

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

SUMMARY RECORD OF THE FIFTH(5th) MEETING OF RE-CONSTITUTED EXPERT APPRAISAL COMMITTEE HELD DURING 27-29th MARCH, 2019 FOR ENVIRONMENTAL APPRAISAL OF INDUSTRY-I SECTOR PROJECTS CONSTITUTED UNDER THE PROVISIONS OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) NOTIFICATION, 2006.

The fifth meeting of the Re-Constituted Expert 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 **27-29th March, 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. The minutes of 4th meeting held during **20-22nd February, 2019** were circulated and confirmed by the EAC.

27th March, 2019 (Teesta)

5.1 Expansion of Total Production Capacity and augmentation of integrating melting and rolling facility (from 54,000 TPA to 92,500 TPA) **by M/s. Kundlas Loh Udyog** located at Village Balyana, Post Barotiwala, Tehsil Baddi, District Solan, Himachal Pradesh [Online proposal No. IA/HP/IND/87362/2017; MoEF&CC File No. J-11011/350/2017-IA.II(I)] – **Environmental Clearance.**

M/s. Kundlas Loh Udyog has made an online application vide proposal no. IA/HP/IND/87362/2017 dated 6th 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 “B” EIA Notification, 2006. However, due to the applicability of general condition i.e., interstate boundary of Haryana and Himachal Pradesh at distance of 3.16 Km in west direction, the project is being appraised at the Central level as Category ‘A’.

Details submitted by the Project Proponent

2. The application of M/s. Kundlas Loh Udyog located at Vill. Baliana, Tehsil Baddi, Distt. Solan, Himachal Pradesh was initially received in the Ministry on 30th 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 20th meeting on 10th to 12th 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 19th September 2017 vide F.No. J-11011/350/2017-IA-II(I).

3. Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 6th February, 2019 vide Online Application No. IA/HP/IND/87362/2017.
4. The project of M/s Kundlas Loh Udyog located at Vill. Baliana, Tehsil Baddi, Distt. Solan, Himachal Pradesh State is for expansion and augmentation of melting and rolling facility from 54000 TPA to 92500 TPA and replacement of existing Induction Furnace having 6 MT/heat capacity with 12 MT/heat capacity and addition of one more Induction furnace having 12 MT/heat capacity. Total capacity of two Induction furnaces proposed is 24 MT/heat.
5. The total land required for the project is 0.779 ha., out of which 0 ha is an agricultural land, 0 ha is grazing land and 0.779 ha. is others/Private land (0 ha. Government Land). No forest land involved. The entire land has been acquired for the project. It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.
6. The topography of the area is mainly plain and reported to lies between 30^o54'56.380"N to 30^o55'0.789"N Latitude and 76^o49'58.503"E to 76^o50'04.130"E Longitude in Survey of India topo sheet No. H43K13 at an elevation of 448 m AMSL. The ground water table reported to ranges between 3.02 to 27.57 meter below the land surface during the post-monsoon season and 5.01 to 28.76 meter below the land surface during the pre-monsoon season.
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. No Schedule-I species is found in the 10 km radius of the project site.
8. The targeted production capacity of the Billets/Ingots is 288 TPD and MS rolled product is 280 TPD. MS Scrap, Ferro Alloys & MS Billets will be used as basic raw material to manufacture TMT Bar, Garter & Angels. Raw materials will be purchased from open market and transported to site through trucks.
9. The total fresh water requirement of the project is estimated as 65 m³/day, which will be sourced from the Borewell. Water requirement will be met through HP Ground Water Authority, Govt. of Himachal Pradesh). Application submitted on dated 31.05.2017.
10. The power requirement of the project is estimated to be 11000 KVA; the permission has been obtained from the Himachal Pradesh State Electricity Board (HPSEB).
11. Baseline Environmental Studies were carried out during Post-Monsoon season. Ambient air quality monitoring at 8 locations during 1st October, 2017 to 31st December, 2017 indicated: PM₁₀ (60.59µg/m³ to 87.57µg/m³), PM_{2.5} (30.02 to 58.93µg/m³), SO₂ (6.25 to 16.15µg/m³) and NO_x (17.55 to 33.34µg/m³). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is just 1.23 µg/m³ with respect to the PM₁₀.
12. Ground water quality has been monitored in 8 locations in the study area and analyzed. pH: 7.41 to 7.84, Total Hardness: 190.87 to 239.81 mg/L, Chlorides: 25.48 to 33.98 mg/L, Fluoride: 0.27 to 0.78 mg/L. Heavy metals are within the limits. Surface water samples were

analyzed from 8 locations. pH: 7.7 to 7.85; DO: 4.5 to 6.5 mg/L and BOD: 3.28 to 28.07 mg/l, COD: 20.74 to 116.14 mg/L.

13. Noise levels are in the range of 58.3 to 65.03 dB(A) for day time and 50.61 to 58.4 dB(A) for night time.

14. No R&R is involved. It has been envisaged that no family is to be rehabilitated.

15. It has been reported that a total of 21 MTPD of Slag, 11 MTPD of Mill Scale and 0.8 MTPD of APCD dust will be generated due to the project, out of which mill scale waste will be sold to the market, slag will send to paver industry for interlock block making after metal extraction and APCD waste will be send to TSDF site for proper disposal. Zinc metal recovery from APCD dust is under consideration for implementation. It has been envisaged that an area of 0.257 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 Consent to Operate from the Himachal Pradesh State Pollution Control Board obtained vide Certificate No. HSPCB/PCB-ID15312/8069-71 dated 23/09/2018 and consent is valid up to 31/03/2021.

17. The Public hearing of the project was held on 04.07.2018 at Project site under the chairmanship of ADM, Solan District for production of 288 TPD of Billets and 280 TPD of MS rolled products (TMT Bar, Girders & Angels etc). The issues raised during public hearing are employment, pollution control and Providing Health Facility. The issues raised during public hearing and response of the project proponent with action plan are tabulated below:

S. No	Name of the person	Issues raised	Action Plan		
			Commitment	Time Frame	Budget
1	Sh. Balbir Thakur Block Chairman Doon Distt. Solan	Smoke emission from these kinds of iron and steel units. emphasized upon further improvisation in the air pollution control devices	Smoke generated from induction furnace shall be passed through Air pollution control devices to prevent any adverse impact on the environment; he informed that pulse jet bag filter is proposed as APCD, its efficiency 99.9%. APCD dust having some concentration of Zinc and same will be sold to authorized recycler for zinc recovery. Monitoring and analysis of smoke emission will be done regularly.	Implemented parallel with implementation of the proposed project.	Rs. 40 Lakhs is earmarked for APCD and Rs. 4 Lakhs/ annum as recurring cost

S. No	Name of the person	Issues raised	Action Plan		
			Commitment	Time Frame	Budget
2	Dr. R N Thakur, Deputy Director Agriculture, Distt. Solan	<p>He said that Soil texture analysis, Bulk density etc. has been got analyzed from which laboratory?</p> <p>He also asked the consultant regarding the source of topographical features mentioned in the EIA Report</p>	<p>The analysis has been done by Shivalik Solid Waste Management laboratory at Nalagarh which is NABL Accredited and MoEF&CC recognized Laboratory.</p> <p>Representative of Kundlas Loh udyog informed that the requisite data was procured from the geological survey of India, Chandigarh and satellite image obtained from Hyderabad.</p>	-----	-----
3	Dr. Sobnath, Department of Fisheries, Distt. Solan	<p>He asked consultant regarding the provision for the treatment for Liquid and solid waste to be generated from expansion activities and its impact on the local rivers and other water bodies.</p>	<p>No liquid waste generated from the process as whole water shall be recirculated in closed loop.</p> <p>Proper treatment of domestic waste water will be done which will be treated in STP (8 KLD) and used within the premises for plantation.</p> <p>As far as solid waste is concerned there will be two types of solid waste. <i>i.e.</i> Slag (Non-Hazardous) and APCD dust (Hazardous). The crushed slag after extraction of metallic contents and in combination with other constituent materials shall be used for pebbles manufacturing and APCD dust shall be disposed to TSDF facility.</p>	<p>Implemented parallel with implementation of the proposed project.</p> <p>---</p>	<p>Rs. 4 Lakhs is earmarked for STP and Rs. 1 Lakhs/annum as recurring cost</p> <p>Rs. 1.00 Lakhs is earmarked in EMP Budget</p>
4	h. Ramesh Verma, Joint Director, Deptt. Of	Clarification regarding the enhanced power and load and proposed	<p>Power load enhanced from 4210.53 KVA to 11000 KVA and permission obtained from HPSEB.</p> <p>The existing production capacity is 54000 MTPA</p>	-----	-----

S. No	Name of the person	Issues raised	Action Plan		
			Commitment	Time Frame	Budget
	Industries, Baddi	production capacities. Er. A. K Sarda advised the project proponent to apply and obtained all requisite permission after obtaining Environment Clearance	(rolled product) but unit being operated with a single induction furnace with capacity 20000 MTPA (billets) which will be enhanced to 92000 MTPA (billets and rolled products)		
5	Sh. Vivek Chandel, ADM cum Chairman	The chairman raised the issue regarding plantation done under Pollution Abating Plantation Abhiyan "PAPA" Within and outside the premises, He advised the project proponent to plant more trees which finally result into a model green buffer around the unit. HE also asked about the mechanism for use of slag in brick manufacturing and to ensure procedure to be adopted its use by brick kiln industries.	Project proponent informed that 150 nos. plants were planted under Pollution Abating Plantation Abhiyan "PAPA" and assured that more plant will be carried out. 33 % of the total plant area will be developed as a Greenbelt. Greenbelt development programme also organized in nearby village's school and gram panchayat land. The brick manufacturing shall be executed after adopting the technology approved and permitted by State Pollution Control Board. Approx. 3610.47 m ³ /year will be harvested inside the plant premises and RWH pit (12mx10mx20m) will developed for storage of rain water.	6 months 8-10 months Implemented parallel with implementation of the proposed project.	Rs. 2.50 Lakhs is earmarked in EMP Budget Rs. 4.00 Lakhs is earmarked in CER Budget Rs. 3.00 Lakhs is earmarked in EMP Budget

S. No	Name of the person	Issues raised	Action Plan		
			Commitment	Time Frame	Budget
		He also raised the issue regarding Rain Water Harvesting to be implemented by the project proponent			
6	Pradhan Gram Panchyat	He welcomed everyone in the Public Hearing and said that they don't have any objection w.r.t expansion proposal however he emphasized that the plant shall be operated in the same manner as being run in the past beside resulting into no adverse impact on environment. He requested project proponent to contribute in C.S.R activities as usual.	He reiterated that they shall be bound to adhere pollution control norms beside their contribution to C.S.R activities in similar ways as implemented in the past.	After complete implementation of proposed project	2% from profit make by industry.

18. An amount of Rs. 13.5 lakhs (more than 1% of Project cost) has been earmarked for Corporate Enterprises Responsibility based on public hearing issues. The details of CER proposed are as follows:

S. No.	Description	Amount to be spent	
		First Year	Second Year
		Rs.in Lakhs	Rs.in Lakhs
1	Employment (Vocational Training for Skill development for self-employment like Sewing, Pickle making,	0.60	0.40

S. No.	Description	Amount to be spent	
		First Year	Second Year
		Rs.in Lakhs	Rs.in Lakhs
	Craft and in-plant training for welding, fabrication and maintenance of appliances for youth of nearby villages)		
2	Greenbelt Development (Plantation in and around the project site, nearby villages and schools)	2.50	1.50
3	Health Camp (Health, Eye etc. check up camp will be organized for villagers)	0.90	0.60
4	Educational Facility (Distribution of School dress, books, Furniture, water cooler, renovation of toilets in schools etc.)	2.50	1.50
5	Community Development (Rain water harvesting structure & maintenance of street light)	2.00	1.00
Sub Total		8.50	5.00
Total		Rs. 13.5	

19. The capital cost of the project is Rs 1019.75 Lakh and the capital cost for environmental protection measures is proposed as Rs 56 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs 7.50 Lakhs. The employment generation from the proposed project / expansion is 321. The details of capital cost for environmental protection measures and annual recurring cost towards the environmental management is as follows:

S.No	Title	Capital Cost Rs. Lacs	Recurring Cost Rs. Lacs (Annum)
1	Air Pollution Control	40.0	4.0
2.	Water Pollution Control/ sewage Treatment Plant	2.0	1.0
3.	Noise Pollution Control (Including cost of Landscaping, Green Belt)	5.0	1.0
4.	Solid Waste Management	1.0	00
5.	Environment Monitoring and Management (Including Establishment of Laboratory)	2.0	0.5
6.	RWH	3.0	0.50
7.	Miscellaneous (Appointment of Consultants, occupational health & safety measure)	3.0	1.0

	Total	56.00	8.00
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20. Greenbelt will be developed in 0.257 Ha which is about 33 % of the total acquired area. A 10m wide greenbelt, consisting of at least 2 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 1500 trees per hectare. Total no. of 500 saplings will be planted and nurtured in 0.257 hectares in 5 years.

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. Shivalik Solid Waste Management Limited, Zirakpur [S.No. 138, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 74, Maarch 07, 2019].

Observations of the Committee: -

1. The EIA/EMP report submitted by the project proponent is inadequate and not as per the QCI/NABET norms. Further, permission from the Competent Authority for ground water extraction and power supply has not been obtained.
2. All quantities related to raw material, utilities, products and solid waste should be in same unit, i.e., tons/annum.
3. Detailed plan for rainwater harvesting should be furnished.
4. Explore the feasibility of water withdrawal from nearby river and submit action plan accordingly.
5. HIRA is not project specific.
6. The existing re-heating furnace shall be decommissioned and there will be no change in caster two numbers and one number rolling mills
7. EIA report should be recast as per the Appendix-III of EIA Notification 2006

Recommendations of the Committee: -

After detailed deliberations, the committee, for want of aforesaid clarifications / documents, returned the proposal in the present form.

5.2 Proposed 1 x 15 MW Nett (Gross 17 MW) coal based Captive Power Plant, 5000 TPA Ferro Titanium, 3000 TPA Ferro Manganese, 12 TPD Aluminum powder plant & 2.4 TPA Scandium Oxide Recovery Plant by **M/s. Saraf Agencies Private Limited** located within the existing Titanium slag and Titanium di-oxide pigment plant located at Chhatrapur, District Ganjam of Odisha [Online proposal No. IA/OR/IND/57594/2016; MoEF&CC File No. J-11011/658/2007-IA.II(D)] – **Environmental Clearance.**

M/s. Saraf Agencies Private Limited has made an online application vide proposal no. IA/OR/IND/57594/2016 dated 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 S.No. 3(a)

Metallurgical Industries (Ferrous and Non-ferrous) under Category ‘A’ of the schedule of EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2. The existing Titanium Plant of M/s Saraf Agencies Pvt. Ltd. is located in Village-Kanamana, Tehsil Chatrapur, District Ganjam, State Odisha. The proposal for expansion was initially received in the Ministry on 19th July, 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC (I)] during its 10th meeting held on 29th to 31st August, 2016 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 2nd December, 2016 vide Lr. No. J-11011/658/2007-IA.II(I).

3. Based on the ToRs prescribed to the project, the project proponent submitted an application for environmental clearance to the Ministry online on 1st February, 2019 vide Online Application No. IA/OR/IND/57594/2016.

4. The project of M/s Saraf Agencies Pvt. Limited is located in Kanamana Village, Chatrapur Tehsil, Ganjam District, Odisha State for setting up of a new 15 MW Coal Based Captive Power Plant, 5000 TPA Ferro Titanium, 3000 TPA Ferro Manganese, 12 TPD Aluminium Powder Plant & 2.4 TPA Scandium Oxide Recovery. The latitude and longitude of the project site is 19^o 20’ 03’’ N and 84^o 57’ 32’’ E respectively. Rushikulya River is at a distance of about 9.0 Km in the East direction from the project site. The existing project was accorded environmental clearance vide Lr. no. J-11011/658/2007-IA. II(I) dated 16th March, 2016. The Status of compliance of earlier EC was obtained from Regional Office, Bhubaneswar vide Lr. No. 101-310/EPE/336, dated 1st October, 2018. The observations made by the Regional officer is furnished as below:

- i. It is required to speed up the process of solar light installation in the project site.
- ii. It is required to increase the green belt with indigeneous variety of species specially in the boundary of the project.
- iii. It is required to submit six monthly compliance reports and environmental statement on fregular basis to the Regional Office.
- iv. It is required to submit policy towards corporate environmental responsibility to the Regional Office an also uploaded on company’s website.

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

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Ferro Titanium	1	5000 TPA	5000 TPA
Ferro Manganese	1	3000 TPA	3000 TPA
Captive Power Plant	1	1x15 MW Nett (Gross 17 MW)	1x15 MW Nett (Gross 17 MW)
Scandium Oxide Recovery Plant	1	2.4 TPA	2.4 TPA

Name of unit	No. of units	Capacity of each Unit	Production Capacity
Aluminium Powder Plant	1	12 TPD	12 TPD

6. The consolidated list containing list of existing as well as proposed capacity of different products are given as below:

Name of unit	Capacity as per the EC dated 19/07/2016	Present status of implementation	Proposed expansion	Total production capacity
High Titanium slag	36,000 TPA	36,000 TPA	--	36,000 TPA
Pig iron	20,000 TPA	20,000 TPA	--	20,000 TPA
Titanium Di-oxide	30,000 TPA	Yet to be implemented	--	30,000 TPA
Ferro Titanium	--	--	5000 TPA	5000 TPA
Ferro Manganese	--	--	3000 TPA	3000 TPA
Captive Power Plant	--	--	1x15 MW Nett (Gross 17 MW)	1x15 MW Nett (Gross 17 MW)
Scandium Oxide Recovery Plant	--	--	2.4 TPA	2.4 TPA
Aluminium Powder Plant	--	--	12 TPD	12 TPD

7. The total land acquired for the project is 260 acres [105.2 ha] which is entirely of industrial type. This land has been notified as Special Economic Zone by Government of Odisha. No forestland is involved. The entire land has been acquired for the project. It has been reported that no water body/ water body exist around the project and modification/diversion in the existing natural drainage pattern at any stage has not been proposed.

8. The topography of the area is Flat (flat/undulated) and reported to lie between 19°19'40" to 19°20'28.97" N Latitude and 84°57'10" to 84°57'40" E Longitude in Survey of India topo sheet No. 74A/15, 74A/16, 74E/3, at an elevation of 31 m AMSL. The ground water table reported to range between 2.26 to 6.11 m bgl below the land surface during the post-monsoon season and 5.45 to 9.45 m bgl below the land surface during the pre-monsoon season.

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

10. The raw materials required, source and mode of transportation for the proposed project is given as below:

Raw Materials	Consumption Kg per MT	Source	Mode of transport
Ilmenite	12000	Indian Rare Earths Ltd	By Road
Quick Lime	2400	Market	By Road
Fluorspar	480	Market	By Road
Mill Scale	1800	Market	By Road
Sodium Nitrate	360	Market	By Road
Manganese Die-Oxide	12000	Manganese Ore (I) Ltd.	By Road
Coal	338 TPD	Talcher Coal Field	By Road

11. 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 furnished as below:

Basic Raw Material Used:

Ferro Titanium:

Sl. No.	Item	Consumption in Kg per MT of Fe Ti
a)	Ilmenite	1000
b)	Aluminium Powder	480
c)	Quick Lime	100
d)	Fluorspar	20
e)	Mill Scale	50
f)	Sodium Nitrate	30

Ferro Manganese:

Sl. No.	Item	Consumption in Kg per MT of Fe Mn
a)	Manganese Die-Oxide	1000
b)	Aluminum Powder	340
c)	Quick Lime	100
d)	Fluorspar	20
e)	Mill Scale	100

Scandium Oxide Recovery Plant:

Main Raw material for Scandium recovery project would be waste Titanium Dioxide Hydrolysis acidic solution which will contain about 228 ppm of scandium oxide. Waste acid generated from the proposed 30,000 TPY pigment plant would be around 17548 cubic meter/year at 20% H₂SO₄. With 60% recovery during the process about 2.4 TPY of Scandium Oxide of 99.99 % purity will be produced.

Aluminium Powder Plant:

Sl. No.	Item	Consumption in Kg
a)	Aluminium Srap	12768
b)	Flux	36

Captive Power Plant:

Proposed CPP of 15 MW would be about 229 TPD @ MCR and annual fuel requirement is estimated at 0.71 lakh tons per annum at 85% plant load factor. Alternately, coal from Talcher coal fields in Odisha may be considered. Coal would be transported by road from the Talcher

coal fields. Approximately, 338 TPD Coal will be required from Talcher Coal Field in Odisha. Annual coal requirement is estimated at 1.05 lakh Te per annum at 85% load factor.

Waste Generation and Management:

Sl. No	Process unit	Solid waste	Quantity MT/Month	Mode of disposal
	Captive Power Plant	Bottom Ash	810	Bottom ash would be disposed in slurry form to ash disposal area.
		Fly Ash	3258.9	Fly ash would be disposed in slurry form to ash disposal area.
2.	Ferro Titanium	Slag	200	Which will be mitigated with disposal of Ash from Captive Power Plant.
3.	Scandium Oxide Recovery Plant	Sludge from Raffinate	0.4 TPY	Minor quantity hazardous waste generated will be mitigated with waste of Titanium Dioxide Plant.

