and recommendations of the Committee: -

14. After detailed deliberations, it was decided that sub-committee comprising of EAC members and Officer concerned with the subject matter will undertake a site visit and thereafter the proposals would be considered by the EAC for grant of ToR.

4.19 Expansion of Stainless Steel Billets from 60,000 MTPA to 1,80,000 MTPA **by M/s. Chandan Steel Limited** at Plot no. 32,33-B,34, 35 & 36 Umargaon Industrial Area, District Valsad, Gujarat [Online Proposal No. IA/GJ/IND/34009/2015, MoEF&CC File No. J-11011/219/2015-IA II (I)] – **Extension of validity of Terms of Reference**

M/s. Chandan Steel Limited has made online application vide proposal no. IA/GJ/IND/34009/2015dated19th January, 2019seeking validity extension of the ToR

accorded by the Ministry vide letter no. F.No. J-11011/219/2015- IA-II(I) dated 29th January, 2016.

Details submitted by the Project Proponent

2. Ministry vide letter no. J-11011/219/2015- IA-II(I) dated 29th January, 2016 accorded ToR to M/s. Chandan Steel Limited for expansion of Stainless Steel Billets from 60,000 MTPA to 1,80,000 MTPA at Umargaon GIDC Industrial Area, Valsad, Gujarat.

3. It was informed during the meeting that aforesaid project could not be further implemented within the validity period due to administrative and financial issues. The project proponent requested the Ministry to extend the validity of the ToR.

Observations and recommendations of the Committee: -

4. After detailed deliberations, the Committee recommendednot to extend the validity of the ToR as no progress has been made by the project proponent. Therefore, the Committee recommended to return the proposal in present form.

4.20 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 **byM/s. Nilkanth Concast Private Limited** at survey no. 221, Village: Vadala. Taluka: Mundra, dist. Kutch, Gujarat. [Online Proposal No. IA/GJ/IND/28721/2015, MoEF&CC File No. J-11011/85/2008-IA-II(I)] – **Extension of validity of Terms of Reference**

M/s. Nilkanth Concast Private Limited has made online application vide proposal no. IA/GJ/IND/28721/2015dated 30th January, 2019 seeking validity extension of the ToR accorded by the Ministry vide letter no. F.No. J-11011/85/2008- IA-II(I) dated 14th September, 2015.

Details submitted by the Project Proponent

2. Ministry vide letter no. J-11011/85/2008- IA-II(I) dated 14th September, 2015 accorded ToR to M/s. Nilkanth Concast Private Limited for 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) at survey no. 221, Village: Vadala. Taluka: Mundra, dist. Kutch, Gujarat. Therefter, Ministry vide letter of even no. dated 27/05/2016 amended the ToR dated 14/09/2015 with respect of production capacities of various units.

3. It was informed during the meeting that aforesaid project could not be further implemented within the validity period due to administrative and financial issues. The project proponent requested the Ministry to extend the validity of the ToR.

Observations of the Committee: -

4. The consultant informed that they had submitted online their EC application alongwith EIA report in the month of October 2018. At that time, the data collected was less than 3 years old. This was considered by the EAC in 36thmeeting held during 9-10th October, 2018. The EAC opined that the EIA report was not as per the generic structure prescribed and hence it needed to be modified. Also, the PP has not submitted the closure report with reference to the compliance of earlier EC conditions. Therefore, the EAC recommended that EIA report would be returned to PP in the present form. Clearly, the baseline data use in the EIA report was less than 3 years old at the time of submission in September 2018. Further, the PP also informed that a fresh baseline data has been collected during the period Oct-Dec 2018.

Observations of the Committee: -

5. After detailed deliberations, the committee agreed to recommend for extension of validity of ToRs upto 13.09.2019. Further, the committee advised the project proponent to incorporate and analyse the available fresh data to bring out variances with respect to earlier baseline data and include this in the EIA/EMP report.

Recommendations of the Committee: -

6. After detailed deliberations, the Committee recommended to extend the validity of the ToR for a period one year from 14/09/2018 to 13/09/2019. All other terms and conditions stipulated in the ToR letter dated 14/09/2015 and 27/05/2016 shall remains unchanged.

22nd February, 2019 (Teesta)

4.21 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)] – **Environmental Clearance.**

Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The proposal informed that he is not able to attend the meeting due to ill-health.

4.22 Proposed Expansion of Integrated Cement Plant - Clinker (2 x 2.6 to 3 x 4.5 Million TPA), Cement (2 x 3.0 to 3 x 5.5 Million TPA), Waste Heat Recovery Power Plant (30 to 100 MW), Captive Thermal Power Plant (25 to 125 MW) along with Synthetic Gypsum Unit (65 TPH) and DG Sets {2000 KVA (size 1000/500/250/125)} by **M/s. Shree Raipur Cement Plant (A unit of Shree Cement Ltd.)** near Village Khapradih, Tehsil Simga, District Balodabazar - Bhatapara (Chhattisgarh) - [Proposal

No. IA/CG/IND/26823/2015. MoEF&CC File. No. J-11011/235/2008-IA II (I)] – **Environmental Clearance.**

M/s. Shree Raipur Cement Plant (A unit of Shree Cement Ltd.)has made an online application vide proposal no. IA/CG/IND/26823/2015 dated 25th January, 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(b) Cement Plants under Category "A" EIA Notification, 2006and the proposal is appraised at Central level.

Details submitted by the project proponent

2. The Expansion of Integrated Cement Project - Clinker (2 x 2.6 to 3 x 4.5 Million TPA), Cement (2 x 3.0 to 3 x 3.5 MTPA), Captive Power Plant (25 to 125 MW) and Waste Heat Recovery Power Plant (30 to 100 MW) of M/s. Shree Cement Raipur Plant (Shree Cement Limited) located at Village - Khapradih, Tehsil - Simga, District - Balodabazar - Bhatapara (Chhattisgarh) was initially received in the Ministry on 5th June, 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 20thmeeting held on 10th July, 2017 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 06th Nov., 2017 *vide* letter no. J-11011/235/2008-IA.II (I).

3. The project of M/s. Shree Cement Raipur Plant (A Unit of Shree Cement Limited) located at Village - Khapradih, Tehsil - Simga, District - Balodabazar - Bhatapara (Chhattisgarh) is for Expansion of Integrated Cement Plant - Clinker (2 x 2.6 to 3 x 4.5 Million TPA), Cement (2 x 3.0 to 3 x 3.5 MTPA), Captive Power Plant (25 to 125 MW) and Waste Heat Recovery Power Plant (30 to 100 MW). The existing project was accorded environmental clearance *vide* letter no. J - 11011/235/2008 - IA - II (I) dated 05th Sept., 2016. The Status of compliance of earlier EC was obtained from Regional Office, Nagpur *vide* letter no. 5 - 11/ 2011 (ENV)/3997 dated 31st July, 2018. There are 9 partially compliances reported by Regional officer.The closure for partially complied points have been obtained *vide* letter no. 5-11/2011 (ENV) 4373 dated 26th Sept., 2018. The proposed capacity for the different products as below:

Particular	**Unit**	**Existing Granted Capacity** ***(as per EC dated 05th Sept., 2016)***	**Existing Status**	**Additional Proposed Capacity**		**Total capacity after proposed expansion**
				Phase - 1	**Phase - 2**	
Clinker* (Million TPA)	Unit - I	2.6	Running	2.6 to 3.5 *(by internal modifications)*	3.5 to 4.5 *(by installation of additional preheater)*	4.5

Particular	Unit	Existing Granted Capacity *(as per EC dated 05th Sept., 2016)*	Existing Status	Additional Proposed Capacity		Total capacity after proposed expansion
				Phase - 1	Phase - 2	
	Unit - II	2.6	Running	2.6 to 4.0 *(by internal modifications)*	4.0 to 4.5 *(by internal modifications)*	4.5
	Unit - III	Nil	Proposed	Nil	4.5	4.5
	Total	***5.2 (2 x 2.6)***	***-***	***2.3***	***6.0***	***13.5 (3 x 4.5)***
Cement (Million TPA)	Mill - I	3.0	Running	3.0 to 4.4 *(by modification in VRM)*	4.4 to 5.5 *(by installation of Ball Mill + RP)*	5.5
	Mill - II	3.0	Yet to install	3.0 to 4.4 *(by installation of VRM)*	4.4 to 5.5 *(by installation of additional Ball Mill + RP)*	5.5
	Mill - III	Nil	Proposed	Nil	1 x 5.5 *(4.4 MTPA by VRM & balance 1.1 MTPA by installation of Ball Mill + RP)*	5.5
	Total	***6.0 (2 x 3.0)***	***-***	***2.8***	***7.7***	***16.5 (3 x 5.5)***
CPP (MW)	-	25	Running	2 x 25	2 x 25	125
Waste Heat Recovery Power Plant (MW)	-	30	Running	25	45	100
Synthetic Gypsum Unit (TPH)	-	65	Yet to install	Nil	Nil	65
D.G. Set (KVA)	-	2000	2*250 KVA *(balance yet to be*	Nil		2000

Particular	Unit	Existing Granted Capacity *(as per EC dated 05th Sept., 2016)*	Existing Status	Additional Proposed Capacity		Total capacity after proposed expansion
				Phase - 1	Phase - 2	
			installed in phased manner)			
Clinker will also be sent to the sister grinding units, market sale and also receive from outside if clinker unit is not in operation or shortfall of clinker.						

4. Total land required for the project 159.256 ha which is industrial land and totally under the possession of M/s. Shree Raipur Cement Plant (A unit of Shree Cement Ltd.). No forest land is involved. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5. The topography of the area is almost flat and reported to lies between 21°35' 41.84" N to 21°36' 29.06" N and 82°02' 14.24" E to 82°03' 6.17" E Longitude in Survey of India toposheet no. 64 G/14 & 64 K/2 at an elevation of about 272 - 285 m. The ground water level reported to ranges between 3 to 5 m bgl below the land surface during the post-monsoon season and 5 to 10 m bgl below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be less than 300 m. Further, the stage of groundwater development is reported to be 86 % and 35 % in core and buffer zone respectively and thereby these are designated under safe Category.

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. The authenticated list of flora and fauna provided duly authenticated by Forest Officer, Balodabazar reporting presence of no Schedule -I fauna in the study area in the study area.

7. The raw materials required for the proposed expansion project are Limestone, Iron Ore & Red Mud, Indian and Imported Mineral gypsum, Synthetic and Chemical Gypsum, Fly ash and Slag. Cement Plant is based on Dry Process Technology for Cement manufacturing with Pre- Heater and Pre- Calciner Technology. The type of cement manufactured is / will be OPC, PPC and PSC.

8. The targeted production capacity of the Clinker - (2 x 2.6 to 3 x 4.5 Million TPA), Cement - (2 x 3.0 to 3 x 3.5 MTPA), Captive Power Plant (25 to 125 MW) and Waste Heat Recovery Power Plant (30 to 100 MW). Limestone is being / will be sourced from the Captive Limestone Mines (Semradih - Bharuwadih Mine and Karhi-Chandi Mine) transported through covered conveyer belt. Iron ore & Red Mud is being / will be sourced

from Shri Bajrang Power & Ispat Ltd. Tilda / Bharat Aluminium Company Ltd. (Balco - Korba) and transported through Road/Rail. Indian and Imported Mineral gypsum, Synthetic and Chemical Gypsum is being / will be sourced from Swiss Singapore Overseas Pvt. Ltd. Oman Vizag; Coromondal Inter National Ltd. Visakhapatnam Vizag; Synthetic Gypsum plant and transported through Road/Rail.

9. Raw material required for the project along with source with distance and mode of transportation is given below -

Raw Material	**Quantity (MTPA)**				**Source**	**Distance & Mode of Transportation**
	Basis	**Existing as per EC granted (5.2 MTPA Clinker & 6.0 MTPA Cement)**	**Additional (8.3 MTPA Clinker & 10.5 MTPA Cement)**	**Total (13.5 MTPA Clinker & 16.5 MTPA Cement)**		
Limestone	1.6 T/ T of Clinker	8.32	13.28	21.6	Captive Limestone Mine (Semradih-Bharuwadih Mine and Karhi-Chandi Mine)	Adjacent; Covered Conveyor belt
Iron ore & Red Mud	0.015 T/ T of Clinker	0.08	0.13	0.21	Shri Bajrang Power & Ispat Ltd. Tilda / Bharat Aluminium Company Ltd. (Balco-Korba)	Tilda - 47, Korba - 151 Road / Rail
Indian, Imported Mineral gypsum, synthetic and chemical Gypsum	0.07 T / T of Cement	0.42	0.73	1.15	Swiss Singapore Overseas Pvt. Ltd. Oman Vizag; Coromondal Inter National Ltd. Visakhapatnam Vizag; Synthetic	Vizag - 573; Road / Rail

Raw Material	Quantity (MTPA)				Source	Distance & Mode of Transportation
	Basis	Existing as per EC granted (5.2 MTPA Clinker & 6.0 MTPA Cement)	Additional (8.3 MTPA Clinker & 10.5 MTPA Cement)	Total (13.5 MTPA Clinker & 16.5 MTPA Cement)		
					Gypsum plant	
Fly Ash	0.35 T/T of Cement	2.10	3.67	5.77	CPP, GMR Chhattisgarh Energy Ltd Tilda, Sarda Energy & Minerals Ltd Siltara, NSPCL Limited Bhilai, NTPC Limited Sipat, KSK Mahanadi Power Co. Ltd Akaltara, Chhattisgarh Power Gen. Co. Ltd. (CSEB) Marwa, D B Power Limited Raigarh	Tilda - 47, Siltara - 172, Bhilai - 121, Sipat - 106, Akaltara - 119, Marwa - 120, Raigarh - 154 Road
Slag	0.50 T/T of Cement	3.00	5.25	8.25	Metalman Siltara, Jayaswal Neco Industries Ltd Siltara, Jindal Steel & Power Ltd Raigarh	Siltara - 172, Raigarh - 154 Road / Rail

Note: Limestone (0.09 MTPA) will also be required for lime dosing in CPP after proposed expansion.

10. The water requirement of the project is estimated as 3935 KLD (including both captive mines); out of which, 3000 KLD fresh water requirement will be sourced from Ground Water and the remaining requirement of 935 KLD will be sourced from Rain Water collected in Mine Pits of Semradih-Bharuwadih Mine & Karhi-Chandi Mine and Earthen Pond in the plant. The Permission for withdrawal of 3000 KLD ground water has been renewed *vide* letter no. 21-4 (36) / NCCR / CGWA /2008- 2079 dated 24th Oct., 2018.

11. The Power requirement of the project is estimated as 220 MW, which will be sourced from Existing & Proposed CPP (125 MW) and WHRS (100 MW), Grid & D.G Set (for backup). The Committee noted that confirmed coal linkage document for the power plant along with its characteristics has not been submitted.

12. Baseline Environmental Studies were conducted during Post - Monsoon Season i.e. from Oct., to Dec., 2017. Ambient air quality monitoring was carried out at 15 locations during 01st Oct, 2017 to 31st Dec., 2017 and the data submitted indicated: PM_{10} (59.7 to 84.2 µg/m^3), $PM_{2.5}$ (24.3 to 43.2 µg/m^3), SO_2 (5.3 to 13.5 µg/m^3) and NO_2 (12.5 to 28.5 µg/m^3).The results of the modeling study indicates that the maximum increase of GLC for the proposed expansion Project is 8.5 µg/m^3 with respect to the PM, 5.25 µg/m^3 with respect to the SO_2, 7.58 µg/m^3 with respect to the NO_x. The Committee noted that other relevant parameters in the AAQ has not been monitored and the CO level is reported as BDL which is not correct.

13. The existing and the proposed traffic assessment study presented by the project propoent is furnished as below :

Existing traffic assessment :

S. No.	Vehicle Type	Number of Vehicles / day	Passenger Car Unit (PCU) Factor	Total Number of Vehicle (PCU) / day
1.	Motor Cycle / Scooter	1498	0.5	749
2.	Passenger Car / Van / Auto-rickshaw	920	1.0	920
3.	Tractors	408	1.5	612
4.	Truck	265	3.0	795
5.	Bus	120	3.0	360
6.	Trailer	224	4.5	1008
7.	Cycle	688	0.5	344
8.	Cycle Rikshaw	0	2.0	0
Total		4123		4788
		PCU / hr = (PCU / day) / 24 199.5		

Inward Traffic due to the Raw Material Transportation - Road

Material	Required Quantity		Source / Origin Destination	Type of vehicle and Capacity	Expected %	Approx. No. of Trucks / day
	MTPA	TPD				
Iron ore & Red Mud	0.13	382	Shri Bajrang Power &Ispat Ltd. Tilda/Bharat Aluminum Company Ltd.(Balco-Korba)	Truck / 30 Tonnes	100	13
Indian, Imported, synthetic and chemical Gypsum	0.73	2147	Cormandal Fertilizer Ltd, Vizag; Synthetic gypsum plant & nearby sources	Truck / 30 Tonnes	100	71
Fly Ash	3.67	10794	CPP, GMR Chhattisgarh Energy Ltd Tilda, Sarda Energy & Minerals Ltd Siltara, NSPCL Limited Bhilai, NTPC Limited Sipat, KSK Mahanadi Power Co. Ltd Akaltara, Chhattisgarh Power Gen. Co. Ltd. (CSEB) Marwa, D B Power Limited Raigarh.	Truck / 30 Tonnes	62	222
Coal & Pet Coke for Cement Plant	1.33	3912	Metalman Siltara, Jayaswal Neco Industries Ltd Siltara, Jindal Steel & Power Ltd Raigarh	Truck / 30 Tonnes	20	130
Coal for CPP	0.71	2088	Local Petroleum refinery /Jamnagar / USA/ SA/ Indonesia etc.	Truck / 30 Tonnes	75	70
Total						608

**Considering 100% by Road to Calculate Maximum Pollution Load with 340 working days*

Outward Traffic due to Finished Product Transportation – Road

Material	Total Quantity		Source / Origin Destination	Expected %	Type of vehicle and Capacity	Number of Trips (approx.) Per Day
	MTPA	TPD				

Clinker	6.1	16712	Shree Raipur Cement Plant	67	Truck / 30 Tonnes	373
Cement	16.5	45205	Shree Raipur Cement Plant	33	Truck / 30 Tonnes	497
Total						870

Total No. of increased trucks / tankers per day (inward) = 574

Total No. of increased trucks / tankers per day (outward) = 870

Total No. of increased trucks / tankers per day (outward) = 574 + 870 = 1444

Increase in PCU / day = 1444 x 3 = 4332

Railway siding with loading / unloading facilities at Shree Raipur Cement Plant - Alternative option for transportation

A railway siding connects the plant to Bhatapara Railway Station, which is about 18 km in NW direction from the plant site. Emissions per ton - km of road transport are higher than emission per ton - km caused by rail transport. Thus, SCL will achieve emission reductions by using rail as mode of transport for clinker and cement.

Outward Traffic Railways - Raw Material

Material	No. of Wagon and Capacity	Number of Trips / day (approx.)
Coal / Petcoke	60 / 55 Tonnes	2
Slag	60/ 55 Tonnes	4

Outward Traffic: Railways - Finished Products

Material	No. of Wagon and Capacity	Number of Trips / day (approx.)
Clinker	60 / 55 Tonnes	2
Cement	60 / 55 Tonnes	9

After detailed discussions, the Committee was of the view that project proponent should take necessary efforts to gradually reduce the movement of raw materials and finished products by road. Also, the project proponent should make efforts on war foot basis to establish the railway siding facility which connects the plant to Bhatapara Railway Station with a time frame of 5 years i.e. by February 2024. Road transporation of raw materials and finished

products is prohibited with effect from February 2024onwards and no further relaxation would be given in this regard. Further, the Committee also advised all the raw materials shall be stored under covered storage and open storage of raw materials is not allowed.

14. Ground water quality has been monitored at 8 locations in the study area and analyzed. pH: 7.36 to 8.02, Total Hardness: 246.76 to 552.29 mg/l, Chlorides: 11.40 to 181.41 mg/l, Fluoride: 0.54 to 1.06 mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 6 locations. pH: 7.36 to 8.08, DO: 4.4 to 5.0 mg/l, BOD: 2.3 to 7.2 mg/l and COD: 6.80 to 25.69 mg/l.

15. Noise levels are in the range of 49.5 to 65.6 Leq dB (A) for day time and 38.2 to 58.8 Leq dB(A) for night time.

16. It has been reported that there is no habitation in the core zone of the project. No/ R&R is involved. It has been envisaged that none of families to be rehabilitated, which will be provided compensation and preference in the employment.

17. No solid waste will be generated in the cement manufacturing process. Dust collected from various air pollution control equipments is being / will be totally recycled back into the process. STP Sludge is being / will be utilized as manure for greenbelt development within the plant premises. Fly ash from CPP is being / will be utilized in manufacturing of PPC grade cement. Used oil & grease is being / will be generated from plant machinery / Gear boxes; which is being / will be sold out to the CPCB authorized recycler. It has been envisaged that out of the total existing plant area of 159.256 ha, 33% (i.e. 52.55 ha) will be developed under greenbelt / plantation; out of which 39.5 ha (i.e. 25 % of the total plant area) has already been covered under greenbelt development / plantation and rest 13.05 ha area will be developed. As per the specific "TOR point no. (iv)", additional 6.5 ha will also be developed under greenbelt / plantation as greenbelt to attenuate the noise levels and trap the dust generated due to the project development activities.

18. It has been reported that Consent to operate from CECB obtained *vide* letter no. 6517/TS/CECB/2018/Naya Raipur dated 16th Feb., 2018 under Air Act & letter no. 6515/TS/CECB/2017/Naya Raipur dated 16th Feb., 2018 under Water Act which is valid up to 31st Jan., 2020.

19. Public hearing of the project was held on 1st Aug., 2018 at Village Chandi Ground (Near Panchayat Bhawan), Tehsil- Simga, Dist.- Balodabazar- Bhatapara (C.G.) under the chairmanship of Mr. T. R. Agrawal, Additional District Magistrate, District - Balodabazar (Chhattisgarh) for Proposed Expansion Project having production capacity of Clinker (2 x 2.6 to 3 x 4.5 Million TPA), Cement (2 x 3.0 to 3 x 3.5 MTPA), Captive Power Plant (25 to 125 MW) and Waste Heat Recovery Power Plant (30 to 100 MW) under the Chhattisgarh Environment Conservation Board. The issues raised during public hearing are Employment, Environment & Pollution, CSR activities related, Land related and Plantation etc. The Statement of issues raised by the public and response of the project proponent with action plan is as follows:

S. No.	Issue	Response by project proponent (during & after PH)	Time Bound Action Plan proposed & Budgetary provision
1.	Employment	Proposed expansion project will generate around 650 employments, where the preference will be given to local candidates as per their qualification and requirement. Shree Raipur Cement Plant has already given employment to the local and around 1300 no. are employed in the plant from Chhattisgarh and out of which 1000 nos. are from Balodabazar District.	Preference in employment shall be given to suitable local candidates. Apart from providing direct employment. The company has proposed to undertake / impart skill development programs to empower the local unemployed youths for a self-sustaining career.
2.	Environment & Pollution	Plant is / will be based on Zero Liquid discharge (ZLD) policy. Also, company is taking various measures for the control of air pollution such as installation of APCEs, covered storage facilities, etc. State-of-the art pollution control devices has been / will be installed. Controlled blasting is being carried out as per DGMS & IBM Rules.	Company has allocated Rs. 140 Crores as a capital cost and Rs. 1.5 Crores/ annum as a recurring cost for Environmental Protection Measures.
3.	CSR related	Various activities will be done by the company under CER i.e. health, education, skill development, Women Empowerment Center for employment, community infrastructure, drinking water, agriculture, plantation and solar lighting etc. in next 7 years.	Amount of Rs. 11.21 Crore will be spent for various activities under CER.
4.	Plantation	Company will develop approx. 59.05 ha area under greenbelt / plantation; out of which 39.5 ha area has already been covered and rest 13.05 ha area will be developed. As per the specific "TOR point no. (iv)", additional 6.5 ha will also be developed under greenbelt / plantation which is being / will help to arrest the particulate matter in the area and will help in attenuating noise.	Further, the company will plant around 54,216 nos. of saplings within plant premises. Cost incurred for the same will be Rs. 50 lacs. Rs. 70 Lacs has been allocated for plantation in nearby area**.**
5.	Land related	The land for the plant has been purchased on mutual agreement basis and registry of the land has also been done in the name of Shree Cement Ltd. Total plant area is 159.256 ha and proposed expansion will be done within the existing plant premises; which is already under the	-

S. No.	Issue	Response by project proponent (during & after PH)	Time Bound Action Plan proposed & Budgetary provision
		possession of M/s. Shree Raipur Cement Plant. Conversion of the same from agricultural land to industrial land has already been done.	

The Committee noted that the PH proceedings submitted by the project proponent in the EIA/EMP report is not bearing any letter no, date and signature of the Officer concerned with the Chhattisgarh Environment Conservation Board. The advertisement submitted in the Annexure is not at all legible. Further, point wise issues raised during the public hearing in verbatim has not been prepared along with time bound action plan with fund allocation for the implementation of the issues raised in public hearing. The Committee requested the Ministry to obtain the original copy of the Public Hearing proceedings from CECB also as PP has not submitted the authenticated copy of the public hearing proceedings. The Committee also noted that the people in vicnity of the plant/mine site are mostly suffering from Silicosis.

20. An amount of Rs. 11.21 Crores has been earmarked for Corporate Environment Responsibility based on public hearing issues. Details of CER Plan is given below:

Total Project Cost: Rs. 2282.75 Crores, Phase-1: RS. 251.30 Crores and Phase-II: Rs. 2031.45 Crores									
Total CER Cost: Rs. 11.21Crores, Phase-1: RS. 2.13 Crores and Phase-II: Rs. 9.08 Crores									
SUMMARY OF ALL ACTIVITIES									
S. No.	**Activity Heads**	**Years (Rs. In lacs)**							**Total (Rs in Lacs)**
		Phase-I			**Phase-II**				
		1st	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	
1.	HEALTH & FAMILY WELFARE PROGRAMMES- Infrastructure, building, medicines etc	7.0	8.0	9.0	30.0	30.0	35.0	56.0	175.0
2.	EDUCATION PROMOTION PROGRAMMES- Infrastructure, building, Computer Lab, books etc	7.0	8.0	9.0	30.0	30.0	35.0	91.0	210.0
3.	WOMEN EMPOWERMENT & DEVELOPMENT CENTER- Infrastructure, building and training facilities	5.0	5.0	5.0	5.0	20.0	5.0	5.0	50.0

Total Project Cost: Rs. 2282.75 Crores, Phase-1: RS. 251.30 Crores and Phase-II: Rs. 2031.45 Crores									
Total CER Cost: Rs. 11.21Crores, Phase-1: RS. 2.13 Crores and Phase-II: Rs. 9.08 Crores									
SUMMARY OF ALL ACTIVITIES									
S. No.	**Activity Heads**	**Years (Rs. In lacs)**							**Total (Rs in Lacs)**
		Phase-I			**Phase-II**				
		1st	**2nd**	**3rd**	**4th**	**5th**	**6th**	**7th**	
4.	SKILL DEVELOPMENT CENTER- Infrastructure, building and training facilities	3.0	3.0	3.0	3.0	10.0	4.0	4.0	30.0
5.	SPORTS ACADAMY- Infrastructure, building and sports facilities	2.0	2.0	2.0	10.0	4.0	5.0	5.0	30.0
6.	AGRICUITURE DEVELOPMENET ACTIVITIES- Distribution of seeds, agriculture equipment, training, drip irrigation etc	5.0	5.0	5.0	10.0	10.0	15.0	20.0	70.0
7.	DRINKING WATER SUPPLY-Tanker and permanent pipeline	7.0	8.0	8.0	10.0	10.0	12.0	15.0	70.0
8.	PLANTATION IN NEARBY AREA-10000 plantation in nearby schools, Govt offices, pond side, road side and available space	7.0	7.0	8.0	8.0	10.0	15.0	15.0	70.0
9.	SOLAR LIGHTS ALONG THE ROARD	5.0	5.0	5.0	15.0	15.0	20.0	21.0	86.0
10.	ROAD DEVELOPMENET	10.0	10.0	10.0	15.0	15.0	20.0	20.0	100.0
11.	COMMUNITY INFRASTRUCTURE DEVELOPMENT PROJECTS- Infrastructures and Buildings etc	10.0	10.0	10.0	40.0	40.0	60.0	60.0	230.0
GRAND TOTAL		**68.0**	**71.0**	**74.0**	**176.0**	**194.0**	**226.0**	**312.0**	**1121.0**
The above proposed expenditure can be shifted year to year to other heads based on need.									

21. The capital cost of the project is Rs. 2282.75 Croresand the capital cost for environmental protection measures is proposed as Rs. 140 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.5 Crores / annum.

22. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental protection measures is as follows:

(In Rs. Crores)

Particular	Capital Cost	Recurring Cost / annum
Air Pollution Control	135.5	1.05
Water Pollution Control and Rain Water Harvesting Measures	1.5	0.15
Environment Monitoring and management	1.0	0.20
Greenbelt Development	2.0	0.10
Total	**140**	**1.50**

The employment generation from the proposed expansion project is 650 persons.

23. Greenbelt will be developed in 52.55 ha (33 % of the total plant area) will be developed under greenbelt / plantation; out of which 39.5 ha (i.e. 25 % of the total plant area) has already been covered under greenbelt development / plantation and rest 13.05 ha area will be developed. Greenbelt will be developed along the plant boundary as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a proposed density of 2470 trees per hectare. Total no. of 54216 saplings will be planted and nurtured in 21.95 hectares in 3 years.