12. The total water requirement for the existing and expansion project is estimated as 8310KLD [Existing: 7700 KLD; Expansion: 610 KLD]. The source of water is Rushikulya River. The permission for drawl of 1762 KLD surface water is obtained from Department of Water Resources, Govt. of Odisha vide Lr. No. 26883/WR., Irr.-II-WRC-106/16 date 17th November, 2016. Water drawl permission for the remaining quantity i.e., 6548 KLD is yet to be obtained.

13. The power requirement of the project is estimated as 23 MW, out of which 15 MW will be obtained from the SOUTHCO, Chatrapur and remaining power would be met from CPP.

14. Baseline Environmental Studies were conducted during winter season i.e. from 1st December, 2016 to 28th February, 2017. Ambient air quality monitoring has been carried out at 8 locations during Dec 2016 to Feb 2017 and the data submitted indicated: PM₁₀ (45.6 µg/m³ to 89.2 µg/m³), PM_{2.5}(31.5 µg/m³ to 49.4 µg/m³), SO₂(7.7 µg/m³ to 15.2 µg/m³) and NO_x(9.3 µg/m³ to 17.0 µg/m³). The results of the modeling study indicate that the maximum increase of GLC for the proposed project is 0.47 µg/m³ with respect to the PM₁₀, 4.90 µg/m³ with respect to the SO₂, 0.79 µg/m³ with respect to the NO_x.

15. The existing traffic assessment study carried out during the study period is given as below:

Date of study	2/3 wheelers	4 wheelers	Truck/ busses/ Tractors	Multi Axle	Total Passenger Car Unit
20.12.2016	3926	1984	3622	1536	19421
23.02.2017	2106	4006	3988	1148	20467

All raw material & products to & from the project site will be transported by road & trucks, from nearby rail or from the raw material sources. So, it will increase the traffic

load. However, impact on existing traffic load due to the proposed expansion has not been furnished during the EAC meeting.

16. Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 6.49 to 7.2, Total Hardness: 56 to 260 mg/l, Chlorides: 13.79 to 23.79 mg/l, Fluoride: 0.07 to 0.31 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 8 locations. pH: 7.01 to 7.74; DO: 2.7 to 5.3 mg/l and BOD: 7.6 to 20.9 mg/l.

17. Noise levels are in the range of 39.2 to 72.3 dBA for day time and 35.6 to 68.4 dBA for night time.

18. It has been reported that a total of 4269.3 tonnes/month of waste will be generated due to the project, out of which 200 tonnes/month will be used in Captive Power Plant and 4068.9 tonnes/month will be disposed in the earmarked disposal area. It has been envisaged that an area of 34.8 ha has been developed as green belt around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

19. It has been reported that the Consent to Operate from the Odisha State Pollution Control Board obtained vide Lr. No. 4771/IND-I-CON-6543 on 30th March, 2017 which is valid up to 31st March, 2021.

20. The Public hearing of the project was held on 16th August, 2017 at Vacant Space in front of Kanamana G.P. Office under the chairmanship of Additional District Magistrate for setting up of 15 MW Coal Based Captive Power Plant, 5000 TPA Ferro Titanium, 3000 TPA Ferro Manganese, 12 TPD Aluminium Powder Plant & 2.4 TPA Scandium Oxide Recovery plant. The issues raised during public hearing are Employment to the Local People, Pollution Control Measures, CSR Activity & Plantation in & around the plant. An amount of 4864 Lakhs (5 % of Project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues.

Sl. No.	Issue in Public hearing	Activity Proposed	Budgetary Provision (Rs. lakhs)		Implementation Schedule	Tentative time of start	Tentative time of end
			Capital	Recurring			
1	Employment	Employment will be provided according to qualification and capability on start of operation. Thereafter, local people will be given priority in employment. Potential number of manpower required for the project is 179.	Wages as per Labour Laws	Wages as per Labour Laws	During construction and operation of plant	After various clearances	Till the plant is in operation

Sl. No.	Issue in Public hearing	Activity Proposed	Budgetary Provision (Rs. lakhs)		Implementation Schedule	Tentative time of start	Tentative time of end
2	Pollution Control	Details are in EIA/ EMP report covering air/ water/ noise pollution control, solid waste management, environmental monitoring, plantation, etc	554	55.4	During construction and operation of plant	After various clearances	Till the plant is in operation
3.	Various CSR activities	Health, education, water, capacity building, infrastructure etc.	4864	972.8	During construction and operation of plant	After various clearances	Till the plant is in operation
4.	Plantation	Green belt will be developed in and around the plant site	50	5	During construction and operation of plant	After various clearances	Till the plant is in operation

21. The capital cost of the project is Rs. 193.3 Crores and the capital cost for environmental protection measures is proposed as Rs. 554 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as Rs. 55.4 Lakhs. The employment generation from the proposed project/expansion is 179.

22. Greenbelt will be developed in 34.8 Ha which is about 33.08 % 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/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 5800 saplings will be planted.

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

24. Name of the Consultant: - M/s Centre for Envotech & Management Consultancy Pvt. Ltd. (Sl. No. 23, List of QCI Accredited Consultant Organizations (Alphabetically) Rev. 74, March 07, 2019)

Observations of the Committee: -

25. The Committee noted that the EIA/EMP report submitted by the project proponent is lacking in several technical aspects inter-alia including process details of scandium recovery plant, information about existing road conditions to be used for the transportation of raw materials and finished products, impact on existing traffic load and air quality impact assessment. Further, the Committee also noted that approval from Competent Authority for the water abstraction is yet to be obtained for the existing as well as proposed expansion activity.

Recommendations of the Committee: -

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

- i. Technological and process details along with description for scandium extraction /recovery plant shall be submitted.
- ii. Permission from the Competent Authority for the water abstraction of 6548 KLD water from Rushikulya river shall be submitted.
- iii. Capacity of existing rainwater storage reservoir shall be submitted.
- iv. Revised layout inter-alia including shifting of Captive Power Plant to the adjacent vacant area and to develop green belt all around the plant site shall be submitted.
- v. Details of all solvents and chemicals used to be in the process shall be furnished.
- vi. Additional gate shall be provided in the plant site for easy accessibility to electrical station.
- vii. Action plan for green belt development in accordance with the CPCB guidelines covering 33% of the plant area within a time frame of two years shall be submitted.
- viii. Action plan for development for green belt for connecting road from NH to the plant site shall be furnished.
- ix. Hazard Identification and Risk assessment shall be carried out as per project specific parameters and report shall be submitted.
- x. Impact assessment on traffic load shall be submitted along with existing road conditions.
- xi. Air emissions and related impact assessment due to the transportation of raw materials and finished products by road shall be carried out and details shall be furnished.
- xii. The ambient air quality data including stack emissions need to be verified and submitted.
- xiii. The air quality impact assessment shall be carried out with the site specific data and report shall be submitted.
- xiv. Details of fugitive emissions from the process shall be furnished.
- xv. All quantities related to raw material, utilities, products and solid waste should be in tons/annum.
- xvi. Details of emissions in all the processes including fumes, characterization and its control measures shall be furnished.

- xvii. Solid and hazardous waste generation and its management details shall be furnished.
- xviii. Revised Corporate Environmental Policy inter-alia including hierarchy pertaining to reporting of environmental non-compliances and emergencies shall be submitted.
- xix. Action plan for paving and black topping of existing roads of the plant site shall be furnished.
- xx. Closure report from the Regional Office for the observed non-compliances mentioned in the certified compliance report dated 1/10/2018 shall be furnished.
- xxi. Action plan for utilization of ash generated from 15 MWCPP shall be furnished.
- xxii. 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 CER for those issues raised in public hearing and social need assessment.

5.3 Revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, Chhattisgarh [Online proposal No. IA/CG/IND/67974/2017; MoEF&CC File No. J-11011/28/2007- IA-II(I)] – Further consideration for grant of environmental clearance based on ADS reply dated 02/01/2019.

The proponent has made online application vide proposal no. IA/CG/IND/67974/2017 dated 10th August 2018 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” of the schedule of EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2. The proposal for revised configuration of 7.0 MTPA Modernization-Cum-Expansion of Bhilai Steel Plant along with Captive power plant of M/s Steel Authority of India Limited (SAIL) located in Bhilai, Tehsil Durg, District Durg, State Chhattisgarh was initially received in the Ministry on 06th September, 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 24th meeting held during 13th – 15th November, 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 29th November, 2017 vide Letter No.F. No. J-11011/28/2007-IA-II(I).

3. The project of M/s. SAIL-BSP is located in Bhilai, Durg Tehsil, Durg District, Chhattisgarh State is for revised configuration of 7.0 MTPA Modernization-Cum-Expansion of Bhilai Steel Plant for production of 7.0 Million Tonnes Per Annum (million TPA) of Crude Steel Production. The existing project was accorded environmental clearance vide ltr.no.J-

11011/28/2007-IAII(I) dated 31.03.2008. The Status of compliance of earlier EC was obtained from Regional Office, Nagpur vide Lr. Nos. 5-249/2009(Env)3463 dated 2nd April, 2018 and 5-249/2009(Env)4372 dated 26th September, 2018. Presently, there are no non-compliances reported by Regional Officer. The table showing present configuration (7.0 MTPA project configuration as per EC 2008 and its subsequent amendments), proposed configuration and final project configuration after grant of EC is as below:

S. No.	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
1	Sinter Plant Complex				
	Sinter Plant-1 (4 x 50 m ²) Phased out	No Change	-	-	No Change
	Sinter Plant-2 (3x75 m ² +1x 80 m ²)	No Change	Sinter Plant-2 (3x75 m ² +1x80 m ²)	Sinter Plant-2 (3x75 m ² +1x 80 m ²)	No Change
	Sinter Plant-3 : Machine 1 (1x 320 m ²)	No Change	Sinter Plant-3 : Machine 1 (1x 320 m ²)	Sinter Plant-3 : Machine 1 (1x 320 m ²)	No Change
	Sinter Plant-3 : Machine 2 (1x 360 m ²) (Mc. 2 : Production : 3.168 MTPA)	Sinter Plant-3, Machine 2 (1x 360 m ²) : Increase in Sinter Production from 3.168 MTPA to 3.705 MTPA (+ 0.537 MTPA)	Sinter Plant-3, Machine 2 (1x 360 m ²) : Production Capacity : 3.705 MTPA	Sinter Plant-3, Machine 2 (1x 360 m ²) : Production Capacity : 3.705 MTPA	Change
	Total Sinter Production = 9.235 MTPA	Total Sinter Production = 9.772 MTPA	Total Sinter Production = 9.772 MTPA	Total Sinter Production = 9.772 MTPA	Change
2	Coke Oven Complex				
	Composition : 8 Nos. - 65 Oven 4.3 m tall battery i.e. Battery No. 1, 2, 3, 4, 5, 6, 7 & 8 and 3 Nos. - 67 Ovens, 7 m	Compositio n : No Change	Composition : 8 Nos. - 65 Oven 4.3 m tall battery and 3 Nos. - 67 Oven 7 m tall battery	Composition : 8 Nos. - 65 Oven 4.3 m tall battery and 3 Nos. - 67 Oven 7 m tall battery	Compositi on : No Change

S. No.	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	tall batteries, i.e. Coven Battery No. 9, 10 & 11.				
	Operation Regime: <ul style="list-style-type: none"> 8 Battery Operation. At any time 3 Coke Oven batteries will be shut-down for cold repair and rebuilding cycle. 	Operation Regime : <ul style="list-style-type: none"> 9 Battery Operation . At any time 2 batteries will be shut-down for cold repair and rebuilding cycle. Running one extra battery, keeping coke production same. 	Operation Regime : <ul style="list-style-type: none"> 9 Battery Operation. At any time 2 batteries will be shut-down for cold repair and rebuilding cycle. 	Operation Regime : <ul style="list-style-type: none"> 9 Battery Operation. At any time 2 batteries will be shut-down for cold repair and rebuilding cycle. 	Change
	Total Gross Coke Production = 3.94 MTPA	No Change	Total Gross Coke Production = 3.94 MTPA	Total Gross Coke Production = 3.94 MTPA	No Change
3	Blast Furnace Complex				

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	BF 1 with CDI (1033 m ³) - to be gradually progressively phased out	BF 1 with CDI (1033 m ³) in operation for three years for undertaking sequential capital repair of BF 4, 5 & 6 along with stabilisation of BF 8.	BF 1 with CDI (1033 m ³) in operation for three years	Phased Out	Will be in operation for 3 years and then phased out.
	BF 2 with TIS (1033 m ³) - Phased Out	No Change	-	-	No Change
	BF 3 with TIS (1033 m ³) - Phased Out	No Change	-	-	No Change
	BF 4, 1719 m ³	BF 4, 1719 m ³ Capital Repair	BF 4, 1719 m ³	BF 4, 1719 m ³	No Change
	BF 5, 1719 m ³	BF 5, 1719 m ³ Capital Repair	BF 5, 1719 m ³	BF 5, 1719 m ³	No Change
	BF 6, 1719 m ³	BF 6, 1719 m ³ Capital Repair	BF 6, 1719 m ³	BF 6, 1719 m ³	No Change
	BF 7, 2363 m ³	No Change	BF 7, 2363 m ³	BF 7, 2363 m ³	No Change
	BF 8, 4060 m ³ with TRT	No Change	BF 8, 4060 m ³ with TRT	BF 8, 4060 m ³ with TRT	No Change
	Total Hot Metal = 7.5 MTPA	No Change	Total Hot Metal = 7.5 MTPA	Total Hot Metal = 7.5 MTPA	No Change
4	Steel Making & Casting Units				
	SMS I	SMS I	SMS I	SMS I	SMS I

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	4x 500t Twin Hearth Furnace - to be gradually progressively phased out	4x 500t Twin Hearth Furnace in operation for three years till stabilization of SMS III & BF 8).	4x 500t Twin Hearth Furnace in operation for three years	Phased Out	Will be in operation for 3 years and then phased out.
	SMS II	SMS II	SMS II	SMS II	SMS II
	3x120t BOF	No Change	3x120t BOF	3x120t BOF	No Change
	2X120t LF	No Change	2X120t LF	2X120t LF	No Change
	3x120t RH	No Change	3x120t RH	3x120t RH	No Change
	1x120t VD	No Change	1x120t VD	1x120t VD	No Change
	Hot metal Desulphirisation	No Change	Hot metal Desulphirisation	Hot metal Desulphirisation	No Change
	3x1 strand Slab Casters (MC#1, 2, 3)	No Change	3x1 strand Slab Casters (MC#1, 2, 3)	3x1 strand Slab Casters (MC#1, 2, 3)	No Change
	Combi-Caster: Bloom (3 strand) cum Slab (1 strand) Caster (mc#4)	No Change	Combi-Caster: Bloom (3 strand) cum Slab (1 strand) Caster (mc#4)	Combi-Caster: Bloom (3 strand) cum Slab (1 strand) Caster (mc#4)	No Change
	1x4 strand Bloom Caster (MC#5)	No Change	1x4 strand Bloom Caster (MC#5)	1x4 strand Bloom Caster (MC#5)	No Change
	1x1 slab caster (mc#6)	No Change	1x1 slab caster (mc#6)	1x1 slab caster (mc#6)	No Change
	SMS III	SMS III	SMS III	SMS III	SMS III
	3x160 t BOF	No Change	3x160 t BOF	3x160 t BOF	No Change
	3x160 t LFs	No Change	3x160 t LFs	3x160 t LFs	No Change
	1x 160 t RH-OB	No Change	1x 160 t RH-OB	1x 160 t RH-OB	No Change
	1 x vacuum tank degassing unit (Space provision)	No Change	1x vacuum tank degassing unit (Space provision)	1x vacuum tank degassing unit (Space provision)	No Change

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	Hot metal Desulphirisation	No Change	Hot metal De-sulphirisation	Hot metal De-sulphirisation	No Change
	-	New 3x160t Argon Rinsing Unit (ARU) envisaged	New 3x160t Argon Rinsing Unit (ARU)	New 3x160t Argon Rinsing Unit (ARU)	Change
	2x6 strand Billet Casters	No Change	2x6 strand Billet Casters	2x6 strand Billet Casters	No Change
	1x6 strand Bloom cum Billet Casters	No Change	1x6 strand Bloom cum Billet Casters	1x6 strand Bloom cum Billet Casters	No Change
	1x3 strand Beam Blank Caster	Modification of 1x3 strand Beam Blank Caster into 1x3 strand Bloom-cum-Beam blank Caster of same capacity	1x3 strand Bloom-cum-Beam blank Caster	1x3 strand Bloom-cum-Beam blank Caster	Change
	Total Crude Steel Production : 7.0 MTPA	No Change	Total Crude Steel Production : 7.0 MTPA	Total Crude Steel Production : 7.0 MTPA	No Change
6	Rolling Mills				
	Blooming and Billet Mill (2.149 MTPA) - to be gradually progressively phased out.	Blooming and Billet Mill (2.149 MTPA) in operation for three years till stabilization of SMS III & BF 8.	Blooming and Billet Mill (2.149 MTPA) in operation for three years	-	Will be in operation for 3 years and then phased out.
	Universal Beam Mill (1.0	No Change	-	-	No Change

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	MTPA): Not coming				
	2.2 MTPA Rail & Structural Complex with Universal Rail Mill (URM)	No Change	2.2 MTPA Rail & Structural with Universal Rail Mill (URM)	2.2 MTPA Rail & Structural with Universal Rail Mill (URM)	No Change
	Plate Mill (1.65 MTPA)	New Quenching & Tampering facility in Plate Mill	Plate Mill : 1.65 MTPA with Quenching & Tampering facility	Plate Mill : 1.65 MTPA with Quenching & Tampering facility	Change
	Bar & Rod Mill (0.90 MTPA)	No Change	Bar & Rod Mill 0.90 MTPA	Bar & Rod Mill 0.90 MTPA	No Change
	Merchant Mill (0.85 MTPA)	No Change	Merchant Mill (0.85 MTPA)	Merchant Mill (0.85 MTPA)	No Change
	Wire Rod Mill (0.7 MTPA)	No Change	Wire Rod Mill (0.7 MTPA)	Wire Rod Mill (0.7 MTPA)	No Change
	Total Finished Steel = 6.30 MTPA	No Change	Total Finished Steel = 6.30 MTPA	Total Finished Steel = 6.30 MTPA	No Change
7.	Power Blowing Station & Turbo-generators				
	6 x 150 tph boiler	No Change	6 x 150 tph boiler	6 x 150 tph boiler	No Change
	1 x 150 tph boiler	No Change	1 x 150 tph boiler	1 x 150 tph boiler	No Change
	3 x 12 MW	No Change	3 x 12 MW	3 x 12 MW	No Change
	1 x 15 MW	No Change	1 x 15 MW	1 x 15 MW	No Change
	2 x 150 tph BF gas fired boiler	No Change	2 x 150 tph BF gas fired boiler	2 x 150 tph BF gas fired boiler	No Change
	1 x 25 MW	No Change	1 x 25 MW	1 x 25 MW	No Change
	1390 tph steam, Power Generation 76 MW	No Change	1350 tph steam, Power Generation 76 MW	1350 tph steam, Power Generation 76 MW	No Change

S. No	7.0 MTPA Plant Configuration (EC 31.03.2008 & amendments)	Present Proposal under Revised Configuration for grant of EC	7.0 MTPA Plant Configuration After Grant of EC		Remarks
			1 st Three years	After Three Years <u>FINAL CONFIGURATION</u>	
	TRT Power Generation 14 MW	No Change	TRT Power Generation 14 MW	TRT Power Generation 14 MW	No Change
	CDCP Power Generation 4 MW	No Change	CDCP Power Generation 4 MW	CDCP Power Generation 4 MW	No Change
8.	Refractory Material Plant (RMP) : Lime & Dolo plant				
	RMP I to be gradually/ progressively phased out.	RMP I in operation along with SMS-1 for three years till stabilization of SMS III & BF 8	RMP I in operation for three years	-	Will be in operation for 3 years and then phased out.
	RMP - II • 2x330 tpd + 1 x 144 tpd Lime kiln	No Change	RMP-II • 2x330 tpd + 1 x 144 tpd Lime kiln	RMP-II • 2x330 tpd + 1 x 144 tpd Lime kiln	No Change
	RMP III 5x450 tpd lime and dolo kiln for SMS-III	No Change	RMP III 5x450 tpd lime and dolo kiln for SMS-III	RMP III 5x450 tpd lime and dolo kiln for SMS-III	No Change
	Refractory Material = 1.58 MTPA	No Change	Refractory Material = 1.58 MTPA	Refractory Material = 1.58 MTPA	No Change
9.	Oxygen Plant : • 3 x 550 tpd and • 1 x 700 tpd	No Change	Oxygen Plant : • 3 x 550 tpd and • 1 x 700 tpd	Oxygen Plant : • 3 x 550 tpd and • 1 x 700 tpd	No Change
10.	Other Auxiliary facilities (Matching facilities for achieving production)	No Change	Other Auxiliary facilities (Matching facilities for achieving production)	Other Auxiliary facilities (Matching facilities for achieving production)	No Change

The summary of the proposed capacity / modernizations / modifications for different units/products of revised configuration of 7.0 MTPA Modernization-Cum-Expansion of Bhilai Steel Plant under present proposal for environmental clearance is as below:

SN	Name of unit	New units / Modernisation / Modification requested
1.	SMS-III	Addition of new 3x160 t Argon Rinsing Unit (ARU) Modification of 1x3 strand Beam Blank caster in to 1x3 Strand Bloom-cum-Bean Blank caster of same capacity
2.	Plate Mill	Addition of new Quenching and tempering facility
3.	Coke Oven Complex	Bringing in of one more Coke Oven Battery in operation to achieve the desired coke production (3.94 MTPA) for 7.0 MTPA Crude Steel production.
4.	Sinter Plant-III (Machine-2)	Increase of total sinter production from sinter plant complex (from 9.235 MTPA to 9.772 MTPA) by operational optimization.
5.	Blast Furnace-1 (BF-1)	In operation during the sequential capital repair of BF-4, BF-5 & BF-6 & BF8 Stabilisation / coming in to full production. Expected time required is 3 years.
6.	Steel Melting Shop-I (SMS-I)	In operation till SMS-III Stabilisation / coming in to full production & BF8 Stabilisation / coming in to full production.
7.	Refractory Material Plant-I (RMP-I)	Expected time required 3 years.
8.	Blooming & Billet Mill (BBM)	

4. The proposed project under revised configuration of BSP 7.0 MTPA modernization-cum-expansion is proposed within the already acquired existing premises of BSP and no additional land will be required. The project area of SAIL-BSP is 3284.75 ha. SAIL-BSP is having total 6286.75 ha (15534 acre) of land under its possession. No forest land involved. The entire land has been acquired for the project earlier during the setting up of Bhilai Steel Plant which had initial capacity of 1.0 MTPA Crude Steel production. No River passes through the project area. However, it has been reported that two artificial water reservoirs, namely Maroda –I and Maroda-II, for industrial water cooling and storage of raw water exist within the project boundary.

5. The topography of the area is flat and reported to lie between 21⁰11'to 21⁰13'N Latitude and 81⁰22' to 81⁰24'E Longitude in Survey of India topo sheet No. F44P08, at an average elevation of 290 m AMSL. No ground water is being used either for the existing project or being envisaged for the proposed project. Additionally, SAIL-BSP has constructed rain water harvesting systems in several units within plant premises and identified buildings of Bhilai Township, wherein the rain water system has been established to recharge ground water through recharges pits.

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.

7. The proposed project is envisaged for techno-economic advantage during project operation. While there will be no change in Hot Metal, Crude Steel and Finished Steel production and Power Generation, which will remain same as per the EC accorded in 2008, i.e 7.5 MTPA Hot Metal, 7.0 MTPA Crude Steel and 6.3 MTPA Finished Steel.

8. The targeted production capacity of the Bhilai Steel Plant is 7.0 Million TPA Crude Steel (same as per the EC accorded in 2008). The ore for the plant would be procured from captive mines of SAIL. The ore transportation is done through rail and road.

9. The quantity of raw materials required for revised configuration of 7.0 MTPA Bhilai steel plant and the mode of transportation is given as below:

S.no	Raw Material Description	Existing 7.0 MTPA Integrated Steel Plant of BSP			Additional for proposed Project (t/yr)	Total after Proposed Revised 7.0 MTPA Project Configuration		
		Source	Gross Quantity (t/yr)	Transportation Mode		Source	Raw Material Requirement (t/yr)	Transportation Mode
1	Iron ore fines	Dalli, Rajhara / Rowghat	72,87,000	Rail	412250	Dalli, Rajhara / Rowghat	7,699,250	Rail
2	Iron Ore lumps	Dalli, Rajhara / Rowghat	43,78,000	Rail	No change	Dalli, Rajhara / Rowghat	4,378,000	Rail
3	Limestone	Nandini, Kuteshwar & Jaisalmer	18,47,000	Rail / Road	No change	Nandini, Kuteshwar & Jaisalmer	1,847,000	Rail / Road
4	Dolomite	Hirri & Belha / Hirri	11,14,700	Rail	No change	Hirri & Belha / Hirri	1,114,700	Rail
5	Quartzite	Muripar	1,04,600	Rail	No change	Muripar	104,600	Rail
6	Coking Coal	Imported/ Indigenous	5,679,000	Rail	No change	Imported / Indigenous	5,679,000	Rail
7	Pellet	At mines	6,40,500	Rail	No change	At mines	640,500	Rail
8	Coal for injection in BFs (CDI Coal)	Imported	9,74,000	Rail	No change	Imported	974,000	Rail
	Total		2,20,24,800		4,12,250		2,20,24,800	

10. No additional water requirement is envisaged for the proposed project under the present proposal of revised configuration of 7.0 MTPA Modernization-cum-Expansion (EC 2008). The existing total water requirement is 15981 m³/hr (5.0 TMC ft/y). Presently the Water Resources Department (WRD), Chhattisgarh has accorded supply of 4.0 TMCft/y water through Tandula canal vide agreement dated 19th April, 2006 and BSP has requested WRD for supply of additional 1.0 TMCft/y water vide Lr. No. GM/WMD/2018/233 dated 8th March, 2018 to meet the water demand at 7.0 MTPA capacity. Permission for water abstraction of 1.0 TMCft/y is yet to be obtained.

11. The power requirement of the 7.0 MTPA project is estimated as 468MW. Only critical power and total process steam will be generated through the captive power plant. The balance power requirement will be met from outside sources.

12. Baseline Environmental Studies were conducted during Post Monsoon 2017 season i.e. from 1st October, 2017 to 31st December, 2017. Ambient air quality monitoring has been carried out at 8 locations during October to December, 2017 and the data submitted indicated: PM₁₀ (39 to 83 µg/m³), PM_{2.5} (18 to 43 µg/m³), SO₂ (4.8 to 23.1 µg/m³) and NO_x (14.5 to 31.9 µg/m³). The results of the modeling study indicates that the maximum increase of GLC for the proposed project is 2.75 µg/m³ with respect to the PM₁₀, 2.0 µg/m³ with respect to the SO₂ and 2.0 µg/m³ with respect to the NO_x and this increase will be only for the initial three years.

13. Presently, under the 7.0 MTPA Integrated Steel Plant of BSP, about 95-97% of raw materials and products are transported through Indian Railways. Only 3-5 % of raw materials and products are dispatched through roads. The proposed project envisages increase in sinter production which will require additional quantity of iron ore fines. The requirement of iron ore fines will increase from the existing **72,87,000 t/yr** (7.0 MTPA project) to **76,99,250 t/yr** (revised configuration). The increase in iron ore fines is to the tune of **4,12,250 t/yr**. The present source of iron ore fines is from Dalli, Rajhara / Rowghat and is being transported through rail. It is envisaged that the proposed requirement of iron ore fines will be from the same source and through same mode of transportation. Thus no impact of transportation of material is anticipated on the air environment due to the proposed units. Over and above, it will be ensured that all transport vehicles are in good working condition, properly tuned and maintained to keep emission within the permissible limits and engines turned off when not in use to reduce pollution. Vehicles would be regularly maintained so that emissions conform to standards of Central Pollution Control Board (CPCB).

14. In the proposed project as there is no change in the hot metal and crude steel production, therefore the finished products are same as per the 7.0 MTPA configuration stage. The quantity of different Finished/Saleable/By-products for the 7.0 MTPA Integrated Steel Plant of BSP and its mode of transportation is furnished as below:

S.No	Products	Existing 7.0 MTPA Plant (t/yr)	Revised Plant configuration (t/yr)	Mode of transportation
1	Rails and Structural	22,00,000	No change	Rail
2	Blooms	10,000	No change	
3	Normalized Plates & Finished Plates	16,50,000	No change	
4	Billets	2,11,800	No change	
5	Merchant Products	8,50,000	No change	
6	Wire Rods	7,00,000	No change	
7	Bars and rods	9,00,000	No change	
8	Pig iron	2,05,000	No change	
9	Slabs	9,000	No change	
	Total	67,56,000	No change	

Thus no additional impact of transportation of finished products is anticipated on the air environment due to the proposed units.

15. Ground water quality has been monitored in 8 locations in the study area and analysed. pH: 7.25 to 7.82, Total Hardness: 156 to 292mg/l, Chlorides: 15.43 to 63.64 mg/l, Fluoride: 0.22 to 0.48 mg/l. Heavy metals are within the limits. Surface water samples were analysed from 9 locations. pH: 7.55 to 8.12; DO: 5.3 to 6.4 mg/l and BOD: 1 to 4mg/l.

16. Noise levels are in the range of 36.2 to 72.4 dB(A) for daytime and 34.2 to 55.7 dB(A) for night time.

17. It has been reported that in the proposed project additional about 283618T/yr of air cooled processed slag from BF#1 will be generated, out of which about 30% will be used in road making/construction material/ sale to slag wool manufacturers and remaining will be stocked in the earmarked slag yard during the operation of BF#1. The earmarked slag yard has sufficient space to stock the remaining air cooled processed slag generated during the operation of BF#1. Project proponent has also reported that efforts are being made for further enhancing the air cooled processed slag. Green belt developed within and around the BSP project area is 1711.33 ha with about 4,192,144 trees planted up to 2016-17. In 2017-18, 35190 trees were planted covering about 14 hectares. Green belt developed around the project site will attenuate the noise levels and trap the dust generated due to the project development activities.

18. It has been reported that the Consent to Operate from the Chhattisgarh Environment Conservation Board (CECB) obtained vide Lr.No 4690/TS/CECB/2018 dated 31.08.2018 (for 7.0 MTPA MODEX units and existing 4.0 MTPA units) and consent is valid up to 29.08.2019. Proponent has also reported that the above consent thus covers all operating units of Bhilai Steel Plant.

19. The Public hearing of the project was held on 8th June, 2018 at Nehru Sanskritik Bhavan, Sector -1, Bhilai Nagar, Tehsil-Durg-Bhilai, Dist-Durg (C.G.) under the chairmanship of Shri Sanjay Agarwal, Additional District Magistrate, for revised configuration of 7.0 Million TPA Modernization-Cum-Expansion of Bhilai Steel Plant along with captive power plant of M/s Steel Authority of India Limited (SAIL) located in Bhilai, Tehsil Durg, District Durg, State Chhattisgarh.

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
1	Shri. Khemlal Sahu Sarpanch Gram Panchayat at -Selud	1 Raised the requirements of :	1 New Bore well fitted with Solar operated pump with storage tank at three places shall be provided
		2 Solar operated water tank at three places.	
		3 Construction of SulabhShauchalya at bazar chowk.	1 Four Seater SulabhShauchalya at Bazar Chowk shall be constructed.
		4 Construction of well equipped shed at weekly Hatt Bazar location.	2 Other issues raised may be considered in the forthcoming years under CSR activities.

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
		5 Sports equipments for boys and girls of the village. 6 Well equipped Community hall for 1000 person. 7 Pitching, boundary wall, cementing around the Talab and beautification of Main pond (Khadhan Talab, Bajrang chowk).	
2	Shri Dinesh Kumar Thakur Sarpanch, Gram Panchayat at Khapri (Kuatela bhata)	Raised the requirements of : 1 Boundary wall of Panchayat Bhavan with tree plantation all around the periphery. 2 New Bore wells at 2 locations fitted with Solar operated Pumps. 3 Construction of Two extra rooms in Govt. Primary School. 4 Construction of dustbin at 8 places for collection of waste from houses. 5 Beautification and tree plantation around Shitala Talab. 6 Entrance Gate at approach road from Chikli to Khapri (K). 7 Tree plantation at all govt grass land with fence-Khasra No-235,243 and 239 8 Waiting hall, boundary wall and tree plantation at cremation ground.	1 Boundary wall of Panchayat Bhavan with tree plantation all around the periphery shall be constructed. 2 New Bore wells at 2 locations fitted with Solar operated Pumps shall be provided. 3 Two extra rooms in Govt. Primary School shall be constructed. 4 Other issues raised may be considered in the forthcoming years under CSR activities.
3	Shri Yashwant Kumar Thakur Sarpanch Gram Panchayat at-	Raised the requirements / issue of : 1 Cementing of roads from main road to cremation ground-700 meters 2 Extension of pipeline for drinking water by 1000 m	1 Service road from main road to cremation ground approx..700 meters shall be cemented 2 Pipeline for drinking water pipeline shall be extended further by 1000 m approx. 3 Point No.3 not related to BSP

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
	Dhumardhi	3 Bus stand falls under revenue records 41 as Khasra no 101 which is claimed by Nagar Panchayat Utai and is to be acquired by BSP. - To solve this issue.	
4	Shri Sarpanch, Gram Panchayat - Pauwara	Raised the requirements of : 1 Pad Machine to women group. 2 Extension of pipeline for drinking water . 3 Tree plantation at New Talab and arrangement of security. 4 Construction of Mangal Bhavan. 5 Cleaning of wells and provision of water in Tank from well. 6 Provision of cars at Shitala Chowk and other Chowks 7 Provision of Syntax at Health Center. 8 Beautification of Shitala Talab. 9 Tree plantation at unused land.	1 Sanitary Pad Machine to women group shall be provided 2 Pipeline for drinking water pipeline shall be extended further by 1000 m approx. 3 Other issues raised may be considered in the forthcoming years under CSR activities.
5	Shri Ajay kant Bhatt Director, Muskan NGO Sector – 2, Bhilai	Raised the requirements of : 1 Construction of Garage for School Bus. 2 Arranging of Visit to BSP for meritorious students of Durg District. 3 Rain water harvesting in BSP building. 4 Garden in Muskan School.	1 Garage for School Bus at Muskan School shall be constructed. 2 Arranging of visit to BSP for meritorious students of Durg District shall be provided. Presently every year about 50-60 meritorious students are being taken for plant visit and given brief details about the working of the plant. In addition, more than 400 engineering students undergo vocational training at BSP plant area.

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
			3 Other issues raised may be considered in the forthcoming years under CSR activities.
6	Smt Tarani Verma Sarpanch Gram Panchay at- Pathora	<p>Raised the requirements of :</p> <ol style="list-style-type: none"> 1 Construction of toilet for boys Govt Middle School 2 Construction of boundary wall at High school of length 165 meter. 3 Beautification of Baray in Talab and Construction of garden and round footpath at Middle School Maidan. 4 Construction of Mangal Bhavan. 5 Leveling and boundary wall of Gouthan. 6 Provision of Jhulaghar at Middle and Primary School 7 Construction of shed at Muktidham for sitting. 8 Dirty water purification and water harvesting. 9 Provision of solar high-mast at 3 places. 10 Construction of Water Tank at Bhatapara. 	<ol style="list-style-type: none"> 1 Four Seater Sulabh Shauchalya at Govt. Middle school for boys shall be constructed. 2 Boundary wall at high school of length 165 meter shall be constructed. 3 Other issues raised may be considered in the forthcoming years under CSR activities.
7	Smt. Kumari Kodappa Sarpanch Gram Panchay at - Dhuarab hatta	<p>Raised the requirements / issue of :</p> <ol style="list-style-type: none"> 1. Construction of women bathroom, Public toilet for both men & women and pond beautification at Khadan Talab. 2. Additional rooms at High school. 	<ol style="list-style-type: none"> 1. Four seater Sulabh Shauchalya at Khadan Talab for both men and women shall be constructed. 2. Additional 2 class rooms at High school premise shall be constructed. 3. Boundary wall of approx.- 380 meters shall be constructed at high school premise. 4. Point-13 not related to BSP

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
		<ol style="list-style-type: none"> 3. Construction of boundary wall - 380 meters and tree plantation at high school. 4. Construction of separate toilets for boys and girls at high school. 5. Construction of women bathroom, Public toilet for both men & women and pond beautification at Bhatapara Talab. 6. Construction of women bathroom, Public toilet for both men & women and pond beautification at Ghatta Talab. 7. Construction of women bathroom at Bhatapara Talab. 8. Gym at high school. 9. Construction of waiting hall at cremation ground and tree plantation. 10. Cleaning of three govt wells of the village and then covering these wells by grill. 11. Beautification and tree plantation of Bagbudha Devsthan. 12. Construction of community Hall at Bhatapara. 13. Stop dam at Jheriya Nallah and tree plantation. 	<ol style="list-style-type: none"> 5. Other issues raised may be considered in the forthcoming years under CSR activities.
8	Ku.Deep mala Kosare Sarpanch	<p>Raised the requirements of :</p> <ol style="list-style-type: none"> 1. Pipeline extension by 1000 meters in ward no 01,06,04 	<ol style="list-style-type: none"> 1. Pipeline for drinking water pipeline shall be extended further by 1000 m approx. meters in ward no 01,06,04

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
	Gram Panchay at - Mahakakala - Mudpaar	<ol style="list-style-type: none"> 2. C.C. road construction - ward no 05 - 250 meters 3. C.C. road construction - ward no 04 - 250 meters 4. Repair and construction of Public toilet 5. Tree plantation at Pahandor Jalashaya Marg - 1500nos. 6. Pond beautification BhatkaTalab 7. Construction of community Hall 8. Pucca Nallah at ward no 01,02 and 04 9. Cremation ground beautification 	<ol style="list-style-type: none"> 2. C.C. road shall be constructed at ward no 05 for approx.. 250 meters. 3. C.C. road shall be constructed at ward no 04 for approx. 250 meters. 4. Four seater SulabhShauchalya for boys and girls shall be constructed. 5. Other issues raised to be considered in the forthcoming years under CSR activities.
9.	Arvind Kumar Pandey 35B/C/M S Mob. No. 9407981335	Raised the requirements of : Formation of Nagar Paryavaran Vibhag (Env dept-township) in Bhilai Township area for environment conservation and other issues.	Public Health Engineering and Horticulture section exists at Township to cater to environmental activities.
10	Smt Neelam Chandra kar Sarpanch Gram Panchay at- Aundhi	Raised the requirements of : <ol style="list-style-type: none"> 1. Repair and maintenance of Pipeline(1 KM) under NalJal Yogna 2. Ward-14 to ward-20 : Construction of C.C road 3. Tree plantation periphery of school ground 4. fencing of cremation ground and tree plantation 5. Beautification and tree plantation of Bade Talab 6. Levelling of Gouthan and tree plantation 	<ol style="list-style-type: none"> 1. Pipeline for drinking water pipeline shall be extended further by 1000 m approx. 2. C.C. road shall be constructed from Ward No 14 to Ward No 20 3. Other issues raised may be considered in the forthcoming years under CSR activities.

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
11	C.V. Bhagawant Rao MIG-II - 39 Hudco	Raised the issue of : Audit of green belt of BSP by CECB to ascertain the total trees planted in green belt.	The number of trees reported to be planted over the years is actual with 80% survivability & if CECB decides, the same may be audited.
12	Shri. Gajendra Madharia Sarpanch Gram Panchayat - Pahandor	Raised the requirements of : 1. Drilling of 6 inch bore well near Mohare Dabri and install 5 HP motor pump. 2. Extension of pipeline and water tank 3. Leveling of Gouthaan and Tree Plantation 4. Solar pump and light 5. Road side tree plantation at Mohare Dabri and from Dabri to Bendri Nallah. 6. Beautification and dredging of Mohare Dabri	1. New Bore wells at required location fitted with Solar operated Pumps shall be provided. 2. Pipeline for drinking water pipeline shall be extended further by 1000 m approx. 3. Other issues raised may be considered in the forthcoming years under CSR activities.
13	Shri. Pandey Pariyaran Mitra Mandal, Bhilai	Raised the requirements of : 1. e-rickshaw 2. Power driven portable drilling machine. 3. Tractor with tanker 4. Power driven water pump. 5. Power driven grass cutter 6. Solar Pump and Drip irrigation system for three acres 7. Trees of different variety of height 10 feet or more - 200 nos. 8. Sprayers	1. E-rickshaw shall be provided to facilitate the plantation activities 2. Power driven portable drilling machine to facilitate the plantation activities 3. Other issues raised may be considered in the forthcoming years under CSR activities
14	Smt Sangeta Nirmalkar	Raised the requirements of : 1. Water Tank and Pipeline Naljal Yogna	1. New Bore wells at required location fitted with Solar operated Pumps shall be provided

S. N	Name / Address of Stakeholders	Issues raised by Stakeholders / Public Members / Representatives	SAIL-BSP Response / Action Plan
	Sarpanch Gram Panchayat at- Mahakakurd	2. Public Toilet and Bath room 3. Community Health Center 4. Community Hall 5. Tree Plantation at College Ground 6. Boundary wall of school 7. Boundary wall of Panchayat Bhavan 8. Talab Ghat construction	2. Four seater Sulabh Shauchalya for men and women shall be constructed 3. Other issues raised may be considered in the forthcoming years under CSR activities.