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

25. Name of the consultant: M/s. J. M. Environet Pvt. Ltd., Gurugram [S.No. 90, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations of the Committee

26. During the course of meeting, the Committee advised the project proponent to revise the CER action plan and sought information regarding line source modelling for raw materials and finshed product transportation, authenticated English translation of the public hearing proceedings and requisite limestone linkage. The details submitted by the project proponent is furnished as below:

a. Revised CER action plan

REVISED CER PLAN FOR SHREE RAIPUR CEMENT PLANT EXPANSION

PROJECT COST RS. 2282.75 CR

CER COST RS. 971 LACS

SN	AREA OF CER	1st Year	2nd Year	3rd Year	4th Year	5th Year	Total Amt

							Rs in Lacs
HEALTH & FAMILY WELFARE							
1	Renovation of public health center of village Khapradih, Semradih, Bharuwadih, Chandi and Karhi: 1. Construction of Male, Female and Child ward-15 nos. 2. Construction of male and female toilet- 20 nos. 3. Water cooler-5 nos. 4. Ambulance: 5 nos.	0.00	0.00	25.00	25.00	30.00	80.00
2	Health management center with fullfedged medical check-up, doctors & nursing staff, free medicines and 10 beds for male and female ward for primary health treatment and availability of 24x7 ambulance at village Bharuwadih	150.00	0.00	0.00	0.00	0.00	150.00
EDUCATION AND SPORTS PROMOTION							
3	Renovation of Govt. schools of village Khapradih, Semradih, Bharuwadih, Chandi and Karhi: 1. Construction of rooms: 25 rooms. 2. Construction of male and female toilet- 30 nos. 3. Water cooler-5 nos. 4. Computer labs: 5 nos. 5. Furnitures	0.00	0.00	25.00	25.00	30.00	80.00
4	English medium school of 12th standard at village Bharuwadih	0.00	200.00	0.00	0.00	0.00	200.00
5	Sports complex in village Khapradih and Bharuwadih: 1. Construction of rooms: 2 rooms. 2. Construction of male and female toilet- 4 nos. 3. Water cooler-2 nos. 4. Preparation of play ground: 2. nos. 5. Sports equipement-2 sets	12.00	12.00	0.00	0.00	0.00	24.00

COMMUNITY INFRASTRUCTURE DEVELOPMENT PROJECTS							
6	Construction of roads in village: 1. Bharuwadih: 2.0 kms 2. Chnadi: 3.0 kms	35.00	35.00	35.00	35.00	35.00	175.00
7	Construction of Community center at village Khapradih, Semradih, Bharuwadih, Chandi and Karhi: 5 Nos	10.00	10.00	10.00	12.00	12.00	54.00
8	Drinking water tank at village Lohari & Paunsari	0.00	0.00	0.00	15.00	15.00	30.00
9	Renovation of existing water ponds for Rainwater recharge and plantation all around the boundary of pond at Village Khapradih, Semradih, Bharuwadih, Chandi and Karhi:	10.00	10.00	10.00	10.00	10.00	50.00
10	Subsidy on drip irrigation system, seeds & agroforestry in 100 Ha agriculture land in nearby villages Khapradih, Semradih, Bharuwadih, Chandi and Karhi	10.00	10.00	12.00	12.00	15.00	59.00
11	Plantation in nearby villages along the roads, Govt. offices and available free space at villages Khapradih, Semradih, Bharuwadih, Chandi and Karhi@ 5000 /YEAR	5.00	5.00	5.00	5.00	5.00	25.00
12	Installation of Solar street lights at community center, common area, dispensary, bus stand & school at village Khapradih, Semradih, Bharuwadih, Chandi and Karhi	5.00	5.00	5.00	5.00	5.00	25.00
Total		**242.00**	**292.00**	**132.00**	**149.00**	**162.00**	**977.00**

b. Line source modelling for raw materials and finshed product transportation

PP has not submitted the details regarding line source modelling for raw materials and finshed product transportation.

c. Authenticated english translation of the public hearing proceedings as per point no.iii of the general ToR dated 5/09/2016.

PP has not submitted the details regarding authenticated english translation of the public hearing proceedings as per point no.iii of the general ToR dated 5/09/2016.

d. Requisite iron ore linkage for 21.6 Million TPA

Name of the mine	**Location**	**Distance from the project site**	**Total lime stone production**	**Status of environmental clearance**
Karhichandi lime stone deposit	Karhi, Chandi & Khapradih, Tehsil Simha, District Balodabazar-Bhatapara.	Adjacent to the plant site	1.5 Million Tons per annum	ToR granted by the Non-coal mining sector vide letter no. J-11015/64/2017-IA.II(M) dated 5/09/2017. EC is yet to be obtained.
Semradih& Bhariwadih lime stone mine	Semradih & Bhariwadih village, Tehsil Balodabazar, District Balodabazar-Bhatapara.	Adjacent to the plant site	11.06 Million Tons per annum	EC granted for for lime stone production only **8.6 MTPA** vide letter no. J-11015/159/2014-IA.II(M) dated 30/03/2017. TOR for the expansion of lime stone production from 8.6 to 11.06 MTPA has been accorded by the Non-coal mining sector vide letter no. J-11015/07/2018-IA.II(M) dated 6/02/2018. EC is yet to be obtained.
Total			**12.56 MTPA**	**EC is only avalible for 8.6 MTPA lime stone.**

The committee noted that total limestone requirement is 21.6 MTPA and the source for the same has indicated as aforesaid two mines only. Out of 21.6 MTPA, PP is having confirmed lime stone linkage only for 8.6 MTPA as against envisaged 12.56 MTPA. The linkage for the remaining limestone quantity 9.04 MTPA (21.6-12.56) has not been made avaliable by the project proponent to the EAC.

In addition to the above, the Committee also noted that Hazard Identification and Risk Assessment report along with the action plan specific to the project addressing all possible hazards / risks has not been done.

Recommendations of the Committee: -

27. After detailed delibrations, the Committee sought the following additional information for further re-consideration of the proposal.

i. Fresh monitoring of CO and other relevant parameters in the ambient air shall be carried out and the data shall be submitted in compliance to the ToR no. para 6 (ii) and (iii).

ii. PH proceedings duly signed by the Officer concerned with the Chhattisgarh Environment Conservation Board along with the letter no. date and legible copy of the advertisement issued for the public hearing shall be submitted.

iii. Authenticated english translation of the public hearing proceedings as per point no.iii of the general ToR dated 6/11/2017.

iv. Point wise issues raised during the public hearing in verbatim shall be prepared along with time bound action plan with fund allocation for the implementation of the issues raised in public hearing.

v. Confirmed limestone linkage for the 13 MTPA capacity along with the mode of transportation shall be submitted. Accordingly, impact prediction for raw material transportation shall be re-worked out.

vi. Confirmed coal linkage document for the power plant along with its characteristics shall be submitted.

vii. Line source modelling for raw materials and finshed product transportation shall be carried out and submitted.

viii. Commitment/undertakingfrom project proponent regarding transporation of raw materials and finshed product transportation by rail only ina time frame of five years shall be submitted.

ix. Revised Hazard Identification and Risk Assessment report along with the action plan specific to the project addressing all possible hazards / risks.

x. Project proponent shall submit revised corporate environmental policy incorporating mechanism for reporting of non-compliances/infringements/deviations of environmental clearance conditions to the Board of Directors of the Company by identified response persons at the periodic intervals.

4.23 Proposed Unit- Bangur Cement Unit, Capacity Phase - I: Clinker - 4.5 Million TPA, Cement - 4.0 Million TPA & WHRS - 37.5 MWH and Phase - II: Cement - 4.0 Million TPA **by M/s. Shree Cement Ltd**., at Villages: Bhivgarh, Jawangarh and Ras

- II, Tehsil: Jaitaran, District: Pali (Rajasthan) [Proposal No. IA/RJ/IND/87273/2018; MoEF&CCF.No. IA-J-11011/398/2018-IA.II(I)] **– Terms of Reference – reg.**

M/s. Shree Cement Limited has made online application vide proposal no. **IA/RJ/IND/87273/2018**dated 01/12/2018along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at 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

2. M/s. Shree Cement Limited (Unit: Bangur Cement Unit) has proposed Integrated Cement Project with Capacity Phase - I: Clinker - 4.5 Million TPA, Cement - 4.0 Million TPA & WHRS - 37.5 MWH and Phase - II: Cement - 4.0 Million TPA at Villages: Bhivgarh, Jawangarh and Ras - II, Tehsil: Jaitaran, District: Pali (Rajasthan). It is proposed to set up plant based on dry process technology. The project proponent submitted an application in the prescribed format along with Form - 1 and other reports to the Ministry online on 01st Dec., 2018 *vide* Online Application No. IA/RJ/IND/87273/2018. First Technical Presentation (for ToR approval) for the above mentioned Proposed Cement Project was held on 12th Dec., 2018 and the committee recommended for site visit by the Sub-Committee of EAC before prescribing the Terms of Reference. In view of above, Sub-Committee of EAC has visited the site on 18th-19th Jan., 2019.

3. M/s. Shree Cement Limited (Unit: Bangur Cement Unit) has proposed Cement Project with Capacity Phase - I: Clinker - 4.5 Million TPA, Cement - 4.0 Million TPA & WHRS - 37.5 MWH and Phase - II: Cement - 4.0 Million TPA at Villages: Bhivgarh, Jawangarh and Ras - II, Tehsil: Jaitaran, District: Pali (Rajasthan). The land area for the proposed plant is 40.87 ha, having a separate boundary and located adjacent to Captive Nimbeti Limestone Mine. The distance between existing cement plant boundary and proposed site boundary is around 100 m.

4. Site is well connected to NH-158 (earlier SH - 39 from Beawar to Ras Road). This NH-158 connects the plant site to NH – 14 (six lane highway connecting Delhi to Mumbai); which is approx. 19.4 Km in SE direction from the plant site. As per the Ministry of Road, transport and Highways Notification dated 23/02/2018, the road is proposed for further widening. Hence, existing roads are adequate for proposed increase in traffic.

5. Captive Nimbeti Limestone mine is having minable reserve to the tune of 626.90 Million ton as on 31/01/2018 and the life of mine is 19 years at the rate of 32.8 Million TPA production capacity. These reserves are proved for drilling upto 252 mRL (123 mbgl). The drill exploration is going on to further to explore the more minerals and till that it has done upto 200 mbgl.

6. The proposed unit will be located at Villages: Bhivgarh, Jawangarh and Ras - II, Tehsil: Jaitaran, District: Pali, State: Rajasthan.

7. The land area purchase/acquired for the proposed plant is 40.87 ha (101 acre); out of which 21.25 ha is industrial converted and rest 19.62 ha is agricultural land. No forest land is involved. Out of total area 40.87 ha, 3.17 ha area to be purchased. Out of the total area, 14.57 ha (36%) will be used for green belt & plantation development around the plant boundary.

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

9. Total project cost is INR 1310 Crores rupees (Phase-I: Rs. 990 crore and Phase-II: 320 crore). Proposed employment generation from proposed project will be 230 direct employments and 900 indirect employments.

10. The targeted production capacity Phase - I: Clinker - 4.5 Million TPA, Cement - 4.0 Million TPA & WHRS - 37.5 MWH and Phase - II: Cement - 4.0 Million TPA. The limestone transportation will be done via covered conveyor belt and Mineral Gypsum & Laterite will be transported by Road & Rail. The proposed capacity for different products for new site area is as below:

Units	Proposed Capacity
Phase – I	
Clinker (Million TPA)	4.5
Cement (Million TPA)	4.0
WHRS (MW)	37.5
Phase – II	
Cement (Million TPA)	4.0

11. The electricity load of 55.2 MW will be sourced from existing Captive Power Plant of Shree Cement Ltd. and proposed WHRS.

12. The raw materials required for the proposed project are limestone; which will be sourced from Nimbeti captive limestone mines; laterite from Bhilwara & Chittorgarh (Raj.); lead zinc slag from Chittorgarh (Raj) and other nearby sources.; mineral gypsum from Bikaner, Nagaur (Raj) & other sources, imported gypsum from other countries and synthetic gypsum from SCL Units; fly ash will be sourced from STPS, Suratgarh; KTPS Kota; Chabra and other power plants and other nearby sources. Feed stock will be Indian & imported coal and Indian & imported petcock, sourced from Reliance, IOCL, Essar & other Petrochemical Refineries, USA, Swiss, Saudi Arabia etc.

13. Water Consumption for the proposed project will be 630 KLD which will be sourced from ground water (125 KLD) and mine pit (505 KLD) and no waste water will be discharged from the cement plant. Domestic waste water (40 KLD) will be treated in STP and treated water will be used for greenbelt development / plantation. No industrial waste water will be generated.

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

15. Name of the consultant: M/s. J. M. Environet Pvt. Ltd., Gurugram [S.No. 90, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

16. The aforesaid proposal was considered in the 2nd meeting of the Reconstituted Expert Appraisal Committee held during 10-12th December, 2018 wherein the Committee recommended for the site visit by the sub-committee of EAC before prescribing the Terms of Reference. Accordingly, site visit was undertaken by the sub-committee comprising of following members during 18-19th January, 2019.

Sr. No.	Name	Role
1.	**Dr. C.N. Pandey**, IFS(Retired), 726 B, Sector 8,(Behind Gandhinagar Samachar), Gandhinagar, Gujarat – 382008 and Chairman, EAC (Industry-I), MoEF& CC, New Delhi.	- Chairman
2.	**Prof. S.K. Singh**, Prof. and Dean of Env. Engg., Delhi Technical University, Type-V/29, DTU Campus,Bawana Road, Delhi – 110042	- Member
3	**Shri R.P. Sharma,** 4528, Achiever's Villa, Kalindi Hills, Sector49, Faridabad- 121001, Haryana	- Member
4.	**Shri. Sharath Kumar Pallerla**, Scientist 'F', IA (Policy & Industry-I) Division, MoEF& CC, New Delhi.	- Member Secretary

The sub-committee submitted its report to the EAC and the relevant extracts of the report is reproduced as below:

"3.0 The salient features of the Proposed Project:

M/s. Shree Cement Limited (Unit: Bangur Cement Unit) has proposed Integrated Cement Project with Capacity Phase - I: Clinker - 4.5 Million TPA, Cement - 4.0 Million TPA & WHRS - 37.5 MWH and Phase - II: Cement - 4.0 Million TPA at Villages: Bhivgarh, Jawangarh and Ras - II, Tehsil: Jaitaran, District: Pali (Rajasthan).

The proposed unit will be located at Villages: Bhivgarh, Jawangarh and Ras - II, Tehsil: Jaitaran, District: Pali, State: Rajasthan.

The land area purchase/acquired for the proposed plant is 31.47 ha; out of which 21.25 ha is industrial converted and rest 10.22 ha is agricultural land. No forest land is involved. The entire land has been purchased/acquired for the project. Out of the total area, 10.38 ha (33%) will be used for green belt & plantation development.

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.

Total project cost is INR 1310 Crores rupees (Phase-I: Rs. 990 crore and Phase-II: 320 crore). Proposed employment generation from proposed project will be 230 direct employments and 900 indirect employments.

The targeted production capacity Phase - I: Clinker - 4.5 Million TPA, Cement - 4.0 Million TPA & WHRS - 37.5 MWH and Phase - II: Cement - 4.0 Million TPA. The limestone transportation will be done via covered conveyor belt and Mineral Gypsum & Laterite will be transported by Road & Rail. The proposed capacity for different products for new site area is as below:

Units	***Proposed Capacity***
Phase - I	
Clinker (Million TPA)	*4.5*
Cement (Million TPA)	*4.0*
WHRS (MW)	*37.5*
Phase - II	
Cement (Million TPA)	*4.0*

The electricity load of 55.2 MW will be sourced from existing Captive Power Plant of Shree Cement Ltd. and proposed WHRS.

The raw materials required for the proposed project are limestone; which will be sourced from Nimbeti captive limestone mines; laterite from Bhilwara &Chhitorgarh (Raj.); lead zinc slag from Chittorgarh (Raj) and other nearby sources.; mineral gypsum from Bikaner, Nagaur (Raj) & other sources, imported gypsum from other countries and synthetic gypsum from SCL Units; fly ash will be sourced from STPS, Suratgarh; KTPS Kota; Chabra and other power plants and other nearby sources. Feed stock will be Indian & imported coal and Indian & imported petcock, sourced from Reliance, IOCL, Essar & other Petrochemical Refineries, USA, Swiss, Saudi Arabia etc.

Water Consumption for the proposed project will be 630 KLD which will be sourced from ground water (125 KLD) and mine pit (505 KLD) and no waste water will be discharged from the cement plant. Domestic waste water (40 KLD) will be treated in STP and treated water will be used for greenbelt development / plantation. No industrial waste water will be generated.

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

4.0 Observations of the sub-committee: *Based on the decisions in the 2nd EAC meeting, sub-committee visited the site during 18th to 20th January, 2019 and made following observations:*

i. *The land area for the proposed plant is 31.47 ha, having a separate boundary and located adjacent to Captive Nimbeti Limestone Mine. The lime stone to the proposed plant shall be sourced from this mine.*

ii. *Captive Nimbeti Limestone mine is having minable reserve to the tune of 626.90 Million ton as on 31/01/2018 and the life of mine is 19 years at the rate of 32.8 Million TPA production capacity for which PP has submitted ToR application on 18/7/2018. These reserve are proved for drilling upto 252 mRL (123 mbgl). The drill exploration is going on to further to explore the more minerals and till that it has done upto 200 mbgl.*

iii. *The lime stone to the proposed plant shall be brought by a closed conveyor from the crusher installed at the mines site.*

iv. *The distance between existing cement plant boundary and proposed site boundary is around 100m.*

v. *There is a railway line betweenexisting cement plant boundary and the proposed site boundary. The same railway line will be used for receiving the raw materials and dispatch cementproduct from both plants.*

vi. *Road transportation shall also be practiced for products and some raw materials.*

vii. *The site is well connected to NH-158 (earlier SH - 39 from Beawar to Ras Road). This NH-158 connects the plant site to NH – 14 (six lane highway connecting Delhi to Mumbai); which is approx. 19.4 Km in SE direction from the plant site. As per the Ministry of Road, transport andHighways Notification dated 23/02/2018, the road is proposed for further widening. The condition of roads presently is not very good.*

viii. *The site is having natural growth of prosopisjuliflora in abundance. In the North side there is a private agriculture land adjacent to the proposed site. One corner of the project land is in Northern side and is near to the village Jawangarh as shown in the attached google map.*

ix. *PP has developed rain water collection pits in the leased area for use in the proposed green field project.*

x. *In the existing cement plant, it was observed that PP had adopted best available and innovative technologies such as installation of WHRS with all kilns with specific power generation from WHRS is the highest in India; Installation of DeNOx system without use of ammonia to control the NOx emission; installation of high efficient ESP & Bag filters for control of stack emission, concreted roads, vacuum sweeping and covered storage. I*

xi. *In the mining area PP has adopted the controlled blasting, wet drilling and scientific mining practices. In Bagat Pura residential colony, PP has developed excellent plantation, concreted roads, STP, composting plant, etc.*

xii. *PP was advised to put more efforts in the following areas for improvement of existing cement plant:*

xiii. *Avoid group plantation of single species and adopt plantation of mixed local species with appropriate height.*

xiv. *More plantation is required all along the plant boundary. PP should improve the condition of the nursery.*

xv. *To further reduce the fugitive emission especially by concreting the roads from wall to wall and lifting of spillage & road side dust.*

xvi. *Local villagers, resident of village Bagatpura appreciated CSR work and employment provided by the company and welcomed the proposed project for further betterment of social status of villagers.*

5.0 Recommendations of the sub-committee:*After detailed deliberations with the officials of the plant during the site visit, the following recommendations were made by the sub-committee for further consideration of the proposal.*

i. *The project proponent shall plan for development of 50 m wide green belt in northern and southern sides to create barrier between the plant and agricultural fields.*

ii. *The project proponent shall plan for development of 200 m wide green belt towards village Jawangarh as proposed in PFR.*

iii. *Over all 33% of the total project area should be developed as green belt with native and broad leaved tree species.*

iv. *Possibility of shifting the Cement mill proposed in Phase II to southern side of the proposed area shall be explored and details alongwith revised layout shall be submitted along with EIA/EMP.*

v. *Carrying Capacity of traffic for cumulative traffic load to be estimated and mentioned in the EIA/EMP with all supporting details.*

vi. *In the existing plant area and mines area, the green belt to be increased by additional 10% of the geographical areaand maintained.*

vii. *In surrounding villages, efforts should be made to improve agri-crop yield and social forestry.*

viii. *The project proponent shall prepare an action plan for development of avenue plantation along the roads leading tothe plant,along theinternal roads and along the roads leading to surrounding villages in a time bound manner within two years".*

Observations and recommendations of the Committee: -

17.0 The Committee discussed the points mentioned in the report and thereafter accepted the site visit report of the sub-committee. After detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at Annexure I read with additional ToRs at Annexure-2:**

i. The project proponent shall plan for development of 50 m wide green belt in northern and southern sides to create barrier between the plant and agricultural fields.

ii. The project proponent shall plan for development of 200 m wide green belt towards village Jawangarh as proposed in PFR.

iii. Over all 33% of the total project area should be developed as green belt with native and broad leaved tree species.

iv. Possibility of shifting the Cement mill proposed in Phase II to southern side of the proposed area shall be explored and details alongwith revised layout shall be submitted along with EIA/EMP.

v. Carrying Capacity of traffic for cumulative traffic load to be estimated and mentioned in the EIA/EMP with all supporting details.

vi. In the existing plant area and mines area, the green belt to be increased by additional 10% of the geographical areaand maintained.

vii. In surrounding villages, efforts should be made to improve agri-crop yield and social forestry.

viii. The project proponent shall prepare an action plan for development of avenue plantation along the roads leading tothe plant, along theinternal roads and along the roads leading to surrounding villages in a time bound manner within two years".

ix. Public Hearing to be conducted by the concerned State Pollution Control Board.

x. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

xi. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.24 Expansion of production capacity of Sponge Iron: 2,25,000 TPA to 3,73,500 TPA, TMT Bars: 3,30,000 TPA to 4,22,400 TPA, M.S. Billet/ S.S. Billets: 3,36,600 TPA to4,29,000 TPA, MS Rolled Bars: 6,483 TPA, Coal based Captive Power Plant (AFBC): 35MW and WHRB: 16 MW located at Village Samkhaiyali, Tehsil Bhachau, District Kutch, Gujarat by **M/s. Gallant Metal Limited** [Online proposal

No. IA/GJ/IND/5472/2013; MoEFCC File No. J-11011/52/2013-IA-II(I)]– **Reconsideration for Environmental Clearance based on ADS reply.**

1. M/s Gallant Metal Limited has made online application vide proposal no. IA/GJ/IND/5472/2013dated 24.12.2018along 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.

Details submitted by the Project Proponent

2. The proposed expansion in manufacturing of Sponge Iron, M.S. Billet/ S.S. Billets-, MS Rolled Bars, Runner & Raiser of M/s Gallantt Metal Limited located at Khasra No.-175/1 in Village- Samakhiyali, Tehsil- Bhachau, District – Kutch, State-Gujarat, was initially received in the Ministry on 10.11.2017for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry). [EAC (I)] during its 26th meeting held 12.12.2017and 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 19.12.2017 vide Lr. No. J-11011/52/2013-IA.II(I).

3. The project of M/s Gallantt Metal Limited located at Khasra No.175/1 in Village-Samakhiyali, Tehsil- Bhachau, District – Kutch, State-Gujarat is for setting up of a expansion for production of Sponge Iron- From 2,25,000TPA to 3,73,500TPA, M.S. Billets-From 3,36,600TPA to 4,29,000TPA, TMT Bars - From 3,30,000TPA to 4,22,400TPA, M S Rolled Bar- From 5346TP to 6,843TPA, Runner & Raiser- From- 891 to 891(No Change), Power Plant (AFBC/CFBC)- From 25MW to 35MW, Power Plant (WHRB) from8MW to 16MW.The existing project was accorded environment clearance vide lr. no. J-11011/52/2013-IA.II(I) dated 19.05.2016. the Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide letter No.-4-24/2007(Env.)/568 dated 18.10.2018. There are no non-compliances reported by Regional officer. The proposed capacity for different products for expansion area as below:

S. No.	Product	Existing (TPA)	Proposed (TPA)	Total After Expansion (TPA)
1.	Sponge Iron	2,25,000	1,48,500	3,73,500
2.	M.S. Billets	3,36,600	92,400	4,29,000
3.	TMT Bars	3,30,000	92,400	4,22,400
4	M S Rolled Bar	5346	1,497	6,843
5	Runner & Raiser	891	No change	891
Power Generation				
6	Power Plant (AFBC/CFBC)	25 MW	10MW	35 MW
7.	Power Plant (WHRB)	8MW	8MW	16MW

4. The total land required for the project is 18.58 Ha. out of 46.9435 ha (116 Acre), No forestland involved. The entire land has been acquired. No river passes through the project area. It has reported that Adhoi Nadi – 2.80Km, WSW, Gupt Nadi- 4.50Km, SW, Gorasar Talav-4.50Km, SSE, Pipla Talav-6.06Km, E, Kara Vokra-7.60Km, WSW, Amliyara Nadi-8.15Km,S, Khari River-9.82 Km, E, Vango Nadi-10.45 Km, SE, Babudi Nadi- 13.50Km, E water body/water exists around the project and no modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5. The topography of the area is flat and reported to lies between 23°18'32.58" N to23°19'04.47" N Latitude and 70°29'28.95" E to 70°29'41.87" E Longitude in Survey of India topo sheet no. 41I/7, 8, 11 & 12. at an elevation of 42m AMSL. The ground water table reported to ranges between10-20mbelow the land surface during the post-monsoon season and 15-20bellow and land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the radius of influence of pumped out water will be none in core zone. Further, the stage of groundwater development is reported to be 24.40%% in Lakhpat taluka to 107.98% in Bhachau taluka (***Source: Kutch Ground Water Brochure***) in buffer zone respectively and thereby these are designated as overexploited exploited areas.

6. No National Park/WL etc are located at a distance of 10 KM from the site/No national park/wildlife sanctuary/biosphere/tiger reserve/elephant reserve etc. are reported to be located in the core and buffer zone of the project. The area also report to form corridor for Schedule-I fauna of Indian Pea – Fowl (*Pavo cristatus*) &Painted Stork. The authenticated list of flora and fauna provided through the Chief Conservator of Forest, Kutch Circle reporting presence of schedule-I fauna in the study area.

7. The process of project showing the basic raw material- Iron ore- Total- 5,97,600 existing- 3,60,000 TPA, proposed – 2,37,600TPA, Sponge-Total- 3,73,500TPA(Existing-2,25,360TPA, Proposed- 1,48,140TPA, Scrap- Total- 1,56,660TPA(Existing-1,56,660TPA, Proposed- Nil) M.S. Billets- Total-4,49,000TPA(Existing- 3,41,976TPA, Proposed - 87,024TPA), Coal Char- Total- 9,3513TPA(Existing- 66,795TPA, Proposed- 26,718TPA), Coal- Total 663057TPA(Existing- 4,28,818TPA, Proposed- 2,34,239TPA) used and the various processes involved to produce the final output, waste generated in process.

8. The targeted production capacity of Sponge Iron- From 2,25,000TPA to 3,73,500TPA, M.S. Billets-From 3,36,600TPA to 4,29,000TPA, TMT Bars - From 3,30,000TPA to 4,22,400TPA, M S Rolled Bar- From 5346TP to 6,843TPA, Runner & Raiser- From- 891 to 891(No Change), Power Plant (AFBC/CFBC)- From 25MW to 35MW, Power Plant (WHRB) from8MW to 16MW. The ore for the plant would be procured from Jindal Saw Limted. (MoU). The ore transportation will be done through Road.

9. The water requirement of the project is estimated as 1,855m^3/day(Fresh 1661 m^3/day, Recycled - 194 m^3/day. Fresh water requirement will be obtained from the GWIL(Gujarat Water Infrastructure limited. The permission for drawl of surface water is obtained from GWIL vide letter no.-GWIL/Kutch/Ind. Connect/3000 dated 31.12.2010.

10. The total power requirement of the project is estimated as 51MWH(Existing-33MWH, Proposed-18MWH), Electricity is sourced from Captive Power Plant and remaining will be met from State grid (as and when required).

11. Baseline Environmental Studies were conducted during Winter season i.e. from December'2017to January, February 2018. Ambient air quality monitoring has been carried out at 8 locations during 01.12.2017to 28.02.2018 and the data submitted indicated: PM_{10} (63.20µg/m^3 to 80.40µg/m^3), $PM_{2.5}$ (32.20 µg/m^3 to 43.70µg/m^3), SO_2 (7.20 µg/m^3 to 15.70µg/m^3) and NOx (14.00 µg/$m^3$to 23.40µg/m^3). The results of the modeling study indicated that the maximum increase of GLC for the proposed project is 0.7µg/m^3 with respect to the PM_{10} is 0.48µg/m^3 with respect to the SO_2 3.06µg/m^3 with respect to the NOx is 4.5 µg/m^3.

12. Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 6.60 to 7.14, Total Hardness: 70mg/l to 950mg/l, Chlorides: 40mg/l to 1610mg/l, Fluoride: 0.07to 0.9mg/l. Heavy metals are within the limits. Surface water samples were analyzed from 6locations. pH: 6.44 to 7.17; DO: 6.4mg/l -6.80mg/l and BOD : 8mg/l.-21mg/l COD from 24mg/l to 208mg/l.

13. Noise levels are in the range of 60.2 to 71dB(A) for daytime and 57.3 to 69.0dB(A) for nighttime.

14. It has been reported that there are none people in the core zone of the project. No/R%R is involved. It has been envisaged that none families to be rehabilitated, which will be provided compensation and preference in the employment.

15. It has been reported that total Slag – 27083 TPA of waste will be generated due to the project will be sold to road construction activity, Total Ash-99000TPA will be sold to brick manufacturing and sent to TSDF site for utilization of fly ash as binding material for solidification and stabilization, Coal Char-96761TPA, 100% reused in Power plant as a fuel, Accretion-1550TPA will be used in Land filling activity and municipal Solid Waste - 375Kg/Day Sent to Municipal Council Bhachau, District –Kutch, Gujarat.

16. It has been envisaged that an area of 15.4914 Ha ha will developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

17. It has been reported that the Consent to Operate from the Gujarat State Pollution Control Board has been obtained vide Lr. No. PC/ CCA-KUTCH-341(5)/GPCB ID 17845/349490 dated 21.03.2016 & Order No. AWH/ 76789 dated 29.02.2016 which is valid up to 27.12.2020 and Amendment in Consent & Authorization was sanctioned for increase in product manufacturing capacity vide letter No. PC/CCA-Kutch-341(5)/GPCB ID17845/364967 dated 01.08.2016 which is valid for 27.12.2020.

18. The Public hearing of the project was held on 31.07.2018 at 11.00A.M. in the plant premises under the chairmanship of Ms. Remya Mohan(IAS), DM, Bhuj, District- Kutch and Regional Officer- Shri K.B Choudhary of Regional Office, Kucth (East) for production

Sponge Iron- From 2,25,000TPA to 3,73,500TPA, M.S. Billets-From 3,36,600TPA to 4,29,000TPA, TMT Bars - From 3,30,000TPA to 4,22,400TPA, M S Rolled Bar- From 5346TP to 6,843TPA, Runner & Raiser- From- 891 to 891(No Change), Power Plant (AFBC/CFBC)- From 25MW to 35MW, Power Plant (WHRB) from8MW to 16MW for setting up of expansion capacity of plant under the EIA Notification 2006 and its subsequent amendments. The issues during public hearing are employment, air pollution, Health. An amount of 312.50Lakhs (2% of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues.

19. The capital cost of the project is Rs. 596Crores (Existing -380Crore Proposed-216Crore) and the capital cost for environmental protection measures is proposed as Rs 740.0 Lakhs.. The annual recurring cost towards the environmental protection measures is proposed as Rs 65.0Lakhs. The detailed CSR plan has been provided in the EMP in its page No. 264-264. The employment generation from the proposed project /expansion is 290.

20. Greenbelt will be developed in 15.4914 Ha. (38.28 Acre which is about 33 % of the total acquired area. A 100 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 6200 saplings will be planted and nurtured in 4.1278 Ha. (10.20 Acre) in 5 years.

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

22. Name of EIA consultant: M/s. Enkay Enviro Services Pvt. Ltd., Jaipur QCI Accredited (SI.No.45, at QCI list dated 11/12/2018).

23. The aforesaid proposal was considered in the 3rd meeting meeting of the Reconstituted Expert Apprisal Committee meeting held on 9-11th January, 2019 wherein, the Committee sought following additional information for further consideration of the proposal:

i. Revised noise monitoring data.

ii. Revised ground water quality monitored data.

iii. Study on drainage pattern of the study area.

iv. Revised action plan to the issues raised during the public hearing.

v. Revised action plan for implementation of Corporate Environmental Responsbility related activities.

24. The point wise reply submitted by the proponent are given as below:

i. Revised noise monitoring data.

Noise monitoring has been carried out in 7 locations and the levels are found to be within the permissible norms.

ii. Revised ground water quality monitored data.

Ground water quality monitoring has been carried out at 5 locations within the study area and the levels are within the norms.

iii. Study on drainage pattern of the study area.

Proposed site is flat terrain with a marginal slope from North to South direction. Highest & lowest elevation of plant area is 43MSL & 37MSL respectively. Rainwater follows the natural slope. In study area, there are no hills, hillocks but it has undulating terrain slope from North-East to South-West. The approximate centre of the proposed site is geographically positioned at 23°18"53.40'N, 70°29"36.60 E'.

Study area represents dendritic drainage pattern and the highest order of the drainage is fourth order. Drainage in the area follows natural slope which is from North to South. Major River in the study area is Adhoi nadi which is seasonal river and flows from North to South and flows a distance of 8.4 Km after entering in the study area. Adhoi River dries down at a distance of 1.6 km from the project site. Other seasonal rivers in the study area are Kara vokra and Gupt nadi. Approximately 24 nos static water bodies are also present in the study area. The unit is based on Zero Liquid discharge (ZLD). There is no discharge outside the plant premises via drains except during monsoon for storm water. The company has provided proper drainage system for rainwater to prevent water logging within and in the vicinity of the plant.

iv. Revised action plan to the issues raised during the public hearing.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
1	**Shri Ramju Chhakra, Vill.: Samakhiyali, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, what steps will be taken by the company to control the pollution to be spread due to establishment of plant of the company?	• Company's representative replied that, company will install latest technology tools i.e. bag filter and E.S.P. as mentioned in presentation as a steps to control the pollution cause due to the production procedure of raw-material. Online monitoring system has been installed by this unit which will help to GPCB/CPCB in monitor the level of pollutants release	• Online monitoring for stack has already been installed for existing stack to ensure the emission level are restricted well within the prescribed limit by CPCB and the same will be installed for proposed expansion. • For proposed expansion Air Pollution Control Equipment i.e. ESP and Bag filter with adequate stack height is proposed at CPP (95m existing stack), Induction furnace(48m), Rolling Mill(48m). • ESP will be provided to DRI Kilns to bring down the particulate emission to less than 100 mg/Nm^3 • ESP will be provided to Power plant to bring down the particulate emission to less than 30 mg/Nm^3 • To control dust emission – bag filters will be installed, water sprinkling will be carried out. • Fume Extraction & Cleaning system with bag filters will be provided to SMS and Reheating Furnace to bring down the particulate matter emission to less than 100 mg/Nm^3. • All conveyor will be covered with GI sheets to control the dust emission Thus the unit is maintaining all the emissions with ZLD conditions to comply with the norms and same will be maintained for expansion.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
			by company. The level of pollution at present are according to the rules and regulations of the GPCB and the same will be maintained in future. • This unit is at present zero liquid discharge and will be the same in future also. So no polluted water will be released from this unit. Industries polluted waste water and domestic waste water will be treated and re-	

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
			used within the plant.	
		• Company will use lakhs of liter of water daily. Then where and in what way the polluted water emerges from company will be released?		• **Our plant is zero discharge plant (in existing as well as proposed expansion), so there will be not being any discharge from our plant.** Company will use 343 KL of fresh water from GWIL (Gujarat Water Infrastructure Limited) for the above expansion. Out of which 75 KL of effluent will be generated from Cooling Tower blow down, Boiler blow down, D.M. Plant regeneration water. This will be treated in Effluent Treatment Plant and after ensuring compliance with GPCB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt. Domestic Sewage will be treated in Sewage treatment plant and after ensuring compliance with GPCB norms, it will be utilized for green belt development. • **No ground water is envisaged for the existing project as well as proposed expansion project.** • Online Continuous effluent Monitoring System for waste water has already been installed to monitor the parameter such as flow, webcam prescribed by CPCB. • All these environmental protection systems will be installed and operated to comply with the norms. Thus the unit is maintaining all the emissions with ZLD conditions to comply with the norms and same will be maintained for expansion.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
2	**Shri Abdul Rauma, Member representative of Samakhiyali Gram Panchayat, Vill.: Samakhiyali, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, as mentioned in presentation what effect will be there due to emission and what provisions have been done to control same?	• Company's representative replied that, we are willing to contribute towards Sujlam Suflam scheme, rain water harvesting, school schemes, health, education, green belt, social skill scheme, etc. under CSR. We have applied for the status of ITI for our company. When we will not get skilled ITI labour we will provide education and training to willing and	• The unit existing unit emissions from stack is well within the norms and the GLC's from the proposed plant also well within the norms. There is continuous monitoring of air emissions and the same will continue for expansion. • The unit is presently maintaining ZLD and same will continue for future. • The air modeling carried out clearly depicts GLC's towards upwind and downwind, the resulting concentration is far below the norms and the cross wind areas/ villages will have insignificant fallout. The villages towards upwind and downwind 0.98 to 0.25 micrograms/ Nm^3

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
			proper person and will employ them in our company. CSR activity will be carried out as per the suggestions of the representative as they are aware about the need of the village.	
		• Company helped to provide infrastructural facilities, toilet-bathroom facilities to Model Desk school of Samakhiyali village. Which CSR activities will be carried out during establishment of new plant?		• Company has proposed fund of Appx Rs 3.12Cr. in CER for next three years for nearby villages namely Samakhiali, Gharana, Adhoi, Vondh, Gorasar etc. It will include Desilting / Pond Reclamation, Rain water recharging well, Health and Medical camp, Green belt development in nearby villages, Education and infrastructure development, Skill development, Social Measures to Animal Husbandry and guidance to improve soil fertility etc. For details please refer CER action plan.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
3	**Shri Govind Ranabhai Bhana,** **Advocate,** **Vill.: Samakhiyali,** **Ta.: Bhachau,** **Dist.: Kutch.**	• He represented that, my agricultural land is within 500 to 700 meter from this company. Operating plant of this company cause pollution and due to that the production capacity of the farm has been reduced. • Farming and animal husbandry is source of income of around 80% to 85% of the people of this area. So there is possibility of increase in loss to farmers, if the proposed plant will be operated. There will be continuous damage to the	• Company's representative replied that, your point is very well taken. Any kind of loss to anyone is not justified in any form. We have installed best technology APCM in our units. We ensure to maintain the same in future. We will resolve it discussing about the same in future also. We will resolve it discussing about the same along with agriculture department.	• Representative is having 0.72(hect.) of land at a distance of 1.37 KMs at Survey No. 153/1/Paiki 2 situated in North East direction of our plant. • The air quality prediction shows minimal incremental load resulting into 80.9-68.4microgram/Nm^3 of emission for both existing as well as proposed expansion. The results in no circumstances will exceed the prescribed norms. • The soil analysis undertaken during the baseline predicts no abnormalities affecting the soil quality in the area contributed by the plant. However, detailed elaborative study from time to time to assess the impact on soil quality will be undertaken. • As a part of CER the unit will proposed training programme for organic manure. The Company has received a letter no.nil dated 25.01.2019 from Advocate of Sh.Govind Ranabhai stating that there is no impact on soil due to the unit. **Copy of letter** is attached as **Appendix 1**. Despite this, the Company will educate the locals about Organic Farming and will regularly carry out soil sampling and testing.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		productivity of the land of around 500 acres besides Gharana village due to the plant. So proper compensation for the same to be provided to the farmers. • He represented that, 70% of the people in this area are farmer. The productivity of the farm has been reduced since the company established here. Quality of the land has also reduced.		
4	**Shri Jadeja JujarsinhJijaba, Vill.: Laliyada, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, 3350 farmers are active with me and we have farm	• Company's representative replied that, you are complaining to	**<u>FIRST POINT :</u>** Representative Village is appx 8.2 KM in south east direction of our plant. The wind rose depicts predominant wind direction towards NE- SW. The village stated is in SE direction at a distance of 8.2Km. Apart from this the AAQI carried out also depicts GLC's very well within the norms. Despite this, the Company will educate the

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		of organic in around 8950 hector land. Our productions are exported in foreign and farmers get about Rs. 300 to 350 more on every 40 kg of production.	GPCB against us since 2015 and every GPCB raids in our company during receipt of complaint. But till now our company has not been found violating rules. We have fixed digital display of all the stakes on the gate of our company and we receive message, when we reach to the fixed level. We cannot violate it under any situation as it will be very harmful to us.	locals about Organic Farming and will regularly carry out soil sampling and testing.
		• I have submitted many complaints to you and no reply has been given of the same till now. So state whether there will be control of pollution or not?		**<u>SECOND POINT :</u>** Company is being inspected by GPCB at regular intervals and based on complaint received from nearby local peoples. Reply to all queries / observations are being timely submitted to GPCB. There are no complains, which as on date is unanswered by the Company. Procedurally, any complain and appeals are addressed within 07 days of its receipt by the Company.
5	**Shri MahavirsinhDhiruba Jadeja,** **Dy. Sarpanch,**	• He represented that,	• Company's represent	• As per company's policy, priority has been given to local people based on their skill, experience and qualifications.

<table>
<tr><th>S. No</th><th>Name and Address of the Representative</th><th>Points Represented</th><th>Reply given by the Company Representative of the Project Proponent</th><th>REVISED ACTION PLAN</th></tr>
<tr><td></td><td>Vill.: Laliyada,
Ta.: Bhachau,
Dist.: Kutch.</td><td>employment to the local people should be provided in the company. Company should take steps to control the pollution in nearby villages. Misbehaving workers should be suspended and good people with required qualification should be employed.</td><td>ative replied that, there are 290 vacancies in the project of our company. We will provide employment to people willing to work having qualification of mechanical, electrical, metrological engineer and ITI plumber, welder and fitter diploma holder.</td><td>• Employment Policy of the company is given in Appendix -2 for reference. Employment data for the existing and proposed plant is given in the table below
<table>
<tr><th>Category</th><th>Existing Man power</th><th>Existing local man power</th><th>Proposed Man power</th><th>Proposed local man power</th></tr>
<tr><td>Permanent Staff</td><td>355</td><td>28</td><td>70</td><td>20</td></tr>
<tr><td>Skilled Workers</td><td>225</td><td>93</td><td>60</td><td>30</td></tr>
<tr><td>Semi-Skilled worker</td><td>130</td><td>66</td><td>50</td><td>35</td></tr>
<tr><td>Unskilled worker</td><td>250</td><td>151</td><td>110</td><td>85</td></tr>
<tr><td>Total</td><td>960</td><td>338</td><td>290</td><td>170</td></tr>
</table>
• INR 15,00,000/- are allocated for three years in
Skill development as per CER plan and hence Livelihood Promotion / Job Creation will be developed.

The unit is maintaining all the emissions with ZLD conditions to comply with the norms and same will be maintained for expansion.
Any misbehavior within the premises will be dealt lawfully.</td></tr>
<tr><td>6</td><td>Shri Bhanji bhai Dungariya,
Secretory, Bahujan Mukti Party, Kutch District Committee,
Vill.: Samakhiyali,
Ta.: Bhachau,
Dist.: Kutch.</td><td>• He represented that, I have sent complaint to collector and Bhachau Taluka Development Officer on 21/07/2018 from</td><td>• Company ’s representative replied that, storm water line has been installed beside the company in which only rain</td><td><u>FIRST POINT:</u> Point was replied by RO, GPCB, Gandhidham., regarding the procedure of PH, which has been conducted as per the norms laid down in the EIA Notification and its subsequent amendment thereafter.
<u>SECONDPOINT:</u> The Company is maintaining / and will maintain ZLD. The unit will install proper RWH structures to cater the capture of storm water runoff effectively based on peak intensity run off; the same will be approved by CGWA prior to implementation.
<u>THIRD POINT:</u> As already explained in point no. 2 and 3, that there will be no significant impact on environment in nearby areas due to emission from the plant. Thus, the impact will</td></tr>
</table>

<table>
<tr><th>S. No</th><th>Name and Address of the Representative</th><th>Points Represented</th><th>Reply given by the Company Representative of the Project Proponent</th><th>REVISED ACTION PLAN</th></tr>
<tr><td></td><td></td><td>Samakhiyali but it is not yet received to Regional Office. As per the advertisement published in daily local newspaper “Kutch Mitra” on dated 28/06/2018 this is Environmental Public Hearing of this company. Application has also been made along with documentary proof regarding storm water to Collector and TDO, Bhachau. Pollution damage to environment through rain water. There are adverse effects on body of the people and skin disease cause to</td><td>waters are released. No other waters are released in that line. Latest technology tools i.e. bag filter and ESP will be installed to control pollution and will under GPCB monitoring through online monitoring system. So if level of any pollutants will increase, steps will be taken by government. Ecological studies regarding birds have been carried out in which no details</td><td>be insignificant.
<u>FOURTH POINT:</u>Solid and hazardous waste is being disposed/sold to various approved agencies as per the norms prescribed by GPCB. Details of mode of disposal of the solid and Hazardous waste is given in table below:
<table><tr><th>S. No.</th><th>Solid & Hazardous waste</th><th>Disposal</th><th>Authorized Vendor</th></tr><tr><td>1.</td><td>Fly Ash</td><td>Send to TSDF site for use as binding material</td><td>M/S Saurastra Enviro Pvt. Ltd.</td></tr><tr><td>2.</td><td>Slag</td><td>Used for road making</td><td>-</td></tr><tr><td>3.</td><td>Used oil and Resin</td><td>100% disposed for incineration</td><td>M/S Saurastra Enviro Pvt. Ltd.</td></tr><tr><td>4.</td><td>Used Oil</td><td>Send to Authorized vendor.</td><td>M/S Hindustan oil Ltd.</td></tr></table>
<u>FIFTH POINT:</u>
Safety norms are being followed as per Factory Act and all precautionary measure is adopted. Few incidents have taken place due to Human Error, effective training for SHE is being undertaken effectively to educate the laborers periodically.</td></tr>
</table>

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		the people due to pollution, there is damage to farming and many birds have been extinct. Poisonous rays come out from the slag of the unit. So it is suggestion that, pollution from existing plant should be controlled and after that new plant to be established. Wastes emerging out from company are disposed at some place which causes loss. • Company doesn't takes into mind about the issues relating to safety.	regarding migration of birds have been obtained. There is no possibility of spread of dust particles through air as level of air pollution are under our control. Officially slag is used for landfill and we have prior permission for the same from Government. So the people who need slag from land filling are taking from us. • Company 's representative replied that, no	

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
			legal action has been taken on our company under safety act till now. On behalf of my unit I assure that safety rules are being followed and will be followed in future also. • Regional officer asked to submit the copy of written representation of 21/07/2018 if available. So that it can be included into proceeding and forwarded to Govt. of India.	
7.	**Shri BabubhaiKachrabhaiVaghela,**	• He represented that, an	----	**<u>FIRST POINT:</u>** Company has appointed a qualified person from HR team who will coordinate with the villagers

<table>
<tr><th>S. No</th><th>Name and Address of the Representative</th><th>Points Represented</th><th>Reply given by the Company Representative of the Project Proponent</th><th>REVISED ACTION PLAN</th></tr>
<tr><td></td><td>Social activist,
Vill.: Samakhiyali,
Ta.: Bhachau,
Dist.: Kutch.</td><td>officer to be appointed by the Government and survey regarding the loss to farmers should be carried out together with village people.
• When we come to company regarding meeting to company's officers, they didn't allow us to enter into company and didn't meet us. Company should provide employment to youngsters of nearby villages. There is no benefit to the nearby villages by the CSR activity carried out by company.
• Employme</td><td></td><td>to understand the needs and grievances of the locals and will help to resolve the same.
<u>SECOND POINT:</u>
As per company policy, priority has been given to local people based on their skill, experience and qualifications. Employment Policy of the company is given in Appendix 2 for reference. Employment data for the existing and proposed plant is given in the table below:

<table>
<tr><th>Category</th><th>Existing Man power</th><th>Existing local man power</th><th>Proposed Man power</th><th>Proposed local manpower</th></tr>
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</table>
INR 15,00,000/- are allocated for three years in Skill development as per CER plan and hence Livelihood Promotion / Job Creation will be developed.

<u>THIRD POINT:</u>
Company has proposed fund of Appx. Rs 3.12 cr in CER for next three years for nearby villages namely Samakhiali, Gharana, Adhoi, Vondh, Gorasar etc. It will include De-silting / Pond Reclamation, Rain water recharging well, Health and Medical camp, Green belt development in nearby villages, Education and infrastructure development, Skill development, Social Measures to Animal Husbandry and guidance to improve soil fertility etc. For details please refer CER action plan.</td></tr>
</table>

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		nt to the local should be provided and care of environment should be taken. It is our demand that survey to be carried out keeping with those 10 to 12 people from affected village who have issue regarding health and agriculture.		
8	**Shri Khetsinh Maru, Information Right Committee, Kutch, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, in which newspapers and at what places advertisement regarding Public Hearing were published and circulate respectively? How many company's	• Regional Officer informed that, advertisement regarding this Public Hearing was published in Gujarati local daily news paper 'Kutch Mitra' and	**The public hearing notice was done as per the norms stipulated by MOEF&CC and there is no deviation in regards to this.**

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		complaint has been received to GPCB and form that how much are declared pollution free company?	English daily news paper 'The Indian Express' one month before on dated 28/06/2018. Other than this, copies of advertisement were circulated in effected villages. No certificate regarding pollution free company is issued by Government.	
9	**Shri Jadeja IndrajitsinhManuba, Vill.: Amliyara, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, lake overflows during rainy season and after that	----	• Overflow of the lake is natural phenomenon during rainy season. • However, we have proposed De-silting/Pond Reclamation in our CER activities based on discussion with Gram Panchayat/ Local people from the nearby Villagers. An amount of INR 6,00,000/- per year for three years i.e. in total 18,00,000/- is allocated for Pond Reclamation

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		around one and half month later water of the village gets polluted and is not of drinkable condition. Animals didn't eat their food due to polluted food.		/ De-silting activity. • The awareness will be promoted by poster presentation at prominent location. • Also Amliyara village is appx 8 km in south direction of the company. • As already explained in point no. 2 and 3, that there will be no significant impact on environment in nearby areas due to emission from the plant.
10	**Shri KishanRajgor, Vill.: Samakhiyali, Ta.: Bhachau, Dist.: Kutch.**	• He asked that, what will be the further process after this Public Hearing and how will the people get acknowledgement regarding the decision of their representation?	• Regional Officer informed that, all the objections, suggestions and representation recorded will be forwarded to the Government of India for further proceedings. Minutes will be prepared and uploaded on GPCB web-site. • Company	**First point:** is related with public hearing procedure and is explained by Regional Officer, GPCB. • Public hearing proceeding is submitted to EAC committee of MoEF&CC, Delhi along with final EIA report for further proceeding and grant of environment clearance. • Approved Public Hearing MOM will be distributed to following places. 1. The District Collector, Bhuj, District Kutch, 2. District Development Office, Bhuj, District Kutch, 4. Taluka Development Office, Bhachau, District Kutch, 5. GPCB, Gandhidham, Kutch • MOM of public hearing will also be uploaded on GPCB Portal with following link;https://gpcb.gujarat.gov.in/webcontroller/page/public-hearing-schedule-&-mom#.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
			's representative giving his mobile number in public replied that, any person can contact me anytime for his issue.	
		• A person should be appointed by the company to whom small issues of the village should be represented.		**Second point**: Company has appointed a qualified person from HR team who will coordinate with the villagers to understand the needs and grievances of the locals and will help to resolve the same.
11	**Shri Suresh Chauhan, Vill.: Gharana, Ta.: Bhachau, Dist.: Kutch.**	• He represented that; these kinds of programmes of any company should be organized in public area, so that people can aware of the same. A committee should be organized	----	**FIRST POINT:** Location decided for the Public Hearing is as per the guideline of the board. **SECOND POINT**: Company has appointed a qualified person from HR team who will coordinate with the villagers to understand the needs and grievances of the locals and will help to resolve the same.

<table>
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<tr><td></td><td></td><td>to collect the representation and issues of the affected people and forward it to company.</td><td></td><td></td></tr>
<tr><td>12</td><td>Shri Vibha bhai Rabari,
Vill.: Amliyara,
Ta.: Bhachau,
Dist.: Kutch.</td><td>• He represented that, before the operation of the company, it should carry out the activity as per the rules and if not done same action to be taken against the company.
• In company melting of iron and making of iron rod are carried out. During melting of iron large numbers of small dust spreads and chemical waste</td><td>• Company ’s representative replied that, to control the air pollution latest technology tools i.e. bag filter and ESP have been installed due to which dust particle released by company are under the level fixed for the same. So there is negligible chance of pollution. Hazardous wastes generated</td><td><u>FIRST POINT:</u>
Company follows the rules and regulation laid down by the different authority and the same will be followed in future also.
<u>SECOND POINT:</u>
Solid and hazardous waste is being disposed/sold to various approved agencies as per the norms prescribed by GPCB. Details of mode of disposal of the solid and Hazardous waste is given in table below:
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<tr><td>4.</td><td>Used Oil</td><td>Sent to Authorized vendor</td><td>M/S Hindustan oil Ltd.</td></tr>
</table>
<u>THIRD POINT:</u>
Rain gun and water sprinkling system provided at coal storage yard, dump hoppers and conveyors to control the fugitive emission generated during screening, loading, unloading, handling and storage of raw materials. The vehicles are transported in securely covered</td></tr>
</table>

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		emerges form the same and provision for the disposal of such waste are not made as per the rules. And the disposal of the dust particles, gas and chemical water are carried out as per company's decision. Dust particles form the company and smoke from the continuous transportation of the company vehicle spreads into nearby farming land. Tank is not prepared into land for chemical water due to which farming cannot be carried out	from our company are sent to the TSDF site fixed by GPCB. So no hazardous wastes are released by our company. No polluted waters are released from our plant. • Company's representative replied that, at this time we do not have list but as I	trucks to reduce the emission. Also a vehicle with valid PUC is allowed inside the plant. Water sprinkling is being done regularly via tanker on road connecting from Main gate of the company to the Highways in order to further control the fugitive emission. Also, as already explained in point no. 2 and 3, that there will be no significant impact on environment in nearby areas due to emission from the plant. **FOURTH POINT:** Discussed at point no. 4

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		in nearby villages. Famers are suffering an undetermined financial loss. Our village is 6 to 7 km away from the company. Pollutants released from the company enter into our village in high level every year. As the wind flows in north direction in winter there are heavy loss to our winter crops i.e. jowar, mung, math, cotton, and castor. It also affect to the fodders of the animals due to which animals didn't eat them. Due	remember three persons of the abovementioned village are working with me. Before someday two unemployed engineer approached to me regarding employment, we employed them immediately.	

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		to pollution sale of jowar and other crops are at half rate.		
13	**Shri Pradip Vaniya, Chairman, Bharat Mukti Morcha, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, earlier employment fair was organized on behalf of Gujarat Government at ITI Bhachau for apprentice and unemployed persons. No person of this company was present in that fair. Documents have been given by many persons to your company regarding employment but they have yet not received any call from the company regarding	• Company's representative replied that, it is intimated to the village representative to send proper qualified persons who are willing to work in the company. Many persons approached the company and they were employed.	**<u>FIRST POINT:</u>** Company has participated in the questioned employment fair organized by District Employment Officer, Bhuj and at Government ITI, Bhachau dated 14/05/2018 and 6 Fresh Engineers were selected as per the requirement and nature of the work and will continue same procedure in future also. **<u>SECOND POINT:</u>** Company has its own policy of providing employment to the local as per their education, qualification, experience and the skill based on the vacancy(ies) generated because of either expansion of the plant or because of replacement. Company is also giving Advertisement related with vacancies as and when required in the local newspaper and will continue same procedure in future also.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		same.		
14	**Shri Dinesh Rana, Manav Kalyan Paryavaran Suraksha Mandal Trust, Vill.: Lakadiya, Ta.: Bhachau, Dist.: Kutch.**	• He represented that, I have complaint earlier against the nearby companies regarding employment and pollution issues. When I have approached the company regarding employment they have stated to provide employment to ITI holders. • This company has carried out CSR activity of Rs. 3.5 Crore instead of Rs. 2 crore. Company has given report regarding the same to me. • Pollution control machines	**----**	Point is related with the activities carried out by the company and doesn't warrant any action further.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		not with other company are with this company, which can be seen at company's gate which is controlled by CPCB. • If this company will establish here, it will provide employment to the people of our village and will develop our village. Government also get fund from the company. Rate of land in our area have increased due to these companies.		
15	**Shri Patel Navinbhai Lalji bhai, Vice-president, Sukhkar Gram Panchayat, Vill.: Sukhpar, Ta.: Bhachau,**	• He asked that, what is Public Hearing and what is	----	• Representative village (Sukhpar) is located at Approx. 30 Kms from the project site in West direction; hence there will be no significant impact on environment on this village. Despite this, the Company will adhere to check on all the issues stated above.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
	Dist.: Kutch	Pollution Control Board? We are giving compliant of company since 12 years but no action has been taken yet. When we compliant to Mamlatdar he says that, closure notice has been given to the company but the company was in operation. GPCB accepts that, dust particles are spread by the company. The person of aged around 25 to 30 years needs pumping treatment for lumb. Dust particles of this unit spread to our farm		• Public hearing is a procedure laid down under EIA Notification 2006 and its subsequent amendments for project requiring Environmental Clearance located outside Notified Industrial Estate. Hence Public Hearing was applicable to proposed project and it was conducted by Regional Pollution Control Board as per guidelines. • Company is being inspected by GPCB at regular intervals and based on complaint received from nearby local peoples. Reply to all recommendation is being timely submitted to GPCB. Further to this we have been not issued any closure notice till date.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		due to which productivity has been reduced. Company is trying to divert the people of Kutch towards Nakshalwad. Government should take care of farmers of Kutch and Narmada River in which there is lack of water but not of company. When there were no such companies at that time also we were getting our livelihood. These types of companies should be 50 km far away from human dwellings.		
16	**Shri Neel Lijoda Vill.: Lakadiya, Ta.: Bhachau,**	• He asked that, how many	• Company 's represent	**FIRST POINT:** Total no. of accidental cases reported so far is 26. Out of which 4 fatal has been occurred due

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	Dist.: Kutch	cases of accident have been occurred in company and to how many victim company has compensated? • Company should make some necessary changes in the rules of contract given by company so that people from other categories can get the contract which will resolve 80% of issues. • Government should make a committee so that people should not have to represent aggressively and company should discuss	ative replies that, we are operating this industry since 2005. Since that time only 4 fatal has been occurred due to human error. Company has send the body of the decreased with dignity to their village. Company has helped them other than the compensation ordered by the court. Minor accident usually occurs in the companies. Company has their owned health	to human error. Company has sent the body of the deceased with dignity to their village. Company compensated over and above the court order. The Company will ensure that all the labour employed undergo safety training as a part of induction. **SECOND POINT:** • Company has employed the maximum no of local contractors in existing project and same will be done in proposed project also. • Company has already given contract related with the plant activities to locals only. Some of the details are given below: • Transportation of raw materials in Trucks (appx. 167 Nos of vehicles per day (existing + proposed) • Transportation of finished product in trucks (appx. 65 nos of vehicle per day(existing + proposed) • Vehicles required related with production are also hired from local. (appx. 22 nos of vehicles deployed per day) • Labour contract wherever required. (total no of unskilled local labour employed 250 nos in existing) **THIRD POINT:** • Company has appointed its representative Senior Manager for the issues related with nearby villagers. So any one can approach to him for any issue.

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		with the village representatives and victims about their issues.	center and doctors appointed in the same. So after providing first aid to the injured they are shifted to the Vagad welfare hospital immediately if required and then immediately shifted to other hospitals. Company also helps to the person other than those working in company whenever they require.	
17	**Shri NarendradanGadhavi, Member of Taluka Panchayat, Vill.: Samakhiyali, Ta.: Bhachau, Dist.: Kutch**	• He represented that, people has opposed pollution for the first time.	• Company's representative replies that, all the contracto	• **Company has proposed fund of Appx. Rs 3.12 cr. in CER** for next three years for nearby affected villages namely Samakhiali, Gharana, Adhoi, Vondh, Gorasar etc. • For the local employment please refer point No.7

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN
		CSR fund should be utilized only in affected areas. More and more local people should be employed for the convenient work.	r, transporter, dealer and commission agent of the company are local.	
18	**Shri KarshanbhaiBecharbhai Ahir, Vill.: Samakhiyali, Ta.: Bhachau, Dist.: Kutch**	• He represented that, I am approaching the company with my file since last 3 years but the company doesn't allow me to enter into the company.	----	• Company has appointed a qualified person from HR team who will coordinate with the villagers to understand the needs and grievances of the locals and will help to resolve the same.
S. No.	**Activities**	Action Undertaken	Fund Allocation (INR In lacs)	Time schedule
			Capital	**Recurring**

<table>
<tr><th>S. No</th><th>Name and Address of the Representative</th><th>Points Represented</th><th>Reply given by the Company Representative of the Project Proponent</th><th colspan="4">REVISED ACTION PLAN</th></tr>
<tr><td>1.</td><td>Air & Water Pollution control Measures</td><td colspan="2">1. Air Pollution Control Measures: Unit has proposed the air pollution control Measures for the proposed plant as follows:
<table><tr><th>S. No.</th><th>Particular</th><th>Pollution Control Measure</th></tr><tr><td>1.</td><td>Captive Power Plant (10MW)</td><td>• Stack(II) height- 95 m (of existing Stack)
• ESP</td></tr><tr><td>2.</td><td>Rotary Kiln No. 5</td><td>• Stack –II Height -48m
• ESP</td></tr><tr><td>3.</td><td>Induction Furnace No. 6</td><td>• Stack-III, Height- 48m
• Bag House</td></tr></table></td><td>600.0</td><td>40.0</td><td>Will be concurrent with expansion.</td></tr>
<tr><td></td><td></td><td colspan="2">2. Water Pollution Control Measures: Unit is maintaining ZLD and the same practice will be followed for expansion phase. Effluent generated from STP and ETP is being/will treat with adequate capacities of ETP and STP. No waste water is discharged outside the premises.</td><td>30.0</td><td>4.0</td><td>Will be concurrent with expansion</td></tr>
<tr><td>2.</td><td>Employment opportunities</td><td colspan="2">1. Local villagers will be given employment on the basis of their eligibility. However a training camp shall be provided when new recruitment is done to enable check and select from the local pool of applicability.
2. Unit has employment policy for recruitment of local people.
3. Advertisement of vacancy is being/will be published in local newspaper as and when required.
4. Skill development Programme under CER will be undertaken:
a) Boiler Attendant (ITI)
b) Fitter (ITI)
c) Basic Computer course
d) Tally accounting</td><td>40.0</td><td>3.0</td><td>As and When required.</td></tr>
<tr><td>3.</td><td>Farming and Animal Husbandry</td><td colspan="2">1. Measure to be undertaken for Animal Husbandry under CER
a) Organize training and meeting for community
b) Donation to local Animal Husbandry institution in Gandhidham, Kutch, (Gujarat Livestock Development Board(GLDB)
c) Donation to Local Agricultural Institute in Gandhidham, Kutch Directorate of Agriculture (Agriculture, Farmers welfare & Cooperation Department ,Kutch)
2. Soil study for enzymatic performance & Microbial</td><td>55.000</td><td>7.0</td><td>Will be executed within two years</td></tr>
</table>

S. No	Name and Address of the Representative	Points Represented	Reply given by the Company Representative of the Project Proponent	REVISED ACTION PLAN		
		activity.				
4.	De siltation of Pond /Lake	De siltation of pond under Suflam Sujalam Yojana under CER		18.0	5.0	Every pre monsoon.
Total				773.0	59.0	--

v. Revised action plan for implementation of Corporate Environmental Responsbility related activities.