20. The issues raised during public hearing and actions/schemes proposed by project proponent with action plan is as follows:

Scheme Envisaged on Public Demand	Scheme Cost (Rs. Lakh s)	Completion Year
Schemes / Activities for Infrastructure Creation for Drinking Water Supply		
Extension of drinking water pipeline by 1000 m approx. in Gram Panchayat- Dhumardhi.	7	2020-2021
Extension of drinking water pipeline by 1000 m approx. in Gram Panchayat - Pauwara.	7	2020-2021
Extension of drinking water pipeline by 1000 m approx. in Gram Panchayat - Mahakakala – Mudpaar.	7	2020-2021
Extension of drinking water pipeline by 1000 m approx. in Gram Panchayat – Aundhi.	7	2021-2022
Extension of drinking water pipeline by 1000 m approx. in Gram Panchayat – Pahandor.	7	2020-2021
New Bore well fitted with Solar operated pump with storage tank at three locations in Gram Panchayat - Pauwara.	15	2021-2022
New Bore wells at 2 locations fitted with Solar operated Pumps in Gram Panchayat –Khapri (Kuatelabhata).	10	2021-2022
New Bore wells at required location fitted with Solar operated Pumps in Gram Panchayat- Pahandor.	5	2021-2022
New Bore wells at required location fitted with Solar operated Pumps in Gram Panchayat- Mahakakurd.	5	2021-2022
Total	70	
Schemes / Activities for Sanitation Facilities		
Sanitary Pad Machine to women group in Gram Panchayat - Pauwara	3	2020-2021

Scheme Envisaged on Public Demand	Scheme Cost (Rs. Lakhs)	Completion Year
Construction of four SeaterSulabhShauchalya at Bazar Chowk in Gram Panchayat -Selud.	6	2020-2021
Construction of four SeaterSulabhShauchalya at Govt. Middle school for boys in Gram Panchayat- Pathora.	3	2020-2021
Construction of four SeaterSulabhShauchalya for boys and girls in Mahakakala - Mudpaar.	12	2020-2021
Construction of four SeaterSulabhShauchalya at KhadanTalab for both men and women in Gram Panchayat - Dhuarabhata.	12	2021-2022
Construction of four SeaterSulabhShauchalya for men and women shall be constructed in Gram Panchayat- Mahakakurd.	12	2021-2022
Total	48	
Schemes / Activities for Education Infrastructure		
Arranging of Visit to BSP for meritorious students of Durg District.	0	2019-2020
Construction of two extra rooms in Govt. Primary School in Gram Panchayat –Khapri (Kuatelabhata).	10	2020-2021
Construction of additional 2 class rooms at High school premise in Gram Panchayat - Dhuarabhata	10	2021-2022
Construction of Garage for School Bus at Muskan School, Sector – 2, Bhilai.	1	2020-2021
Construction of Boundary wall at high school of length 165 meter in Gram Panchayat- Pathora.	15	2021-2022
Construction of Boundary wall of approx. ~ 380 meters at high school premises in Gram Panchayat - Dhuarabhata.	20	2021-2022
Total	56	
Schemes / Activities Road, Infrastructure & Plantation		
Construction of C.C. road at wards no 05 of approx. 250 meters in Gram Panchayat - Mahakakala - Mudpaar.	4	2021-2022
Construction of C.C. road at ward no 04 of approx. 250 meters in Gram Panchayat - Mahakakala - Mudpaar.	4	2021-2022
Construction of C.C. road from Ward No. 14 to Ward No. 20 in Gram Panchayat- Aundhi.	20	2021-2022
Construction of Service road from main road to cremation ground approx..700 meters in Gram Panchayat- Dhumardhi.	10	2021-2022
Construction of Boundary wall of Panchayat Bhavan with tree plantation all around the periphery in Gram Panchayat –Khapri (Kuatelabhata).	10	2021-2022
Providing E-rickshaw for facilitating plantation activities in Pariyavaran Mitra Mandal, Bhilai	3	2020-2021
Providing Power driven portable drilling machine to facilitate the plantation activities in Pariyavaran Mitra Mandal, Bhilai.	1	2020-2021
Total	52	

Scheme Envisaged on Public Demand	Scheme Cost (Rs. Lakhs)	Completion Year
Grand Total of different Schemes under CER Project (in lakhs)	226	

21. An amount of 226Lakhs (0.83% of project cost) has been earmarked for Enterprise Social Commitment based on public hearing issues

22. The capital cost of the project is Rs 273Crores and the capital cost for environmental protection measures has already been considered under already implemented Modernization-cum-Expansion 7.0 MTPA project. The detailed CSR plan has been provided in the EIA in its page No. 285 to 294.

23. It was informed that, Green belt developed within and around the BSP project area is 1711.33 ha with about 4,192,144 trees planted up to 2016-17. Greenbelt along plant boundary (in available space) has already been developed, which will be further re-strengthened. Local and native species will be planted with a density of 2500 trees per hectare. In the next five years for further strengthening the green cover / plantation in BSP project area and in surrounding about 107500 saplings will be planted and nurtured in an area of about 45.25 ha.

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

25. EIA Consultant: Mecon Limited, Ranchi. [S.No. 103, List of Accredited Consultant Organizations (Alphabetically) Rev. 74, March 07, 2019].

26. The aforesaid proposal was considered in the 1st meeting of Reconstituted Expert Appraisal Committee [REAC] (Industry-I) held on 26-28th November, 2018. After detailed deliberations, the committee sought the following additional information for further consideration of the proposal:

- i. Revised Hazard Identification and Risk Assessment report along with the action plan specific to the project addressing all possible hazards / risks.
- ii. Revised time bound action plan including budgetary provisions for the issues raised during the public consultation.
- iii. Revised CER as per the guidelines issued by the ministry vide OM dated 1st May, 2018.
- iv. Standard Operating Procedures (SOP) for reporting of non-compliance/infringements to the Board of Directors at periodical interval inter alia including in case of occurrence of emergency / accident.
- v. Action plan for 100% utilization / disposal of solid waste.
- vi. Concrete action plan for disposal of hazardous waste.

- vii. Action plan for performance monitoring of pollution control equipment.
 - viii. Details of land utilization for plant, green belt and colony shall be provided.
 - ix. Consolidated water balance of the plant for existing and expanded capacity shall be provided.
27. The project proponent submitted reply to the aforementioned additional information and the details are furnished as below:

ADS Point-1

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

Reply:

Action Plan:

- All the Hazard Identification & Risk Assessment (HIRA) documents of critical shops revised with special emphasis on Gas Safety during operational & maintenance activities pertaining to Gas line.
- Revision in SOPs has been carried out in view of the changes in HIRA documents.
- Engineering measures have been taken for ensuring safety in plant operation & maintenance activities.
- Decision has been implemented not to carry out on-line gas maintenance & repair activities.
- SAIL Management is in the process of appointing M/s Du-pont to study and implementation of workplace safety measures at BSP and other SAIL units.

Revision of HIRA documents of critical shops with special emphasis on Gas Safety during operational & maintenance activities pertaining to Gas line

- **HIRA documents revised for following departments:**
 - Coke oven & Coal chemical department
 - Sinter Plants
 - Blast Furnaces
 - Steel Melting shops
 - Refractory Material Plants
 - Rolling Mills
 - Energy Management Department

Revision of HIRA documents: Major changes w.r.t. Gas Safety:

- Earlier the Job of isolation or re-commissioning (i.e. blanking / de-blanking) was done in zero gas condition or in minimum low positive pressure condition (Maintaining low pressure in gas line).
- Revision have been done to undertake isolation job in no gas condition i.e. by Closing the gate valve, or by filling the U-seal with water.
- Purging the isolated header completely & keeping slight nitrogen charged in the header.
- Keeping CO monitor readily available with the workmen all the time during repair.
- Keep fire extinguisher/ steam / nitrogen nearby to meet any exigency.
- Job to be done in General shift only.
- Planned protocol jobs are approved, only after submission of documents indicating the identified hazards, risk assessment and its mitigation plan, along with the responsibility.

Other actions undertaken for strengthening safety management in view of the accident dated 09.10.2018:

SAFETY AUDIT:

- **External Safety Audit:** In Iron Zone (B.Fce-1 to 7, B.Fce-8, SP-2 & SP-3) conducted in Feb' 2019, by a team comprising of members from SSO and SAIL Sister Plants.
- **Process Safety:** 22 departments audited by a team of the DSOs' during Dec' 2018 to Feb' 2019 (DSOs had attended training on 'Occupational Safety & Health Audit for Statutory Compliance' conducted by M/s NSC, Mumbai).
- **Safety Audit** at Bhilai Steel Plant is being conducted from 25.03.2019 to 27.03.2019. The Audit is being conducted by a team of Directorate General, Factory Advice and Labour Institutes (DGFASLI) Officers led by Deputy Director General, DGFASLI and Director (Safety), Regional Labour Institute (DGFASLI), Faridabad.

SAFETY INITIATIVES:

- 697 Nos. of **portable monitors** and 473 nos. of **fixed monitors for Carbon monoxide** are in position.
- BSP is in the process of appointing Consultant, for seeking services for organizing safety audit, review & provide recommendations for the improvement of existing safety management system. The focus areas will be "Gas Safety, Iron making & Steel making".
- **Safety Excellence Centre** – All visitors are briefed on Safety at Safety Excellence Centre before visiting the Plant.
- Workshop on '**Gas Safety Practices and Gas Management**' was organized in Jan'2019 at Bhilai for integrated steel plants.

ADS Point-2:

Revised time bound action plan including budgetary provisions for the issues raised during the public consultation.

Reply:

Table-1: Details of the schemes finalized (including budgetary provisions) based on the issues raised during the public consultation/ hearing conducted on 08.06.2018.

SN	Sarpanch / Village	Schemes Finalised / Action Plan Based on Issues Raised During Public Hearing	Budget Provision (Rs. Lakhs)	Completion Year
1	Shri. Khemlal Sahu; Selud	New Bore well fitted with Solar operated pump with storage tank at three places shall be provided.	15.00	2021-22
		Four Seater Sulabh Shauchalya at Bazar Chowk shall be constructed.	6.00	2020-21
		Sports equipments for boys and girls shall be provided.	0.50	2019-20
2	Shri Dinesh Kumar Thakur; Khapri (Kuatelabhata)	Boundary wall of Panchayat Bhavan with tree plantation all around the periphery shall be constructed.	10.00	2021-22
		New Bore wells at 2 locations fitted with Solar operated Pumps shall be provided.	10.00	2020-21
		Two extra rooms in Govt. Primary School shall be constructed.	10.00	2020-21
		Dustbin for 10 villages shall be provided	0.50	2019-20
		Beautification and tree plantation around Shitala Talab shall be provided.	2.00	2020-21
3	Shri Yashwant, Kumar Thakur; Dhumardhi	Service road from main road to cremation ground approx..700 meters shall be cemented	10.00	2021-22
		Pipeline for drinking water pipeline shall be extended further by 1000 m approx.	7.00	2020-21
4	Smt. Nirmala Hirwani; Pauwara	Sanitary Pad Machine to women group shall be provided	3.00	2020-21
		Pipeline for drinking water pipeline shall be extended further by 1000 m approx.	7.00	2020-21
		Tree plantation at new talab shall be provided	1.00	2019-20
		Funds shall be provided to Sarpanch for cleaning of Wells with supervision / monitoring by BSP.	1.00	2020-21
		Syntax tank with pump shall be provided at Health Center.	0.25	2020-21

SN	Sarpanch / Village	Schemes Finalised / Action Plan Based on Issues Raised During Public Hearing	Budget Provision (Rs. Lakhs)	Completion Year
		Tree plantation at unused land shall be done.	1.00	2019-20
5	Shri A. K. Bhatt Director; NGO (Muskan)	Garage for School Bus at Muskan School shall be constructed.	1.00	2020-21
6	Smt Tarani Verma; Pathora	Four Seater Sulabh Shauchalya at Govt. Middle school for boys shall be constructed.	3.00	2019-2020
		Boundary wall at high school of length 165 meter shall be constructed.	15.00	2021-22
7	Smt. Kumari Kodappa; Dhuarabhata	Four seater Sulabh Shauchalya at Khadan Talab for both men and women shall be constructed.	12.00	2020-21
		Additional 2 class rooms at High school premise shall be constructed.	10.00	2021-22
		Boundary wall of approx. - 380 meters shall be constructed at high school premise.	20.00	2021-22
		Construction of separate toilets for both boys and girls shall be constructed.	5.00	2020-21
8	Ku.Deepmala Kosare; Mahakakala - Mudpaar	Pipeline for drinking water pipeline shall be extended further by 1000 m approx. meters in ward no 01,06,04	7.00	2020-21
		C.C. road shall be constructed at ward no 05 for approx. 250 meters.	4.00	2020-21
		C.C. road shall be constructed at ward no 04 for approx. 250 meters.	4.00	2020-21
		Four seater Sulabh Shauchalya for boys and girls shall be constructed.	12.00	2020-21
9	Smt Neelam Chandrakar; Aundhi	Pipeline for drinking water pipeline shall be extended further by 1000 m approx.	7.00	2021-22
		C.C. road shall be constructed from Ward No 14 to Ward No 20 Will be taken up through CSR department of BSP	10.00	2021-22
10	Shri. Gajendra Madharia; Pahandor	New Bore wells at required location fitted with solar operated Pumps shall be provided.	10.00	2021-22
		Pipeline for drinking water pipeline shall be extended further by 1000 m approx.	7.00	2020-21

SN	Sarpanch / Village	Schemes Finalised / Action Plan Based on Issues Raised During Public Hearing	Budget Provision (Rs. Lakhs)	Completion Year
11	Shri. Pandey; Pariyavaran Mitra Mandal, Bhilai	One E-rickshaw shall be provided to facilitate the plantation activities	3.00	2020-21
		One Power driven portable drilling machine to facilitate the plantation activities	1.00	2019-20
12	Smt Sangeeta Nirmalkar;Mahakakurd	New Bore well fitted with Solar operated pump with storage tank at one place shall be provided	5.00	2021-22
		Four seater Sulabh Shauchalya for men and women shall be constructed	12.00	2020-21
Total			232.25	

ADS Point-3:

Revised CER as per the guidelines issued by the ministry vide OM dated 1st May, 2018.

Reply:

Table 2 : Revised CER Calculation as per MoEFCC OM Dated 01.05.2018

SN	Capital Investment / Additional Capital Investment (in Rs)	Brown Field Project - % of Additional Capital Investment	CER for the Proposed Project (Capital Cost Rs. 273 Crores)	
			Project Cost (Rs.)	CER Amount (Rs.)
	≤ 100 Crores	1%	100 Crores	1 Crore
	> 100 Crores to ≤ 500 Crores	0.75%	173 Crores	1.2975 Crores
	Total		273 Crores	2.2975 Crores
				Say 2.3 Crores

ADS Point-4:

Standard Operating Procedures (SOP) for reporting of non-compliance/infringements to the Board of Directors at periodical interval inter alia including in case of occurrence of emergency / accident.

Reply:

SOP for reporting of the non-compliance / infringements to Board of Directors (BoD):
Corporate Environmental Policy

Reporting Environmental Non-compliances / Violations to Board

- Complying to MoEFCC OM dtd. 26th April 2011, status of statutory compliances is reported to Board on quarterly basis & in case of non-compliance received by statutory authorities it is reported to Board along with action plan in the next board meeting.
- The Board Meetings are held once every month.
- All the Environment & related Clearances & status of compliances are shown on company's website.

Reporting on Occurrence of Emergency / Accident

- **Safety department sends First Priority Flash Report to:**
 - Chief Inspector of Factories cum Labour Commissioner, Naya Raipur,
 - Secretary, Ministry of Steel, New Delhi,
 - Chairman SAIL, New Delhi,
 - Director SAIL (Technical), New Delhi,
 - Director SAIL (Personnel), New Delhi,
 - Executive Director (Safety), SSO Ranchi,
 - Dy. Director, Industrial Health and Safety, CG Govt.
 - District Collector, Durg,
 - Superintendent of Police, Durg
- **SAIL Safety Organization (SSO)**, being the corporate unit monitors and guides the safety promotional, fire and occupational health services activities undertaken at the units. SSO receives report of any occurrence of emergency/accident from any unit and reports the same to the top management of SAIL for its appraisal. The same including description of the accident, action taken and fixing of responsibility (if any) in a structured manner is further intimated to the SAIL Board of Directors, along with the monthly Production Performance Report.
- **As per the Annexure-IV of the Department of Public Enterprises (DPE) Guidelines on Corporate Governance and Part-A of the Schedule-II of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015**, detailed information in respect of fatal or serious accidents, dangerous occurrences, any material effluent or pollution problems, is placed before the Board of Directors of SAIL.
- **As per the Part-A of Schedule-III of Securities Exchange Board of India (SEBI)'s (Listing Obligations and Disclosure Requirements) Regulations, 2015**, occurrence of emergency, accidents, etc., if material in nature, is disclosed to the Stock Exchanges through Board of Directors within 24 hours.

ADS Point-5 :

Action plan for 100% utilization / disposal of solid waste

Reply:

Table-3: Details of Solid Waste Management in Bhilai Steel Plant

SN.	Solid Wastes	Estimated Generation (t/yr)	Utilisation/ Proposed Disposal	Action for utilization	% Utilization after three years from Stabilization of MODEX projects
1	BF slag	2,239,800	Sold to Cement Plants & utilized in JV Cement Plant.		100%
2	BF sludge	52,500	To be used in the Sinter Plant.	A scheme for installation of Sludge handling & recycling is under finalization. Implementation of which envisages recycling BF-Sludge, BOF Sludge after blending & subsequent briquetting. Some quantity also to be sold to local recyclers.	100%
3	BF flue Dust	120,008	Sold to cement plant.		100%
4	SMS/BOF Slag	747,000	To be used as flux in Sinter plant/in construction and road making.	Efforts will be made for utilization of slag also for road making.	100%
5	Refractory Bricks	20,000	Sale & recycling.	-	100%
6	Fly Ash	15,000	100% Utilisation as per Fly Ash Rules.	-	100%
7	SMS sludge / Dust	102,000	To be used in Sinter plant after briquetting.	A scheme for installation of Sludge handling & recycling is under finalisation. Implementation of which envisages	100%

SN.	Solid Wastes	Estimated Generation (t/yr)	Utilisation/ Proposed Disposal	Action for utilization	% Utilization after three years from Stabilization of MODEX projects
				recycling BF-Sludge, BOF Sludge after blending & subsequent briquetting. Some quantity also to be sold to local recyclers.	
8	B#F1 - Unprocessed/air cooled slag	2,75,000	Sold to Slag wool manufacturers.	Efforts will be made enhance sale through aggressive marketing.	100%
9	BF#1 Sludge	6000	To be used in the Sinter Plant/Sold to outside agencies.	A scheme for installation of Sludge handling & recycling is under finalisation. Implementation of which envisages recycling BF-Sludge, BOF Sludge after blending & subsequent briquetting. Some quantity also to be sold to local recyclers.	100%
10	BF flue Dust (BF#1)	10,000	Sold to cement plant.	-	100%
11	THF- Slag (SMS-1)	1,25,000	Used in leveling & Road Making.	-	100%
12	Sludge from SMS-1	28,000	To be used in the Sinter plant / Sold to outside agencies.	-	100%

ADS Point-6:

Concrete action plan for disposal of hazardous waste

Reply:

Hazardous Waste Management at Bhilai Steel Plant

- There is no additional Hazardous Waste Generation due to the Proposed Project.

- For the existing 7.0 MTPA project – authorization has been taken from Chhattisgarh Environment Conservation Board (CECB) as per the provisions of Hazardous Waste (Management and Handling) Rules 2016.
- The handling, storage and transportation of Hazardous waste is being done as per the stipulations of Hazardous and Other Waste Management Rules, 2016 & CPCB guidelines.

Table-4 : Details of Hazardous Waste management at Bhilai Steel Plant

S N.	Hazardous Wastes (HW)	Hazardous Waste (HW) Category#	Generation Unit	Estimated Generation after Stabilisation of 7.0 MTPA Project / Authorisation from CECB	Temporary Storage (as per HW Management Rules 2016)	Mode of Disposal / Recycle / Reuse vis-a-vis Action Plan for Disposal
1	Benzol Acid Sludge	13.3	By-product Plant	2,500 TPA	2 Tanks of 10 m ³ each	Is being sent for co-processing to the CPCB / CECB authorized co-processor. (M/s. Ambuja Cements)
2	Oil & Grease Skimming Residues	35.4	BOD Plant	100 TPA	NA	Recycled / reused. Sold to authorised recycler.
3	Decanter Tank Tar Sludge	13.4	By-product Plant	4,000 TPA	NA	Recycled back into in to coke ovens along with coal. Sold to authorised recyclers.
4	Used / Spent oil	5.1	Rolling Mills / Other shops	500 KLA	Storage capacity 10 m ³ container	Re-used internally after treatment - for lubrication purpose. Sold authorised recycler.
5	Spent Solvent	20.2	By-product Plant	500 TPA	Storage capacity 50 m ³ container	Recovered and reused. Sold to authorized recycler.
6	Discarded containers /	33.1	All shops Plant	275 TPA	NA	Sold to authorized recyclers

S N.	Hazardous Wastes (HW)	Hazardous Waste (HW) Category#	Generation Unit	Estimated Generation after Stabilisation of 7.0 MTPA Project / Authorisation from CECB	Temporary Storage (as per HW Management Rules 2016)	Mode of Disposal / Recycle / Reuse vis-a-vis Action Plan for Disposal
	barrels with Hazardous waste / chemicals					
7	Residues, dusts or filter cakes (from sulphuric acid plant)	17.1	By Product Plant	500 TPA	Stored in covered earmarked area	Recycled back into the process.
8	Copper compounds	A-66	Shops	400 TPA	Stored in Disposal Stores 400 T capacity	Recycled back into the process. Sold authorised recyclers.
9	Lead & Lead compounds	A-5	Shops	50 TPA	Stored in Disposal Stores - 400 T capacity	Sold authorised recyclers.
10	Asbestos	B-1	Coke Ovens / Other shops as insulating material	80 TPA	Earmarked room with Concrete Floor	Presently there is no generation as asbestos ropes have been replaced by ceramic ropes.
BOD Plant Wastes						
11	Oil & Grease Skimming Residues	35.4	BOD Plant	100 TPA	NA	Recycled / reused. Sold to authorised recycler.
12	Chemical / Biological Sludge from ETP of COCCD	35.3	BOD Plant	2,500 TPA	NA	Recycled back into in to coke ovens along with coal.