REVISED C.E.R (Corporate Environment Responsibility)

Proposed CER:-

Type of Project: Expansion project

Proposed Cost of the Project: Proposed Project Cost - 216 Cr

Fund Allocation (As per OM 01/05/2018): As per slab wise calculation below;

Fund Required for CER- 1.87 Cr

Additional fund allocated for CER – 1.25 Cr

Fund Allocation for CER – 3.12 Cr

Capital Cost of Expansion Project (Rs Crores)	As per MoEFCC's office Memorandum # F.No. 22- 65/2017-IA.III dated 01.05.2018		CER Budget (Rs Crores)
	Capital Investment/Additional Capital Investment (Rs)	Brownfield project - % of the additional capital investment	
100	< 100 crores	1.0	1.0
116	>100 crores to < 500 crores	0.75	0.87
216	**Total CER Fund Required as per OM Dated:1/5/18**		**1.87**

	Total CER Fund Allocated	**3.12**

S. No.	Activities	Capital Cost	1st Year	2nd Year	3rd Year	Recurring Cost (in Lacs)
1.	**Pond Reclamation// De- siltation To Surrounding Villages)** (Under Sujalam-Sufalam Yojna) Based on discussion with Gram Panchayat/Sarpanch/local affected people/ NGO etc. **Total 9 nos of Ponds Reclamation work is to be carried as follows:**	18.0	6.0	8.0	4.0	1.80
	Village Samakhyali = 2 No. @Rs. 2,00,000= 4,00,000					
	Village Gahara = 2 No. @Rs. 2,00,000= 4,00,000					
	Village Lakhpat = 2 No. @Rs. 2,00,000= 4,00,000					
	Amliyara= 2 No. @Rs. 2,00,000= 4,00,000					
	Adhoi=1 No. @Rs. 2,00,000= 2,00,000					
2.	**Rain Water Recharging Well** to surrounding villages on one to one need assessment basis with Sarpanch / Leaders / NGO etc. **Total 7 nos of recharging well/de siltation is planned in the 5 villages near by the project : Cost of each recharging well work will be Rs 3,00,000**	21.0	9.0	9.0	3.0	2.10
	Village Samakhyali = 2 No. @Rs. 3,00,000= 6,00,000					
	Village Gahara = 2No @Rs. 3,00,000= 6,00,000					
	Village Lakhpat = 1 No @Rs. 3,00,000= 3,00,000					
	Village Amliyara= 1 No. @Rs. 3,00,000= 3,00,000					
	Village Adhoi =1 No. @Rs. 3,00,000= 3,00,000					
	Village Samakhyali = 2 No. @Rs. 4,00,000= 8,00,000					
	Village Gahara = 1No @Rs. 4,00,000= 4,00,000					
	Village Lakhpat = 1 No @Rs. 4,00,000= 4,00,000					
	Village Amliyara = 1 No. @Rs. 4,00,000= 4,00,000					
	Village Adhoi = 1 No. @Rs. 4,00,000= 4,00,000					

S. No.	Activities	Capital Cost	1st Year	2nd Year	3rd Year	Recurring Cost (in Lacs)
3.	**Green Belt Development Plan**: To surrounding villages on one to one need assessment basis with Sarpanch / Leaders / NGO etc. **Planned to develop around 4500 nos of trees in villages.** **Cost of each tree plantation work with safety grill and name plate will be Rs 650/-** **Total cost @ Rs 10,00,000/ year** **For three years it will be Rs 30,00,000**	30.0	10.0	10.0	10.0	3.00
	Village Samakhial = 400@per year = 1200 Nos.					
	Village Gorasar = 200@per year = 600 Nos.					
	Village Ramapar = 150@per year = 450 Nos.					
	Village Gharana =300@per year = 900 Nos.					
	Village Lakhpat =150@per year = 450 Nos.					
	Village Vipasar =150@per year = 450 Nos.					
	Village Vondh R.S. =150@per year = 450 Nos.					
4.	**Education and Infrastructure Development – (On basis of Public Consultation Needs) –** • To provide the necessary financial assistance to Samakhiali Gram panchayat to purchase the land for building of Modern School for betterment of study of nearby area children. • To provide the necessary financial assistance to Gharanawadi Prathmik Shakha School for infrastructure development. • New Toilet construction under Swachha Bharat Mission. • To provide the necessary financial assistance to nearby schools/ institution other infrastructural facility etc. based on their requirements. • To provide the necessary financial assistance to nearby schools for Books and school uniform of poor people.	166.0	60.0	60.0	46.0	16.60

S. No.	Activities	Capital Cost	1st Year	2nd Year	3rd Year	Recurring Cost (in Lacs)
	• To provide the necessary financial assistance to local affected and nearby villages based on their requirements. **Cost for the first year will be Rs 60,00,000 (0.60CR)** **For Three Years it will be Rs. 1,68,00,000 (1.68 CR)**					
5.	**Skill Development Plan –** Training will be given through Scheme of Skill Development of India by Ministry of Skill Development & Entrepreneurship. • Financial Assistance to be provided to government colleges/institutions for the ITI and skill development training facilities. • Financial Assistance to be provided to Boiler Institutes for BOE and 1st class & 2nd class operator training.	15.0	5.0	5.0	5.0	0.50
6.	**Social Measures –** (On basis of Public Consultation needs towards farming, yield of crops, animal husbandry, fodder for animals etc) **<u>Social Measures to Animal Husbandry:</u>** • Budget for Fodder distribution in nearby villages (Samakhiyali,, Gharana,Amliyara, Laliyana) • Co-ordination / donation to Local Animal Husbandry Institutions in Gandhidham, Kutch. – Gujarat Livestock Development Board (GLDB) **<u>Social Measures to improve Soil Fertility:</u>** • Training / guidance improve soil fertility in coordination with local agricultural department. • Free composting training on organic fertilizer utilization. • Co-ordination / donation to Local Agricultural Institutions in Gandhidham, Kutch-Directorate of Agriculture (Agriculture, Farmers Welfare & Cooperation Department) – Kutch • No funds or cash will be given to farmers but a network and	36.0	12.0	12.0	12.0	3.00

S. No.	Activities	Capital Cost	1st Year	2nd Year	3rd Year	Recurring Cost (in Lacs)
	resources required towards Beej/Fertilizers & Pesticides/ Animal Welfare/ Tools/ Sales & promotion of Crops will always be supported.					
	Total	312	115	116	81	27

Observations of the Committee: -

23. The Committee noted that the reply submitted by the project proponent is adequate.

Recommendations of the Committee: -

24. After detailed deliberation, the Committee recommended for environmental clearance under the provisions of EIA Notification, 2006 for the proposed "expansion of production capacity of Sponge Iron: 2,25,000 TPA to 3,73,500 TPA, TMT Bars: 3,30,000 TPA to 4,22,400 TPA, M.S. Billet/ S.S. Billets: 3,36,600 TPA to4,29,000 TPA, MS Rolled Bars: 6,483 TPA, Coal based Captive Power Plant (AFBC): 35MW and WHRB: 16 MW located at Village Samkhaiyali, Tehsil Bhachau, District Kutch, Gujarat by **M/s. Gallant Metal Limited"** subject to following specific and general conditions:

A. Specific Conditions

i. CER shall be completed in a time frame of three years.
ii. No groundwater shall be abstracted for the project.
iii. The natural drain shall not be disturbed.
iv. Revised emission norms for power plant shall be complied with.

B. General Conditions

I. Statutory compliance:

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

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

iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be

implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.

II. Air quality monitoring and preservation

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

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

iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

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

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

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

vii. Provide pollution control system in the sponge iron plant as per the CREP Guidelines of CPCB.

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

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

x. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation;

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

III. Water quality monitoring and preservation

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

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

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

iv. Adhere to 'Zero Liquid Discharge'.

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

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

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

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

IV. Noise monitoring and prevention

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

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

V. Energy Conservation measures

i. The project proponent shall provide waste heat recovery system on the DRI Kilns.

ii. The dolochar generated shall be used for power generation.

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

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

VI. Waste management

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

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

iii. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile

STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

IX. Corporate Environment Responsibility

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

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

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

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

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

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

X. Miscellaneous

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition

to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

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

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

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

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

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

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

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

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

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

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

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

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

xv. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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

4.25 Expansion of stainless steel production from 0.8 to 2.2 MTPA and cold rolling mill from 0.8 to 1.6 MTPA located at Kalinga Nagar Industrial Complex (KNIC), Danagadi near Duburi in Jajpur district of Odisha by **M/s. Jindal Stainless Limited** [Online proposal No. IA/OR/IND/86727/2018; MoEFCC File No. J-11011/281/2007-IA.II(I)] – **Reconsideration for Environmental Clearance based on ADS reply.**

1. M/s Jindal Stainless Limited made online application vide proposal no. **IA/OR/IND/86727/2018**, dated 30thNovember, 2018 along with copies of EIA/EMP report 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(b) Cement 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:

2. The application of M/s Jindal Stainless Ltd. (JSL) located in Kalinga Nagar Industrial Complex (KNIC), Tehsil Sukinda, District Jajpur, State Odisha was initially received in the Ministry on 29th May 2018 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 33rd meeting held on 10th July 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 23rd July 2018 vide Letter. No. F. No. J-11011/281/2007-IA.II(I).

3. The project of M/s JSL located in KNIC, Tehsil Sukinda, District Jajpur, State Odisha is for enhancement of production of crude stainless steel from 0.8 to 2.2 million tonnes per annum (million TPA) and cold rolling mill (CRM) from 0.8 to 1.6 million TPA. The environmental clearances (EC) for Modification-cum-Expansion of Integrated Steel Plant (ISP) was accorded to M/s JSL vide lr.no. F. No. J-11011/281/2005-IA.II(I) dated 1st Nov 2007. The Status of compliance of earlier EC was obtained from Regional Office (Bhubaneswar) vide File No. 101-1050/EPE dated 10.12.2018. There is no major non-

compliance reported by Regional officer. The proposed capacity for different products for new site area as below:

Sl. No.	Unit	Facility		
		Existing	**Proposed**	**Final**
1	SMS	2 x 100 t EAF	2 x 150 t EAF (upgradation of existing 100 t converters) 2x 6 t + 1x 200 Kg Testing Induction Furnace 1x30 t Holding Induction Furnace	2 x 150 t EAF 2x 6 t + 1x 200 kg Testing Induction Furnace 1x30 t Holding Induction Furnace
2	Secondary Refining	1 x 120 t LF 1 x 120 t AOD	1 x 150 t LF (upgradation of existing 120 t) 1 x 150 t LF (New) 1 x 150 t AOD (upgradation of existing 120 t) 1 x 150 t AOD (New)	2 x 150 t LF 2 x 150 t AOD
3	Caster Shop	1 x 1 - Strand slab caster	1 x 1 - Strand slab caster (New)	2 x 1 - Strand slab caster
4	CRM	HAPL - 1 x 0.8 MTPA CAPL - 1 x 0.45 MTPA Finishing Lines (Slitting, Cut to length, Skin pass mill etc.)	HAPL - 1 x 0.8 MTPA (New) CAPL - 1 x 0.45 MTPA (New) Finishing Lines (Slitting, Cut to length, Skin pass mill etc.) (New)	HAPL - 2 x 0.8 MTPA CAPL - 2 x 0.45 MTPA Finishing Lines (Slitting, Cut to length, Skin pass mill etc.)
5	Air Separation Plant	1 x 425 TPD	1 x 425 TPD (New) (BOO Basis)	2 x 425 TPD (BOO Basis)
6	Ferro Alloy Plant	0.25 MTPA (2 x 60 MVA + 3 X 27.6 MVA); 13 MW WHRB; 50 TPH AFBC Boiler; Briquette Plant- 126 TPH & Jigging Plant	Capacity expansion of Briquette Plant up to 180TPH (including existing)	0.25 MTPA(2 x 60 MVA + 3 X 27.6 MVA); 13 MW WHRB with 50 TPH AFBC Boiler; Briquette Plant - 180TPH & Jigging Plant
7	Lime/Dolo Calcining Plant	-	1x450 TPD + 1x600 TPD (Lime & Dolo) + 200 TPD Hydrated Lime Plant (New) (BOO Basis)	1x450 TPD+ 1x600 TPD (Lime & Dolo) + 200 TPD Hydrated Lime Plant (New) (BOO Basis)
8	Metal recovery Plant	-	1x 50 TPH 1x80 TPH (BOO Basis)	1x 50 TPH 1x80 TPH (BOO Basis)

Sl. No.	Unit	Facility		
		Existing	**Proposed**	**Final**
9	CRMHS	Installed - Matching the production facilities	Matching the production facilities (New)	Matching the production facilities
10	Captive Power Plant (CPP)	2 X 125 MW Coal based	-	2 X 125 MW Coal based

4. The total land required for the project is within the existing 317.89 ha area under the ownership of JSL. No forestland involved. The entire land is within the existing plant boundary of JSL. It has been reported that Brahmani River & Kharsua River flows in the study area and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5. The topography of the project area is moderately undulating with presence of moderate to low lying hillocks & mounds at places and is reported to lie between 86°01'53" to 86°03'43" E longitude and 20°56'23" to 20°58'10" N latitude in Survey of India OSM No. F45U1. The elevation of plain area is upto 55 m AMSL. The ground water table reported to ranges between 0.92-4.58 m below the land surface during the post-monsoon season and 3.05-8.38 m below the land surface during the pre-monsoon season. Further, the stage of groundwater development is reported to be 33.8% in the study area and thereby these are designated as safe areas.

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. The authenticated list of flora and fauna does not report presence of no Schedule-I fauna in the study area (Appendix 3-2 to 3-7 of EIA Report, November 2018).

7. The process of project and the various processes involved to produce the final output and waste generated in the process is shown in Drg. 11443-97A-000-ENV-0003 and in Appendix 2-1 of EIA/EMP report (November 2018), the list of raw materials is shown below:

Sl. No.	Major Raw Materials	Estimated Quantity, tons	Mode of Transportation
1	Scrap	1,490,340	Sea - Rail (80%)/Road (20%)
2	Ferro Chrome	702,100	Internal Transfer (35%)/Road (65%)
3	Limestone	524,400	Rail
4	Dolomite	315,000	Rail
5	Other Ferro Alloys	133,120	Road
6	Other additives	68,100	Road

8. The targeted production capacity of crude stainless steel is 2.2 million TPA. The main raw materials for the expansion project are scrap, limestone & dolomite which would be

purchased from open market & transported through rail & road.

9. The water requirement of the project post expansion is estimated to be 26,640 m^3 /day, which will be obtained from the existing source of water i.eRiver Brahmani as per existing Water allocation from Department of Water Resource, Govt. of Odisha to JSL vide letter No. 26166/WR, dated 9/11/2016.

10. The power requirement of the project post expansion is estimated as 2389 Million KWh, which will be obtained from captive generation from existing coal based 2 x 125 MW Power plant and the balance from State power grid.

11. Baseline Environmental Studies were conducted during summer season i.e. from February to May, 2017. Ambient air quality monitoring has been carried out at 9 locations during February 2017 to May 2017 and the data submitted indicated: PM10 (82.5 to 91.3 µg/m3), PM2.5 (45.5 to 50.6 µg/m3), SO2 (5.9 to 18.3 µg/m3) and NOx (24.3 to 37.0 µg/m3). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 1.3 µg/m3 with respect to the PM10, 2.7 µg/m3 with respect to the SO2 & 2.4 µg/m3 with respect to the NOx.

12. Ground water quality has been monitored in eight locations in the study area and analysed. pH: 6.2 to 7.0, Total Hardness: 108 to 373.3 mg/l, Chlorides: 27.4 to 139.3 mg/l, Fluoride: < 0.1 mg/l. Heavy metals are within the limits. Surface water samples were analysed from eight locations. pH: 7.1 to 7.2; DO: 5.7 to 6.1 mg/l; BOD: 3.3 to 6.0 mg/l and COD from 11.2 to 26.2 mg/l.

13. Noise levels are in the range of 43.8 to 82.4 dBA for daytime and 42.4 to 72.4 dBA for nighttime.

14. It has been reported that there are no people in the core zone of the project. No R&R is involved.

15. Solid waste generation and disposal/utilization is shown below:

Sl. No.	Solid Wastes	Quantity of Waste Generated, TPA	Re-utilization Measures
Non Hazardous wastes			
1	Fe-Cr slag	250,000	Sent to Jigging Plant for metal recovery and further reuse in low lying area filling.
2	SMS Slag from EAF & AOD	745,000	Sent to Metal Recovery Plant for metal recovery. Non-metallic part used for construction purposes
3	Furnace Scale (CRM)	20,000	100% reuse in Briquette Plant
4	Bag filter dust from EAF & AOD of SMS	82,000	100% reuse in Briquette Plant
5	Fly Ash	530,800	100 % utilization through transfer to Bricks manufacturing units

6	Bottom Ash	115,600	High concentration slurry stored in bottom ash pond. Further reutilized at road making site of NHAI and disposed at abandoned mine void as per Consent of SPCB.
Hazardous Wastes			
1	Used Oil	200 KL	Sold to Authorised recycler
2	Oily Waste	200 KL	Sold to Authorised recycler
3	CRM Sludge	100,000	Disposed at CHWTSDF of M/s. Ramky Enviro Engineers LTD., Sukinda
4	Flue gas cleaning residue (Fe-Cr Plant)	22,000	Recycled in the process.
5	Discarded Containers	25,000 Nos.	Sold to Authorised recycler

16. It has been reported that the Consent to Operate from the Odisha Pollution Control Board obtained vide Lr. No .7363/IND-I-Con-5136, dated 22.06.2018 valid up to 31.03.2021.

17. The Public hearing of the project was held on14th November 2018 at Danagadi Bhawan, Jajpur under the chairmanship of ADM, Kalinganagar, Jajpur for the expansion project. The issues raised during public hearing, response of project proponent & schedule of implementation are enlisted below:

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
1.	Sri Prasant Kumar Ray Location: Danagadi, Jajpur	He expressed his displeasure towards M/S. Jindal Stainless Limited	PP acknowledged the remark	-	-
		He expressed that the road in his village is damaged	PP emphasized that the matter will be taken up with local Administration through CER	Total CER Budget towards Local Infrastructure Development Programme –Rs. 87.70 Lakh	Within 5 years from the date of commencement of construction activities
		He told that water lines have been disconnected in his village	PP emphasized that the matter will be taken up with local Administration through CER	Total CER Budget towards Local Infrastructure Development Programme –Rs. 87.70 Lakh	Within 5 years from the date of commencement of construction activities
		He also urged that the company has to provide for local employment and have to do more things for the project affected people	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government	-	On receipt of Environmental Clearance (EC)

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
			of Odisha in the official gazette		
		He also asked the project proponent to take care of the issues and take steps to reduce pollution. He additionally mentioned that ponds are getting polluted due to dust in his village	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh Drinking Water – Rs.61.70 Lakh	Within 5 years from the date of commencement of construction activities
2.	Sri Kailash Dalei Location: Marutikar, GP-Kumbhuria	He expressed that all plants in Kalinga Nagar Industrial Complex area are discharging water, which is passing near his village	PP emphasized that plant is operating Zero-discharge norms as specified by SPCB. No water is getting discharged outside from JSL. PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
		Many people have died of cancer and 5-6 persons are currently affected by cancer. Children are also affected by diarrhoea.	PP acknowledged the remark. PP would undertake strengthening of health facilities for the local population.	Total CER Budget towards Health – Rs. 181.50 Lakh	Within 5 years from the date of commencement of construction activities
		Ponds in their village are filled with common water hyacinth, which needs to be cleaned	Cleaning of Ponds would be undertaken by PP through CER	Total CER Budget towards Drinking Water – Rs.61.70 Lakh	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
3.	Sri Pratap Kumar Tarai Location: Mulasar	He expressed his full support to the proposed expansion project by M/S. Jindal Stainless Limited. He mentioned that the company is providing free education to the children, facilitate drinking water facilities and road, wherever required. He also expects that the company will continue its development work in future	PP acknowledged the support and appreciation	-	-
4.	Sri Susanta Kumar Bata Location: Garadihi	He expressed his full support to the proposed expansion project by M/S. Jindal Stainless Limited. He mentioned that the company is providing free computer education to the children	PP acknowledged the support and appreciation.	-	-
		He also expects that in future the company will provide ITI training to the students	PP emphasized they would undertake local vocational & industrial programmes	Total CER Budget towards Local Skill & Vocational Training Programme - Rs. 120 Lakh	Within 5 years from the date of commencement of construction activities
5.	Sri Kalakar Dalai Location: Marutikar	He expressed his full support to the proposed expansion project. He mentioned that the company has appointed teachers in schools.	PP acknowledged the support and appreciation	-	-
		He also told that their village is mostly affected with Malaria, so he requested to the PP to take steps to control the same	PP emphasized that the company would strengthen their Malaria eradication programme and awareness programme among villagers through CER	Total CER Budget towards Health – Rs. 181.50 Lakh	Within 5 years from the date of commencement of construction activitie

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
		He also requested PP to clean the ponds in their village	Cleaning of Ponds in consultation of local administration through CER	Total CER Budget towards Drinking Water – Rs.61.70 Lakh	Within 5 years from the date of commencement of construction activities
6.	Sri Prahalad Dalai Location: Marutikar	He expressed his support for the proposed project. He also told that the company is providing school dress and shoes to the children and have appointed teachers for teaching.	PP acknowledged the support and appreciation	-	-
7.	Sri Asit Kumar Dedi Location: Kharadi	He expressed his full support to the proposed expansion project by M/S. Jindal Stainless Limited	PP acknowledged the support	-	-
8.	Sri Ramarai Laguri Location: Kacherigana	He welcomed the panel and gathering	PP acknowledged the greeting	-	-
		He mentioned that he is a project affected person. At the time of land acquisition, the company has assured them that they will get employment in the plant but till now the same is not fulfilled	PP emphasized that entire land acquisition process was carried out through IDCO and all settlements has been made to the displaced families. No such case is pending.	-	-
		He mentioned that they are affected by kidney disease due dust and smoke. He requested to the ADM to look into the matter personally	PP further assured that the health care facility will be strengthened through CER	Total CER Budget towards Health – Rs. 181.50 Lakh	Within 5 years from the date of commencement of construction activities
9.	Sri Bijay Jena Location: Mulasar	He welcomed the panel and gathering and expressed his support for the proposed expansion project. He told that the company has established an Occupational Health Centre (OHC) near his village due to which they are getting free treatment and medicines.	PP acknowledged the support and appreciation	-	-
10.	Sri Sagar Dhir	He welcomed the panel & gathering and thanked the public.	PP acknowledged the support and appreciation.	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
	Location: Dhuligarh	He mentioned that various development works have been carried out by the company in his village and so he also requested the company to do development work in nearby villages	PP would undertake local improvement through support towards various community based developmental programmes	Total CER Budget towards Local Infrastructure Development Programme –Rs. 87.70 Lakh	Within 5 years from the date of commencement of construction activities
		He is supporting the project but they are affected with pollution	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protecion programmes	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
11.	Miss. Suprave Bala Location: Kharanti	She expressed his happiness for the proposed project. She told that the area is getting developed due to the development work carried out by the compan	PP acknowledged the support and appreciation	-	-
		She also requested the company to take steps towards control of pollution	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes.	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
12.	Smt. Nirupama Dalai Location: MarutiKar	She expressed her support for the proposed project. She also told that the company has helped their Self Help Group (SHG) for which they are self employed	PP acknowledged the support and appreciation	-	-
13.	Miss. Mami Behera Location: Danagadi	She expressed her full support to the proposed expansion project by M/S. Jindal Stainless Limited	PP acknowledged the support		
14.	Miss. Swarnaprava Patra Location: Khosal Pur	She expressed her full support to the proposed expansion project by M/S Jindal Stainless Limited	PP acknowledged the support	-	-
15.	Sri Nabin Dalai Location: Rachlipur	He welcomed the panel and gathering. He told that he is opposing the proposed project.	PP acknowledged the remark	-	-
		He asked the company to take step for pollution control	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes.	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
		He told that the company has to give more opportunity of employment to the local people and also provide employment to the project affected people	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
		He asked the company to take step for plantation of more trees in nearby area	PP emphasized that Avenue/Urban plantation shall be made with consultation of Forest department	Total CER Budget towards Avenue/Urban Plantation –Rs. 25 Lakh	Within 5 years from the date of commencement of construction activities
		He asked the company to take step for development of roads	PP would undertake local infrastructure development in consultation with local administration through CER	Total CER Budget towards Local Infrastructure Development Programme –Rs. 87.70 Lakh	Within 5 years from the date of commencement of construction activities
		He asked the company to take step to facilitate the education system	PP emphasized that strengthening of educational facilities would be ensured	Total CER Budget towards Education - Rs 20 Lakh	Within 5 years from the date of commencement of construction activities
16.	Miss. Diptimayee Ghadei Location: Mantira	She expressed her support for the proposed project	PP acknowledged the support	-	-
17.	Sri Swabhagya Patnaik Location: Balarampur, GP - Kabatabandha	He welcomed the panel, media and the gathering. He welcomed the project and mentioned that he was associated with CSR department of the company to carry out various development works like water supply, road development, education programme and so on in nearby areas. He expressed his support for the proposed expansion project.	PP acknowledged the support and appreciation	-	-
18.	Sri Promod Perai Location: Mulasir	He expressed his support for the proposed project	PP acknowledged the support	-	-
		He also told that they are facing water crisis during summer so he requested the company to facilitate drinking water system	PP assured that drinking water facility will be strengthened to avoid the crisis	Total CER Budget towards Drinking Water – Rs.61.70 Lakh	Within 5 years from the date of commencement of construction activities
		He also requested the company to make a pond in their village for bathing purposes	PP further emphasized that the matter will be taken up with local administration through CER	Total CER Budget towards Local Infrastructure	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
				Development Programme –Rs. 87.70 Lakh	
19.	Smt. Sandhyarani Mohapatra Location: Dhabalgiria	She welcomed the panel and gathering and expressed her support for the proposed expansion project. She is impressed with the development work carried out by Jindal Stainless Limited and also told that many women powers are with her for supporting the project	PP acknowledged the support and appreciation	-	-
20.	Smt. Indumati Dalai Location: Marutikar	She expressed her support for the proposed expansion project of M/S Jindal Stainless Limited	PP acknowledged the support	-	-
21.	Smt. Namita Dalai Location: Marutikar	She expressed her support for the proposed expansion project. She told that the company is doing development work in her village.	PP acknowledged the support and appreciation	-	-
		She also requested to clean the pond in her village	PP assured that pond cleaning job will be undertaken through CER	Total CER Budget towards Drinking Water – Rs.61.70 Lakh	Within 5 years from the date of commencement of construction activities
		She also requested PP to establish a medical centre for their treatment	PP would take care of the health facilities through various programmes under CER	Total CER Budget towards Health – Rs. 181.50 Lakh	Within 5 years from the date of commencement of construction activities
22.	Smt. Pravati Dalai Location: Marutikar	She expressed her support for the proposed expansion project and told the company is doing development work in her village	PP acknowledged the support and appreciation	-	-
23.	Sri Chaturbhuja Nayak Location: Jakhapura	He expressed his support for the proposed project and told that the company is doing various development works like road construction, drinking water facility,	PP acknowledged the support and appreciation	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
		plantation programme in the nearby area			
24.	Sri Milan Sahoo Location: Jakhapura	He welcomed the panel & gathering and expressed his support for the proposed project	PP acknowledged the support.	-	-
		He told that priority should be given towards skill development of local people for better communication so that they can express in a better way	PP emphasized on undertaking local vocational & skill training programme (including communication) through CER	Total CER Budget towards Local Skill & Vocational Training Programme - Rs. 120 Lakh	Within 5 years from the date of commencement of construction activities
25.	Sri Jayram Mallick Location: Trijanga	He expressed his support for the expansion project. He told that he is staying in the rehabilitation colony made by the company and the company has provided all the facilities to them. The company also made a boundary around the colony	PP acknowledged the support and appreciation	-	-
		He requested the project proponent to give more emphasis on health of the children of the colony	PP emphasized that more focus will be made towards health care system especially for colony children through CER	Total CER Budget towards Health – Rs. 181.50 Lakh	Within 5 years from the date of commencement of construction activities
26.	Sri Niranjan Bal Location: New Market, Jajpur Road	He welcomed the panel & gathering and expressed his support for the expansion project by M/S Jindal Stainless Limited. He mentioned that he is working as a Supervisor in the company.	PP acknowledged the support	-	-
27.	Sri Ramesh Mallick Location: Vyasanagar	He welcomed the panel, media & gathering and expressed his support for the expansion project by M/s Jindal Stainless Limited. He expects that in future the company will continue its development works	PP acknowledged the support and conviction of the respondent	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
28.	Sri Rahul Behera Location: Duburi	He welcomed the panel & gathering and expressed his support for the expansion project by M/S. Jindal Stainless Limited. He told that the company is doing various development works and expects the same will be continued	PP acknowledged the support and appreciation	-	-
29.	Sri Anil kumar Baria Location: Ranagundi	He welcomed the panel & gathering and expressed his support for the expansion project by M/S. Jindal Stainless Limited. He told that the company is doing development works in the field of health and education and expects the same will be continued.	PP acknowledged the support, appreciation and conviction of the respondent	-	-
30.	Sri Sunil Gagrai Location: Hadisahi	He welcomed the panel & gathering	PP acknowledged the greeting	-	-
		He told that the local people are habituated with the pollution, that is why they are supporting the proposed expansion project	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
31.	Sri Jagadish Mohanta Location: Ranagundi	He welcomed the panel & gathering and expressed his support for the expansion project	PP acknowledged the support	-	-
32.	Sri Sisir Dalai, Location: Ranagundi	He welcomed the panel & gathering and he expressed his support for the expansion project	PP acknowledged the support	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
		He told that the company has partially fulfilled their commitments in the area of education. He hopes that the company will fulfill the issue after this expansion project.	PP emphasized that strengthening of educational facilities would be ensured	Total CER Budget towards Education - Rs 20 Lakh	Within 5 years from the date of commencement of construction activities
		He told that the company has partially fulfilled their commitments in the area of local employment. He hopes that the company will fulfill the issue after this expansion project.	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
33.	Sri Smrutiranjan Jena Location: Pankapal	He welcomed the panel & gathering and expressed his support for the expansion project	PP acknowledged the support	-	-
		He told that he is with the company and expects that the company should focus on local employment	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
		He mentioned that the company should focus on facilitation of drinking water system	PP emphasized that strengthening of drinking water facilities would be ensured through CER	Total CER Budget towards Drinking Water – Rs.61.70 Lakh	Within 5 years from the date of commencement of construction activities
		He mentioned that the company should focus on the aspect of education	PP emphasized that strengthening of educational facilities would be ensured through CER	Total CER Budget towards Education - Rs 20 Lakh	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
34.	Sri Susanta Biswas Location: Vyasanagar	He welcomed the panel & gathering and told that it is a welcome step of the company. He mentioned that he is working in the company from 2004 and that the company is carrying out various development works through its CSR department. He emphasizes that everything has a problem but there is a solution. He also told that company has not terminated its worker but, if the workers come to plant in a drunken condition then the company may terminate the worker from a safety point of view. He also told about the employment of unskilled, semi skilled and skilled local people in the industry. He also emphasized on provision of education, health, road, lighting & drinking water facilities by PP to nearby surrounding villages. At last he expressed his support for the expansion project	PP acknowledged the support. PP acknowledged the appreciation for various developmental activities undertaken by the company and assured that the same will continue through CSR. PP acknowledged the appreciation and assured the employee safety. PP also emphasized that local employment has been provided based on their skill and experiences. PP acknowledged the appreciation for various developmental activities undertaken by the company through CSR and the same will also continue. PP acknowledged the support.	-	-
35.	Sri Arjyabala Singh Location: Pankapal	She registered her name but did not deliberate	-	-	-
36.	Sri Ajit Kumar Routray Location: Athagarh,	He welcomed the panel & gathering and told that it is a welcome step of the company	PP acknowledged the support.	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Budget (Rs. in Lakh)	Schedule of Implemen-tation
	Cuttack	He expressed his support for the expansion project. He mentioned that he is working as a temporary worker for last five years and so he requested the project proponent to make his employment permanent	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)

18. An amount of Rs. 8.21 Crore has been earmarked for CER based on public hearing issues and socio economic development activities as detailed below:

CER ACTIVITIES (PH ISSUES)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
	(Rs. in Lakh)					
Local Livelihood Programme within 5 Blocks - With special focus on villages of Dangadi,Rachlipur, Ranagundi and Pankapal	55	55	55	55	55	**275**
Local Infrastructure Development Programme - Repairing of Damaged Roads in villages of Dangadi & Rachilipur	12	12	-	-	-	**24**
- Repairing of disconnected water lines in Dangadi Village	5	-	-	-	-	**5**
- Construction of a pond for bathing purposes in the village of Mulasir	15	-	-	-	-	**15**
Drinking Water - Facilitation of drinking water system in villages of Pankapal and Mulasir (to address drinking water crisis in summer season)	77	88	-	-	-	**115**
- Cleaning of Ponds in villages of Dangadi and Marutikar	1	1	-	-	-	**2**
Community Environmental Protection Programme - In villages of Dangadi, Marutikar,Kacherigan, Dhuligarh, Khurunti,Rachlipur and Hadisahi	11	11	10	10	10	**52**
Education - Providing Tuition Teachers & Salary teachers for specific requirements of schools with special focus in villages of Rachlipur and Ranagundi	5	5	4	4	2	**20**
Health - Support towards establishment of a medical centre in Marutikar in consultation with the local administration	25	25	-	-	-	**50**
- Organizing Malaria Eradication Programme in Marutikar	5	5	5	-	-	**15**
- Support towards strengthening of health facilities in villages of Kacherigan (Kidney ailment) and Trijanga (health of children residing in the R&R Colony)	15	-	-	-	-	**15**
Local Skill & Vocational Training Programme - Provision of local skill (including communication) training in Jakhpura and ITI training in Garadihi	10	10	5	5	5	**35**
Avenue/Urban Plantation in Buffer Zone with special focus in the village of Rachlipur	5	5	5	5	5	**25**

CER ACTIVITIES (PH ISSUES)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
	(Rs. in Lakh)					
Total						**548.0**

CER ACTIVITIES FROM NEEDS ASSESSMENT	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
	(Rs. in Lakh)					
Drinking Water - Pipeline, pump house and bore well with Solar Power at Dankagadia Adivsi Sahi, Manatira Harijan Sahi and villages of Balungabandi and Dhapanki	8	8.16	14.23	8.57	-	**38.96**
- Repair & Reinstallation of the pump used by villagers in Kantipur	5.74	-	-	-	-	**5.74**
Health - Solid Waste Management in 22 Villages	17.3	17.3	17.3	17.3	17.3	**86.5**
- Support towards improvement in medical amenities in villages of Sarangpur, Godigotha and Ranagundi	5	5	5	-	-	**15**
Local Infrastructure Development Programme - Electricity expenditure along with installation of transformer at Brahman Sahi	10.0	-	-	-	-	**10**
- Renovation of Community Center used by Local Villagers, Media & Administration at Sukinda Bhavan	12.7	-	-	-	-	**12.7**
- Renovation of Community Center used by Local Villagers, Media & Administration at Danagadi Bhavan	12	-	-	-	-	**12**
- Renovation of Community Hall in Mangobindapur	9	-	-	-	-	**9**
Local Skill & Vocational Training - Stainless Steel Skill Development at Government Polytechnic, Ragadi, Jajpur	15	15	15	15	15	**75**
Skill based training for youth groups in Dhuligarh & Kantipur	5	5	-	-	-	**10**
Total						**274.9**

19. The capital cost of the project is Rs 1,684 Crores and the capital cost for environmental protection measures is proposed as Rs 84.8 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 6 Crores. The employment generation from the proposed expansion is 736 including both Permanent & Contractual.

Sl. No.	Item	Capital Cost (in Rs. Crores)	Recurring Cost/Annum (in Rs. Crores)
1	Water Conservation and Wastewater management - ETP for New CRM - Augmentation of existing ETP - Augmentation of Thickener in SMS - Installation of new pump for recycling in SMS - Construction of new catchpits - STP	 12 4 2.5 1.5 3.5 0.5	 2.5
2	Air Pollution Control Measures - CHRMS –Installation of new sprinklers, DE,	10	2.0

Sl. No.	Item	Capital Cost (in Rs. Crores)	Recurring Cost/Annum (in Rs. Crores)
	DF - BF for SMS - Low NOx burners and Oil Mist Interceptor - BF for shot blaster - BF for Lime/Dolo Calcining Plant	5 5 5 5	
3	Solid Waste Management - MRP - waste storage area - Augmentation of Briquetting Plant	 18 5 2	 0.5
4	EMS & laboratory	2.4	0.3
5	Greenbelt Development & Rainwater Harvesting	1.8	0.2
6	Online Monitoring	1.6	0.5

20. Existing greenbelt of 44.8% is already present. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary is already developed as greenbelt and green cover as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted for gap filling.

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

22. EIA Consultant engaged for the EIA-EMP Report is M/s M. N. Dastur & Co. (P) Ltd. [S.No. 99, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

23. The proposal cited above was considered during the 3rd meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 9-11th January, 2019.After detailed deliberations, the committee sought the following additional information for further consideration of the proposal:

i. Certified compliance report from the Regional Office of the MoEF&CC at Bhubaneswar for the all environmental clearances within the Jindal complex (power plant, steel plant, coke oven and hot strip mill) shall be submitted to the Ministry.

ii. Activity wise time bound action plan to be completed within three years for the issues raised during the public hearing inter-alia including water supply to the villages, renovation of ponds, health assessment studies shall be submitted.

iii. Time bound action plan for green belt development in an additional area of 40 ha outside the plant premises shall be prepared and submitted.

iv. Coal analysis report shall be submitted.

v. Breakup of ash and slag utilization shall be submitted.

vi. Soil monitoring should be related to nutrient cycle.

vii. Revised AAQ modeling based on worst case scenario using already generated data should be carried out for the integrated jindal complex and shall be submitted along with the input file.

24. The summary of the reply submitted by the project proponent is as follows:

ADS 1: Certified compliance report from the Regional Office of the MoEFCC at Bhubaneswar for the all environmental clearances within the Jindal complex (Power Plant, Steel Plant, Coke Oven and Hot Strip Mill) shall be submitted to the Ministry.

Reply:Certified compliance report from the Regional Office of the MoEFCC at Bhubaneswar for the all environmental clearances within the Jindal complex (Power Plant, Steel Plant, Coke Oven and Hot Strip Mill) has been obtained. As per the certified compliance report, following are the non-compliances reported by the Regional Office.

i. It is required to submit Coal analysis report on quarterly basis to Regional office in compliance of the GSR 02 (E) dated 02.01.2014 and Ministry circular no. L-11011/17/2014-IA.I(T) ,dated 25.09.2014.

ii. It is required to submit expenditure incurred under Environmental Protection measure since last three years.

iii. It has been noticed that PAs are dumping bottom ash to the abandoned mine, it is required to submit the copy of the statuary permission taken from the competent authority for the dumping of bottom ash in to the abandoned mine quarry to this office.

iv. As per EC condition PAs have advertised EC granting information within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office. Regional office yet not received the copy of the advertisement. Therefore, requested to take necessary action on priority basis and informed to regional office.

v. It is required to constitute Environmental Management Cell (EMC) with at least one core subject related officer for better understanding and compliance of the Environmental norms.

vi. It is required to constitute Environmental Management Cell (EMC) with at least one core subject related officer for better understanding and compliance of the Environmental norms.

It was informed that necessary corrective actions have been taken to comply with the non-compliances and requisite communication has been sent to the Regional office. However, project proponent has not obtained the closure report of non-compliances from the Regional Office.

ADS 2: Activity wise time bound action plan to be completed within three years for the issues raised during the public hearing inter-alia including water supply to the villages, renovation of ponds, health assessment studies shall be submitted

Reply: An amount of INR 8.21 Crore has been earmarked for CER based on public hearing issues and needs assessment as detailed below:

CER ACTIVITIES (PH ISSUES)	**YEAR 1**	**YEAR 2**	**YEAR 3**	**TOTAL**
	(Rs. in Lakh)			
Local Infrastructure Development Programme	15	10	5	**30**
- Repairing of Damaged Roads in villages of Gardpur & Rachilipur	2	2	-	**4**
- Cleaning of Ponds in villages of Gardpur and Marutikar - Construction of a pond for bathing purposes in the village of Mulasir	-	15	5	**20**
Drinking Water	750	-	-	**50**
- Provision of drinking water in villages of Dhuligarh, Pankapal & Mulasir - Restoration of disconnected water supply in Gardpur Village	10	-	-	**10**
Community Environmental Protection Programme - In villages of Gardpur, Dhuligarh, Khurunti,Rachlipur and Hadisahi	30	20	20	**70**
Education - Providing Tuition Teachers &	15	10	10	**35**

CER ACTIVITIES (PH ISSUES)	YEAR 1	YEAR 2	YEAR 3	TOTAL
	(Rs. in Lakh)			
Salary teachers for specific requirements of schools with special focus in villages of Rachlipur, Ranagundi and Pankapal				
Health - Support towards establishment of a medical centre in Marutikar in consultation with the local administration	18	16	16	**50**
	15	10	5	**30**
- Strengthening Malaria Eradication Programme in Marutikar	15	10	5	**30**
- Support towards strengthening of health facilities in villages of Kacherigan (Kidney ailment) and Trijanga (health of children residing in the R&R Colony) - Health Assessment study for cancer & diarrhea in Kumbhuria and kidney ailments in Kacherigan	60	-	-	**60**
Local Skill & Vocational Training Programme - Provision of local skill development (communication skills) in response to demand from a Jakhpura resident and ITI training for students in response to demand from Garadihi	50	40	30	**120**
Avenue/Urban Plantation in Buffer Zone - In Gardpur, Dhuligarh, Khurunti,Rachlipur and Hadisahi	20	10	10	**40**
		Total		**549**

CER ACTIVITIES FROM NEEDS ASSESSMENT	YEAR 1	YEAR 2	YEAR 3	TOTAL
	(Rs. in Lakh)			

CER ACTIVITIES FROM NEEDS ASSESSMENT	YEAR 1	YEAR 2	YEAR 3	TOTAL
	(Rs. in Lakh)			
Drinking Water - Pipeline, pump house and bore well with Solar Power at Dankagadia Adivsi Sahi, Manatira Harijan Sahi and villages of Balungabandi and Dhapanki	16	14	10	**40**
- Repair & Reinstallation of the pump used by villagers in Kantipur	5	-	-	**5**
Health - Solid Waste Management in 22 Villages	25	25	20	**70**
- Support towards improvement in medical amenities in villages of Sarangpur, Godigotha and Ranagundi	10	5	5	**20**
Local Infrastructure Development Programme - Electricity expenditure along with installation of transformer at Brahman Sahi	10	5	-	**15**
- Renovation of Community Center used by Local Villagers, Media & Administration at Sukinda Bhavan	15	-	-	**15**
- Renovation of Community Center used by Local Villagers, Media & Administration at Danagadi Bhavan	15	-	-	**15**
- Renovation of Community Hall in Mangobindapur	10	-	-	**10**
- Construction of Shiva Temple in Kaitha village	5	-	-	**5**
Local Skill & Vocational Training	25	25	25	**75**

CER ACTIVITIES FROM NEEDS ASSESSMENT	YEAR 1	YEAR 2	YEAR 3	TOTAL
	(Rs. in Lakh)			
- Stainless Steel Skill Development at Government Polytechnic, Ragadi, Jajpur - Skill based training for youth groups in Dhuligarh & Kantipur	5	5	-	**10**
			Total	**280**

ADS 3: Time bound action plan for green belt development in an additional area of 40 ha outside the plant premises shall be prepared and submitted.

Reply :

Year	Location	Area (Ha.)	Nos. of plants to be planted	Type of Plantation	Name of plant species
1st Year	Outside Plant Premises. Location will be finalized with the consultation of Local Administration	10	16000	Avenue Plantation / Block Plantation	*Delonex regia* (Gulmohar) *Peltophorum pterocarpum* *Terminalia arjuna* (Arjun) *Acacia mangium* *Acacia auriculiformis* (Acacia) Lagerstroemia indica *Millingtonia hortensis* (Akash Neem) *Albizia lebbeck* (Siris) *Anthocephalus cadamba*(Kadamba) *Dalbergia sissoo* (Sissoo) *Tamarix dioica* (Jaun) *Polyalthia longifolia* (Debdaru)
2nd Year		10	16000	Avenue Plantation / Block Plantation	
3rd Year		10	16000	Avenue Plantation / Block Plantation	
4th Year		10	16000	Avenue Plantation / Block Plantation	

ADS 4: Coal analysis report shall be submitted.

Reply :

Parameter	Values	Basis
Total Moisture (%)	12.44	As Received Basis
Moisture (%)	2.76	As Determined Basis

Parameter	Values	Basis
Volatile Matter (%)	22.80	
Ash (%)	48.95	
Fixed Carbon (%)	25.49	
Gross Calorific Value (Kcal/kg)	3442	
Net Calorific Value (Kcal/kg)	2886	
Carbon (%)	36.70	
Hydrogen (%)	3.36	
Nitrogen (%)	0.91	
Sulphur (%)	0.39	
Oxygen (%)	9.69	

Note : The analysis has been carried out by NABL Accredited Laboratory.

ADS5 : Breakup of ash and slag utilization shall be submitted.
Reply :

wastes	Existing generation, in TPA	Generation due to Proposed expansion, in TPA	Total generation post expansion, in TPA	Utilization
Fly Ash	5,64,809	Nil	5,64,809	Brick Manufacturing – 426208 Cement making – 2440 Asbestos mfg. – 47704 Road making(outside plant) – 99545 Total Utilization– 575897 (101.96 %)
Fe-Cr slag	2,50,000	Nil	2,50,000	Sent to Jigging Plant for metal recovery of about 20 % and balance materials is being reused in low lying area filling within plant.
SMS Slag from EAF & AOD	2,70,910	4,74,090	7,45,000	Sent to Metal Recovery Plant for metal recovery of approximate 3-4 % and balance material is being used for road making and construction purposes.

ADS 6 : Soil monitoring should be related to nutrient cycle.
Reply : JSL will undertake soil quality analysis in the area confirming to nutrient cycle. The soil quality analysis shall be either monthly once or once in a season.

ADS 7 : Revised AAQ modeling based on worst case scenario using already generated data should be carried out for the integrated jindal complex and shall be submitted along with the input file.

Reply : Air pollution mitigation measures form an integral part of the project. In order to predict the ground level concentrations (glcs) of PM_{10} from the emission figures, the site specific meteorological recordings and the relative disposition of stacks as well as traffic distribution on the road have been taken into consideration for air dispersion modelling. Breeze AERMOD ISC modeling software as approved by US-EPA and developed by Trinity Consultant, USA has been applied to predict ground level concentration (glc) of the pollutant. Altogether four different scenarios have been considered to arrive the cause of high concentration of air borne pollutant (PM_{10}) and to propose mitigation measures so that the ambient air quality post expansion project will remain within NAAQS.

The four scenarios considered for the present modelling exercise are as follows:

i. Existing controlled emission from Jindal Complex
ii. Emission due to Truck movement (existing) within KRSC area
iii. Controlled emission at Post Expansion of Jindal Complex
iv. Emission due to Truck movement (post expansion) with mitigation measures within KRSC area

AAQ Monitoring Location and its distance from the Plant boundary, km)	**Parameter**	**Present baseline (P_{98} values), µg/m³ (A)**	**Present truck movement contribution to the baseline, µg/m³ (B)**	**Post Expansion truck movement contribution to the baseline with mitigation, µg/m³ (C)**	**Present contribution of Jindal Complex to the baseline, µg/m³ (D)**	**Post Expansion contribution of Jindal Complex to the baseline, µg/m³ (E)**	**Incremental contribution of Jindal Complex to the baseline, µg/m³ (F = E - D)**	**Projected air quality Post Expansion, µg/m³ (G = A-B+C+F)**
Naliajhara (9.5 WSW)	PM_{10}	94.6	4.5	2.0	1.21	2.39	1.18	93.28
Baghbahali (4.3 SW)		100.2	21.5	13.5	2.91	5.81	2.90	95.10
Jakhpura (1.6 SE)		107.4	26.5	9.5	1.77	3.53	1.76	92.16
Dhabalgiri (5.9 E)		95.7	2.5	1.0	0.64	1.26	0.62	94.82
Dhapanki (2.5 NNE)		105.0	14.5	3.5	2.91	6.94	4.03	98.03
Gorhigotha (6.1 N)		96.8	6.5	3.0	0.64	1.26	0.62	93.92
Rangahurhi (8.6 WNW)		107.8	36.5	20.0	0.64	1.26	0.62	91.92

AAQ Monitoring Location and its distance from the Plant boundary, km)	Parameter	Present baseline (P_{98} values), µg/m^3 (A)	Present truck movement contribution to the baseline, µg/m^3 (B)	Post Expansion truck movement contribution to the baseline with mitigation, µg/m^3 (C)	Present contribution of Jindal Complex to the baseline, µg/m^3 (D)	Post Expansion contribution of Jindal Complex to the baseline, µg/m^3 (E)	Incremental contribution of Jindal Complex to the baseline, µg/m^3 (F = E - D)	Projected air quality Post Expansion, µg/m^3 (G = A-B+C+F)
Barhagarhia (4.8 NW)		103.5	21.5	9.5	0.64	1.26	0.62	92.12
Maniapatra (5.8 W)		95.5	4.5	2.5	1.77	4.67	2.90	96.40

Observations of the Committee: -

25. During the course of meeting, the Committee asked the project proponent to submit undertaking regarding the establishment of separate Environment Management Cell (EMC) for JSL & JCL respectively and implementation of CER related activities. Accordingly, undertaking has been submitted by the project proponent. The Committee satisfied withthe reply and undertaking submitted by the project proponent against the raised ADS inter-alia including the corrective actions taken by the project proponent against the observed non-compliances although closure report of Regional Office has not been made available by the project proponent.

Recommendations of the Committee: -

26. After detailed deliberation, the Committee recommended for environmental clearance under the provisions of EIA Notification, 2006 for the proposed expansion of stainless steel production from 0.8 to 2.2 MTPA and cold rolling mill from 0.8 to 1.6 MTPA located at Kalinga Nagar Industrial Complex (KNIC), Danagadi near Duburi in Jajpur district of Odisha by **M/s. Jindal Stainless Limited**subject to following specific and general conditions:

A. Specific conditions

i. The CER shall be completed within a time frame of three years.

ii. Action plan for rainwater harvesting measures at plant site shall be submitted to the Regional Office indicating quanity of rainwater to be harvested 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.

iii. The company shall establish separate environmental management cellfor JSL & JCL respectively.

B. General conditions

I. Statutory compliance:

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

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

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

II. Air quality monitoring and preservation

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

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

iii. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

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

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

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

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

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

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

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

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

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

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

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

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

xvi. The project proponent shall install Dry Gas Cleaning Plant with bag filter for SMS converter.

III. Water quality monitoring and preservation

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

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

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

iv. The project proponent shall provide the ETP to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel) as amended from time to time as amended from time to time;

v. Adhere to 'Zero Liquid Discharge'

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

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

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

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

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

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

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

IV. Noise monitoring and prevention

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

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

V. Energy Conservation measures

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

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

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

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

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

VI. Waste management

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

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

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

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

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

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

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

IX. Corporate Environment Responsibility

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

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

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

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

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

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

X. Miscellaneous

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

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

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

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

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

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

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

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

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

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

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

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

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

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

xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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

4.26 Capacity expansion of Hot Strip Mill from 1.6 MTPA to 3.2 MTPA and installation for 0.3 MTPA Cold Rolling Mill located at Kalinga Nagar Industrial Complex (KNIC), Danagadi near Duburi in Jajpur district of Odisha by **M/s. Jindal United Steel Limited** [Online proposal No. IA/OR/IND/86732/2018; MoEFCC File No. J-11011/110/2018-IA.II(I)]– **Reconsideration for Environmental Clearance based on ADS reply.**

1.0 M/s Jindal United Steel Limited made online application vide proposal no. **IA/OR/IND/86732/2018**, dated 30th November, 2018 along with copies of EIA/EMP report 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.

Details submitted by the project proponent:

2.0 The application of the proposed expansion project of M/s Jindal United Steel Limited located in Kalinga Nagar Industrial Complex, Tehsil Danagadi, District Jajpur, State Odisha was initially received in the Ministry on 29th May 2018 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 33rd meeting held on 9th to 11th July, 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 24th July 2018 vide Letter No. F. No. IA-J-11011/110/2018-IA.II(I).

3.0 The project of M/s Jindal United Steel Limited located in Kalinga Nagar Industrial Complex, Danagadi Tehsil, Jajpur District, Odisha State is for enhancement of production of Hot Strip Mill from 1.6 to 3.2 million tonnes per annum (million TPA) and setting up of a new Cold Rolling Mill of 0.3 million tones per annum. The existing project was accorded environmental clearance vide letter no. F. No. IA-J-11011/110/2018-IA.II(I) dated 25th May 2018. The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneswar vide File. No. 101-1049/EPE, dated 10.12.2018. There is minor non-compliance (not of immediate danger to health & safety of the people) reported by Regional officer. The proposed capacity for different products for new site area as below:

Sl. No.	**Unit**	**Existing capacity, MTPA**	**Proposed capacity, MTPA**	**Final capacity, MTPA**
1	Hot Strip Mill along with Plate Finishing Shop	1.6	1.6	3.2
2	Cold Rolling Mill - 20 Hi Mill - Pickling line - Bright Annealing Line	-	**0.3** 2 x 0.15 1 x 0.3 (2 x 0.05 + 2 x 0.1)	**0.3** 2 x 0.15 1 x 0.3 (2 x 0.05 + 2 x 0.1)

4.0 The total land area of JUSL is of 154.66 Ha. The proposed expansion will come-up in the vacant space of the existing land. No additional land requirement has been envisaged. No forestland is involved. The entire land has been acquired for the project. No River passes through the project area. It has been reported that no water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

5.0 The topography of the project area is flat and reported to lie between 86°02'02" to 86°03'23" E longitude and 20°56'25" to 20°57'34" N latitude in Survey of India OSM Nos. F45U1 at an elevation of 55 m AMSL. The ground water table reported to ranges between 0.92-4.58 m below the land surface during the post-monsoon season and 3.05-8.38 m below the land surface during the pre-monsoon season. Further, the stage of groundwater development is reported to be 33.8% in the study area and thereby these are designated as safe areas.

6.0 No National Park, Wildlife Sanctuary, Biosphere Reserve, Tiger Reserve, Elephant Reserve etc. are reported to be located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The list of flora and fauna does not report presence of schedule-I fauna in the study area (Annexure- 3-2 of EIA Report (November 2018)).

7.0 The process of project showing the basic raw material used and the various processes involved to produce the final output, waste generated in process is shown in Drg. 11443-97B-000-ENV-0003 and in Appendix 2-1 of EIA Report (November 2018).

8.0 The targeted production capacity of the plant is 3.2 million TPA HR Coil and 0.282 million TPA CR product. The raw material for the project is Slab which would be sourced from JSL and open market.

9.0 The water requirement of the project is estimated at 1368 m^3 /day which would be obtained from the existing source of water i.e Brahmani River via JSL. The permission for drawl of surface water is obtained from Department of Water Resource, Govt. of Odisha to JSL vide letter No. 26166/WR, dated 9/11/2016.

10.0 The power requirement of the project (after expansion) is estimated as 309 MU which would be obtained from the JSL.

11.0 Baseline Environmental Studies were conducted during summer season i.e. from February to May, 2017. Ambient air quality monitoring has been carried out at nine locations during February 2017 to May 2017 and the data submitted indicated: PM_{10} (82.5 to 91.3 $\mu g/m^3$), $PM_{2.5}$ (45.5 to 50.6 $\mu g/m^3$), SO_2 (5.9 to 18.3 $\mu g/m^3$) and NOx (24.3 to 37.0 $\mu g/m^3$). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 0.99 $\mu g/m^3$ with respect to the PM_{10}, 0.29 $\mu g/m^3$ with respect to the SO_2 0.61 $\mu g/m^3$ with respect to the NOx.

12.0 Ground water quality has been monitored in eight locations in the study area and analysed. pH: 6.2 to 7.0, Total Hardness: 108 to 373.3 mg/l, Chlorides: 27.4 to 139.3 mg/l, Fluoride: < 0.1 mg/l. Heavy metals are within the limits. Surface water samples were analysed from eight locations. pH: 7.1 to 7.2; DO: 5.7 to 6.1 mg/l; BOD: 3.3 to 6.0 mg/l and COD from 11.2 to 26.2 mg/l.

13.0 Noise levels are in the range of 56.5 to 78.9 dB(A) for day time and 47.8 to 69.8 dB(A) for night time.

14.0 It has been reported that there are no people in the core zone of the project. No R&R is involved.

15.0 It has been reported that a total of 50,700 tons per annum of waste will be generated due to the project, out of which 20,700 tons will be used in Ferro alloy plant of JSL and 30,000 tons will be sold to authorized recycler.

16.0 It has been reported that the Consent to Operate from the State Pollution Control Board, Odisha obtained vide Letter No 3795/IND-I-CON-6567 dated 29.03.2018 and consent is valid up to 31.03.21.

17.0 The Public hearing of the project was held on 14th November 2018 at Danagadi Bhawan, Jajpur under the chairmanship of ADM, Kalinganagar, Jajpur for proposed expansion under the State Pollution Control Board, Odisha. The issues raised during public hearing are Environment, Local employment, Education, Health facilities, Drinking water and Plantation. An amount of 5.0 crore (0.71 % of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues and need based assessment.

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
1.	Sri Prasant Kumar Ray Location: Danagadi, Jajpur	He expressed his support to the proposed expansion project of M/S. JUSL	PP acknowledged the support	-	-
		He demanded for local employment	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
		He demanded for local economic growth	PP emphasized that economic growth would be facilitated through them by undertaking local vocational & skill training programmes and local livelihood programmes	Total CER Budget towards Local Skill & Vocational Training Programme - Rs. 25 Lakh Local Livelihood Programme - Rs. 165 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for local avenue plantation	PP emphasized that Avenue/Urban plantation shall be made with consultation of Forest department	Total CER Budget towards Avenue/Urban Plantation – Rs. 25 Lakh	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
		He demanded for local supply of drinking water	PP emphasized that strengthening of drinking water facilities would be ensured	Total CER Budget towards Drinking Water – Rs.76.96 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for control of environmental pollution in nearby areas	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme- Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
2.	Sri Bhagirathi Tarai Location: Kumbhiragadia,Danagadi	He expressed his support to the proposed 3.2 MTPA expansion project of M/S. JUSL. He emphasized that the local area will be developed by the proposed project	PP acknowledged the support	-	-
		He demanded for better education	PP emphasized to strengthening of educational facilities would be ensured	Total CER Budget towards Education - Rs 19.5 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for better health facility	PP would take care of the health facilities through various programmes	Total CER Budget towards Health – Rs. 70.70 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for improvement in local nearby areas	PP would undertake local improvement through support towards various community based developmental programmes	Total CER Budget towards Local Infrastructure Development	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
				Programme – Rs. 76 Lakh	
3.	Smt. Sanjubala Nayak Location: Kumbhiragadia,Danagadi	She expressed her support to the proposed expansion project and appreciated the company for its various types of CSR effort towards the development of nearby village areas	PP acknowledged the support and appreciation	-	-
4.	Paramananda Sethy Location: Jajpur Road	He welcomed the panel & gathering and told that they have hope for area development, local employment, education & health improvement by the proposed expansion project	PP appreciated the support and acknowledged the conviction of the respondent	-	-
		He urged the company to take step for health development	PP would take care of the health facilities through various programmes	Total CER Budget towards Health – Rs. 70.70 Lakh	Within 5 years from the date of commencement of construction activities
		He urged the company to take step for educational development	PP emphasized that strengthening of educational facilities would be ensured	Total CER Budget towards Education - Rs 19.5 Lakh	Within 5 years from the date of commencement of construction activities
		He urged the company to take step for permanent employment to the educated people and priority for local employment in the area	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
		He finally expressed his support but asked to take step for	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution	Total CER Budget towards Community	Within 5 years from the date of commenceme

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
		pollution control	under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Environmental Protection Programme - Rs.52 Lakh	nt of construction activities
		He asked PP to take step for development of local people in the area	PP would undertake local improvement through support towards various community based developmental programmes	Total CER Budget towards Local Infrastructure Development Programme – Rs. 76 Lakh	Within 5 years from the date of commencement of construction activities
5.	Smt. Santilata Nayak Location: Jakhapura	She welcomed the gathering and expressed her pleasure for the proposed expansion project of M/S. JUSL. She was also thankful to M/S. JUSL for the financial support, which let her son to be a well-established educated person	PP acknowledged the support and appreciation	-	-
		She asked the company for local environmental development	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme- Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
		She asked the company for local health development	PP would take care of the health facilities through various programmes	Total CER Budget towards Health – Rs. 70.70 Lakh	Within 5 years from the date of commencement of construction activities
		She asked the company for local educational	PP emphasized that strengthening of educational facilities would be	Total CER Budget	Within 5 years from the date of