ADS Point-7:

Action plan for performance monitoring of pollution control equipment.

Reply:

- Regular inspection is carried out by Environment Department representative and shop representative.

- ISO 14001:2015 has been implemented in BSP for which scheduled periodic audit is conducted by internal and external auditors.
- All shops have designated officer for monitoring the environmental parameters & taking corrective actions.
- Corrective and Preventive Action meeting is also carried out regularly as per EMS system by HOD.
- Performance monitoring of pollution control equipment with respect to statutory compliance is carried out in 2016-17.
- BSP shall also carry-out the performance monitoring of pollution control equipment through a certified agency at least once in 3 years.

ADS Point-8:

Details of land utilization for plant, green belt & colony shall be provided

Reply:

Table-5(a): Land utilisation of plant, greenbelt & township

SN.	Details/Description	Area in ha.		
		Plant Area	Township	Total
1	Plant Proper / Infrastructure / Buildings	596.42	1063.92	1660.34
2	Water Bodies / Cooling Pond	1100	73	1173
3	Roads and Rail Tracks	440	207.33	647.33
4	Parking Area / Recreational Parks/Play Grounds	465.68	818.2	1283.88
5	Slag /muck processing Area	183.26	-	183.26
6	Green Belt / tree plantation area	407	839.55	1246.55
7	Area for future development	92.39	-	92.39
	Total	3284.75	3002	6286.75

Table-5(b) :Existing Green Cover / Plantation in & Around BSP Project developed by Bhilai Steel Plant

Green Cover / Plantation	Area (ha)	No. of Plants Planted
Total	1,725.33 *	42,27,334
* Out of 1725.33 hectares, 464.78 hectares of green belt planted/developed through community plantation, areas adjacent to township & roadside plantation.		

Table-5(c) : Action Plan for Improving Greenery in BSP Project & Surrounding Areas

by Bhilai Steel Plant

Year	Area	Location	No. of Plants	Area Covered (ha)	Cost (Rs. In Crores)
2018-19	Project Area	Waste Dump, Mills Area, BF Complex, Coke Oven Complex, Steel Melting Shop complex etc.	3000	6.25	Internal Resources
2019-20			1000		
2020-21			2000		
2020-22			2000		
2022-23			2000		
2018-20	Township/surrounding areas	-	97500 (Completed)	39	6.72 Crores
Total			107500	45.25	

ADS Point-9:

Consolidated water balance of the plant for existing and expanded capacity shall be provided.

Reply:

- No increase in hot metal, crude steel, finished steel, coke, lime & dolo due to the proposed associated / additional projects envisaged under the proposed project.
- No additional water required for the proposed project.
 - Total water required for existing 7.0 MTPA Project including township and SE Railways is 15981 m³/hr (5.0 TMC ft/y).
 - Source: Chhattisgarh Water Resource Department through Tandula Canal to Maroda-II Reservoir.
- No ground water is / will be used for the existing / proposed project.

Observations of the Committee: -

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

Recommendations of the Committee: -

29. After detailed deliberations, the Committee recommended for environmental clearance under the provisions of EIA Notification, 2006 for the revised configuration of modernization-cum-expansion of 7.0 MTPA Bhilai Steel Plant by M/s. Steel Authority of India Limited at Bhilai, Chhattisgarh subject to following specific and general conditions:

A. Specific conditions:

- i. Safety mockdrill for gas pipeline maintenance shall be conducted every six months and reported to Regional Office of MoEF&CC. Project proponent shall arrange to provide training to employees on 'behavioural safety'.
- ii. All CER activities as given in the reply to the ADS shall be completed in financial year 2019-20.
- iii. 100 % SMS Slag utilisation shall be ensured after conditioning /steam curing.
- iv. Scheme for decommissioning of SMS1 and its utilities along with green belt development in that area shall be submitted within six months to the Ministry and Regional Office of the MoEF&CC.
- v. Scheme for greenbelt development in the remaining area for covering 33% of total project area shall be submitted to the Regional Office of the MoEF&CC.
- vi. Standard Operating Procedures (SOPs) shall be developed for performance monitoring of pollution control devices and performance monitoring should get conducted every year internally and every third year through accredited third party.
- vii. In the Environmental Policy the hierarchy of reporting environmental non-compliances and emergencies should be clearly mentioned and submitted to the Regional Office of the MoEF&CC.
- viii. Solid waste management as specified in the reply to the ADS shall be complied.

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); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iv. The cameras shall be installed at suitable locations for 24X7 recording of battery emissions on the both sides of coke oven batteries and videos shall be preserved for at least one-month recordings.
- v. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.
- vi. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- vii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- viii. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- ix. Secondary emission control system shall be provided at SMS Converters.
- x. Pollution control system in the steel plant shall be provided as per the CREP Guidelines of CPCB.
- xi. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

- xii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- xiii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- xiv. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility).
- xv. Land-based APC system shall be installed to control coke pushing emissions.
- xvi. Monitor CO, HC and O₂ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
- xvii. Vapour absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.
- xviii. In case concentrated ammonia liquor is incinerated, adopt high temperature incineration to destroy Dioxins and Furans. Suitable NO_x control facility shall be provided to meet the prescribed standards.
- xix. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.
- xx. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xxi. Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
- xxii. The project proponent shall install Dry Gas Cleaning Plant with bag filter for Blast Furnace and SMS converter. *(to be decided on case to case basis depending on type and size of plant)*
- xxiii. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke

III. Water quality monitoring and preservation

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

- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time as amended from time to time;
- v. Adhere to 'Zero Liquid Discharge'.
- vi. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- viii. Tyre washing facilities shall be provided at the entrance of the plant gates.
- ix. CO₂ injection shall be provided in GCP of SMS to reduce pH in circulating water to ensure optimal recycling of treated water for converter gas cleaning.
- x. The project proponent shall practice rainwater harvesting to maximum possible extent.
- xi. Treated water from ETP of COBP shall not be used for coke quenching.
- xii. Water meters shall be provided at the inlet to all unit processes in the steel plants.
- xiii. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

V. Energy Conservation measures

- i. The project proponent shall provide TRTs to recover energy from top gases of Blast Furnaces.
- ii. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens;
- iii. Waste heat shall be recovered from Sinter Plants coolers and Sinter Machines.
- iv. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- v. Use hot charging of slabs and billets/blooms as far as possible.
- vi. Waste heat recovery systems shall be provided in all units where the flue gas or process gas exceeds 300°C.
- vii. Explore feasibility to install WHRS at Waste Gases from BF stoves; Sinter Machine; Sinter Cooler, and all reheating furnaces and if feasible shall be installed.
- viii. Restrict Gas flaring to < 1%.
- ix. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- x. Provide LED lights in their offices and residential areas.
- xi. Ensure installation of regenerative type burners on all reheating furnaces.

VI. Waste management

- i. An attrition grinding unit to improve the bulk density of BF granulated slag from 1.0 to 1.5 Kg/l shall be installed to use slag as river sand in construction industry.
- ii. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.
- iii. Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).
- iv. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- v. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.
- vi. Used refractories shall be recycled as far as possible.
- vii. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent

shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.

- viii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- ix. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
- x. The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanising, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016. Coal tar sludge / decanter shall be recycled to coke ovens
- xi. Kitchen waste shall be composted or converted to biogas for further use.

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 approved 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 report 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 environmental 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; PM₁₀, SO₂, NO_x (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.

5.4 Proposed expansion of Cement Production (capacity from 7,87,000 TPA to 9,00,000 TPA) located at located at Village(s) Mithapur&Surajkaradi, Taluka Dwarka, District Dwarka, Gujarat by **M/s. Tata Chemicals Limited** [Online proposal No. IA/GJ/IND/58896/2016; MoEFCC File No. J-11011/66/1999-IA.II(I) – **Further consideration for grant of environmental clearance based on ADS reply dated 18/02/2019.**

1.0 The proponent has made online application vide proposal no. **IA/GJ/IND/58896/2016** dated 8th June 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 Plants under Category “A” EIA Notification, 2006 and the proposal is appraised at Central level.

Details submitted by the Project Proponent

2.0 The proposed project for expansion of cement production capacity of M/s. Tata Chemicals Ltd. located in Villages: Mithapur and Surajkaradi, Tehsil: Dwarka, District: Devbhumi Dwarka, State Gujarat was initially received in the Ministry on 12thSept., 2016 for obtaining Terms of Reference (ToR) as per EIA Notification, 2006. The project was appraised by the Expert Appraisal Committee (Industry) [EAC(I)] during its 11thmeeting held on 26thSept., 2016 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 10thJanuary, 2017 vide letter no.J-11011/66/1999-IA.II(I).

3.0 The project of M/s. Tata Chemicals Ltd. located in Mithapur and Surajkaradi Villages, Dwarka Tehsil, Devbhumi Dwarka District, Gujarat State is for enhancement of production of cement from 0.787 to 0.9 million tonnes per annum (million TPA). The existing project was accorded environmental clearance vide letter no. J-11011/66/99-IA-II (I) dated 20th Nov., 2000; amended on 17th Jan., 2001. The Status of compliance of earlier EC was obtained from Regional Office, Bhopal vide Letter No. 5-13/2000(ENV)/138 dated 23rd May, 2018. There are no non-compliances reported by Regional Officer. The proposed capacity for different products for new site area as below:

Name of Unit	No. of Unit (Existing Capacity)	Capacity of Each Unit (Proposed Additional Capacity)	Production Capacity (Total Capacity after expansion)
Clinker (TPA)	8,25,000	Nil	8,25,000
Cement (TPA)	7,87,000	1,13,000	9,00,000

4.0 The total land area for the project is 231 ha (existing complex). No forest land/agricultural land/ grazing land/ others Government Land involved. There is no additional

land required 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 area is more or less flat and reported to lies between 22° 23' 41.8" N to 22° 25' 04.3" N Latitude and 69° 00' 16.3" E to 69° 01' 19.1" E Longitude in Survey of India topo sheet No. 41 F/3 and 41B/15 at an elevation of 5 to 20 m AMSL. The ground water table reported to ranges between 1.9m to 5.2 m below the land surface during the post-monsoon season and 3.9 to 7.2 m below the land surface during the pre-monsoon season. Based on the hydro-geological study, it has been reported that the stage of groundwater development is reported to be 67.11 % and thereby, these are designated as safe areas.

6.0 Marine National Park (~2.81 km in NW direction) and Gulf of Kutch Marine Sanctuary (~2.19 km in East direction) are located within 10 km radius of the plant site. The area also does not report to form corridor for Schedule-I fauna. The list of flora and fauna provided through the Primary survey and Secondary data reports the presence of Schedule-I fauna in the 10 km study area (Chapter 3, Pg. No. 128 - 144 of Final EIA/EMP Report). The project proponent has mentioned that the proposed project site is outside of Eco-Sensitive Zone notified by MoEFCC. The project proponent prepared conservation plan and approved by Chief Wildlife Warden, Gujarat State.

7.0 From clinker silo, clinker is fed to cement mill, where in clinker along with fly ash and gypsum, in required proportion, is ground to form cement. No waste will be generated during Cement manufacturing process.

8.0 The targeted production capacity of the Cement is 0.9millionTPA. Existing clinker production capacities will meet the requirements. The clinker will be fed to cement mill through conveyor.

9.0 The water requirement of the project is estimated as 1942 m³/day, out of which 822 m³/day of raw water requirement will be obtained from Existing Sea water Desalination Units and the remaining requirement of 1120 m³/day sea water will be met from existing sea water intake system.

10.0 The power requirement for the project is estimated as 14.28 MW which will be obtained from the Captive Co-generation Power Plant.

11.0 Baseline Environmental Studies were conducted during Post Monsoon Season from October to December, 2016. Ambient air quality monitoring has been carried out at 9 locations during 01st Oct to 31st Dec., 2016 and the data submitted indicated: PM₁₀ (36.52 to 74.21 µg/m³), PM_{2.5} (8.71 to 27.13 µg/m³), SO₂ (4.63 to 12.40 µg/m³) and NO₂ (6.55 to 15.21 µg/m³). The results of the modeling study indicated that the maximum increase of GLC for the proposed project is 1.56 µg/m³ with respect to the PM, 4.19 µg/m³ with respect to the SO₂, 1.39 µg/m³ with respect to the NO_x.

12.0 Ground water quality has been monitored in 8 locations in the study area and analyzed. pH (7.23 to 7.96), Total Hardness (154.32 to 294.56 mg/l), Chlorides (95.94 to 328.09 mg/l), Fluoride (0.05 to 0.19 mg/l). Heavy metals are within the limits. Surface water samples were

analyzed from 2 locations. pH – (7.45 to 7.82), DO (5.90 to 6.80 mg/l), BOD (3.54 to 4.52 mg/l), COD (10.32 to 14.60 mg/l).

13.0 Noise levels are in the range of 44.42 to 66.91 LeqdB(A) for day time and 36.04 to 60.25 Leq dB(A) for night time.

14.0 It has been reported that there is no population exist in the core zone of the project as the proposed expansion will be done on the existing project site. No R&R is involved.

15.0 No solid waste will be generated from the cement manufacturing process. Dust collected from various air pollution control equipment will be totally recycled into the process. Existing greenbelt area is 95 ha and additional 36 ha area will be developed under green belt/ plantation around the project site to attenuate the noise levels and trap the dust generated due to the project development activities.

16.0 It has been reported that the Consolidated Consent and Authorization from Gujarat Pollution Control Board has been obtained vide Letter No. AWH- 91133 dated 12th Feb., 2018 and consent is valid up to 13th Feb., 2023.

17.0 The Public hearing of the project was held on 17th Feb., 2018 at Sabras Bhavan opposite Ashapura Mandir, Village: Mithapur, Taluka: Dwarka, District: Devbhoomi Dwarka, Gujarat under the chairmanship of Shri R.R. Raval, IAS, (Collector & District Magistrate, Devbhumi Dwarka) for Expansion in Cement Production Capacity from 0.787 million TPA to 0.9million TPA. The issues raised during public hearing are Local Employment, Environment, Health and Education. An amount of 338 Lakhs (2.5 % of total project cost i.e.Rs. 13,340Lakhs) has been earmarked for Enterprise Social Commitment based on public hearing issues.

18.0 The capital cost of the project is Rs. 133.40 Crores and the capital cost for environmental protection measures is proposed as Rs. 29.50 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 12.50 Crores / annum. The detailed CSR plan has been provided in the EMP in its page no. 241 to 242. The employment generation from the expansion project is 129persons.

19.0 Approx. 95 ha area has already been developed under greenbelt/plantation and additional 36 ha area will also be developed under green belt/ plantation which is about 33 % of the total project area. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 90,000 saplings will be planted and nurtured in 36hectares in 10 years.

20.0 There is no litigation pending against the proposed project or the land on which proposed project would be set up. However, the proposed project is going to use same channel for discharge of the waste water which is located on the land for which dispute is pending for its pre- existence rights, before the Hon'ble High Court of Gujarat. The Company has filed Special Civil Application no. 26530 of 2006 before the High Court of Gujarat to recognize its pre-existing rights over the land on which waste water discharge channel is situated. The Hon'ble Court has directed to maintain status quo by way of an interim relief till the final disposal of the case. In view of the same, Company is carrying out operations smoothly and using the channel to discharge the treated waste water into the sea. No, there is no litigation pending against the proposed project or the land on which proposed project would be set up.

However, a complaint has been filed before Sub Divisional Magistrate, Dwarka (SDM) by resident of village Devpara alleging pollution from the Cement Plant bearing criminal case no. 1119 of 2015. There has been no order or direction by the SDM till date. The Company has submitted its interim reply and objections to the Complaint contending inter alia that the Gujarat Pollution Control Board (GPCB) has cleared all the activities of the Company at its plant and hence the complaint filed by the Complainant is false and frivolous and devoid of any substance. Company has submitted compliance reports/ action plans to the regulatory authorities within timelines for notices/ directions issued under the Environment (Protection) Act, Air and Water Acts.

21.0 EIA Consultant: J.M. EnviroNet Private Limited, Gurgaon.

22.0 The proposal was considered in the **33rd meeting of Expert Appraisal Committee (Industry-I) held during held during 9th-11th July, 2018**. After detailed deliberation, the committee sought following additional information to be submitted by the project proponent for further consideration of the proposal:

The project proponent has mentioned that there are two wildlife protected areas within 10 kms of the project site. However, they have clarified regarding their distance from the eco sensitive zone about one protected area only. This needs to be clarified.

The project proponents have shown the distance of the project area from one of the wildlife protected area which shows that the protected area falls outside the eco sensitive zone of the concerned wildlife area. However, on scrutinizing the Eco Sensitive Zone Notification issued by the MoEF&CC, it was noted that the ESZ also extends in an area of 250 mtrs of either side of 31 rivers in that area. The project proponent has not made any clarification whether the project site falls in the eco sensitive zone with respect to the 31 rivers. This needs to be clarified.

The impact of the proposed expansion and the area of the Marine National Park and Marine Sanctuary and its ESZ should be presented.

There are a number of Archeological sites in this area including Bed-Dwarka. The project proponent should make a presentation on the likely impact of project activities on the nearby sites.

The project proponent should submit a plan for setting up of a monitoring system in collaboration with the State Forest Department for monitoring the air and sea water quality from the point of view of conserving marine biodiversity.

The project proponent shall revise action plan related to the issues raised during the public hearing.