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
		development	ensured	towards Education - Rs 19.5 Lakh	commencement of construction activities
6.	Sri Sudhansu Sekhar Bhanja Location: Danagadi	He addressed M/S. JUSL as a leading Steel Industry of Asia. He supported the proposed expansion project of M/S. JUSL	PP acknowledged the support	-	-
		He urged the company to provide for better local health facility	PP would take care of the health facilities through various programmes	Total CER Budget towards Health – Rs. 70.70 Lakh	Within 5 years from the date of commencement of construction activities
		He urged the company to provide for better educational facility	PP emphasized that strengthening of educational facilities would be ensured	Total CER Budget towards Education - Rs 19.5 Lakh	Within 5 years from the date of commencement of construction activities
		He urged the company to provide for improved plantation	PP emphasized that Avenue/Urban plantation shall be made with consultation of Forest department	Total CER Budget towards Avenue/Urban Plantation – Rs. 25 Lakh	Within 5 years from the date of commencement of construction activities
		He urged the company to provide for improved CSR activities for development of nearby areas	PP emphasized on strengthening of the on-going CSR activities	-	-
7.	Sri Bidyadhar Mohanty Location: Jajpur Road	He welcomed the panel and gathering. He told that he is supporting the proposed expansion project. He mentioned that M/S. JUSL has	PP acknowledged the support and the appreciation	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
		supported the CHC Danagadi for better medical facility			
		He demanded the company for better medical treatment facility	PP would take care of the health facilities through various programmes	Total CER Budget towards Health – Rs. 70.70 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for improvement in education	PP emphasized that strengthening of educational facilities would be ensured	Total CER Budget towards Education - Rs 19.5 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for improvement in plantation	PP emphasized that Avenue/Urban plantation shall be made with consultation of Forest department	Total CER Budget towards Avenue/Urban Plantation – Rs. 25 Lakh	Within 5 years from the date of commencement of construction activities
		He demanded for improvement in implementation in CSR activities	PP emphasized on strengthening of the on-going CSR activities	-	-
		He emphasized that priority should be given to Odiya officer in higher executive post	This claim is unwarranted for	-	-
		He emphasized on development of surrounding areas	PP would undertake local improvement through support towards various community based developmental programmes	Total CER Budget towards Local Infrastructure Development Programme –	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
				Rs. 76 Lakh	
8.	Miss Sima Mani Lenka Location: Solei, Danagadi	She welcomed the panel and gathering and told that she supports the proposed expansion project	PP acknowledged the support	-	-
		She asked the company for environmental development activities	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme- Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
		She asked the company for prosperity of local villagers	PP emphasized that prosperity would be facilitated through them by undertaking local vocational & skill training programmes and local livelihood programmes	Total CER Budget towards Local Skill & Vocational Training programme – Rs. 25 Lakh Local Livelihood Programme - Rs. 165 Lakh	Within 5 years from the date of commencement of construction activities
9.	Miss Nirupama Majhi Location: Solei,Danagadi	She expressed her support for the proposed expansion project and appreciated the environmental, health and educational development activities of M/S. JUSL	PP acknowledged the support and appreciation	-	-
10.	Mr. Tapan Kumar Biswal Location: Santara,	He supported the proposed expansion of M/S. JUSL. He expressed special thanks to the company for emerging focus in environmental	PP acknowledged the support and appreciation	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
	Jajpur Road	protection			
		He asked the company for the permanent employment	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
11.	Sri Anil Kumar Jena Location: Rampilo, Danagadi	He expressed his support towards proposed expansion project. Additionally, he appreciated the environmental protection initiatives and drinking water provision of the company	PP acknowledged the support and appreciation	-	-
12.	Sri Santosh Kumar Tarai Location: Kumbhiragadia Tikara	He expressed his support for the proposed expansion project. Further, he mentioned that M/S. JUSL has provided for good education through improvement in educational facilities for the nearby rural areas	PP acknowledged the support and appreciation	-	-
13.	Smt. Sanjukta Moharana Location: Jakhapura	She supported the proposed expansion project. She told that M/S. JUSL is bringing development in the nearby areas and the company is also giving importance to environmental protection and its development	PP acknowledged the support and appreciation	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
14.	Sri Santosh Das Location: Giptrijanga Danagadi	He opposed the proposed expansion project of M/S. JUSL	PP acknowledged the remark	-	-
15.	Smt. Subhadra Moharana Location: Jakhapura	She supported the proposed expansion project of M/S. JUSL	PP acknowledged the support	-	-
16.	Sri Satya Ranjan Das Location: Dala	He expressed his support for the proposed expansion project	PP acknowledged the support	-	-
		He asked the company for employment opportunities	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
17.	Miss Manasmita Nayak Location: Kumbhiragadia	She expressed her support for the proposed expansion project	PP acknowledged the support	-	-
18.	Miss Manasi Ojha Location: Dhabalgiri	She welcomed the panel and gathering. She expressed her support for the proposed project and mentioned that the company is bringing educational improvement to its nearby areas	PP acknowledged the support and appreciation	-	-
19.	Sri Ramesh Chandra Singh Location: Manatira	He welcomed the panel and told that he is supporting the proposed expansion project of M/S JUSL	PP acknowledged the support	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
20.	Sri Niranjan Bal Location: New Market, Jajpur Road	He welcomed the project and told that he supports the proposed expansion project. Further, he mentioned that the proposed expansion project will create employment facility which will reduce the unemployment situation in nearby areas	PP appreciated the support and acknowledged the conviction of the respondent	-	-
		He also demanded for development in environmental protection	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme - Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
21.	Miss Rasmita Sahoo Location: Mangobinda-pur	She welcomed the panel and gathering and expressed her interest for the proposed expansion project	PP acknowledged the support	-	-
22.	Miss Tarini Ratha Location: Mangobinda-pur	She told that she supports the proposed expansion project of M/S. JUSL	PP acknowledged the support	-	-
23.	Sri Ramesh Malick Location: Vyasanagar	He expressed his interest in the proposed expansion project	PP acknowledged the interest of the respondent	-	-
		He demanded the company for environmental protection	PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to	Total CER Budget towards Community Environmental Protection Programme-	Within 5 years from the date of commencement of construction activities

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
			control the environmental pollution through community environmental protection programmes	Rs.52 Lakh	
24.	Miss Tanushree Sethy Location: Sarangapur	She expressed her support for the proposed expansion project. She mentioned that the tailoring knowledge given by the company brought a lot of happiness in her life, also made her independent and opened a way towards employment	PP acknowledged the support and appreciation	-	-
25.	Sri Abhiram Das Location: Nuagaon	He opposed the proposed expansion project	PP acknowledged the remark	-	-
		He also told that M/S. JUSL is discharging its effluent water to nearby Ganda Nallah and close by agricultural fields	PP emphasized that plant is operating Zero-discharge norms as specified by SPCB. PP has already implemented various pollution control measures and further up gradation will be made to control the environmental pollution under the allocated EMP budget mentioned in Chapter 4. Further up gradation will be made to control the environmental pollution through community environmental protection programmes	Total CER Budget towards Community Environmental Protection Programme-Rs.52 Lakh	Within 5 years from the date of commencement of construction activities
		He told that the company is not providing any employment facilities	PP emphasized that employment have been provided to locals under both permanent & contractual categories PP emphasized that similarly for the proposed expansion priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha	-	On receipt of Environmental Clearance (EC)

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
			in the official gazette		
		He mentioned that the company is not providing development in the nearby areas	Various development programmes have been undertaken under CSR in the nearby area PP emphasized on further strengthening of the on-going CSR activities	-	-
26.	Miss Pinky Sahoo Location: Marutikar	She expressed her support towards proposed expansion project. She mentioned that tailoring was learnt from M/S.JUSL, which made her independent and opened a way towards employment. Due to this, her family financial problem was solved	PP acknowledged the support and appreciation	-	-
27.	Sri Dharmendra Kumar Patra Location: Chapua	He welcomed the gathering and told that the company brings more development in Kalinganagar area The company has also provided electricity in nearby rural areas. Hence, he supports the proposed expansion project	PP acknowledged the support and appreciation	-	-
28.	Miss Mamata Sahoo Location: Ranipada	She told that the company is bringing development to nearby areas. So, she supports the proposed expansion project	PP acknowledged the support and appreciation	-	-
29.	Miss Sasmita Khilar Location: Dhabalgiri	She welcomed the gathering and told that she supports the proposed expansion project	PP acknowledged the support	-	-
30.	Sri Milan	He welcomed the public hearing and the	PP acknowledged the support and	-	-

Sl. No.	Name & Address	Issues raised by public	Response of Project Proponent (PP)	Allocated Budget for CER (Rs. in Lakh)	Schedule of Implementation
	Sahoo Location: Jakhapura	gathering. He expressed his support for the proposed expansion project He mentioned that the company is doing several CSR activities and due to this various type of improvements are undertaken	appreciation		
		He demanded the company to give priority for local employment	PP emphasized that priority will be given to local population as per skill requirement Employment opportunities will be based on the prevailing guidelines notified by the Government of Odisha in the official gazette	-	On receipt of Environmental Clearance (EC)
31.	Sri Sunil Gagrai Location: Siaria	He opposed the proposed expansion project and demanded for justice in front of the ADM	PP acknowledged the remark	-	-
32.	Sri Chaitan Samal	He expressed his support for the proposed expansion project	PP acknowledged the support	-	-

18.0 The details of activities and fund provision under CER with regard to issues raised during public hearing:

CER ACTIVITIES (PH ISSUES)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
	(Rs. in Lakh)					
Local Livelihood Programme 3 Blocks (Danagadi, Sukinda & Jajpur Road)	30	50	40	25	20	165.00
Local Infrastructure Development Programme - Construction of 4 Community Centers located within 3 Blocks of Danagadi, Sukinda & Jajpur Road	13	13	13	13	-	52.00

Drinking Water - Pipeline, pump house and bore well with Solar Power at Rampillo	4	3.60	3	3	-	13.60
- Pipeline, pump house and bore well with Solar Power at Manpur Brahman Sahi	-	4	4.2	4.2	-	12.40
- Pipeline, pump house and bore well with Solar Power at Pingal	-	-	7	5	5	17.00
- Pipeline, pump house and bore well with Solar Power at Pankhal Sasan	5.26	4	3	3	-	15.26
- Cleaning of Ponds in 22 villages in blocks of Danagadi, Sukinda & Jajpur Road	3.74	3.74	3.74	3.74	3.74	18.70
Community Environmental Protection Programme - Air and Water Monitoring in Buffer Zone especially in Vyasnagar Municipality Area & New Market of Jajpur Road Block and villages of Nuagaon, Jakhpura, Solei and Danagadi	8	8	8	8	8	40.00
- Water Sprinkling in surrounding areas	2.4	2.4	2.4	2.4	2.4	12 .00
Education - Providing Tuition Teachers & Salary teachers for specific requirements of schools in nearby villages like Kumbhiragadia, Danagadi and Jakhpura located within the blocks of Danagagi and Jajpur Road	2	2	2	2	2	10.00
- Boundary Wall for Nodal Upper Primary School at Trijanga	9.5	-	-	-	-	9.50
Health - Upgradation and replacement of Medical equipment at CHC of Danagadi	10	10	10	10	-	40.00
- Provision of a DG Set & Beds in PHC of Pachhikot	5.7	-	-	-	-	5.70
Health Camps Within blocks of Danagadi and Jajpur Road	5	5	5	5	5	25.00
Local Skill & Vocational Training Programme - Provision of local skill and vocational training programme in nearby villages like Solei and Danagadi within the block of Danagadi	3	3	3	3	3	15.00
Avenue/Urban Plantation - Urban Plantation within the blocks of Danagagi and Jajpur Road	6	6	4	4	-	20.00
- Free Saplings to local Villages within the blocks of Danagagi and Jajpur Road	1	1	1	1	1	5.00
Total						**476.16**

19.0 The details of activities and fund provision under CER based on need basesd assessment:

CER ACTIVITIES FROM NEEDS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL

ASSESSMENT	(Rs. in Lakh)					
Local Skill & Vocational Training Programme Vocational and Skill Development Training for women and girls in Mangobindapur, Sarangapur and Kacherigan	4	3	3	-	-	10.0
Local Infrastructure Development Programme Improvement in Road Conditions in consultation with local administration in villages of Sorei and Mangobindapur	12	12	-	-	-	24.0
Total						**34.0**

20.0 The capital cost of the project is Rs 700 crores and the capital cost for environmental protection measures is proposed as Rs 35 crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 2 crores . The employment generation from the proposed expansion is 150 included both permanent & Contractual.

Sl. No.	Item	Capital Cost (in Rs. Crores)
1	Water Conservation and Wastewater management	17
2	Air Pollution Control Measures	7
3	Solid Waste Management	6
4	Energy conservation	2
5	Greenbelt Development & Rainwater Harvesting	2
6	Online Monitoring	1

21. Existing greenbelt is 185.54 Ha (37%) of JSL (before demerger) plant area and 37.12 Ha (24%) of JUSL plant area. During the expansion project existing greenery would be further strengthened.

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

23. EIA Consultant engaged for the EIA-EMP Report is M/s M. N. Dastur & Co. (P) Ltd. [S.No. 99, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

24. The proposal cited above was considered during the 3rd meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 9-11th January, 2019.After detailed deliberations, the committee sought the following additional information for further consideration of the proposal:

i. Certified compliance report from the Regional Office of the MoEF&CC at Bhubaneswar for the all environmental clearances within the Jindal complex (power plant, steel plant, coke oven and hot strip mill) shall be submitted to the Ministry.

ii. Activity wise time bound action plan to be completed within three years for the issues raised during the public hearing inter-alia including water supply to the villages, renovation of ponds, health assessment studies shall be submitted.

iii. Time bound action plan for green belt development in an additional area of 10 ha outside the plant premises shall be prepared and submitted.

iv. Details of the scale and sludge generated from the plant shall be submitted.

v. Soil monitoring should be related to nutrient cycle.

vi. Revised AAQ modeling based on worst case scenario using already generated data should be carried out for the integrated jindal complex and shall be submitted along with the input file.

25. The reply submitted by the proponent is furnished as below:

ADS 1: Certified compliance report from the Regional Office of the MoEFCC at Bhubaneswar for the all environmental clearances within the Jindal complex (power plant, steel plant, coke oven and hot strip mill) shall be submitted to the Ministry.

Reply:Certified compliance report from the Regional Office of the MoEFCC at Bhubaneswar for the all environmental clearances within the Jindal complex (Power Plant, Steel Plant, Coke Oven and Hot Strip Mill) has been obtained. As per the certified compliance report, following are the non-compliances reported by the Regional Office.

i. It is required to submit Coal analysis report on quarterly basis to Regional office in compliance of the GSR 02 (E) dated 02.01.2014 and Ministry circular no. L-11011/17/2014-IA.I(T) ,dated 25.09.2014.

ii. It is required to submit expenditure incurred under Environmental Protection measure since last three years.

iii. It has been noticed that PAs are dumping bottom ash to the abandoned mine, it is required to submit the copy of the statuary permission taken from the competent authority for the dumping of bottom ash in to the abandoned mine quarry to this office.

iv. As per EC condition PAs have advertised EC granting information within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional Office. Regional office yet not received the copy of the advertisement. Therefore, requested to take necessary action on priority basis and informed to regional office.

v. It is required to constitute Environmental Management Cell (EMC) with at least one core subject related officer for better understanding and compliance of the Environmental norms.

vi. It is required to constitute Environmental Management Cell (EMC) with at least one core subject related officer for better understanding and compliance of the Environmental norms.

It was informed that necessary corrective actions have been taken to comply with the non-compliances and requisite communication has been sent to the Regional office. However, project proponent has not obtained the closure report of non-compliances from the Regional Office.

ADS 2 : Activity wise time bound action plan to be completed within three years for the issues raised during the public hearing inter-alia including water supply to the villages, renovation of ponds, health assessment studies shall be submitted

DETAILS OF THE COST TO BE INCURRED UNDER CER WITH REGARD TO PUBLIC HEARING ISSUES

CER ACTIVITIES (PH ISSUES)	0-12 months	13 – 22 months	TOTAL
	(Rs. in Lakh)		
Local Livelihood Programme 3 Blocks (Danagadi, Sukinda & Jajpur Road)	85	80	165.00
Local Infrastructure Development Programme - Construction of 4 Community Centers located within 3 Blocks of Danagadi, Sukinda & Jajpur Road	26	26	52.00
Drinking Water - Pipeline, pump house and bore well with Solar Power at Rampillo, Manpur Brahman Sahi, Pingal & Pankhal Sasan	58	-	58.00
- Cleaning of Ponds in 22 villages in blocks of Danagadi, Sukinda & Jajpur Road	19	-	19.00
Community Environmental Protection Programme - Air and Water Monitoring in Buffer Zone especially in Vyasnagar Municipality Area & New Market of Jajpur Road Block and villages of Nuagaon, Jakhpura, Solei and	40	-	40.00
	12	-	12 .00

CER ACTIVITIES (PH ISSUES)	0-12 months	13 – 22 months	TOTAL
	(Rs. in Lakh)		
Danagadi - Water Sprinkling in surrounding areas			
Education - Providing Tuition Teachers & Salary teachers for specific requirements of schools in nearby villages like Kumbhiragadia, Danagadi and Jakhpura located within the blocks of Danagadi and Jajpur Road	5	5	10.00
- Boundary Wall for Nodal Upper Primary School at Trijanga	9.5	-	9.50
Health - Upgradation and replacement of Medical equipment at CHC of Danagadi	40	-	40.00
- Provision of a DG Set & Beds in PHC of Pachhikot	5.5	-	5.50
- Health Camps within blocks of Danagadi and Jajpur Road	25	-	25.00
Local Skill & Vocational Training Programme - Provision of local skill and vocational training programme in nearby villages like Solei and Danagadi within the block of Danagadi	10	5	15.00
Avenue/Urban Plantation - Urban Plantation within the blocks of Danagadi & Jajpur Road	10	10	20.00
- Free Saplings to local Villages within the blocks of Danagadi & Jajpur Road	3	2	5.00
		Total	**476.00**

DETAILS OF THE COST TO BE INCURRED UNDER CER WITH REGARD TO Needs ASSESSMENT

CER ACTIVITIES FROM NEEDS ASSESSMENT	0-12 months	13 – 22 months	TOTAL
	(Rs. in Lakh)		

CER ACTIVITIES FROM NEEDS ASSESSMENT	0-12 months	13 – 22 months	TOTAL
	(Rs. in Lakh)		
Local Skill & Vocational Training Programme Vocational and Skill Development Training for women and girls in Mangobindapur, Sarangapur and Kacherigan	6	4	**10.00**
Local Infrastructure Development Programme Improvement in Road Conditions in consultation with local administration in villages of Sorei and Mangobindapur	12	12	**24.00**
		Total	**34.0**

ADS 3 : Time bound action plan for green belt development in an additional area of 10 ha outside the plant premises shall be prepared and submitted.
Reply :

Year	Location	Area (Ha.)	Nos. of plants to be planted	Type of Plantation	Name of plant species
1st Year	Outside Plant Premises. Location will be finalized with the consultation of Local Administration	2.5	4000	Avenue Plantation / Block Plantation	*Delonex regia* (Gulmohar) *Peltophorum pterocarpum* *Terminalia arjuna* (Arjun) *Acacia mangium* *Acacia auriculiformis* (Acacia) Lagerstroemia indica *Millingtonia hortensis* (Akash Neem) *Albizia lebbeck* (Siris) *Anthocephalus cadamba*(Kadamba) *Dalbergia sissoo* (Sissoo) *Tamarix dioica* (Jaun)
2nd Year		2.5	4000	Avenue Plantation / Block Plantation	
3rd Year		2.5	4000	Avenue Plantation / Block Plantation	
4th Year		2.5	4000	Avenue Plantation / Block Plantation	

Year	Location	Area (Ha.)	Nos. of plants to be planted	Type of Plantation	Name of plant species
					Polyalthia longifolia (Debdaru)

ADS 4 : Details of the scale and sludge generated from the plant shall be submitted.
Reply :

Industrial wastes	Existing generation in TPA	Generation due to Proposed expansion in TPA	Total generation post expansion In TPA	Management Scheme
Mill Scale	10,000	10,000	20,000	After briquetting would be used in Ferro alloy plant of JSL
ETP Sludge from Mills (Wet form)	Nil	24,000 MT	24,000 MT	Disposed at CHWTSDF of M/s. Ramky Enviro Engineers LTD., Sukinda

ADS 5: Soil monitoring should be related to nutrient cycle.
Reply: JUSL will undertake soil quality analysis in the area confirming to nutrient cycle. The soil quality analysis shall be either monthly once or once in a season.

ADS 6: Revised AAQ modeling based on worst case scenario using already generated data should be carried out for the integrated jindal complex and shall be submitted along with the input file.

Reply : Air pollution mitigation measures form an integral part of the project. In order to predict the ground level concentrations (glcs) of PM_{10} from the emission figures, the site specific meteorological recordings and the relative disposition of stacks as well as traffic distribution on the road have been taken into consideration for air dispersion modelling. Breeze AERMOD ISC modeling software as approved by US-EPA and developed by Trinity Consultant, USA has been applied to predict ground level concentration (glc) of the pollutant. Altogether four different scenarios have been considered to arrive the cause of high concentration of air borne pollutant (PM_{10}) and to propose mitigation measures so that the ambient air quality post expansion project will remain within NAAQS.

The four scenarios considered for the present modelling exercise are as follows:

i. Existing controlled emission from Jindal Complex
ii. Emission due to Truck movement (existing) within KRSC area
iii. Controlled emission at Post Expansion of Jindal Complex

iv. Emission due to Truck movement (post expansion) with mitigation measures within KRSC area

AAQ Monitoring Location and its distance from the Plant boundary, km)	Parameter	Present baseline (P_{98} values), µg/m^3 (A)	Present truck movement contribution to the baseline, µg/m^3 (B)	Post Expansion truck movement contribution to the baseline with mitigation, µg/m^3 (C)	Present contribution of Jindal Complex to the baseline, µg/m^3 (D)	Post Expansion contribution of Jindal Complex to the baseline, µg/m^3 (E)	Incremental contribution of Jindal Complex to the baseline, µg/m^3 (F = E - D)	Projected air quality Post Expansion, µg/m^3 (G = A-B+C+F)
Naliajhara (9.5 WSW)	PM_{10}	94.6	4.5	2.0	1.21	2.39	1.18	93.28
Baghbahali (4.3 SW)		100.2	21.5	13.5	2.91	5.81	2.90	95.10
Jakhpura (1.6 SE)		107.4	26.5	9.5	1.77	3.53	1.76	92.16
Dhabalgiri (5.9 E)		95.7	2.5	1.0	0.64	1.26	0.62	94.82
Dhapanki (2.5 NNE)		105.0	14.5	3.5	2.91	6.94	4.03	98.03
Gorhigotha (6.1 N)		96.8	6.5	3.0	0.64	1.26	0.62	93.92
Rangahurhi (8.6 WNW)		107.8	36.5	20.0	0.64	1.26	0.62	91.92
Barhagarhia (4.8 NW)		103.5	21.5	9.5	0.64	1.26	0.62	92.12
Maniapatra (5.8 W)		95.5	4.5	2.5	1.77	4.67	2.90	96.40

Observations of the Committee: -

25. During the course of meeting, the Committee asked the project proponent to submit undertaking regarding the establishment of separate Environment Management Cell (EMC) for JSL & JCL respectively and implementation of CER related activities. Accordingly, undertaking has been submitted by the project proponent. The Committee satisfied with the reply and undertaking submitted by the project proponent against the raised ADS inter-alia including the corrective actions taken by the project proponent against the observed non-

compliances although closure report of Regional Office has not been made available by the project proponent.

Recommendations of the Committee: -

26. After detailed deliberation, the Committee recommended for environmental clearance under the provisions of EIA Notification, 2006 for the proposed capacity expansion of Hot Strip Mill from 1.6 MTPA to 3.2 MTPA and installation for 0.3 MTPA Cold Rolling Mill located at Kalinga Nagar Industrial Complex (KNIC), Danagadi near Duburi in Jajpur district of Odisha by **M/s. Jindal United Steel Limited**subject to following specific and general conditions:

A. Specific conditions

i. The CER shall be completed within a time frame of three years.

ii. Action plan for rainwater harvesting measures at plant site shall be submitted to the Regional Office indicating quanity of rainwater to be harvested 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.

iii. The company shall establish separate environmental management cellfor JSL & JCL respectively.

B. General conditions

I. Statutory compliance:

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

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

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF) as amended from time to time; S.O. 3305 (E) dated 7th

December 2015(Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

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

iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO_2 and NOx in reference to SO_2 and NOx emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

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

v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources.

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

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

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

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

x. The project proponent shall provide covered sheds for raw materials like scrap and sponge iron, lump ore, coke, coal, etc.

xi. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

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

III. Water quality monitoring and preservation

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

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

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

iv. Adhere to 'Zero Liquid Discharge'.

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

vi. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.

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

viii. The projectproponent shall practice rainwater harvesting to maximum possible extent.

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

IV. Noise monitoring and prevention

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

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

V. Energy Conservation measures

i. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.

ii. Practice hot charging of slabs and billets/blooms as far as possible.

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

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

v. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

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

ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces

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

iv. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile

STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

IX. Corporate Environment Responsibility

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

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

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

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

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

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

X. Miscellaneous

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

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

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

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

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

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

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

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

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

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

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

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

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

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

xiii. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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

4.27 Installation of Iron Ore Grinding and Desliming Plant of capacity 30 Million Metric Tons Per annum (MTPA) and slurry pipeline of 312 km distance near Joda in Keonjhar District, Odisha by **M/s. JSW Utkal Steel Limited** [Online Proposal No. IA/OR/IND/74415/2018; MoEFCC File No. IA-J-11011/271/2018-IA-II(I)] – **Terms of Reference.**

M/s. JSW Utkal Steel Limited has made online application vide proposal no. IA/OR/IND/74415/2018dated 13th August, 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 2(b) Mineral Beneficiation under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

2. The aforesaid proposal was considered in the 35th meeting of Expert Appraisal Committee [EAC] (Industry-I) held on 18-19th September, 2018 wherein it was decided that sub-committee comprising of EAC members and Officer concerned with the subject matter will undertake a site visit and thereafter the proposals would be considered by the EAC for grant of ToR. Accordingly, sub-committee comprising of following members have been constituted and undertaken a site visit during 29-31st January, 2019.

i. Shri.R.P.Sharma, EAC – Member,
ii. Shri. A.J. Rao, EAC – Member,
iii. Dr.J.S. Kamyotra, EAC – Member,
iv. Shri. Sundar Ramanathan, Scientist 'D', MoEF&CC, New Delhi.

3. The sub-committee submitted its inspection report to the EAC. The relevant extracts of the report as discussed during the meeting are reproduced as below:

2.1 Iron ore Grinding & De-sliming Project near Joda in Keonjhar District, Odisha.

<u>Site settings and land break up</u>

The proposal involves setting up of Iron Ore Grinding and De-Sliming Plant (Beneficiation Plant) of capacity 30 Million Metric Tons Per annum (MMTPA) near Joda in Keonjhar District, Odisha in an area of 387.656 acres. This land is located in the villages namely Gobardhanpur, Bhagalpur, Sialijoda, Lahanda, Kandara, Badahundala, Bileipada of Barbil Tehsil, Keonjhar District, Odisha. The latitude and longitude of the project site is 22°03' N to 22°04' N &85°27' E to 85°28' E respectively. 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. Total project cost is approx. INR 4243 Crores. Proposed employment generation from proposed project will be 200 direct employments and 300 indirect employments. As per the information made available during the visit by the project proponent, the breakup of land requirement for the various facilities of the project is given as below:

S. No	***Plant Units***	***Industrial IDCO In Ac***	***Pvt land in Ac***	***Govt Land Non forest in Ac***	***Forest Land in Ac***	***Total Area in Ac***	***Remarks***
01	***Grinding & de-sliming Unit (Beneficiation)***						*Out of 198.897 Ac land, 183.61 Ac of land transferred & registered by IDCO in favour of JSW Utkal Steel Ltd. Balance 15.291 Acre is under acquisition/lease. However, there is some sabik land in IDCO land which is being regularized along with forest land for which diversion proposal already submitted.*
A	*Grinding unit*	*145.020*	*-*	*6.967*	*2.570*	*154.557*	
B	*RMHS Area*	*38.590*	*-*	*-*	*-*	*38.590*	
C	*Intake well*		*3.180*	*-*	*2.570*	*5.750*	
	Total area	***183.610***	***3.180***	***6.967***	***5.140***	***198.897***	

S. No	***Plant Units***	***Pvt Land in Ac***	***Govt Land Non forest in Ac***	***Forest Land in Ac***	***Total Area in Ac***	***Remarks***
02	***Associated facilities for Grinding & de-sliming Unit (Beneficiation)***					
A	*Railway siding*	*26.937*	*14.106*	*4.216*	*45.259*	*188.731 Ac is under process of acquisition/lease. Forest clearance applications also being submitted.*
B	*30 Meters wide Underpass Road*	*2.740*	*0.370*	*9.450*	*12.560*	
C	*50 Meters wide Connecting Road*	*1.880*	*0.800*	*4.510*	*7.19*	
D	*15 Meters Wide*	*1.745*	*0.664*	*1.543*	*3.952*	

	road					
03	***Slime storage area***					
A	*Slime storage area*	*37.740*	*-*	*82.030*	*119.77*	
	Total	***71.042***	***15.94***	***101.749***	***188.731***	
	Grand Total (Item 1+2+3)	***74.222***	***22.907***	***106.889***	***387.628***	

Raw material requirement and its source

It was informed that iron ore of required quality (62 - 64% Fe content) will be sourced locally from various private and Government owned operating mines. The tentative list of major merchant iron ore mines with their capacity and distance from proposed grinding unit project site as provided during the visit is summarized below.

No.	***Name of the Lessees***	***Location of the Lease***	***Area (Hect.)***	***Production Capacity (MMTPA)***	***Availability of road/Rail***	***Distance from Grinding unit site in Km***
1	*M/s Rungta Mines Ltd.*	*Jajang*	*666.150*	*16.500*	*Rail& Road*	*20*
2	*M/s Sirrajuddin& Co.*	*Balda*	*335.800*	*15.150*	*Rail & Road*	*25*
3	*M/s Gandhamardan Sponge Iron (P) Ltd.*	*Putulipani*	*100.163*	*1.425*	*Rail & Road*	*70*
4	*M/s Essel Mining & Industries Ltd.*	*Jilling-Langalota*	*456.100*	*6.280*	*Rail & Road*	*20*
5	*M/s Kalinga Mining Corpn.*	*Jurudi*	*73.228*	*1.200*	*Rail & Road*	*25*
6	*M/s Indrani Patnaik Mines*	*Unchabali*	*106.113*	*4.000*	*Rail & Road*	*22*
7	*M/s OMC*	*Gandhmardan A*	*618.57*	*0.600*	*Rail & Road*	*70*
8	*M/s OMC*	*Gandhmardan B*	*1590.86*	*9.12*	*Rail & Road*	*70*
9	*M/s K.J.S. Ahluwalia*	*Nuagaon*	*767.284*	*6.520*	*Road*	*30*
10	*M/s K.N. Ram & Co.*	*Tanto, Roida - II*	*74.867*	*4.000*	*Road*	*17*
11	*M/s Kaypee Enterprises*	*Thakurani*	*228.040*	*5.500*	*Road*	*20*

No.	*Name of the Lessees*	*Location of the Lease*	*Area (Hect.)*	*Production Capacity (MMTPA)*	*Availability of road/Rail*	*Distance from Grinding unit site in Km*
12	*M/s Mid East Int. Steel Ltd.*	*Roida- 1 (Sidhamath)*	*104.680*	*3.000*	*Road*	*17*
13	*M/s B.I.Co. Ltd.*	*Nadidihi*	*73.855*	*5.300*	*Road*	*32*
14	*M/s Feegrade& Co.*	*Nadidihi, Rengalibeda& Nadikasira*	*121.405*	*7.451*	*Road*	*32*
15	*M/s B.I.Co. Ltd.*	*Teherai*	*116.572*	*2.496*	*Road*	*35*
16	*M/s A.M.T.C. (P) Ltd*	*Narayanpasi*	*349.254*	*6.000*	*Road*	*48*
17	*M/s R.P. Sao*	*Guali*	*365.026*	*5.700*	*Road*	*30*
18	*M/s Rungta*	*Nadidihi*	*94.889*	*9.000*	*Road*	*25*
19	*M/s Rungta*	*Oraghat*	*25.84*	*8.360*	*Road*	*25*
20	*M/s OMC*	*Kurmitar*		*2.4*	*Road*	*100*
	Total			***116.003***		

Further, it was informed that efforts will also be made to install pipe conveyor from few major iron ore mines which are closer to the project site like Kaypee mines, Essel Mining, Rungta Mines, MESCO etc., in order to reduce the road transportation. The iron ore slurry produced would be transported through a 312 km Slurry Pipeline to the ISP near Paradeep.

Proposed facility details

The proposed capacity for various facilities of the proposed project are as below:

No	*Name of Unit*	*No of Units*	*Unit*	*Capacity of each Unit*	*Production Capacity*
1	***Crushing Unit***				
	Jaw Crusher	*1*	*TPH*	*200*	*200*
	Double Deck Vibrating Screen	*6*	*TPH*	*900*	*5400*
	Cone Crusher	*4*	*TPH*	*150*	*600*
2	***Primary grinding Section***				
	Storage bins	*12*	*Tonnes*	*650*	*7800*
	Belt feeders	*12*	*TPH*	*650*	*7800*
	Primary Screw Scrubbers	*36*	*TPH*	*650*	*23400*
	Vibrating Screens	*6*	*TPH*	*975*	*5850*

No	*Name of Unit*	*No of Units*	*Unit*	*Capacity of each Unit*	*Production Capacity*
	Primary ball mils	*6*	*TPH solids of Circulating Load*	*672*	*4032*
	Secondary screw scrubbers	*36*	*TPH*	*672*	*24192*
3	***De-sliming Section (Module 1 & Module 2)***				
	De-sliming Hydro cyclones	*60*	*TPH solids*	*130*	*7800*
	Intermediate thickener (High rate)	*3*	*TPH*	*97*	*291*
	Attrition scrubber	*18*	*TPH*	*97*	*1746*
	Linear screen	*6*	*TPH*	*97*	*582*
	MIMS	*24*	*TPH*	*97*	*2328*
	WHIMS	*3*	*TPH*	*97*	*291*
4	***Regrinding Section***				
	Regrinding ball Mills	*6*	*TPH solids*	*501*	*3006*
	Close circuit Hydro cyclones	*60*	*TPH*	*694.5*	*41670*
	Derrick stack sizer screens	*24*	*TPH solids*	*1011*	*24264*
5	***Dewatering and slimes disposal Section***				
	Concentrate thickeners (high rate)	*4*	*TPH solids*	*1249*	*4996*
	Slime thickener (high rate) For Module 1 & 2 only	*3*	*TPH solids*	*50*	*150*

No	*Name of Unit*	*No of Units*	*Unit*	*Capacity of each Unit*	*Production Capacity*
	Slime thickener (Paste) For Module 1 & 2 only				

Details of Raw Material Handling System (RMHS) is as below:

S.No	*Description*	*UOM*	*Capacity*
1	*Material to be Handled*	***Iron Ore***	
2	*Size of the Ore to be handled**(95%(-10mm), 5%(+10mm))***	*mm*	*-10*
3	*Bulk Density of Iron Ore (IMMT)*	*T/Cu.M*	*2.1*
4	*No of Days of Operation*	*Days*	*330*
5	*Total Raw Material Handling per Annum*	*MTPA*	*33.48*
6	*Material Handled by Rail (50%)*	*MTPA*	*16.32*
7	*Material Handled by Road (35%)*	*MTPA*	*10.74*
8	*Material Handled by Pipe Conveyor (15%)*	*MTPA*	*6.42*
9	*Pipe Conveying Capacity*	*TPH*	*811*
10	*Stock @ Yard*	*Days*	*14*
11	*Req. Stock Material / 14 Days*	*T*	*1315152*
12	*Req. Stock Yard Capacity*	*T*	*1315152*
13	*Height of Stock Pile*	*mts*	*10*
14	*Width of the stock Pile*	*mts*	*50*
15	*Stock Yard Pile Size & Capacity (As per DWG) (4 Bays x 50 mts Wide x 700mts Length x 10 mts Height)*	*T*	*1470000*
16	*No of Rakes required / day*	*Nos*	*13*
17	*Rake Capacity*	*T*	*3800*
18	*Rake Turnaround time*	*Hrs*	*3.5*
19	*Material handled by Rake per Day*	*T*	*49400*
20	*Material handled by Truck per day*	*T*	*32545*
21	*Avg. Truck /Dumper capacity*	*T*	*20*
22	*No of Trucks to be handled per Day*	*Nos*	*1627*
23	*No of Twin Boom Stackers (TWS) required RMHS stock Yard*	*Nos*	*1*
24	*No of Single Boom Stackers (SBS) required RMHS stock Yard*	*Nos*	*2*
25	*Capacity of each stacker*	*TPH*	*4000*
26	*No of Wheel On Boom Reclaimers(WBR) required RMHS stock Yard*	*Nos*	*3*
27	*No Of Weigh Bridge 60T*	*Nos*	*10*
28	*No Of Unloading Station BOXN Wagon / BOBSN (Side Discharge)*	*Nos*	*3*
29	*In Motion Weigh Bridge-Rail*	*Nos.*	*1*

Water and power requirement

The electricity load of 106 MW will be procured from JSW Energy and Grid power. Company has also proposed to install DG Sets for exigencies. Net makeup water requirement for the proposed project will be 2940 m^3/hr with peak requirement of 4000 m^3/hr.

Environmental issues:

Air pollution control measures:

- ***Fugitive dust emission from iron ore handling, crushing & stockpiling***
  - *Water sprinkling*
  - *Dry fogging (DF)*
  - *Dust Extraction system in crusher*
- ***Fugitive emission from conveying of iron ore***
  - *Dry fogging*
  - *Industrial vacuum cleaning*
  - *Dust Extraction (DE) systems with bag filters at junction houses/transfer points*
  - *Covered Conveyors*
- ***Fugitive emission from vehicular movement***
  - *Water sprinkling*
  - *Tyre washing*

Water Pollution Control measures

- ***Recovered water from Paste Thickener***
  - *Clarification*
  - *Re-use in process*
- ***Run-off from Stockpile and floor washing***
  - *Clarification*
  - *Re-use in process*
- ***Sewage***
  - *Modular sewage treatment plant*
  - *Re-use in greenbelt maintenance*

Slime generation

The iron ore grinding and de-sliming unit will consist of three modules. Out of three modules, module 1 and 2 will have grinding cum de-sliming (beneficiation) but the Module 3 will be only grinding of iron ore fines of -10mm to 150 micron as pellet feed. Details of raw materials feed with Fe content and pellet feed product with Fe content is presented in below:

Module	***Circuit***	***Iron ore input in MT***	***Fe%***	***Pellet feed Product***	***Fe content***	***Slime generation In MT***
1	*1*	*5.2*	*62 - 63*	*5*	*63.74*	*0.2*
	2	*5.2*	*62 - 63*	*5*	*63.74*	*0.2*
2	*1*	*5.2*	*62 - 63*	*5*	*63.74*	*0.2*
	2	*5.2*	*62 - 63*	*5*	*63.74*	*0.2*
3	*1*	*5.0*	*63 - 64*	*5*	*63 - 64*	*-*

	2	*5.0*	*63 - 64*	*5*	*63 - 64*	*-*
TOTAL		***30.8***		***30.0***		***0.8***

Note: All quantities are on net & dry basis and Module 3 is only grinding.

It may be seen from the above table that the quantity of slime generation will be 0.8 MTPA. However, slime generation will vary depending upon feed quality. Therefore, slime generation range may vary from 0.8 to 1.25 MTPA as informed during the visit. This would be sent to the slime storage pond located at a distance of 4.5 km from the beneficiation plant site through pipelines.

The development of slime storage will be planned after the contour survey is done. It was informed that the slime storage area will have an impervious liner with bund wall to protect the contamination of ground water and to contain slime within the earmarked area. Also informed that project proponent will also explore the possibility of various utilization options of slime to reduce slime pond area and the action plan for utilization will be mentioned in the EIA report. By ensuring regular utilization of slime in various possible potential uses like bricks, cement, bed material for road construction, mine backfilling etc., actual area for slime storage will be reduced and life of storage area will also be enhanced significantly.

2.2 Iron ore Slurry Pipe line

Slurry pipeline ROW alignment

Total alignment of iron ore slurry pipeline from Grinding unit, Joda to ISP, Paradeep is 312 km (298 km linear corridor) and out of that 98% is falling under Right of Way (ROW). Necessary permissions from road owning authorities (NHAI, IDCO, PWD and WRD) for use of ROWs to lay slurry pipeline have been already obtained as informed during the visit. Details are as below:

No	***Alignment under***		***Total length in Km***	***Status***
01	*ROW Obtained*		*245.587*	*General Approval-1 Obtained on 11.10.18.*
02	*ROW Obtained*		*48.246*	*General Approval-2 Obtained on 25.01.19.*
03	*NON-ROW*		*4.970*	*Land acquisition in progress and Application Submitted for clearance, Stage-I approval expected by April, 2019.*
03.1	*Land under acquisition*	*1.2 Km*		
03.2	*ROW of Railway*	*2.2 Km*		
03.3	*Toll Plaza*	*0.6 Km*		
03.4	*Cross country*	*0.970 Km*		
			298.803	

Pumping station details

30 MMTPA Iron ore slurry concentrate will be transported to ISP, Paradeep, by about 312 km (298.803 km linear corridor) long pipeline having 32 inches dia with nominal flow rate of 3067 m^3/Hr. Pumps used for slurry transportation generally fall into two categories:

- *Centrifugal Pump*
- *Positive Displacement (PD) pump*

Centrifugal pumps are ideally suited for low discharge pressure conditions (up to 50-60 bars) and are typically used as charge pumps to the mainline PD pumps. The majority of long distance slurry pipelines utilize positive displacement pumps due to their higher discharge pressure capacity (up to 250 bars). Design operating range is 3248 tph - 4077 tph; 2637 m^3/h - 3067 m^3/h & nominal throughput is 3788 tph . Annual Throughput is 30 Mt/y. The details of charge pumps are as follows.

Sr.no	***Parameter***	***Joda pump station***
1	*Pump Type*	*Horizontal Centrifugal*
2	*Pump Quantity*	*1 operating + 1 standby*
3	*Pump Configuration*	*Single pump*
4	*Total Flow Rate, m3/h*	*3067*
5	*Pump Discharge Pressure, MPa (psi)*	*0.6 (84)*
6	*Total Discharge Head, TDH (m slurry)*	*30*
7	*Pump Efficiency*	*80%*
8	*Total Pump Operating Power, kW (HP)*	*688 (922)*

The details of Positive displacement pumps are as follows.

Sr.no	***Parameter***	***Joda pump station***
1	*Mainline Pump Type*	*Positive Displacement Piston-Diaphragm*
2	*Mainline Pump Quantity*	*6 operating + 1 standby*
3	*Mainline Pump Configuration*	*Parallel*
4	*Total Flow Rate, m3/h*	*3251*
5	*Pump Station Discharge Pressure, MPa (psi)*	*11.8 (1716)*
6	*Total Discharge Head, TDH (m slurry)*	*586*
7	*Pump Efficiency*	*85%*
8	*Total Pump Operating Power, kW (HP)*	*12,551 (16,832)*

Pressure Inclusion Monitoring system

Pressures will be monitored along the pipeline to provide input data to the Pipeline Advisor (a software) such that the pipeline operator can identify any potential leaks or slack conditions. Pressure monitoring stations will be located along the pipeline, as necessary, to support the leak detection system design for the pipeline. The readings from the pressure monitoring stations will be displayed in the control room and will be interlocked with an alarm system. Pressure monitoring station are to be provided at every 30 to 50 km distance.

Leak Detection System

The pipelines will be monitored by Pipeline Advisor (a software) expert and leak detection systems. Leak detection uses pressure wave detection and location with mass balance backup. An alarm will be provided to operators when a leak is detected in the pipeline.

Details of Valves and Pressure Monitoring Systems (PMS)

Details of valves and PMS are presented in following Table

PMS No	***Village***	***Distance from pumping station at Joda in Km***	***Remarks***
PMS-1	*ARSALA*	*32*	*Pressures will be monitored along the pipeline to provide input data to the Pipeline Advisor (a software) such that the pipeline operator can identify any potential leaks or slack conditions. Pressure monitoring stations will be located along the pipeline, as necessary, to support the leak detection system design for the pipeline. The readings from the pressure monitoring stations will be displayed in the control room and will be interlocked with an alarm system. The pressure monitoring station be provided every 30 to 50 km.*
PMS-2	*RANKI*	*62*	
PMS-3	*SANABARABEDA*	*94*	
CHOKE & VALVE STATION,PMS	*KANTO*	*126*	*Valve stations is recommended for pipelines with large variations in elevation to control static head. Static head is based on the highest point of elevation, and by isolating lower elevation sections of the pipeline from higher elevation sections, excessive static head in the lower sections can be avoided.*
PMS-4	*ITAPUR*	*168*	*Pressures will be monitored along the pipeline to provide input data to the Pipeline Advisor (a software) such that the pipeline operator can identify any potential leaks or slack conditions. Pressure monitoring stations will be located along the pipeline, as necessary, to support the leak detection system design for the*
PMS-5	*ARUHA*	*208*	
PMS-6	*BALABHADRAPUR*	*239*	
PMS-7	*NALADIASASAN*	*277*	

PMS No	***Village***	***Distance from pumping station at Joda in Km***	***Remarks***
			pipeline. The readings from the pressure monitoring stations will be displayed in the control room and will be interlocked with an alarm system. The pressure monitoring station be provided every 30 to 50 km.

Observations made during the visit at Joda:

i. *The sub-committee found that site chosen setting up of for Iron Ore Grinding, De-Sliming Plant (Beneficiation Plant) and slime storage is suitable.*
ii. *The approach road connecting the project site is not in good condition and needs to be strengthened adequately.*
iii. *There are two very old trees within the iron ore grinding and de-sliming site. All efforts should be made to protect these trees while planning the plant layout.*
iv. *There is no water body within the project site.*
v. *Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by road with anticipated vehicle details, line source modelling and road strengthening details etc., These details shall be included in the EIA report.*
vi. *Scheme for rain water harvesting shall be prepared inter-alia including recharge of ground water and construction of check dams to ensure harvesting of water to the extent abstracted from river Baitarni (depending upon annual rain fall) and the details shall be included in the EIA report.*
vii. *Letter from Water Resources Department of State Government of Odisha shall be obtained regarding the availability of water in river Baitrani and permission for drawl of 4000 m^3/hr shall be submitted.*
viii. *Socio-economic survey in the project influence area that is 10 Kms radial coverage from the project site shall be carried out and included as a part of EIA report.*
ix. *The list of flora and fauna with its schedule exists in the study area shall be duly be authenticated by the Divisional Forest Officer and submitted along with the EIA report.*
x. *Contour survey of the plant site and slime storage area with drainage pattern shall be undertaken and included in the EIA report.*
xi. *Dwellings within the slime storage area shall be rehabilitated.*
xii. *Mass balance of Iron Ore Grinding and De-Sliming Plant (Beneficiation Plant) shall be submitted in the EIA report.*
xiii. *A separate chapter on slime management inter-alia including slime pond location, pipeline route, pumping arrangement envisaged, lining arrangement at the bottom of the slime pond, leachate collection system and its monitoring etc., shall be prepared and included in the EIA report.*

xiv. Risk assessment, safety and surveillance system to be adopted in the pipeline route shall be included in the EIA report.

Details submitted by the project proponent

4. The project proponent has given a detailed presentation on the details provided to the Sub-Committee during its visit held on 29-31st January, 2019. It was informed that as per the revised list of categorization of industries issued by the Odisha Pollution Control Board vide order no. 8333 dated 11/07/2018, the mineral slurry pipeline is brought under green category. Further, it was informed that the proposed slurry pipeline is not passing through national parks/sanctuaries/coral reefs and ecologically senstitive areas and Consent to Establish for the slurry pipeline has been accorded by the OSPCB vide letter dated 23/12/2017.

5. Name of the EIA Consultant: M/s M. N. Dastur & Co. (P) Ltd. [S.No. 99, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations of the Committee

6. The Committee accepted the site visit report of sub-committee. The Committee noted as per the MoEF&CC notification no.S.O. 6067 (E) dated 1/12/2009, the slurry pipelines passing through national parks/sanctuaries/coral reefs and ecologically senstitive areas only requires the prior environmental clearance under the provisions of the EIA Notification, 2006. However, in the present proposal under consideration, slurry pipeline is an inter-linked project of the 30 MMTPA beneficiation plant. Hence, the Committee was of the view that requisite statutory permissions as applicable shall be taken in accordance with the extant provisions of the Rules.

Recommendations of the Committee: -

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

i. There are two very old trees within the iron ore grinding and de-sliming site. All efforts should be made to protect these trees while planning the plant layout.
ii. Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by road with anticipated vehicle details, line source modelling and road strengthening details etc., These details shall be included in the EIA report.
iii. Scheme for rain water harvesting shall be prepared inter-alia including recharge of ground water and construction of check dams to ensure harvesting of water to the extent abstracted from river Baitarni (depending upon annual rain fall) and the details shall be included in the EIA report.
iv. Letter from Water Resources Department of State Government of Odisha shall be obtained regarding the availability of water in river Baitrani and permission for drawl of 4000 m^3/hr shall be submitted.
v. Socio-economic survey in the project influence area that is 10 Kms radial coverage from the project site shall be carried out and included as a part of EIA report.

vi. The list of flora and fauna with its schedule exists in the study area shall duly be authenticated by the Divisional Forest Officer and submitted along with the EIA report.

vii. Contour survey of the plant site and slime storage area with drainage pattern shall be undertaken and included in the EIA report.

viii. Dwellings within the slime storage area shall be rehabilitated. Resettlement and Rehabilitation of the PAFs shall be carried out in accordance with the extant provisions of Rules in place and the details shall be furnished in the EIA report as a separate chapter.

ix. Mass balance of Iron Ore Grinding and De-Sliming Plant (Beneficiation Plant) shall be submitted in the EIA report.

x. A separate chapter on slime management inter-alia including slime pond location, pipeline route, pumping arrangement envisaged, lining arrangement at the bottom of the slime pond, leachate collection system and its monitoring etc., shall be prepared and included in the EIA report.

xi. Risk assessment, safety and surveillance system to be adopted in the pipeline route shall be included in the EIA report.

xii. Public Hearing for the project shall be conducted by the concerned State Pollution Control Board in accordance with the extant provisions of the Rules.

xiii. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

xiv. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.28 Setting up of a Greenfield Integrated Steel plant of capacity 13.2 MTPA crude steel with 10 MTPA Cement grinding unit & 900 MW Captive power plant Near Paradeep Jagatsinghpur district, Odisha by **M/s. JSW Utkal Steel Limited** (online Proposal No. IA/OR/IND/74396/2018; MoEFCC File No. J-11011/524/2017-IA.II(I) – **Terms of Reference.**

M/s. JSW Utkal Steel Limited has made online application vide proposal no. IA/OR/IND/74396/2018dated 13th August, 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central level.

2. The aforesaid proposal was considered in the 35th meeting of Expert Appraisal Committee [EAC] (Industry-I) held on 18-19th September, 2018 wherein it was decided that sub-committee comprising of EAC members and Officer concerned with the subject matter will undertake a site visit and thereafter the proposals would be considered by the EAC for grant of ToR. Accordingly, sub-committee comprising of following members have been constituted and undertaken a site visit during 29-31st January, 2019.

i. Shri.R.P.Sharma, EAC – Member,
ii. Shri. A.J. Rao, EAC – Member,
iii. Dr.J.S. Kamyotra, EAC – Member,
iv. Shri. Sundar Ramanathan, Scientist 'D', MoEF&CC, New Delhi.

3. The sub-committee submitted its inspection report to the EAC. The relevant extracts of the report as discussed during the meeting are reproduced as below:

"2.3 Integrated Steel Plant and jetty near Paradeep, Jagatsinghpur district, Odisha.

Site settings and land break up

The proposal involves setting up of Integrated Steel Plant of capacity 13.2 MTPA crude steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant and captive jetty near Paradeep, Jagatsinghpur district, Odisha in area of 2950.31 acres (1193.974 Ha). The latitude and longitude of the project site is 20°11' N to 20°13' N & 86°30' E to 86°35' E respectively. No national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. are located in the core and buffer zone of the project. The area also does not report to form corridor for Schedule-I fauna. The proposed project location is outside the Notified Eco-sensitive zone of Bhitarkanika Wildlife Sanctuary and Gahirmatha Marine Wildlife Sanctuary. Total project cost is approximately INR 65,000 Crores. Proposed employment generation from proposed project will be 12,000 direct employments and 45,000 indirect employments. As per the information made available during the visit by the project proponent, the breakup of land requirement for the various facilities of the project is given as below:

Unit	***Total diverted forest land***	***Total Non-forest land***	***Total Land***
ISP	*2642.94 Ac (1069.581 Ha)*	*137.64 Ac (55.703 Ha)*	*2780.58 Ac (1125.284 Ha)*
Jetty	*34.86 Ac (14.11 Ha)*	*134.87 Ac (54.58 Ha)*	*169.73 Ac (68.69 Ha)*
Total	*2677.80 Ac (1083.691 Ha)*	*272.51 Ac (110.283 Ha)*	*2950.31 Ac (1193.974 Ha)*

With respect for Forest Clearance status, project proponent informed that Application for Forest Clearance transfer of 1083.691 Ha of land (1069.581 Ha for ISP and 14.11 Ha for Jetty together) from earlier project proponent to JSW Utkal Steel Ltd has been submitted to Govt. of Odisha and same has been forwarded to MoEFCC, Delhi with its recommendation. With respect to non-Forest area (revenue land), project proponent informed that allotment letter from IDCO has been obtained vide their letter No. IDCO/HO/P&A-LA-E-25726 dated 22.12.18.

The ISP will be served by a Captive jetty of handling capacity of 52 MTPA, to be located adjacent to the ISP near the mouth of Jatadhari Muhan river/creek. The captive jetty will cater to the inbound and outbound cargo requirements of ISP helping it to reduce the infrastructure cost for steel production. Proposed inbound and outbound cargo mix will comprise:

- *Inbound cargo - Coking coal, Anthracite, PCI coal, Thermal coal, Limestone, Dolomite, Bentonite, Clinker, Quartzite, etc.*
- *Outbound cargo - Finished Steel products, Pallet/Iron Ore concentrate, and Cement, etc.*

The Jetty facility is proposed with 10 berths with a continuous quay length of about 3400 m. About 180 acre of land shall be developed behind the berths for the Jetty back up facility for storage of cargo. The Jetty will be protected by two breakwaters for maintaining tranquility in the basin and to facilitate direct berthing of capsize vessels. About 30 million m^3 of bed material is proposed to be dredged for creation of navigation channel and jetty basin. The dredged material shall be used for land reclamation/grade improvement.
The backup area will be required for intermediate storage cargo handling system/stacker and Reclaimers for mechanical handling of cargo with appropriate hopper and conveyor system. The cargo handling facility at Jetty shall be fully mechanized with installation of Unloading cranes, Mobile Harbor cranes (MHCs), Surge bins, and closed Jetty conveyors attached with dust suppression systems.

With respect to Coastal Regulation Zone (CRZ) clearance for marine pipeline and captive jetty project, project proponent informed that application for terms of reference (ToR) for EIA studies was submitted to MoEF&CC, New Delhi on 13/08/2018. The proposal for grants of ToR to the project was considered by the Expert Appraisal Committee (Infra-2) in its 34th meeting held on 24-26th September, 2018. As per the recommendation of EAC, ToR for the proposal was granted by MoEF&CC, New Delhi for preparation of Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) study vide letter dated 9/10/2018.

Raw materials requirement and mode of transportation
The details of raw material requirement and mode of transportation as provided during the visit are summarized as below:

Sl. No.	***Major Raw materials***	***Estimated Quantity, tons***	***Likely source***	***Mode of transport***
1	*Coking Coal and Pet Coke**	*7,831,900*	*International market*	*Sea*
2	*Anthracite*	*192,000*	*International market*	*Sea*
3	*Iron ore (Lump)*	*1,187,900*	*Procured from the Joda-Barbil and Koira mines region, Odisha*	*Rail (50%)/ Road(50%)*
4	*Iron ore concentrate*	*30,000,000*	*Captive Iron ore grinding &desliming plant, Joda*	*Slurry Pipeline*
5	*Iron ore fines*	*4,695,300*	*Procured from the Joda-Barbil and Koira mines region, Odisha*	*Rail*
6	*PCI coal*	*2,700,000*	*International market*	*Sea*
7	*Limestone*	*4,934,500*	*BF grade - Purchased from mines in Bagalkot area,*	*Sea (55%)/Rail (35%)/Road (10%)*

Sl. No.	***Major Raw materials***	***Estimated Quantity, tons***	***Likely source***	***Mode of transport***
			Karnataka /Central India (Jukehi-Katni-Niwar area) *SMS grade- Imported from Middle-East Countries (UAE & Oman)*	
8	*Dolomite*	*2,350,100*	*International market/Domestic*	*Sea(15%)/Rail(70%)/ Road(15%)*
9	*Steam coal*	*2,700,000*	*Procured from Mahanadi Coalfields Limited (MCL) and South Eastern Coalfields Limited (SECL)*	*Rail*
10	*Bentonite*	*320,000*	*International market*	*Sea*
11	*Quartzite*	*270,000*	*International market/Domestic*	*Sea(10%)/Rail(50%)/ Road(40%)*
12	*Clinker*	*5,116,000*	*International market/Domestic*	*Sea*
13	*Gypsum*	*232,000*	*Domestic*	*Rail (50%)/Road(50%)*

**** Pet coke will be used after Hon'ble Supreme Court permits its utilization in Steel Plant***

Proposed facility details

The details of the facilities envisaged in the ISP project is given as below:

Sl. No.	***Unit***	***Facility***		***Production, MTPA***
1	*Slurry dewatering system*	*Thickener, Filtration (pressure filter) with water recovery system*		*30.0*
2	*Coke oven*	*8 x 62 ovens block, 6.25 m tall stamp charged, CDQ*		*6.0*
3	*Sinter plant*	*1 x 500 m sq.*		*5.775*
4	*Pellet plant*	*4 x 8.0 MTPA* *Grinding Unit – 180 TPH*		*32.0*
5	*DRI*	*1 x 1.2 MTPA*		*1.2*
6	*Blast furnace*	*3 x 5,350 cum*		*13.5*
7	*Steelmaking Shop (SMS)*	*SMS-1* *3 x 350 t BOF* *3 x 350 t LF* *2 x 350 t RH*	*SMS-2* *2 x 180 t BOF* *2 x 180 t LF* *1 X 180 t RH*	*13.49*
8	*Caster Shop*	*Slab Caster - 3 x 2 strand* *Billet Caster - 1 x 8 strand* *Billet/Bloom Caster - 1 x 6 strand*		*13.2*

Sl. No.	***Unit***	***Facility***	***Production, MTPA***
9	*Flat Product Mills*	*Plate Mill - 1 x 1.5 MTPA* *Hot Strip Mill - 2 x 5.5 MTPA* *Tinplate Coil - 2 X 0.25 MTPA* *Silicon Steel - 2 X 0.25 MTPA* *Cold Rolling Mill - 2 x 2.3 MTPA* *Pickling line tandem cold mill(PLTCM)-2x2.3 MTPA* *Continuous Annealing Line (CAL) - 2x1.0 MTPA* *Continuous Galvanizing Line CGL - 4x0.5 MTPA* *Colour coating Line CCL - 4x0.25 MTPA*	*9.74*
10	*Long Product Mill*	*Rebar mill - 1 x 1.2 MTPA* *Wire Rod Mill - 1 x 0.6 MTPA* *Medium Section Mill - 1.0 MTPA*	*2.8*
11	*Calcining Plant*	*6 x 600 TPD Lime Calcining Plant* *1 x 600 TPD Dolo Calcining Plant*	*0.97* *0.13*
12	*Cement Plant (Build, Own, Operate & Transfer Basis)*	*Grinding, mixing of slag, clinker & fly ash*	*10.0*
13	*Captive Power Plant (Build, Own, Operate & Transfer Basis)*	*By-product gas and coal based* *3 x 300 MW*	*900 MW*
14	*Air Separation Plant (Build, Own, Operate & Transfer Basis)*	*6 x 2,100 TPD*	*12,600 TPD*
15	*Tar processing plant (Build, Own, Operate & Transfer Basis)*	*Distillation units for producing Carbon Black Oil, Anthracene Oil, Naphthalene, Wash Oil and Pitch*	*300,000 TPA*
16	*Benzol Refining Plant (Build, own, Operate & Transfer basis)*	*Distillation units for producing BTX and other value added products*	*100,000 TPA*

Water requirement for ISP

Net makeup water requirement for the proposed project will be 9200 m^3/hr (Water source Jobra barrage in Mahanadi river) and waste water generation will be 2200 m^3/hr. Domestic waste water will be treated in STP and industrial waste water generated will be treated in CETP and reused as plant makeup water. Sea water will be used in power plant as once through cooling system if it is found feasible. The water required in the tune of 130,000 m^3/hr for cooling will be discharged into deep sea in such a way that the temperature rise will be restricted to max 5℃ in the mixing zone as informed. The location and type of diffuser will be decided based on warm water discharge modelling exercise.

The treated waste water after meeting prescribed discharge standards in the tune of 435 m^3/hr and will be discharged into sea through marine pipeline and the location will be decided through waste water dispersion modelling so that there will not be any impact on the marine eco-system. In addition to the above, about 1500 m^3/hr water recovered from iron ore slurry will be discharged into the deep sea through marine pipeline for an interim period. The discharge of water will be reduced progressively as and when facilities come in operation.

Power requirement for ISP

The total power requirement for the ISP will be 1230 MW. Out of 1230 MW of power, 900 MW will be met from the dual fired (bye-product fuel gas and coal) captive power plant and 221 MW from CDQ and TRT. The balance 109 MW of power will be sourced from Grid.
The power demand and generation is presented in following table.

S. No	***Power demand in MW***	***Power generation in MW***	***Balance Power requirement in MW***
01	*1230 MW*	*900 MW from CPP*	*109 MW*
		221 MW from CDQ & TRT	
TOTAL	***1230 MW***	***1121 MW***	***109 MW from Grid/ JSW Energy***

Observations made during the visit at Paradeep, Jagatsinghpur, Odisha

i. *Betel leaf cultivation is being carried out in the Steel plant site and sand dunes are located adjacent to the plant site. Project proponent informed during the visit that these betel leaf cultivation is a temporary activity being carried out by the local people and sand dunes have been formed during the super cyclone in 1999 which act as natural barrier. The sub-committee informed the proponent that sand dunes shall not be disturbed.*

ii. *Refinery of M/s. Indian Oil Corporation Limited is located at a distance of 375m from the proposed plant site.*

iii. *There are 64 project affected families (PAFs) due to the proposed project activity as informed. Resettlement and Rehabilitation of the PAFs shall be carried out in accordance with the extant provisions of Rules in place and the details shall be furnished in the EIA report as a separate chapter.*

iv. *CRZ mapping of the project site shall be carried out through an authorized agency inter-alia including HTL/LTL mapping, CRZ land classification along with super-imposition of facilities envisaged in the project.*

v. *Socio-economic survey in the project influence area that is 10 Kms radial coverage from the project site shall be carried out and included as a part of EIA report. Priority shall be given to the implementation of CER activities such as shrimp cultivation, beach nourishment, strengthening of village roads approaching the project site etc.,*

vi. *Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.*

vii. *Separate chapter on cyclone/ disaster management shall be prepared and included as a separate chapter in the EIA report.*

viii. *No ground water shall be drawn for the proposed project activity. Cooling water requirement for the project shall be met through sea water and for other purposes water requirement shall be met from Jobra barrage in Mahanadi river.*

ix. *Characteristics of the coal to be used in the steel and power plant shall be submitted along with the EIA report.*

x. *Project proponent shall explore the feasibility setting up of own Treatment, Storage and Disposal Facility at the site within the plant in conforming to the CPCB guidelines on Hazardous waste management. These details shall be included in the EIA report.*

xi. *Project proponent shall explore the feasibility of setting up of residential township facility in the vicinity of the project site for accommodating the workers/staff. These details shall be included in the EIA report.*

xii. *A separate chapter on existence of mangroves, coral reefs, Olive Ridley Turtle nesting/breeding ground and horseshoe crab nesting/breeding ground if any, within the study area of the project site shall be included in the EIA report".*

Details submitted by the project proponent

4. The project proponent has given a detailed presentation on the details provided to the Sub-Committee during its visit held on 29-31st January, 2019.