23.0 The proponent has uploaded online at MoEFCC web-portal on 02nd August, 2018 the point wise reply of additional details sought by EAC (Industry – I). The brief of which is given below:

Sl No.	Additional Detail Sought	Reply
i.	The project proponent has mentioned that there are two wildlife protected areas within 10 kms of the project site. However, they have clarified regarding their	Following National Park & Sanctuary falls within 10 km radius of the plant site: Marine National Park (~2.9 km in NW direction) Marine Sanctuary (~ 2.4 km in East direction)

Sl No.	Additional Detail Sought	Reply
	<p>distance from the eco-sensitive zone about one protected area only. This needs to be clarified.</p>	<p>Eco-sensitive Zone of both the above mentioned protected areas have been notified <i>vide</i> MoEFCC Notification No. SO 2561 (E) dated 22nd Aug., 2013.</p> <p>The distance of the plant site from the notified Eco- sensitive zone is as given below: Marine National Park Eco-Sensitive Zone (~2.7 km in NW direction) Marine Sanctuary Eco-Sensitive Zone (~1.4 km in East direction)</p> <p>A map showing location of Plant site and Marine National Park & Marine Sanctuary within 10 km radius of the plant site along with their Eco-Sensitive Zones, has been Authenticated by Chief Wildlife Warden, <i>vide</i> Letter No.WLP/32/C/144-45/2018-19 dated 19th June, 2018.</p>
ii.	<p>The project proponent has shown the distance of the project area from one of the wildlife protected area which shows that the protected area falls outside the eco- sensitive zone of the concerned wildlife area. However, on scrutinizing the Eco-Sensitive Zone Notification issued by the MoEF&CC, it was noted that the ESZ also extends in an area of 250 mtrs of either side of 31 rivers in that area. The project proponent has not made any clarification whether the project site falls in the eco-sensitive zone with respect to the 31 rivers. This needs to be clarified.</p>	<p>As per MoEFCC Notification No. SO 2561 (E) dated 22nd Aug., 2013; ESZ also extends in an area of 250 mtrs of either side of 31 Rivers. Out of the rivers mentioned (at Page no.41 to 43) in the MoEFCC Notification No. SO 2561 (E) dated 22nd Aug., 2013; the nearest River is Shamlasar River (Taluka Dwarka), which is at a distance of about 9.70 km in SE direction from the plant site. Hence, the plant site falls outside the boundary of ESZ of the Shamlasar River i.e. width of 250 meter from the centre of river. All other rivers are outside the 10 km radius study area of Plant Site.</p>
iii.	<p>The impact of the proposed expansion on the area of the Marine National Park and Marine Sanctuary and its ESZ should be presented.</p>	<p>The impact of the proposed expansion on Marine National Park and Marine Sanctuary and its ESZ has been assessed by following methods: <i>The Air Quality Impact Prediction impact of the proposed expansion (cumulative for Soda Ash, Captive Cogeneration Power Plant & Cement Plant)</i> Resultant concentration of air quality parameters is well within the prescribed standards. <i>Study on Impact of Discharge of Treated Waste Water.</i></p>

Sl No.	Additional Detail Sought	Reply
		<p>Following studies have been conducted to assess the impact of proposed expansion project on marine life and sea water quality.</p> <p>Marine Impact Assessment Study conducted by Central Salt and Marine Chemicals Research Institute, Bhavnagar run by Council of Scientific and Industrial Research (CSIR) in October, 2017.</p> <p>Water Quality Modeling for Treated Waste Water Discharged into Sea (Mithapur Bay) conducted by M/s. Kadam Environmental Consultants, Vadodara.</p> <p><i>Study on Impact on Biodiversity</i></p> <p>Impact on Biodiversity has been studied and mitigation measures has also been proposed. The same has been given in Wildlife Conservation Plan; which is duly certified by CWW, Gujarat vide letter no. WLP/32/C/144-45/2018-19 dated 19th June, 2018.</p>
iv.	<p>There are a number of Archaeological sites in this area including Bed-Dwarka. The project proponent should make a presentation on the likely impact of project activities on the nearby sites.</p>	<p>As per secondary data available on website of Archeological Survey of India, following are the archaeological important sites present in the area namely:</p> <p>Dwarkadhish Group of Temples (~18km in SW direction)</p> <p>Kshatrapa inscriptions (~ 18 km in SSW direction)</p> <p>Rukmini Temple (~16 km in SSW direction)</p> <p>Dharashnvel Temple (Magderu) (~12.5 km in SSE direction)</p> <p>Guhaditya Temple (~11 km in SSW direction)</p> <p>Junagadhi (Jain) Temple (~ 9 km in SSW direction)</p> <p>Kankeshwar Mahadev Temple (~8.5 km in S direction)</p> <p>The impact of project activities on the nearby sites (10 km radius study area) has been assessed through Mathematical Modeling.</p> <p>Resultant concentration of air quality parameters is well within the within the prescribed standards.</p>
v.	<p>The project proponent should submit a plan for setting up of a monitoring system in collaboration with the State Forest Department for monitoring the air and sea water quality from the</p>	<p>TCL will support and resource for monitoring system that would be setup by the state forest department for monitoring parameters of air and sea water quality related to conserving marine biodiversity.</p>

Sl No.	Additional Detail Sought	Reply
	point of view of conserving marine biodiversity.	Rs. 25 lacs are being proposed towards this project which will be taken up as per guidelines of state forest department.
vi.	The project proponent shall revise action plan related to the issues raised during the public hearing.	Revised action plan related to the issues raised during the public hearing has been prepared and the same has been submitted.

24.0 The proposal was re-considered in the 1st Reconstituted EAC meeting held during 26th -28th September 2018. After detailed deliberations, the Committee noted that the marine sanctuary was declared in 1982 and finally notified in 1987. The effluent discharge from the integrated chemical complex has been disposed through channels to the sea i.e., marine sanctuary since 1967. The passage of channel involves notified forest land. The project proponent obtained the recommendations of Standing Committee of National Board for Wildlife (SCNBWL) for construction of pipelines to discharge effluent beyond the sanctuary into the sea. The ROW of pipelines proposed through the forest land is pending for clearance under FCA, 1980 and the matter is under sub-judice in the Hon'ble High Court of Gujarat. Therefore, Committee decided to consider the proposal only after the aforesaid Forest Clearance is received. The project proponent has submitted the reply to the ADS.

25.0 The committee observed that the reply to information sought was not satisfactory and advised the PP to submit stage-1 of the forest clearance for the forest land involved.

26.0 The project proponent has submitted a copy of Stage -1 Forest Clearance online in response to ADS on 18.02.2019.

27.0 The proposal was reconsidered in 5th EAC meeting held during 27th -29th March 2019.

Observations of the Committee: -

28.0 The committee observed that the Stage-I Forest Clearance for 'diversion of 11.2680 ha Protected/Section-4 Forest land for 2504 meter long and 45m wide wastewater pipeline in Mithapur in favour of General Manager, Tata Chemicals Ltd Mithapur in Devbhumi Dwaraka District in Gujarat' has been issued vide letter No.6-GJC 071/2018-BHO/178 dated 22.02.2019.

Recommendations of the Committee: -

29.0 After detailed deliberations, the committee recommended the proposal for Environmental Clearance with the following specific and general conditions:

I. Monitoring of compliance

- i. The project proponent shall comply the conditions of Stage-I Forest Clearance obtained Forest (Conservation) Act, 1986 vide letter No.6-GJC 071/2018-BHO/178 dated 22.02.2019.

- ii. The project proponent shall obtain the recommendation of National Board for Wildlife for the expansion project, if required as per the Ministry's Office Memorandum dated 2nd December, 2009.
- 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.
- iv. 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.
- v. 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.
- vi. 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 (G.S.R. No. 612 (E) dated 25th S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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. Pollution control system in the cement plant shall be provided 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. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Provide Low NO_x burners as primary measures and SCR /NSCR technologies as secondary measure to control NO_x emissions.
- xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xiii. 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
- xiv. 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 effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 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. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- ix. The project proponent shall make efforts to minimise water consumption in the cement 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. 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 the project proponent for LED lights in their offices and residential areas.
- iii. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.

VI. Waste management

- i. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.
- ii. Kitchen waste shall be composted or converted to biogas for further use.

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 PP shall 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 approved 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 report 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 cement 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; PM₁₀, SO₂, NO_x (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.

5.5 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)] – **Further consideration for grant of environmental clearance based on ADS reply dated 07/03/2019.**

M/s. Ankur Udyog Limited (Steel Division) has made an online application vide proposal no. IA/UP/IND/75680/2018 dated 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	Own generation & Chhattisgarh, West Bengal, Local Area	----	
		34,000			
2	Furnace oil (OR) Pulverized Coal	4,620	Local Market	By road (through covered trucks) By Rail	
		18,500	Jharkhand		
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
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/m³), PM₁₀ (44.5 to 82.7 µg/m³), SO₂ (7.4 to 14.8 µg/m³), NO_x (8.1 to 24.8 µg/m³) & CO (394 to 1350 µg/m³). The results of the modeling study indicates that the maximum increase of GLC due to the operation of proposed units & Vehicular emissions will be 3.1 µg/m³ with respect to PM₁₀, 14.5 µg/m³ with respect to SO₂, 14 µg/m³ with respect to NO_x & 2.3 µg/m³ 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.

S.No.	Waste	Quantity (TPA)	Proposed method of disposal
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. 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
	Land which has been allotted by GIDA to the proposed industry, that land was acquired from farmers, regarding which, no compensation has been	Land has been taken on lease from Gorakhpur Industrial Development Authority (GIDA). Entire payment has been made by the company to GIDA for the entire land. Copy	----	----	----

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	received till date.	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	Within 3 months of commissioning of plant	Rs.15 Lakhs	---

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		ground water table.			
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 setting up of industry, but, after the set up, same are not complied and nearby people get affected by the pollution.	In the proposed project all required air emission control systems such as ESP, Bag filters, dust 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	Implemented parallel with implementation of 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
		<p>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.</p> <p>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.</p> <p>Sanitary wastewater will be treated in septic tank followed by sub-surface dispersion.</p> <p>Solid wastes such will be</p>			

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		<p>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.</p> <p>It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms.</p> <p>Health check up will be carried out in the villages periodically.</p> <p>Hence There will not be any adverse impact on health of the people in the area.</p>			
5.	<p>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</p>	<p>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</p>	<p>Implemented parallel with implementation of the project</p>	<p>In the proposed project Rs. 28 Crores is earmarked for Environmental Protection Measures</p>	<p>Rs.185 Lakhs / Annum</p>

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	<p>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 premises of the villagers, due to which, people are getting suffered from diseases like Asthema and T.B.</p>	<p>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. 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.</p>			

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		<p>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.</p> <p>It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms.</p> <p>Health check up will be carried out in the villages periodically.</p> <p>Hence There will not be any adverse impact on health of the people in the area due to the proposed project.</p>			
6.	All of us villagers are suffering from the water/air/noise pollution generated by Gallant Ispat Ltd.	<p>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</p>	Implemented parallel with implementation of the project	<p>In the proposed project Rs. 28 Crores is earmarked for Environmental Protection Measures</p>	Rs. 185 Lakhs / Annum

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		<p>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</p>			

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		<p>proposed to develop more Greenbelt in the North East, East Directions.</p> <p>Health check up will be carried out in the villages periodically.</p> <p>Hence There will not be any adverse impact on health of the people in the area due to the proposed project.</p>			
7.	<p>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.</p>	<p>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.</p> <p>Sanitary wastewater will be treated in</p>	<p>Implemented parallel with implementation of the project</p>	<p>In the proposed project Rs 2.25 Crores is earmarked for Wastewater Management</p>	<p>Rs.14 Lakhs / Annum</p>

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
		<p>septic tank followed by sub-surface dispersion. ETP details are shown in chapter-10 of EIA report.</p> <p>Zero Liquid effluent discharge will be maintained in the proposed plant. No effluent will be discharged outside the plant premises.</p> <p>Ground water quality will be monitored every month and reports will be submitted to MOEF&CC, UPPCB.</p>			
8.	<p>Due to the outflow of excessive 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</p>	<p>A drain passes just outside the plant premises. No encroachment of drain by our company.</p> <p>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.</p> <p>Ground water quality has been</p>	1 st year of operation	Rs 10 lakhs	---

S.No.	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost
	Ispat Ltd. This drain was natural drain, which has been diverted and industry has been set up in it's place.	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 (Rs.in Crores)
		1 st	2 nd	3 rd	
A	Based on Social Impact Assessment (SIA)				
1	Community & Infrastructure Development Programs	0.5	0.5	0.5	1.5

S.No.	Major Activity Heads	Years (Rs. in Crores)			Total Expenditure (Rs.in Crores)
		1 st	2 nd	3 rd	
	(construction of 10 nos. of toilets in 5 nos. of schools in Sahjanwa Town, Jigna, Ujkar & 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).				
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. 28.0 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	0.25	10
	Noise Management		
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].

23. The proposal was placed before EAC meeting held during 20th -22nd February 2019. 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.

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/Nm³.
- 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.

Point No. 1	Confirmation regarding the transportation of iron ore, fluxes and coal only by Rail by providing dedicated railway siding to the plant site.
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<p>Reply No. 1</p>	<p>We do here by confirm that we have proposed a dedicated Railway siding for transportation of iron ore & coal up to the plant site. These materials will be brought to the plant site through railways only.</p> <p>Application has been submitted to North Eastern Railways for approval of railway siding.</p> <p>Accordingly in-Principle Approval (IPA) has been received from N. E. Railways (NER) for construction of Private / Dedicated Rail Siding for the project and a copy of the same is shown in Subsequent slide.</p>
<p>Point No. 2</p>	<p><i>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.</i></p>
<p>Reply No. 2</p>	<p>We would like to bring to your kind notice that Rapti river is situated beyond Sahjanwa town. It is also to be noted that the project site is locked by Rail Line on the North, NH #28 on the South, Another running Industry on the West and Rural settlement on the East, Hence laying a dedicated pipeline may not be feasible.</p> <p>We definitely explore the possibility of using other industrial treated effluent (condensate) provided it meets the quality requirement.</p> <p>We also would like to bring to your kind notice that we have received NOC No. CGWA/NOC/IND/ORIG/2019/4878 dated 12th March 2019 from CGWA for extraction of 1800 KLD (6,21,875 Cum/year) of Groundwater.</p> <p>We have also proposed ground water recharge for 1916 KLD which more than the industry consumption.</p>
<p>Point No. 3</p>	<p><i>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.</i></p>
<p>Reply No. 3</p>	<p>The total water requirement for the plant operations will be 1800 KLD (5,94,000 KL/annum)</p> <p>As per the recommendation of Expert Appraisal Committee of MOEF&CC, we propose to artificially recharge more than the consumption. Hence it is proposed to harvest around 1,916 KLD or 6,32,262 KL /Annum.</p> <p>The potential rain water that can be recharged / collected will be 165827 m³/year i.e. 500 KLD within the factory premises.</p> <p>Additional 1416 KLD of water will be recharged by providing Recharge pits outside the premises i.e. in nearby villages.</p> <p>Industry will develop the artificial recharge system and has preliminary identified ponds of 5 no. of villages (Sihapaar, Domharmafi, Bangava, Deipaar, Jagdishpur) of sahjanwa block.</p> <p>The detailed Scheme for ground water recharge is submitted.</p>

Point No. 4	Particulate matter emissions from the process stacks shall be less than 30 mg/Nm³.																									
Reply No. 4	<p>We do hereby confirm that we will provide all air emission control systems with an outlet particulate emission of less than 30 mg/Nm³.</p> <p>The following air emission control systems proposed in the project</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Source</th> <th>Control Equipment</th> <th>Emission at the outlet</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DRI kilns with WHRBs</td> <td>Electro Static Precipitators (ESP) – 2 nos.</td> <td>PM ≤ 30 mg/Nm³</td> </tr> <tr> <td>2</td> <td>Induction Furnaces with CCM</td> <td>Fume Extraction system with bag filters with each furnace.</td> <td>PM ≤ 30 mg/Nm³</td> </tr> <tr> <td>3</td> <td>Rolling Mill</td> <td>Stacks of Adequate height</td> <td>----</td> </tr> <tr> <td>4</td> <td>CFBC Boiler</td> <td>Electro Static Precipitator</td> <td>PM ≤ 30 mg/Nm³</td> </tr> </tbody> </table>						S.No.	Source	Control Equipment	Emission at the outlet	1	DRI kilns with WHRBs	Electro Static Precipitators (ESP) – 2 nos.	PM ≤ 30 mg/Nm ³	2	Induction Furnaces with CCM	Fume Extraction system with bag filters with each furnace.	PM ≤ 30 mg/Nm ³	3	Rolling Mill	Stacks of Adequate height	----	4	CFBC Boiler	Electro Static Precipitator	PM ≤ 30 mg/Nm ³
S.No.	Source	Control Equipment	Emission at the outlet																							
1	DRI kilns with WHRBs	Electro Static Precipitators (ESP) – 2 nos.	PM ≤ 30 mg/Nm ³																							
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Point No. 5	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																									
Reply No. 5	<p>Public Consultation for Proposed project of M/s. Ankur Udyog Limited has been conducted by Uttar Pradesh Pollution Control Board (UPPCB) under the chairmanship of District Magistrate on 09-10-2018 in the Site premises at Sector 23, GIDA, Gorakhpur (D), U.P.</p> <p>Point wise issues raised during the public hearing along with time bound action plan with fund allocation for the implementation of the issues raised in public hearing is shown in subsequent slides.</p>																									
Point wise issues raised during the public hearing along with time bound action plan with fund allocation for the implementation of the issues raised in public hearing is shown in subsequent slides.																										
S. No	Name of the Person	Issue raised	Management Response	Time schedule	Budgetary allocation	Recurring cost																				
1	Sri. Vijay Kumar, Village-Sahabganj	(i) Land which has been allotted by GIDA to the proposed industry, that land was acquired from farmers, regarding which, no compensation has been	Land has been taken on lease from Gorakhpur Industrial Development 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. A copy of the letter issued by GIDA confirming the	----	----	----																				

		received till date.	receipt of total payment from the company is shown in next page. 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.			
		(ii) 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.	<p>Central Ground Water Authority (CGWA) has accorded NOC for Groundwater drawl of 1800 KLD (6,21,875 Cum/year) vide no. CGWA/NOC/IND/O RIG/2019/4878 dated 12th march 2019.</p> <p>The plant area is categorized as SAFE zone . The Average Annual rainfall in the area is 1221 mm.</p> <p>As per As per State Ground Water Board, Govt. of Uttar Pradesh, the depth of ground water table from the years 2008 to 2017 @ shajanwa is varying from 3.15 mbgl to 4.25 mbgl during Pre-monsoon & 1.93 mbgl to 3.8 mbgl during Post-monsoon.</p> <p>Ground water recharging has been proposed for quantity more than that of drawl quantity.</p>	Within 1 year of commissioning of plant	Rs.30 Lakhs	---

			Ground water table will be monitored periodically and the data will be submitted to MOEF&CC, SPCB periodically.			
		(iii) 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.	---	---	---
	Contd.. Sri. Vijay Kumar, Village-Sahabganj	(iv) Even though management is giving undertaking for controlling the same before setting up of industry, but, after the set up, same are not complied and nearby people get affected by the pollution.	In the proposed project all required air emission control systems such as ESP, Bagfilters, dust 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	Implemented parallel with implementation of the proposed project	Rs. 28.4 Crores is earmarked for Environmental Protection Measures	Rs. 186 Lakhs / Annum

			<p>also reduces the emissions further.</p> <p>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 will be treated in STP and treated sewage will be utilised for greenbelt development</p> <p>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 .</p> <p>It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms.</p> <p>Health check up will be carried out in the villages periodically.</p>			
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			Hence There will not be any adverse impact on health of the people in the area.			
	Contd.. Sri. Vijay Kumar, Village-Sahabganj	(v) M/s. Gallent 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 premises of the villagers, due to which, people are getting suffered from diseases like Asthema and T.B.	The issue is not related to the present proposal. However in the proposed project all required air emission control systems such as ESP, Bagfilters (PTFE/glass fiber type) , dust 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. 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	Implemented parallel with implementation of the project	In the proposed project Rs. 28.4 Crores is earmarked for Environmental Protection Measures	Rs.186 Lakhs / Annum

			<p>also reduces the emissions further.</p> <p>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.</p> <p>It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms.</p> <p>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.</p>			
	<p>Contd.. Sri. Vijay Kumar, Village-Sahabganj</p>	<p>(vi) All of us villagers are suffering from the water/air/noise pollution generated by Gallant Ispat Ltd.</p>	<p>Not related to this proposal. However in the proposed project all required air emission control systems such as ESP, Bagfilters (PTFE/glass fibre type), dust 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</p>	<p>Implemented parallel with implementation of the project</p>	<p>In the proposed project Rs. 28.4 Crores is earmarked for Environmental Protection Measures</p>	<p>Rs. 186 Lakhs / Annum</p>

			<p>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. 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.</p>			
2	Sri. Yogendra Tiwari	(i)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	Closed loop cooling water system will be adopted in DRI, SMS, and Rolling Mill units. The effluent generated from Rolling Mill will be sent to settling tank & clear water will be recycled through closed circuit cooling system.	Implemented parallel with implementation of the project	In the proposed project Rs 2.5 Crores is earmarked for Wastewater Management	Rs.15 Lakhs / Annum

		getting polluted.	<p>Effluent from power plant will be treated in ETP and after ensuring compliance with SPCB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt development.</p> <p>Sanitary wastewater will be treated in Sewage Treatment Plant (STP) of 20 KLD capacity and treated sewage will be utilised for greenbelt development.</p> <p>No effluent will be discharged outside the plant premises. ZLD will be implemented.</p> <p>ETP details are shown in Chapter-10 of EIA report.</p> <p>The Total quantity of Effluent generation – 247 KLD</p> <p>ETP of Suitable capacity will be installed and treated water will us used for –</p> <p>for ash conditioning : 80 KLD</p> <p>for dust suppression in CHP: 67 KLD</p> <p>for Greenbelt development : 100 KLD</p> <p>Ground water quality will be monitored every month and reports will be submitted to MOEF&CC , UPPCB.</p>			
	Contd..	(ii) Construction of labour	During construction, labour hutment and	---	---	---

	Sri. Yogendra Tiwari	hutment and toilets	toilets will be provided in the plant area.			
	Contd.. Sri. Yogendra Tiwari	(iii) Industries do not develop Green belt as promised	Greenbelt will be developed in 1/3rd of the total land area as per CPCB guidelines @ 1500 nos/ha.	During the 1 st monsoon after commencement of production	In the proposed project Rs 25 Lakhs is earmarked for Greenbelt development	Rs.10 Lakhs / Annum
	Contd.. Sri. Yogendra Tiwari	(iv) Village road is occupied by several trucks	We are proposing a dedicated railway siding through which major raw materials will be transported upto the plant site. We will not be using the village road as our approach is directly from NH.	---	---	---
	Contd.. Sri. Yogendra Tiwari	(v) Fly ash management	Ash generated will be stored in silos only. There will not be any open storage of fly ash. Fly ash will be given to cement plants. Fly ash utilization will be in accordance with MOEF&CC notification	Implemented parallel with implementation of the project	In the proposed project Rs. 3.6 Crores is earmarked for Solid waste Management	Rs.43 Lakhs / Annum
3	Sri. Yogendra Tiwari & Sri. Yashpal Rao	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	In the lease deed between the company and M/s. GIDA in the year 2010 it has been mentioned that Integrated steel plant and Textile industry will be established in the land. Subsequently the company has now proposed to establish mini integrated steel plant in the said land.	---	---	---