5. Name of the EIA Consultant: M/s M. N. Dastur & Co. (P) Ltd. [S.No. 99, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observations of the Committee

6. The Committee accepted the recommendations made in the site visit report of the Sub-committee.

Recommendations of the Committee: -

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

i. Sand dunes exists at the site shall not be disturbed.
ii. There are 64 project affected families (PAFs) due to the proposed project activity. Resettlement and Rehabilitation of the PAFs shall be carried out in accordance with the extant provisions of Rules in place and the details shall be furnished in the EIA report as a separate chapter.
iii. CRZ mapping of the project site shall be carried out through an authorized agency inter-alia including HTL/LTL mapping, CRZ land classification along with super-imposition of facilities envisaged in the project.
iv. Socio-economic survey in the project influence area that is 10 Kms radial coverage from the project site shall be carried out and included as a part of EIA report. Priority shall be given to the implementation of CER activities such as shrimp cultivation, beach nourishment, strengthening of village roads approaching the project site etc.,
v. Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.
vi. Separate chapter on cyclone/ disaster management shall be prepared and included as a separate chapter in the EIA report.
vii. No ground water shall be drawn for the proposed project activity. Cooling water requirement for the project shall be met through sea water and for other purposes water requirement shall be met from Jobra barrage in Mahanadi river.
viii. Characteristics of the coal to be used in the steel and power plant shall be submitted along with the EIA report.
ix. Project proponent shall set up of own Treatment, Storage and Disposal Facility at the site within the plant in conforming to the CPCB guidelines on Hazardous waste management. These details shall be included in the EIA report.
x. Residential township facility in the vicinity of the project site shall be explored for accommodating the workers/staff. These details shall be included in the EIA report.
xi. A separate chapter on existence of mangroves, coral reefs, Olive Ridley Turtle nesting/breeding ground and horseshoe crab nesting/breeding ground if any, within the study area of the project site shall be included in the EIA report.
xii. Mass balance as well as energy balance of the steel plant shall be submitted.
xiii. Public Hearing to be conducted by the concerned State Pollution Control Board.
xiv. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.
xv. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.29 Expansion of Sponge Iron from 60,000 to 90,000 TPA, production of 72,000 TPA Billet by addition of 2x12T Induction Furnace and 12 MW Captive Power Plant **by M/s Sri Ram Power & Steel Pvt. Limited** at Village: Ara Saru Bera Road, PO-Kuju, District -Ramgarh, State Jharkhand [Online proposal No. IA/JH/IND/79533/2018;

MoEFCC File No. J-11011/260/2009-IA-II(I)]– **Reconsideration for Terms of Reference based on ADS reply.**

M/s Sri Ram Power & Steel Pvt. Limited made application vide online proposal no.IA/JH/IND/79533/2018 dated 20th September, 2018 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" EIA Notification, 2006 and the proposal is appraised at Central Level.

Details submitted by the Project Proponent:

2. M/s Shri Ram Power & Steel Pvt. Ltd. proposes for expansion existing manufacturing unit of Sponge Iron Plant from 60,000 to 90,000 TPA, production of 72,000 TPA Billet by addition of 2x12 Ton Induction Furnace with CCM and 12 MW Captive Power Plant.

3. The existing project was accorded environmental clearance vide letter no.J-11011/260/2009-IA.II (I) dated 30.09.2010 for expansion of existing Sponge Iron Plant from 30,000 to 90,000 TPA Sponge iron, Steel Melting Shop 60,000 TPA and 8 MW Power Plant through 3x100 TPD DRI Kilns, 2x12 Ton Induction Furnace and 8 MW Power generation through WHRB & AFBC Boiler. Under this EC, all units were not installed within the validity of EC. The company applied for extension of the validity of the existing environment clearance on 21st December, 2017, however, the ministry rejected the proposal vide letter dated 9th April 2018 for extension of validity in view of no progress made at site by the project proponent in last 7 years. Consent to Operate was accorded by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO-2012198/2018/860. Validity of CTO is up to 31.03.2019.

4. The proposed unit will be located at Khasra No. 7, 88, 28, 28, 1/193, 1/193 Village: Ara Saru Bera Road, P.O.: Kuju, District: Ramgarh, Jharkhand.

5. The land area acquired for the proposed plant is 4.96 Ha. Project does not envisage additional land for the expansion project. No forestland involved. Of the total area, 1.71 ha (33%) land will be used for green belt development.

6. No National Park/Wildlife Sanctuary/Biosphere Reserve/Tiger Reserve/Elephant Reserve etc. are reported to be located at a distance of 10 kms. from the project site. The area also does not report to form corridor for Schedule-I fauna.

7. Total project cost is approx 78.25 Crore rupees. Proposed Employment generation from the proposed project will be 143 direct employments and approx. 700 indirect employments.

8. Targeted production capacity for sponge iron will be 90,000 TPA, Billet production will be 72,000 TPA and Captive Power Plant - 12 MW. The ore for the plant would be procured from the open market and from other states depending upon the quality. The ore

transportation will be done by rail till railway siding and then by road. The proposed capacity for different products for new site area as below:

Units	**Existing Units**		**Proposed Units**		**Final Configuration**	
	Unit	**Production TPA**	**Unit**	**Production TPA**	**Unit**	**Production TPA**
Sponge Iron Plant – 90,000 TPA						
DRI Kilns	2x100 TPD	60,000	1x100 TPD*	30,000	3x100 TPD	90,000
Steel Melting Shop – 72,000 MS Billets						
Induction Furnace	--	--	2x12 Ton	73050	2x12 Ton	73050
Billet Caster	--	--	2x6/11 m radius	72000	2x6/11 m radius	72000
Captive Power Plant – 12 MW						
WHRB	--	--	3	6 MW	3	6 MW
AFBC Boiler	--	--	1	6 MW	1	6 MW

9. The electricity load of 11.8 MW will be procured from DVC and captive generation and also proposed to install 1x500 KVA and 1x250 KVA DG Sets.

10. Proposed raw material and fuel requirement for project are:

S.No.	**Item**	**Requirement (TPA)**			**Source and Transportation**
		Existing	**Proposed**	**Total**	
1.	Iron Ore	96,000	48,000	1,44,000	From mines in Odisha & Jharkhand – by Rail rake and by road.
2.	Non Coking Coal	78,000	39,000	1,17,000	From various mines of CCL – by Rail rake and/or road.
3.	Dolomite/ Limestone	1,800	900	2,700	From Chhatisgarh by road

11. Water consumption for the proposed project will be 1119 m^3/day and no waste water will be discharged as the company will follow liquid effluent discharge (ZLD). Domestic waste water will be treated in Septic Tank with Soak Pit and Industrial waste water in Neutralisation Pit and reused.

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

13. Name of Environment Consultant – **M/s. Vardan Environet, Gurgaon** [S.No. 156, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

14. The aforesaid proposal was considered in the 36th meeting of the Expert Appraisal Committee held during 9-10th October, 2018 wherein the Committee deferred the consideration of the proposal and advised the project proponent to submit clarification from the DFO regarding involvement of forest land for the further consideration of the proposal.

15. The reply furnished by the project proponent in this regard is furnished as below:

i. DFO letter regarding involvement of forest land.
Certificate from DFO, Ramgarh vide letter No. 2803 dated 05/11/2018 is obtained confirming no involvement of forest at the project site.

ii. Environmental sensitivity of the project site

S.No.	Features	Details
1	Nearest Highway	NH-33: 0.45 km, West
2	Nearest Railway Station	Kuju Station: 2.23 Km, W
3	Nearest habitation	Murpa – 0.6 Km, Kuju: 1.4 Km, WNW
4	Nearest River	Damodar river: 8.70 km, S Chotha Nadi: 6.30 km, N
5	Forest – PF/RF	Murpa Open Jungle – 1.12 km, NE Orla PF – 3.8 km, SW Kuju Open Forest – 1.6 km, SW
6	Nearest school	Bal Vidya Mandir: 2.02km NE
7	Nearest police station	Kuju Police Station - 1.5 Km, WNW
8	Nearest Post office	Ramgarh P.O: 9.34 km SSW
9	Nearest Port	NIL
10	Nearest Hospital	Prime Hospital: 9.63 km, S
11	Monuments/Religious Place	Noori Masjid: 9.26 km NE
12	Nearest Airport	Birsa Munda Airport: 49 km SSW
13	National Park/Wildlife Sanctuary/Ecologically sensitive zone	Nil within 10 km radius

iii. Existing/Proposed Configuration of the project:
The following is the configuration of the project.

Units	Existing Units		Proposed Units		Final Configuration	
	Units	Production (TPA)	Units	Production (TPA)	Units	Production (TPA)
Sponge Iron Plant						

DRI Kilns	2x100 TPD	60,000	1x100 TPD*	30,000	3x100 TPD	90,000
			Kiln erected as per previous EC – to be commissioned			
Steel Melting Shop						
Induction Furnace	--	--	2x12 Ton	73,050	2x12 Ton	73,050
Billet Caster	--	--	2x6/11 m	72,000	2x6/11 m	72,000
Captive Power Plant						
WHRBs	--	--	3 x 2 MW	6 MW	3	6 MW
AFBC Boiler	--	--	1 x 6 MW	6 MW	1	6 MW

Observations Recommendations of the Committee: -

16.0 The committee satisfied with the reply of the project proponent. After detailed deliberations, the Committee recommended the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToR enclosed **at Annexure I read with additional ToRs at Annexure-2:**

i. No ground water shall be abstracted

ii. Rainwater water harvesting and ground water recharging shall be carried out

iii. Public Hearing to be conducted by the concerned State Pollution Control Board.

iv. The issues raised during public hearing and commitment of the project proponent on the same along with time bound action plan to implement the commitment and financial allocation thereto should be clearly provided.

v. The project proponent should carry out social impact assessment of the project and submit the Corporate Environment Responsibility as per the Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1/05/2018.

4.30 Establishment of Greenfield Cement Plant Clinker: 3.15 MTPA Cement: 2.0 MTPA Power: Captive Coal based Thermal Power Plant; 50 MW (2 X 25 MW) **by M/s. Ramco Cements Limited** at Kalvatala Village, Kolimigundla Mandal, Kurnool District, Andhra Pradesh [Online Proposal No. IA/AP/IND/63579/2017, MoEF&CC File No. IA-J-11011/135/2017-IA-II(I)] – **Amendment in the environmental clearance accorded for shift of project site by 800m**

M/s. Ramco Cements Limited vide online application made vide proposal no. IA/AP/IND/63579/2017dated 21st January, 2019 sought for the amendment in the environmental clearance accorded by the Ministry vide letter no.J–11011/135/2017–IA–II(I) dated 14th January, 2019.

Details submitted by the project proponent

2. The project of M/s. The Ramco Cements Limited (Formerly Known as Madras Cements Ltd) proposed to be located in Kalvatala Village, Kolimigundla Mandal, Kurnool District, Andhra Pradesh for greenfield cement plant of 3.15 Million Tonnes Per Annum (MTPA) Clinker and 2.0 MTPA Cement Plant and 50MW (2 X 25 MW) Coal Based Captive Thermal Power Plant was granted Environmental Clearance vide letter No. J-11011/135/2017-IA.II(I) dated 14.01.2019.

3. As per the EC granted, the land required for the project is 186.56 Ha (169.66 Ha Private Patta Land + 16.9 Ha Govt. Land). RCL has already acquired 123 Ha [106.1 Ha Private Patta Land + 16.9 Ha Govt. Land (alienated)]. Balance area is under acquisition.

4. RCL is now finding difficulty in acquiring the balance private land of 63.56 Ha due to escalation of land prices by 5 times by Landowners. When this matter was brought to the notice of Department of Industries during a review meeting they have informed us that our earlier request for 500 acres for Govt. land was pending at District Collector office. We have taken up with District Collector who had initiated this file and recommended for allotment of 500 acres of Govt. land. Based on this, Govt. Land was allotted to RCL for the project vide G.O.Ms. No. 88 dated 05.02.2019, 500 Acres (202 Ha) by Govt. of Andhra Pradesh.

5. In view of the above RCL proposes to implement the cement plant in total Government Land with colony in Pvt Land. Due to realignment of the Cement plant site alongwith colony, there is a shift in the Cement plant site and colony by 800 m towards northern direction.

6. The lat-longs of the realigned project site are15° 04' 25.70" N - 15° 05' 03.70" N Latitude and 78° 07' 43.80" E - 78° 09' 03.40" E Longitude with average elevation of 295 m AMSL. There is no change in the jurisdiction of the project site.

7. The land category of the earlier site and realigned site are given below: -

EC granted site
Cement Plant - Total Land: 137.87 Ha (Govt. Land – 16.9 Ha and Private Land – 120.97 Ha) with **Colony -** Total Land – 48.69 Ha (Private Land – 48.69 Ha)

Realigned site
Cement Plant - Total Land: 137.87 Ha (Govt. Land – 137.87 Ha (allotted land by Govt is 202 Ha)with **Colony -** Total Land – 40 Ha (Patta land: 29.27 and Govt land: 10.74 ha)
A road connecting Mirjapuram village and State Highway (SH-317) is passing through the EC granted plant site and realigned plant site. Road diversion length in EC granted project site was 2.3 km and in the realigned project site it is 3.98 km.

Due to realignment of project site, there is no change in the study area (10 km radius) of the cement plant as Draft and Final EIA Reports are presented for estimating cumulative impacts covering all the Captive mines covering 13 km radius

Distance to Belum Caves is reduced from 3.8 to 3.0 km. NOC was obtained from Archaeology & Museums Department –Vijayawada

The realigned project is free from habitation, vegetation and agricultural activity. Utilization of agricultural land will be reduced compared to earlier site The barren Government Land will be developed into the Industrial space with 36 % under greenbelt

8. There are no other changes in the proposal for which EC is granted.

Observations and recommendations of the Committee: -

9. After detailed delibrations, the Committee recommended for the amendment in the environmental clearance dated 14/01/2019 for the shift of project site as mentioned above subject to following additional environmental safeguards.

i. Limestone shall be transported through closed conveyor only.
ii. Dual carriage approach road to the plant site shall be constructed and the implementation status shall be submitted to the Regional Office of the Ministry along with the six monthly compliance report.
iii. PP shall develop green barrier with native and broad leaved tree species between the plant and proposed colony and along the nallah.

All other conditions stipulated in the environmental clearance accorded vide letter no.J–11011/135/2017–IA–II(I) dated 14th January, 2019 shall remain unchanged.

4.31 Expansion of integrated steel plant (1.4 MTPA) of **M/s. Kalyani Steels Limited** located at Koppal, Tehsil Koppal, District Koppal, Karnataka [Online Proposal No. IA/IND/KA/23953/2014, MoEF&CC File No. J-11011/221/2014-IA-II(I)] – **Amendment in the environmental clearance with respect to change in configuration of Coke Ovens.**

M/s. Kalyani Steels Limited vide online application made vide proposal no. IA/IND/KA/23953/2014dated 8thJanuary, 2019 sought for the amendment in the environmental clearance accorded by the Ministry vide letter no.J–11011/135/2017–IA–II(I) dated 19th January, 2016.

Details submitted by the project proponent

2. Kalyani Steels Limited (KSL) had planned expansion of their Integrated Steel Plant (ISP) for production of 1.4 MTPA carbon and alloy steel along with stainless steel in Koppal district of Karnataka. The Environmental Clearance (EC) for the proposed expansion was accorded by Ministry of Environment, Forest & Climate Change (MoEFCC) vide F. No. J-11011/172/2007-IA II(I) on 19th January 2016.

3. Production Units as per EC are as follows:

Sl. No.	Production Unit	Configuration & Production capacities as per EC dated 19th January 2016
1	Coke Oven Plant	2 x 45 ovens Coke Ovens and By-Products Recovery Plant (COBP) 0.6 MTPA Gross Coke
2	Sinter Plant Pellet Plant	1 x 33 sq m + 1 x 130 sq m 1.79 MTPA 1 x 1.2 MTPA
3	Blast Furnace DR Plant	1 x 750 cu m + 2 x 250 cu m + 1 x 350 cu m 1.64 MTPA Hot Metal 1 x 0.5 MTPA
4	Pig casting machine	40 TPH & 180 TPH
5	Lime/dolo Calcining Plant	2 x 300 TPD 0.17 MTPA Calcined Lime; 0.05 MTPA Calcined Dolo
6	Steel Melt Shop	BOF - 2 x 60 T LF - 3 x 60 T IF - 1 x 50 T VD/RH - 2 x 60 T EAF - 1 x 60 T AOD - 1 x 60 T 1.46 MTPA Liquid Steel
7	Casting units	Continuous Caster- Billet cum bloom cu m round caster Billet cum bloom caster Bloom cum round caster Ingot Casting 1.4 MTPA Crude Steel
8	Rolling Mill	Bar & Wire Rod Mill 0.49 MTPA Bars, flats & Wire Rods
		Heavy bar Mill 0.31 MTPA Rounds & RCS
		Bar & Rod Mill 0.34 MTPA Bars & Rods
		Annealing Furnace - 60 TPH Tempering Furnace - 50 TPH
9	Air Separation Plant	600 TPD (BOO basis)
10	Power Plant	BF gas based - 8 MW CDQ - 6 MW (5.4 MW production capacity) TRT - 3.65 MW (3.28 MW production capacity)

4. Status of implementation: Due to delay in financial closure on account prevailing adverse steel market scenario, KSL has not implemented the EC facilities until now. However, the schedule of completion would remain unchanged as earlier.

5. Amendment Requested

KSL requests EAC to grant amendment in the existing EC due to change in configuration of coke ovens from 0.6 MTPA By-product recovery type Coke Ovens to 0.6 MTPA Heat Recovery type coke ovens and deletion of COG based DRI plant.

The final configuration of the plant is tabulated below:

Sl. No.	Production Unit	As per EC dated 19th January 2016		Amendment sought in EC		Final configuration	Final Production capacities
		Configuration	Production capacities	Proposed Configuration	Proposed Production capacities		
1	Coke Oven Plant	2 x 45 ovens Coke Ovens and By-Products Recovery Plant (COBP)	0.6 MTPA Gross Coke	3 x (max 4 x 11 ovens) Wet quenching in Phase 1 & CDQ in Phase 2 for 0.6 MTPA gross coke	0.6 MTPA Gross Coke Heat Recovery type Coke ovens	**3 x (max 4 x 11 ovens) Heat Recovery type Coke ovens; Wet quenching in Phase 1 & CDQ in Phase 2 for 0.6 MTPA gross coke**	**0.6 MTPA Gross Coke**
2	Sinter Plant Pellet Plant	1 x 33 sq m + 1 x 130 sq m	1.79 MTPA 1 x 1.2 MTPA	No change No change	No change No change	**1 x 33 sq m + 1 x 130 sq m**	**1.79 MTPA** **1 x 1.2 MTPA**
3	Blast Furnace DR Plant	1 x 750 cu m + 2 x 250 cu m + 1 x 350 cu m 1 x 0.5 MTPA	1.64 MTPA Hot Metal 0.4 MTPA	No change Deletion of DR Plant	No change Deletion of DR Plant	**1 x 750 cu m + 2 x 250 cu m + 1 x 350 cu m** **None**	**1.64 MTPA Hot Metal** **None**
4	Pig casting machine		40 TPH 180 TPH	No change	No change		**40 TPH 180 TPH**
5	Lime/dolo Calcining Plant	2 x 300 TPD	0.17 MTPA Calcined Lime; 0.05 MTPA Calcined Dolo	No change	No change	**2 x 300 TPD**	**0.17 MTPA Calcined Lime; 0.05 MTPA Calcined Dolo**
6	Steel Melt Shop	BOF - 2 x 60 T	1.46 MTPA Liquid Steel	No change	No change	**BOF - 2 x 60 T**	**1.46 MTPA Liquid Steel**
		LF - 3 x 60 T				**LF - 3 x 60 T**	
		IF - 1 x 50 T				**IF - 1 x 50 T**	
		VD/RH - 2 x 60				**VD/RH - 2 x 60**	
		EAF - 1 x 60				**EAF - 1 x 60**	

Sl. No.	Production Unit	As per EC dated 19th January 2016		Amendment sought in EC		Final configuration	Final Production capacities
		Configuration	Production capacities	Proposed Configuration	Proposed Production capacities		
		T AOD - 1 x 60 T				**T** **AOD - 1 x 60 T**	
7	Casting units	Continuous Caster- Billet cum bloom cum round caster Billet cum bloom caster Bloom cum round caster Ingot Casting	1.4 MTPA Crude Steel	No change	No change	**Continuous Caster- Billet cum bloom cu m round caster** **Billet cum bloom caster** **Bloom cum round caster** **Ingot Casting**	**1.4 MTPA Crude Steel**
8	Rolling Mill	Bar & Wire Rod Mill	0.49 MTPA Bars, flats & Wire Rods	No change	No change	**Bar & Wire Rod Mill**	**0.49 MTPA Bars, flats & Wire Rods**
		Heavy bar Mill	0.31 MTPA Rounds & RCS	No change	No change	**Heavy bar Mill**	**0.31 MTPA Rounds & RCS**
		Bar & Rod Mill	0.34 MTPA Bars & Rods	No change	No change	**Bar & Rod Mill**	**0.34 MTPA Bars & Rods**
		Annealing Furnace Tempering Furnace	60 TPH 50 TPH	No change	No change	**Annealing Furnace** **Tempering Furnace**	**60 TPH** **50 TPH**
9	Air Separation Plant	600 TPD (BOO basis)	600 TPD (BOO basis)	No change	No change	**600 TPD (BOO basis)**	**600 TPD (BOO Basis)**
10	Power Plant	BF gas based 8 MW CDQ 6 MW TRT 3.65 MW	8 MW 5.4 MW 3.28 MW	Power from CO WHRB (Including CDQ) Phase 1: 25 MW Waste Heat Recovery (WHR) based Power Plant Phase 2: 50 MW WHR based Power Plant	75 MW	**BF gas based 8 MW** **TRT 3.65 MW** **Power from CO WHRB (Including CDQ) 75 MW** **Phase 1: 25 MW WHR based Power Plant**	**8 MW** **3.28 MW** **75 MW**

Sl. No.	Production Unit	As per EC dated 19th January 2016		Amendment sought in EC		Final configuration	Final Production capacities
		Configuration	Production capacities	Proposed Configuration	Proposed Production capacities		
						Phase 2: 50 MW WHR based Power Plant	

6. Impact prediction and management plan

At present KSL proposes to install 0.6 MTPA heat recovery type coke ovens with stamp charging in place of 0.6 MTPA Byproduct recovery type Coke Ovens with stamp charging in the existing land area of KSL. The details of the proposed amendment are as mentioned below:

i. 0.20 MTPA Heat Recovery coke oven with wet quenching in Phase 1
ii. 0.40 MTPA Heat Recovery coke oven in Phase 2 with CDQ for combined capacity 0.6 MTPA coke.
iii. Stand-by wet quenching for use during annual maintenance of CDQ.

KSL intends to withdraw the proposal for setting up of Coke Oven gas (COG) based DRI plant since combustible off gas (as reductant) would not be generated from heat recovery type coke ovens. The requisite amount of DRI/scrap would be procured externally.

7. Requirement of Water & Electrical Power due to the present proposal are as follows:

i. The total requirement of water for the existing plant as well as the expansion would be about 4.30 MGD (in place of 4.68 MGD earlier)
ii. The total requirement of power for the ISP would be about 120 MW (in place of 128 MW earlier), which would be met through in plant generation as mentioned above and KPTCL grid.

The impacts due to the aforesaid changes and the management plan are as follows:

	Impacts due to change in coke oven configuration to heat recovery type Coke Ovens & deletion of COG based DRI plant	**Management Plan**
Air		
Fugitive emission	- No fugitive emission due to leakages from ovens, coal charging & coke pushing since the oven operates under negative pressure - Generation of fugitive particles during coal handling & coke screening	- Maintaining improved draught inside oven to ensure total combustion of gasses - Adequate stack height to ensure proper dispersion. - Installation of dust

	Impacts due to change in coke oven configuration to heat recovery type Coke Ovens & deletion of COG based DRI plant	**Management Plan**
		suppression system for coal handling unit and dust extraction system for coke screening unit - Wet quenching system (in Phase 1) with grit arrestor and other accessories, to ensure minimum dust emission. - Desulphurisation of flue gas with lime spray.
Stack emission - Under-firing	- No emission from under firing as the heat of combustion is used to keep the walls of the ovens hot for the process of carbonization& no additional fuel is required for heating the walls of the ovens.	
- Flue gas from carbonization	- Flue gas mostly containing CO_2& NOx, after recovery of sensible heat is vented off to the atmosphere	
- Emission during wet quenching	- Emission containing coke particulate	
Water		
- Process Wastewater from primary gas cooling	- No generation of process wastewater. In Phase-1, there would be generation of wastewater from wet quenching. CDQ will be installed in Phase 2 and there would be no generation of such wastewater.	Wastewater from wet quenching would be treated for removal of suspended solids and recycled back to the system for quenching purpose.
- Wastewater from equipment cooling	- The wastewater from cooling circuit is treated and reused	
Solid waste		
- Coal tar sludge & BOD sludge	No generation of such solid wastes	

8.Fund provision for the proposed amendment is not applicable as the overall project cost is estimated to be approximately same as that in existing EC as:
The decrease in cost due to:

i. Converting Recovery type of Coke Oven to Non-Recovery Type and
ii. Deletion of DR plant

…is offset by:

i. Additional cost of Waste Heat recovery system and Power plant
ii. Overall increase in equipment cost for all the plant facilities
iii. Increase in construction cost (steel & cement)
iv. Higher exchange rate as compared to that in 2015-16 when we received the existing EC.

9. Key advantages due to present proposal are as follows:
i. Net reduction in the requirement of make-up water & power
ii. No production of cyanide & phenolic effluent and no requirement of BOD plant
iii. Since non-recovery ovens work under negative pressure, there is no fugitive emission from the ovens during operation
iv. Efficient utilisation of energy to produce low cost electrical power reducing sourcing of the same from external sources.
v. Reduction of pollution load due to deletion of DRI plant which includes DRI exhaust emission and reduction of pollution load due to raw material and DRI handling in DRI circuit.

10. EIA Consultant engaged for the EIA-EMP Report is M/s M. N. Dastur & Co. (P) Ltd. [S.No. 99, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 73, February 08, 2019].

Observartions and recommendations of the Committee: -

11. After detailed delibrations, the committee did not accede to the request of the project proponent regarding the amendment in the coke oven plant as the said proposal involves increase in carbon foot print and water pollution due to wet quenching method. The Committee also recommended the proposal shall be returned in present form.

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ANNEXURE –I

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

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

3. Project Description
   - i. Cost of project and time of completion.
   - ii. Products with capacities for the proposed project.
   - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   - iv. List of raw materials required and their source along with mode of transportation.
   - v. Other chemicals and materials required with quantities and storage capacities
   - vi. Details of Emission, effluents, hazardous waste generation and their management.
   - vii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   - viii. The project proponent shall furnish the requisite documents from the competent authority in support of drawl of ground water and surface water and supply of electricity.
   - ix. Process description along with major equipment and machineries, process flow sheet (Quantative) from raw material to products to be provided
   - x. Hazard identification and details of proposed safety systems.
   - xi. Expansion/modernization proposals:
     - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MoEF&CC/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 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).

The following general points shall be noted:

i. All documents shall be properly indexed, page numbered.
ii. Period/date of data collection shall be clearly indicated.
iii. Authenticated English translation of all material in Regional languages shall be provided.
iv. The letter/application for environmental clearance shall quote the MOEF&CC file No. and also attach a copy of the letter.
v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
vi. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
vii. While preparing the EIA report, the instructions for the proponents and instructions for the consultants issued by MOEF&CC vide O.M. No. J-11013/41/2006-IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry shall also be followed.
viii. The consultants involved in the preparation of EIA-EMP report after accreditation with Quality Council of India (QCl)/National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA-EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc. Name of the Consultant and the Accreditation details shall be posted on the EIA-EMP Report as well as on the cover of the Hard Copy of the Presentation material for EC presentation.
ix. ToRs' prescribed by the Expert Appraisal Committee (Industry) shall be considered for preparation of EIA-EMP report for the project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation shall be provided. The draft EIA-EMP report shall be submitted to the State Pollution Control Board of the concerned State for conduct of Public Hearing. The SPCBshall conduct the Public Hearing/public consultation, district-wise, as per the provisions of EIA notification, 2006. The Public Hearing shall be chaired by an Officer not below the rank of Additional District

Magistrate. The issues raised in the Public Hearing and during the consultation process and the commitments made by the project proponent on the same shall be included separately in EIA-EMP Report in a separate chapter and summarised in a tabular chart with financial budget (capital and revenue) along with time-schedule of implementation for complying with the commitments made. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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ANNEXURE-2

ADDITIONAL ToRS FOR INTEGRATED STEEL PLANT

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

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ADDITIONAL ToRS FOR PELLET PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines

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

ADDITIONAL ToRs FOR CEMENT INDUSTRY

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

ADDITIONAL ToRs FOR PULP AND PAPER INDUSTRY

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
INDUCTION/ARC FURNACES/CUPOLA FURNACES 5TPH OR MORE

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

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

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

10. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
11. Trace metals in waste material especially slag.
12. Plan for trace metal recovery
13. Trace metals in water

Executive Summary

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

i. Project name and location (Village, Dist, State, Industrial Estate (if applicable)
ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
iv. Process description in brief, specifically indicating the gaseousemission, 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. Capitalcost 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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MoM of 4th meeting of the Re-constituted EAC (Industry-I) held during 20-22nd February, 2019

LIST OF PARTICIPANTS OF EAC (I) IN 4th MEETING OF EAC (INDUSTRY-I) HELD ON 20th to 22nd FEBRUARY, 2019

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE			SIGNATURE
			20th	21st	22nd	
1	Dr. Chhavi Nath Pandey, IFS(Retired) Email: pandeychhavinath55@gmail.com	Chairman	P	P	P	
Members						
2.	Dr.Kamaljeet Singh, Scientist 'F', Representative of Central Pulp and Paper Research Institute, Saharanpur.	Member	P	P	P	
3.	Dr. Siddarth Singh, Representative of Indian Meteorological Department, New Delhi.	Member	A	A	A	
4.	Dr. G. Bhaskar Raju Email: gbraju55@gmail.com	Member	P	P	P	
5.	Dr. Jagdish Kishwan, IFS (Retd.) Email: jkishwan@gmail.com	Member	P	P	P	
6.	Dr. G.V. Subramanyam Email: sv.godavarthi@gmail.com	Member	P	P	P	
7.	Shri Ashok Upadhyaya Email: ahupadhy@rediffmail.com	Member	P	P	P	
8.	Shri R.P. Sharma Email: rpsh2@hotmail.com	Member	P	P	P	
9.	Shri Sanjay Deshmukh Email: sanjaydeshmukh@mu.ac.in	Member	P	P	A	
10.	Prof. S.K. Singh Email: sksinghdee@gmail.com singhsk@email.com	Member	P	P	P	
11.	Dr. R. Gopichandran Email: r.gopichandran@vigyanprasar.gov.in	Member	P	A	A	
12.	Shri Jagannath Rao Avasarala Email: avasaralajagan@gmil.com	Member	P	P	P	
13	Shri J.S. Kamyotra Email: kamyotra@yahoo.co.in	Member	P	P	P	
14.	Shri Sharath Kumar Pallerla, Scientist 'F' / Director, MoEF&CC	Member Secretary	P	P	P	

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