		Gorakhpur Industrial Area.				
	Contd.. Sri. Yashpal Rao	Due to air pollution pets and cattle are also being affected	The issue is not related to the present proposal. However in the proposed project all required air emission control systems such as ESP, Bagfilters (PTFE/glass fiber type) , dust 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. 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.	Implemented parallel with implementation of the project	In the proposed project Rs. 20.9 Crores is earmarked for Air emission Management	Rs.98 Lakhs / Annum

			<p>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.</p> <p>It is assured that all required Environmental protection measures will be implemented and operated to ensure compliance with the norms.</p> <p>Hence there will not be any impact on pets, cattle due to our project.</p>			
4	<p>Contd.. Sri. Yashpal Rao & Sri. Pramod Singh Gram Pradhan Domharmafi</p>	<p>Location of Plant near population Norms regarding siting of steel industry near population</p>	<p>Proposed industry is in Industrial Area. Siting guidelines are not applicable.</p>	---	---	---
	<p>Contd.. Sri. Pramod Singh Gram Pradhan Domharmafi</p>	<p>(i) Due to the outflow of excessive 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</p>	<p>A drain passes just outside the plant premises. No encroachment of drain by our company.</p> <p>As per the directions of the Hon'ble District Magistrate, management has agreed to strengthen the drain that is passing adjacent to the proposed project site .</p> <p>In our plant ZLD system will be followed and there will not be any effluent discharge</p>	1 st year of operation	Rs 10 lakhs	---

		M/s. Gallant Ispat Ltd. This drain was natural drain, which has been diverted and industry has been set up in it's place.	outside the premises. Hence no impact on Aami river due to the proposed project.			
7	District Magistrate	What is the plan to ensure water treatment and zero discharge	<p>Closed loop cooling water system will be adopted in DRI, SMS and Rolling Mill units. The effluent generated from Rolling Mill will be sent to settling tank & clear water will be recycled through closed circuit cooling system.</p> <p>Effluent from power plant will be treated in ETP and after ensuring compliance with SPCB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt development.</p> <p>Sanitary wastewater will be treated in Sewage Treatment Plant (STP) of 20 KLD capacity and treated sewage will be utilised for greenbelt development.</p> <p>No effluent will be discharged outside the plant premises.</p> <p>Zero Liquid Discharge will be ensured in the project.</p> <p>The Total quantity of Effluent generation – 247 KLD</p>	Implemented parallel with implementation of the project	In the proposed project Rs 2.5 Crores is earmarked for Wastewater Management	Rs.15 Lakhs / Annum

			<p>ETP of Suitable capacity will be installed and treated water will us used for</p> <p>–</p> <p>for ash conditioning : 80 KLD</p> <p>for dust suppression in CHP: 67 KLD</p> <p>for Greenbelt development : 100 KLD</p> <p>Ground water quality will be monitored every month and reports will be submitted to MOEF&CC , UPPCB.</p>			
	Contd.. District Magistrate	Does the management has any plan for labour housing for construction workers. Accordingly DM has directed to PAs to provide labour hutment and toilets for construction workers in the plant area.	During construction, labour hutment and toilets will be provided in the plant area.	---	---	---
	Contd.. District Magistrate	What is the green belt area and how many plants will be planted	<p>10.9 Ha. (27 Acres) of greenbelt will be developed out of total 32 Ha. (79 Acres) within the plant premises.</p> <p>Total 17,000 nos. of saplings will be planted in consultation with local DFO.</p> <p>Width greenbelt ranges from 10 m to 130 m. More greenbelt width is proposed in North, NE & Eastern</p>	Implemen ted parallel with implemen tation of the project	In the proposed project Rs 25 Lakhs is earmarked for Greenbelt development	Rs.10 Lakhs / Annum

			side of the project site towards Villages.			
Point no. 6	Scheme for achieving zero liquid discharge shall be submitted.					
Reply No. 6	<p>In the proposed project Closed loop cooling water system will be adopted in DRI, SMS, and Rolling Mill units. The effluent generated from Rolling Mill will be sent to settling tank & clear water will be recycled through closed circuit cooling system. Effluent from power plant will be treated in ETP and after ensuring compliance with SPCB norms, it will be utilized for dust suppression, ash conditioning and for greenbelt development. There will not be any effluent discharge outside the premises. Sanitary wastewater will be treated in Sewage Treatment Plant (STP) of 20 KLD capacity and treated sewage will be utilised for greenbelt development. No effluent will be discharged outside the plant premises.</p> <p><u>EFFLUENT GENERATION & ITS DISPOSAL</u> Total effluent generation from proposed project : 227 m³/day Sanitary wastewater : 20 m³/day Total effluent : 247 m³/day</p> <p><u>Utilization of treated effluent :</u> Effluent quantity to be used for ash conditioning : 80 m³/day Effluent to be used for dust suppression in CHP : 67 m³/day Balance effluent to be used for Greenbelt development : 100 m³/day</p> <p>A Budget of Rs. 2.25 Crores and recurring cost 14 lakhs per Annum will be allocated for Waste Water Management.</p> <p>Greenbelt will be developed in 33% plant area i.e. 10.9 Hectares (27 Acres) within the plant premises by using the treated effluent. A dedicated pipe distribution network will be provided for using the treated effluent for greenbelt development in the plant premises.</p> <p>No effluent will be discharged. It is a ZLD plant.</p>					
Point No. 7	CER action plan shall be reworked and submitted. This should include skill developmental program to ensure 70% employment of local inhabitants.					
Reply No. 7	<p>Ankur Udyog Limited will actively contribute to improve the Socio economic conditions of the area by providing assistance for local persons preferable from the nearby villages. ₹ 5.45 Crores will be spent on CER activities based on need base assessment.</p> <p><i>Budget earmarked towards CER as per Ministry's Office Memorandum vide F.No. 22-65/2017-IA.III dated 1st May 2018.</i></p> <p><i>Details of expenditure for CER activities</i></p>					

Total cost of the proposed project : Rs 330 Crores
Work out to : Rs 5.45 Crores
Spent over in no. of years : 3 years

S.No.	Major Activity Heads	Years (Rs. in Crores)			Total Expenditure (Rs.in Crores)
		1 st	2 nd	3 rd	
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, Ujkar & 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 (Mineral Water plants, construction toilets in villages, PHC, Ambulance facility, Distribution of Medicines etc.)	0.3	0.3	0.3	0.9
3	Skill Development 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
	Total Budget for skill development				1.1
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	Other Need based activities	0.45	0.45	0.25	1.15
	Sub Total (A)	1.80	1.70	1.45	4.95
B	Based on Public Consultation				

	1	Rain water harvesting in nearby villages Pond deepening Recharge Structures	0.10	0.10	0.10	0.30
	2	Greenbelt development outside the Plant Boundary & in Village (4000 nos. will be planted and maintained)	0.05	0.03	0.02	0.10
	3	Strengthening of Drain passing through adjacent to the Boundary	0.10	0.0	0.0	0.10
		Sub Total (B)	0.25	0.13	0.12	0.50
		Total (A+B)	2.05	1.83	1.57	5.45
We do hereby confirm that local people will be given first priority in employment.						
Point No. 8	Confirmation regarding use of FO only in reheating furnace.					
Reply No. 8	We do here by confirm that we will use Furnace Oil (FO) /Pulverised coal in reheating furnace.					
Point No. 9	Study on hydrogeology of the area shall be submitted.					
Reply No. 9	Hydrogeology report is submitted.					
Point No. 10	Permission for withdrawal of ground water shall be submitted.					
Reply No. 10	Water drawl permission for 1800 KLD () of water is approved by CGWA vide NOC no. CGWA/NOC/IND/ORIG/2019/4878 dated 12th March 2019. A copy of NOC issued by CGWA is submitted.					

Observations of the Committee: -

25.0 The proposal was placed before EAC meeting held during 27th -29th March 2019. The committee noted that in-principle approval for private railway siding at Sahjanwa station in Lucknow division was accorded for the project vide letter No.T/555/216/AULSD/SWA dated 11.03.2019 by NE Railway, Gorakhpur. In the in-principle approval, it was advised to the project proponent to contact the concerned officials of Lucknow division North Eastern Railway submit the Detailed Project Report (DPR) and get the detailed plan & Estimate prepared & approved /sanctioned. The money for execution of deposit work may also be get deposited with the Railways as applicable within the specified time limit and acknowledge receipt of the letter.

26.0 Detailed action plan for rainwater harvesting and ground water recharge has not been furnished.

Recommendations of the Committee: -

26.0 After detailed deliberations, the committee advised the PP to submit DPR to the railways as desired in the IN-PRINCIPLE approval and submit the information to the Ministry for further consideration.

27.0 Detailed action plan for ground water recharge and rainwater storage shall be furnished in the current financial year alongwith time schedule for implementation of action plan within 03 years.

28.0 The proponent shall explore the feasibility of using available space in the Transport Nagar for parking of trucks.

29.0 The proposal was deferred for the above additional information.

5.6 Setting up of a Greenfield Integrated Steel Plant of 0.7 MTPA with Captive Power Plant of 70 MW by **M/s. Spintech Tubes Private Limited (STPL)** at Dhasal, Mamudpur & Bahadurpur village, Jamuria Block, Paschim Bardhaman District, West Bengal [Online proposal No. IA/WB/IND/78705/2018; MoEF&CC File No. IA-J-11011/295/2018-IA.II(I)] – **Further consideration for grant of Terms of Reference based on ADS reply.**

M/s. Spintech Tubes Private Limited (STPL) made application vide online proposal no. IA/WB/IND/78705/2018 dated 25th 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” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent:

2. M/s. Spintech Tubes Private Limited proposes to install a new manufacturing unit for Integrated Steel Plant with Captive Power Plant. It is proposed to set up the plant for producing 0.7 MTPA rolled product with captive power plant of 70 MW capacity based on BF/DR-IF/EAF-Caster technology.

3. Proposed project is a Greenfield project, hence no environmental clearance/Consent to Operate was earlier accorded by MoEFCC/ West Bengal Pollution Control Board.

4. The proposed unit will be located at Villages: Dhasal, Bahadurpur & Mamudpur, Taluka: Jamuria, District: Paschim Bardhaman, State: West Bengal.

5. The land area acquired for the proposed plant is 97.16 Ha out of which 8.65 ha is an agricultural land, no grazing land and 88.51 Ha is others (14.17 Ha is Government Land). No forestland involved. The entire land has been not acquired for the project. Of the total area 32.06 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 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 3200 Crore rupees. Proposed employment generation from proposed project will be 1150 direct employment and 4000 indirect employment.

8. The targeted production capacity of the Integrated Steel Plant is 0.7 MTPA rolled products & 70 MW captive power. The ore for the plant would be procured from Joda-Barbil and Koira & Sundargarh mines region, Odisha. The ore transportation will be done through Rail and then by Road. The proposed capacity for different products for new site area as below:

Sl. No.	Name of Unit	No. and Capacity of Unit	Production MTPA	
1	IronOre Grinding Unit	1.2 MTPA	1.186	
2	Pellet plant	1 x 1.13 MTPA	1.13	
3	Sinter plant	1 x 60 m sq.	0.62	
4	DRI plant (coal based)	3 x 500 TPD	0.495	
5	Blast furnace	1 x 350 cum	0.367	
6	Submerged Arc Furnace	1 x 12 MVA (FeCr), 1 x 12 MVA (FeMn, SiMn)	0.0466	
7	ChromeOre Briquetting Plant	1 x 10 TPH	0.041	
8	Steelmaking Shop (SMS)	4 x 25 t IF 1 x 50 t LF	1 x 50 t EAF 1 x 50 t LF	0.729
9	Caster Shop	Billet Caster - 1 x 3 strand Billet/Bloom Caster - 1 x 3 strand	0.712	
10	Mill	Bar mill - 1 x 0.25 MTPA Wire Rod Mill - 1 x 0.25 MTPA Wire drawing facility with 50% hot dip galvanizing - 0.03 MTPA Structural Mill with hot dip galvanizing - 1 x 0.2 MTPA	0.699	
11	Captive Power Plant	BF gas based - 10 MW DR kiln off gas based WHRB - 37.5 MW Char & Coal based AFBC boiler - 22.5 MW	70MW	
12	Air Separation Plant	1 x 180 TPD	180 TPD	

9. The electricity load of 77 MW will be procured from India Power Corporation Limited and also there will be a captive generation of 70 MW power (BF gas based 10 MW, DR kiln off gas based WHRB 37.5 MW & Char/Coal based AFBC boiler 22.5 MW). Company has also proposed to install adequate number of DG Sets for exigencies.

10. Proposed raw material requirement for project are as follows:

Sl. No.	Major Raw materials	Estimated Quantity, tons	Likely source	Mode of Transport
1	Coke	219,920	Merchant cokery in India/abroad	Rail/Sea/ Road
2	Anthracite	18,384	International market	Sea
3	Non coking Coal	400,950	International market	Sea/Rail/ Road
4	Iron ore fines	1,597,228	Procured from the Joda-Barbil and Koira & Sundargarh mines region, Odisha	Rail/Road

5	PCI coal	36,750	International market	Sea
6	Limestone	73,287	Purchased from mines in Sundergarh district, Odisha or quarries in Jukehi-Katni-Niwar area in Central India	Rail/Road
7	Calcined lime	48,132	Domestic	Rail/Road
8	Dolomite	82,698	Purchased from mines in Sundergarh district, Odisha & Baradwar regions in Chattisgarh	Rail/Road
9	Chrome Ore Fines	37,106	Procured from the mines in Sukinda regions, Odisha	Rail/Road
10	Chrome Ore lump	7,236	Procured from the mines in Sukinda regions, Odisha	Rail/Road
11	Manganese Ore	56,968	Procured from the mines of Manganese Ore India Limited (MOIL) in MP & Odisha.	Rail/Road
12	Steam coal	143,416	Domestic	Rail/Road
13	Bentonite	11,724	International market	Sea/Rail/Road
14	Quartzite	21,395	Procured from Chaibasa, Ranchi and Hazaribagh areas of Jharkhand	Sea/Rail/Road

11. Apart from the major raw materials mentioned below, other materials like hydrated lime, molasses, quartz fines, electrode paste, fluorspar, zinc would also be required. Fuel consumption will be mainly char, steam coal, BF gas, fuel oil and propane.

12. Water Consumption for the proposed project will be 276 cum/hr (source - Ajay River & Asansol Municipal Corporation) and waste water generation will be 65 cum/hr. Domestic waste water will be treated STP and industrial waste water generated will be treated in CETP and reused in makeup water.

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

14. EIA Consultant engaged for the EIA-EMP Report is M/s M. N. Dastur & Co. (P) Ltd. [S.No. 99, List of Accredited Consultant Organizations (Alphabetically) Rev. 74, March 07, 2019].

15. The aforesaid proposal was considered in the 36th EAC meeting held during 9-10th October, 2018 wherein the Committee deferred the consideration of the proposal and advised the project proponent to submit the site specific details. Land use pattern supported by maps/documents for further deliberation on the proposal.

16. The reply submitted by the proponent is furnished as below:

The proposed site is located in villages Dhasal, Mamudpur & Bahadurpur of Jamuria block, district Paschim Bardhaman, West Bengal. The site is well connected by road network. The nearest railway station is Ikrah Junction at a distance of 2 km in its west. Jamuria Road is the main access road for reaching the plant site. Asansol Junction and Raniganj station are two other major railway stations in the area. There are several industries around the proposed project. The geographical location of the project site lies within 23^o40'45" to 23^o41'21" North latitude and 87^o07'45" to 87^o08'22" East longitude.

TABLE 1 - LAND USE OF PROJECT AREA

Land use	Area (Acres)	% use
Poor Crop land (<i>Baid</i>)	140.32	58.4
Medium agricultural land (<i>Kanali</i>)	46.05	19.2
Non-agricultural land (<i>Danga</i>)	41.05	17.1
Water body (<i>Pond & nala</i>)	10.70	4.4
Agricultural land (<i>Bahal</i>)	2.27	0.9
Total	240.39	100.0

The existing water bodies (2 Nos) have been considered as Rain water harvesting ponds. Diversion of the seasonal rainfed stream (nallah) passing through the plant site has not been considered and its flow would remain unrestricted. Embankment will be made on both sides of the stream (nallah) with thick greenbelt of 15-20 m. The stream will have cross-over at the strategic location for free movement with in the plant.

The proposed site mainly consists of Poor crop, medium agricultural land & non agricultural land. Also, the site is in vicinity of an Industrial area and the Parent company (Gagan Ferrotech). The water bodies present within the selected site will not be disturbed or diverted at any stage while designing the layout of the plant. There are no water-logged areas within the demarcated land for the project. Hence, it may be concluded that the proposed site may be used for industrial activity.

Observations of the Committee: -

17. After examination, the Committee found that the reply furnished by the project proponent is adequate and satisfactory.

Recommendations of the Committee: -

18. 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. Landscaping plan for the nallah passing through the project site shall be furnished and action plan for rehabilitation and maintenance of the same shall be detailed in the EIA report.
- ii. The ponds within the plant premises shall be desilted to enhance its storage capacity.
- iii. No ground water shall be abstracted.
- iv. 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.

- v. Public Hearing is 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.
- 5.7 Expansion of Integrated Steel Plant from 3.6 MTPA to 7.2 MTPA by **M/s. Jindal Steel & Power Ltd** at District Raigarh, Chhattisgarh [Online proposal No. IA/CG/IND/93916/2019; MoEF&CC File No. J-11011/799/2008- IA II (I)] –**Terms of Reference.**

M/s. Jindal Steel & Power Limited (JSPL) made application vide online proposal no. IA/CG/IND/93916/2019 dated 6th 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 & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Observations of the Committee: -

2. The Committee noted that the proposal is for expansion of integrated steel plant from 3.6 MTPA to 7.2 MTPA at District Raigarh, Chhattisgarh. After examination, the Committee found that the proposal is lacking in several technical aspects inter-alia including implementation status of the existing project, pre-feasibility report does not contain equipment and configuration of various units and permission of the competent authority to divert the canal etc., Further, information regarding the validity period of the stage – II forest clearance may also be provided.

Recommendations of the Committee: -

3. After detailed deliberations, the Committee recommended to return the proposal in present form due to aforesaid shortcomings.

5.8 Expansion, Modernization of existing facilities along with integration of existing environmental clearances [Sponge Iron Plant - 6,50,000 TPA; Capacity enhancement of Steel Melting Shop from 4,00,000 TPA to 7,00,000 TPA; Power generation – 73 MW; Ferro Alloys – 16,500 TPA; Pig iron – 33,000 TPA; H.B. Wire – 1,00,000 TPA; Oxygen & Nitrogen plants; Fly ash brick plant, Iron ore beneficiation – 10,00,000 TPA; Rolling Mill – 4,00,000 TPA; Induction Furnace for Casting in place of Arc Furnace – 5,000 TPA; Iron Ore Pellet Plant – Capacity enhancement from 21,00,000 TPA to 24,00,000 TPA; Coal Gasification System - 60,000 Nm³/hr to 92,000 Nm³/hr; Slag Crushing Plant – 1,75,000 TPA and Mineral grinding unit – 2,00,000 TPA) by **M/s.**

Godavari Power and Ispat Limited located at 428/2, Phase-I, Industrial Area, Siltara, Raipur, Chhattisgarh [Online proposal No. IA/CG/IND/95005/2019; MoEF&CC File No. J-11011/326/2005- IA II (I)] –**Terms of Reference.**

M/s. Godavari Power and Ispat Limited (GPIL) made application vide online proposal no. IA/CG/IND/95005/2019 dated 9th 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 & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

2. The existing projects were accorded environmental clearance vide F. No. J-11011/326/2005-IA II (I) dated 2nd March 2006, F. No. J-11011/179/2009-IA II (I) dated 25th August, 2009 and F. No. J-11011/216/2014- IA-II (I) dated 7th April 2016 Consent to Operate granted by Chhattisgarh Environment Conservation Board vide following letters:

- Letter No. 1160 & 1162/TS/CECB/2006 dated 03/03/2006, Letter No. 1811 & 1813/TS/CECB/2007 dated 11.04.2007, 8724 & 8726/TS/CECB/2009 dated 09.01.2009 & 35 & 37/TS/CECB/2018 dated 03.04.2018
- Letter No. 3052 & 3054/TS/CECB/2010 dated 28.08.2010
- Letter No. 1909 & 1911/TS/CECB/2010 dated 30/06/2010 for 0.6 MTPA Pellet Plant & 2360 & 2362/TS/CECB/2013 dated 01/08/2013 for 1.5 MTPA Pellet Plant.
- Letter No. 5227 & 5229/TS/CECB/2016 dated 24.02.2016, 3438 & 3440/TS/CECB/2013 dated 03.10.2013, 1139 & 1141/TS/CECB/2018 dated 25.04.2018

All the above CTOs are valid up to 31/10/2019.

3. The existing / proposed units are / will be located at Plot No. 428/2, Phase-1, Industrial Area, Village Siltara, Tehsil Dharsiwa, District Raipur, State Chhattisgarh.

4. The implementation status of the existing units for which environmental clearances have been accorded by the Ministry from time to time are summarized as below:

S. No.	Units	Existing granted Capacity	Operating Capacity	Status/Remarks
1.	Sponge Iron	6,50,000 TPA	4,95,000 TPA	Operational – 4,95,000 TPA
2.	Steel Billet (SMS)	4,000,00 TPA	4,000,00 TPA	Operational
3.	Power (AFBC/WHRB)	53 MW	53 MW	Operational
4.	Ferro Alloys/Pig Iron	16,500/33,000 TPA	16,500/33,000 TPA	Operational
5.	HB Wire	1,00,000 TPA	1,00,000 TPA	Operational
6.	Oxygen Plant	12,00,000 Nm ³	12,00,000 Nm ³	Operational
7.	Nitrogen Plant	45,00,000 Nm ³	45,00,000 Nm ³	Operational
8.	Fly Ash Bricks Plant	1,65,00,000 Nos.	1,65,00,000 Nos.	Not in operation

S. No.	Units	Existing granted Capacity	Operating Capacity	Status/Remarks
9.	Iron Ore Beneficiation Plant	10,00,000 TPA	-	Under implementation, likely to be commissioned by June, 2019
10.	Rolling Mill	4,00,000 TPA	-	Under implementation, likely to be commissioned by June, 2019
11.	Arc Furnace (Proposed to be revised to Induction Furnace for Casting, including engineering & fabrication division)	5,000 TPA	-	The construction work shall be implemented on approval for requisite change in configuration.
12.	Biomass Based Power Plant	20 MW	20 MW	Operational
13.	Iron ore pellet plant with Coal Gasifier	21,00,000 TPA along with 60,000 nm ³ /hr Coal Gasifier	21,00,000 TPA along with 60,000 nm ³ /hr Coal Gasifier	Operational

5. M/s. Godawari Power and Ispat Limited now proposed for expansion / modernization of existing manufacturing units & setting up new units as per the following details:

S. No.	Units	Existing granted Capacity	Proposed modernization/expansion	Final capacity (Post modernization /expansion)
1.	Sponge Iron	650000 TPA	No Change	650000 TPA (1x350 & 3x500 TPD KILNS)
2.	Steel Billet (SMS)	400000 TPA	Modernization and Capacity Enhancement	700000 TPA (7MTx10, 12 MTx6, 15MTx6. 30 MTx4)
3.	Power (AFBC, WHRB & Biomass Based Power Plant)	73 MW (28 MW + 25 MW + 20MW)	Modernization by Installation of one new energy efficient TG set of 48 MW (+1 standby 10 MW) + 25 MW (all Existing TGs to be retained for exigencies)	73 MW (48 MW+25MW)
4.	Ferro Alloys	16500 TPA	No Change	16500 TPA
5.	Pig Iron	33000 TPA	No Change	33000 TPA
6.	HB Wire	100000 TPA	No Change	100000 TPA

S. No.	Units	Existing granted Capacity	Proposed modernization/expansion	Final capacity (Post modernization /expansion)
7.	Oxygen Plant	1200000 Nm ³	No Change	1200000 Nm ³
8.	Nitrogen Plant	4500000 Nm ³	No Change	4500000 Nm ³
9.	Fly Ash Bricks Plant	16500000 Nos.	No Change	16500000 Nos.
10.	Iron Ore Beneficiation Plant	1000000 TPA	No Change	1000000 TPA
11.	Rolling Mill	400000 TPA	No Change	400000 TPA
12.	Arc Furnace	5000 TPA	(To be revised to Induction Furnace for casting including engineering & fabrication)	5000 TPA
13.	Iron Ore Pelletization Plants along with coal gassification plant .	21,00,000 TPA (Existing 2 Units: Kiln –I of 6,00,000 TPA & Kiln – II of 15,00,000 TPA) along with 60,000 Nm ³ /hr coal gasification plant.	Proposed enhancement in production capacity from 21,00,000 TPA to 24,00,000 TPA without change in plant & machinery along with additional 32,000 Nm ³ /hr coal gasification plant.	24,00,000 TPA (within which 22,00,00 TPA will be Pellet + 2,00,000 TPA will be Magnetite Powder) along with Coal Gasifier of 92,000 Nm ³ /hr
14.	SMS Slag Crushing Plant	-	Proposed	175000 TPA
15.	Mineral Grinding Plant	-	Proposed	200000 TPA

6. The land area in possession for the existing plant is 86.464 Ha which is an Industrial Land. Additionally, acquired land is 7.361 ha for the proposed expansion. Thus the existing and proposed projects will be located in the total area of 93.825 ha (231.848 acres). No forestland involved. The entire land is in possession for the project. Out of the existing area of 86.464 ha, 29.70 ha (34.35%) land was used for green belt development. For the additional acquired land of 7.361 ha, subsequent green belt will be developed.

7. 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.

8. Total project cost will be approx Rs.2040.00 Crores (Post-expansion)

9. The ore for the proposed expansion will be procured from Captive Iron Ore Mines at Ari Dongri, Dist. Kanker, Chhattisgarh & Boria Tibbu, Dist. Rajnandgaon, Chhattisgarh via Iron Ore Crushing Unit at Gidhali, Dist. Balod, Chhattisgarh and Local Market / Odisha mines. The ore transportation is being done through Tarpaulin covered dumpers by road and by rail.

10. The total electricity load will be 138.5 MW after expansion. Out of this, 73 MW power will be of captive generation and the balance (shortfall) will be procured from our associate unit as well as State Electricity Board / Power grid. No DG set is proposed to be installed by the Company.

11. Proposed raw material and fuel requirement (post-expansion) for the project are as under:

Sl. No.	Facilities	Raw Materials	Quantity (TPA)
1	Sponge Iron – 6,50,000 TPA	Pellet	9,42,500
		Coal	6,50,000
		Dolomite	19,500
2	Steel Billets – 7,00,000 TPA	Sponge Iron	7,60,960
		Scrap	92,030
		Calcined Lime	5,954
		Silico Manganese	10,480
3	Power generation (AFBC, WHRB & Biomass based)- 73 MW	Coal	1,13,225
		Dolochar	2,678
		Rice Husk	1,67,111
4	Ferro Alloys – 16,500 TPA or Pig Iron – 33,000 TPA	Manganese Ore	34,650
		High Mn Slag	6,600
		Dolomite	495
		Quartz	1,320
		Coke / Steam Coal	9,900
		Electrode Paste	495
		MS Item	165
5	H.B. Wire – 1,00,000 TPA	MS Wire Rods	1,01,500
6	Oxygen - 12,00,000 Nm ³ & Nitrogen - 45,00,000 Nm ³ gas plants	Atmospheric Air	4,16,670
7	Fly Ash Brick Plant – 165.00 lakh Nos.	Fly Ash	70,000
		Lime & Gypsum	15,000
		Granulated Ferro Alloys Slag	7,000
		Sand	8,000
8	Iron Ore Beneficiation Plant - 10,00,000 TPA	Crushed Ore	10,00,000
9	Rolling Mill – 4,00,000 TPA	Steel Billets	4,00,000

Sl. No.	Facilities	Raw Materials	Quantity (TPA)
10	Induction Furnace for Casting / Fabrication – 5,000 TPA	Steel Scrap & Borings	4,520
		Pig Iron & Silicon	500
		Ferro Manganese	30
		Ferro Silicon Magnesium	20
		Inoculants	10
		Silica Sand	500
		Bentonoide	5
		Coal Dust	30
11	Iron Ore Pellet Plant Total proposed capacity - 24,00,000 TPA (with in which 22.00 lac will be manufacture of pellet & 2.00 lac manufacture of magnetite powder)		
	Manufacture of Pellets – 22.00 lac TPA	Iron Ore Fines DRY including Return Fines	22,88,000
		Bentonite / Binder	22,000
		Lime Stone / Dolomite	35,200
	Manufacture of Magnetite Powder – 2.00 lac TPA	Magnetite Ore	2,00,000
12	Gasification System for Pellet Plant – 92,000 Nm ³ /hr	Coal	2,86,364
		F. Oil	2300 KL
13	Mineral Grinding – 2,00,000 TPA	Mineral Ore	2,00,000

12. The requirement of Iron Ore Pellets, Sponge Iron, Silico Manganese, Dolochar, High Mn. Slag, Iron Ore / Iron Ore fines, Steel Billets, MS Wire Rods would be fulfilled by own source as well as will be procured from associate units / outside parties. Lime Stone, Dolomite, Scrap, Flux, Rice Husk, Manganese Ore, Quartz, Electrode Paste / MS Item / Lancing Pipe, Bentonite, Pig Iron, Fuel Oil, Silica Sand etc. will be procured from suppliers / open market by rail/road. Fuel consumption will be mainly Coal / Fuel Oil and will be procured from SECL and from suppliers / open market respectively by rail/road.

13. Water Consumption for the proposed project will be 15898 KL/Day and waste water generation will be 1035 KL/Day. Domestic waste water will be treated in Packaged Type STP and industrial waste water generated will be treated in ETP and reused for water sprinkling and plantation, etc.

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

Observations 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. Action plan for 100% utilization of SMS slag shall be submitted.
- ii. Scheme for rain water harvesting with capacity more than the water consumption in the project along with action plan for its implementation shall be submitted. If necessary, rain water harvesting may not be limited to project premises only.
- iii. Action plan for deployment of additional industrial vacuum cleaners and reuse of dust collected from the vacuum cleaners, bag houses, ESPs, cyclones shall be furnished.
- iv. The project proponent should provide scheme for the utilisation of Tar, Tar sludge and phenolic water generated in the gasifier plant.
- v. Action plan to replace the old smaller size (5x7T) Induction Furnaces with larger capacity furnaces shall be furnished.
- vi. Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by rail/road with anticipated rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.
- vii. No ground water shall be abstracted.
- viii. Public Hearing to be conducted by the concerned State Pollution Control Board.
- ix. 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.
- x. 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.

5.9 Proposed Integrated Cement Project - Clinker (2.5 MTPA), Cement (4.0 MTPA), Captive Power Plant (40 MW) & WHRS (10 MW) by **M/s. Spring way Mining Private Limited** at Village: Gaisabad, Tehsil: Hatta, District: Damoh (Madhya Pradesh) [Online proposal No. IA/MP/IND/97176/2019; MoEF&CC File No. IA-J-11011/69/2019-IA-II(I)] –**Terms of Reference.**

M/s. Springway Mining Private Limited proposes to install a new Integrated Cement Project - Clinker (2.5 MTPA), Cement (4.0 MTPA), Captive Power Plant (40 MW) & WHRS (10 MW) at Village: Gaisabad, Tehsil: Hatta, District: Damoh (Madhya Pradesh). It is proposed to set up the 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 25th February, 2019 *vide* Online Application No. IA/MP/IND/97176/2019.

2.0 M/s. Springway Mining Private Limited is proposing an Integrated Cement Project - Clinker (2.5 MTPA), Cement (4.0 MTPA), Captive Power Plant (40 MW) & WHRS (10 MW).

3.0 The proposed unit will be located at Village: Gaisabad, Tehsil: Hatta, District: Damoh (Madhya Pradesh).

4.0 The land area acquired for the proposed plant is 122.68 ha; out of which 120.46 ha is private agricultural land and rest 2.22 ha is Govt. land. No forest land is involved. The entire land has been acquired for the project. Out of the total project area, 40.48 ha (33%) will be used for greenbelt development.

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

6.0 Total project cost is approx. 1200 Crores rupees. Proposed employment generation from proposed project will be 250 direct employments and 2000 indirect employments.

7.0 The targeted production capacity of Integrated Cement Project: Clinker (2.5 MTPA), Cement (4.0 MTPA), Captive Power Plant (40 MW) & WHRS (10 MW). The Limestone for the plant would be sourced from Captive Mine as well as small quantity outsourced for quality correction. Bauxite will be sourced from Maihar, Satna (MP) by road; Iron Ore will be sourced from Siroha, Katni (MP) by road; Gypsum from Nagaur/ Bikaner (Rajasthan) by rail & road; fly ash from Captive Power Plant (CPP) & Amarkantak by road. The proposed capacity for different products for new site area is as below:

Name of Unit	Proposed Capacity
Clinker (MTPA)	2.5
Cement (MTPA)	4.0
Captive Power Plant (MW)	40
WHRS (MW)	10

8.0 The electricity load of 40 MW will be sourced from proposed Captive Power Plant, WHRS & Grid (for emergency).

9.0 Proposed Raw materials required for the project are Limestone which will be procured from Captive Mine as well as small quantity outsourced for quality correction. Bauxite will be sourced from Maihar, Satna (MP); Iron Ore will be sourced from Siroha, Katni (MP); Gypsum from Nagaur/ Bikaner (Rajasthan); fly ash from Captive Power Plant (CPP) & Amarkantak. Fuel for Cement Plant will be Indian & Imported Coal and Indian & Imported Petcock, sourced from Sohagpur Coalfields of South Eastern Coalfields Limited (SECL), Indonesia, Australia and South Africa and Bharat Oman Refinery Ltd (BORL), Bina, MP Reliance Refinery (RIL), Jamnagar, Gujarat/ Import.

10.0 Water Consumption for the proposed project will be 2500 KLD; which will be sourced from Surface water (Bearma river) and no waste water will be discharged from the cement plant. Domestic wastewater will be disposed off in septic tank/ soak pit. Waste water generated from CPP will be recycled back into the process and used for dust suppression after proper neutralization.

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

Observations of the Committee: -

12.0 The project was prescribed ToRs for mining vide letter No. J-11015/114/2015–IAII (M) dated 08.06.2015 and subsequently extended the validity for further period of one year vide

letter even no.dated 08.05.2018. The mine and project site are situated either side of Berma River.

Recommendations of the 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. Action plan to transport Lime stone through Tube conveyor crossing the river.
 - ii. Water pipeline shall be supported on the structure for tube conveyor.
 - iii. Project site shall be suitably shifted towards northwest to create green belt near by the village.
 - iv. Action plan to initiate Mining activity in the northern part of the leased mine
 - v. River drainage plan and corresponding action plan will be prepared to reduce the impact of mining activity on the river flow
 - vi. Embankment will be provided along the river bank to prevent flooding of the area.
- 5.10 Proposed Integrated Steel Plant with Production Capacity of 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Road (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant **by M/s. Supershakti Metaliks Limited** at Village: Mandalpur, Block: Jamuria, District: Paschim Burdwan (West Bengal) [Online proposal No. IA/WB/IND/97233/2019; MoEF&CC File No. IA-J-11011/70/2019-IA-II(I)] –**Terms of Reference.**

M/s. Supershakti Metaliks Limited made application vide online proposal no. IA/WB/IND/97233/2019 dated 25th 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 & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.

Details submitted by the project proponent

2. M/s. Supershakti Metaliks Limited proposes to install a new Integrated Steel plant with capacity of 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Rod (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant at Village: Mandalpur, Block: Jamuria, District: Paschim Burdwan (West Bengal). It is proposed to set up plant based on Direct Reduced Iron Technology (DRI).

3. The proposed unit will be located Village: Mandalpur, Block: Jamuria, District: Paschim Burdwan (West Bengal). The latitude and longitude of the project site is 23^o 41' 29.60" N to 23^o 41' 56.92" N and 87^o 05' 01.50" E to 87^o 05' 34.19" E respectively. The water bodies exists within the study area are Ajay River (8.5 km in NE direction); Damodar River (9.5 km in SSW direction); Few Seasonal Nala / Khal Singaran Nala (9.5 km in ESE direction); Punta Khal (7.5 km in WSW direction) and Nonia Khal (7.5 km in SW direction). Nearest railway station is Jamuria which is located at a distance of 1.5 km from the project site.

4. The land area acquired for the proposed plant is 85.7 Acres (34.68 ha); out of which 60.58 acres land is agricultural land and 25.12 acres land is non-agricultural land. No forest land is involved. The entire land has been acquired for the project. Out of the total project area, 28.28 acres (33%) 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. INR 1616.22 Crores rupees. Proposed employment generation from proposed project will be 1400 direct employments and 1500 indirect employments.

7. The targeted production capacity of the Integrated Steel Plant is 0.548 MTPA {TMT / Rebar (0.3 MTPA), Wire Rod (0.2 MTPA) and Billets (0.048 MTPA)} along with 35 MW Captive Power Plant. Iron Ore/Pellets will be procured from Iron ores of Orissa & Jharkhand and Pellets from local plant located in nearby vicinity through Rail & Road, Dolomite will be procured from Rajasthan & Madhya Pradesh by Road, Lime will be procured from Katni (M.P.) by road. The proposed capacity for different products for new site area is as below:

Name of Unit	Proposed Capacity
TMT / Rebar (MTPA)	0.3
Wire Rod (MTPA)	0.2
Billets (MTPA)	0.048
CPP (MW)	35

8. The electricity load of 105.4 MW will be procured from proposed CPP {35 MW} and State Grid.

9. Proposed raw materials required for the proposed project are Iron Ore/Pellets will be sourced from Iron ores from Orissa & Jharkhand and Pellets from local plant located in nearby vicinity; Dolomite from Rajasthan & Madhya Pradesh; Purchased DRI from Nearby DRI plant; Pig Iron from Sail Plants Ltd. and other suppliers of repute; Purchased Scrap Imported from South Africa; Lime will be sourced from Katni (MP); Flour spar from Local supplier; Ferro alloys from Ferro alloys plant located in near vicinity. Fuel will be Indian & imported coal, sourced from Eastern Coal Fields Limited (ECL) & Adani Global Pvt. Limited, Sawaogi Global Pvt. Limited, Swiss Singapore Overseas etc. respectively.

10. Water Consumption for the proposed project will be 4280 KLD, which will be sourced from Ajay River and no waste water will be discharged from the steel plant. Domestic & Industrial waste water will be treated ETP Plant and the treated waste water will be utilized for greenbelt development/ plantation.

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. 74, March 07, 2019].

Observations of the Committee: -

13. Though only one site chosen, the Committee deliberated on the issue and found that the proposed site is suitable due to its proximity towards railway siding, domestic coal availability and to draw water from Ajay river only for industrial purposes.

Recommendations of the Committee: -

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

- i. Action plan for transportation of raw materials and finished products by rail shall be submitted.
- ii. No ground water shall be abstracted.
- 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.

5.11 Ferro Alloys manufacturing unit (5x9 MVA, 75,000 TPA- Fe-Mn: 20,000 TPA; SiMn: 30,000 TPA; Fe-Si: 10,000 TPA and Fe-Cr: 15,000 TPA) **by M/s Sharp Ferro Alloys Limited** at Sy. No. 278, 281,284,288,289 & 290 Village Garbham, Mandal Merakamudidam, District Vizianagaram in Andhra Pradesh [Online proposal No. IA/AP/IND/95227/2011; MoEF&CC File No. J-11011/680/2009-IA-II(I)] –**Extension of validity of environmental clearance.**

M/s. Sharp Ferro Alloys Limited made application vide online proposal no. IA/AP/IND/95227/2011 dated 11th February, 2019 along with the application in prescribed format (Form-I) for extension of validity of Environmental Clearance under the provisions of EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

2.0 The proposal for setting up of "Ferro Alloys manufacturing unit (5x9 MVA, 75,000 TPA- Fe-Mn: 20,000 TPA; SiMn: 30,000 TPA; Fe-Si: 10,000 TPA and Fe-Cr: 15,000 TPA at Sy. No. 278, 281,284,288,289 & 290 Village Garbham, Mandal Merakamudidam, District Vizianagaram in Andhra Pradesh of M/s. Sharp Ferro Alloys Limited, was accorded Environmental Clearance vide letter File No. J-11011/680/2009-IA-II(I) dated 19.05.2011.

Observations of the Committee: -

3.0 The application for extension of validity of Environmental Clearance was made after expiry of Environmental Clearance, i.e., 9 months later after the validity period of 7 years.

Recommendations of the Committee: -

4.0 After detailed discussions, in view of submission of application for extension of validity of Environmental Clearance after expiry of the stipulated time frame, the Committee rejected the EC validity extension proposal.

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 PM₁₀, PM_{2.5}, SO₂, 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 (QCI)/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 SPCB shall 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.

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 (PM₁₀ 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 PM₁₀ 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(PM₁₀ 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 PM₁₀ 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

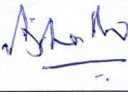
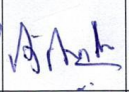
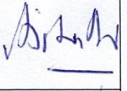
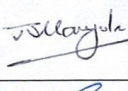
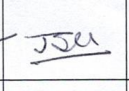
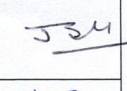



Executive Summary

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

**LIST OF PARTICIPANTS OF EAC (I) IN 5th MEETING OF EAC (INDUSTRY-I) HELD
ON 27th to 29th MARCH, 2019**

SL. No.	NAME AND ADDRESS	POSITION	ATTENDANCE SIGNATURE		
			27 th	28 th	29 th
1	Dr. Chhavi Nath Pandey, IFS(Retired) Email: pandeychhavinath55@gmail.com	Chairman			A
Members					
2.	Dr. B. P. Thakral, Representative of Central Pulp and Paper Research Institute, Saharanpur.	Member	A		A
3.	, Representative of Indian Meteorological Department, New Delhi.	Member	A	A	A
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