GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-1 SECTOR)

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Dated: 25.07.2022

Date of Zero Draft MoM sent to EAC: 21/07/2022
Approval by Chairman: 25/07/2022
Uploading on PARIVESH: 25/07/2022

MINUTES OF THE 9th EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON JULY 14-15, 2022

Venue: **Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through Hybrid Mode**

Time: **10:30 AM onwards**

DAY-1: JULY 14, 2022 [THURSDAY]

(i) Opening Remarks by the Chairman, EAC

Shri. Rajive Kumar, Chairman EAC welcomed the Committee members and opened the EAC meeting for further deliberations.

Shri. Rajive Kumar also appreciated the efforts of the Ministry's Team (Industry 1 Sector) for preparation and uploading the agenda of the EAC meetings and draft record of discussion very scientifically, systematically and timely on Parivesh Portal.

(ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'E' & Member Secretary, EAC (Industry-1 Sector) appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of the Minutes of the 8th Meeting of the EAC (Industry-1 Sector) held during June 23-24, 2022 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **8th Meeting of the EAC (Industry-1 Sector) held during June 23-24, 2022** conducted through Video Conferencing (VC), and noted that no request has been received for modifications/factual correction, in the minutes of the 8th EAC meeting for the project/activities, and confirmed the same.

Details of the proposals considered during the meeting **conducted** through **Hybrid Mode**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:

Consideration of Environmental Clearance Proposals

Agenda No. 9.1

9.1 **Proposed capacity expansion of asbestos cement sheets & accessories project from 60000 TPA to 250000 TPA (Phase 1, from 60000 TPA to 100000 TPA within existing plant & Phase 2 of 150000 TPA by installation of new plant) by M/s. Royal Uniforce Roofing Pvt. Ltd. located at Industrial Growth Centre Borgaon, Saunsar District Chhindwara, Madhya Pradesh – Consideration of Environmental Clearance.**

[Proposal no. IA/MP/IND/267575/2009; File No. J-11011/7/2010-IA II(I)]
[Name of Consultant: Paramarsh Servicing Environment and Development, Lucknow; Valid upto 01.05.2024]

9.1.1 M/s. Royal Uniforce Roofing Private Limited has made an online application vide proposal no. IA/MP/IND/267575/2009 dated 17.06.2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 4(c) Asbestos Milling and Asbestos Based Products under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

9.1.2 Name of the EIA consultant: M/s. Paramarsh Servicing Environment and Development, Lucknow [S. No. 159, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2124/RA0224 valid till 01.05.2024; Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
16/05/2021	Standard TOR Granted	Terms of Reference	19/05/2021	18/05/2025

9.1.4 The project of M/s. Royal Uniforce Roofing Private Limited located at Plot no U-4, Sector – A, AKVN Industrial Growth Centre, Village Borgaon, Tehsil Sausar, District Chhindwara, Madhya Pradesh is for proposed capacity expansion of Asbestos Cement Sheets & Accessories Project from 60,000 TPA to 2,50,000 TPA.

9.1.5 Environmental Site Settings:

S.No.	Particulars	Details	Remarks
i.	Total land	Total Land: 5.958 ha. [Govt. Land]	Land use: Industrial

<table>
<tr><th>S.No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Proposed expansion will be developed in existing project area of 5.958 ha only. Complete land of 5.958 ha is under possession of company. Additional land is not required for the proposed expansion.</td><td>--</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Project site:</u> Nil

<u>Study area</u><table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Tinkheda</td><td>1.5 km</td><td>West</td></tr><tr><td>Khairitaygaon</td><td>1.5 km</td><td>SE</td></tr><tr><td>Bramhan Pipla</td><td>2.0 Km</td><td>East</td></tr><tr><td>Borgaon</td><td>2.25 Km</td><td>North</td></tr></table></td><td>R & R is not required.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td><table><tr><td>Points</td><td>Latitude</td><td>Longitude</td></tr><tr><td>R1</td><td>21°32'28.32"N</td><td>78°49'5.95"E</td></tr><tr><td>R2</td><td>21°32'23.81"N</td><td>78°48'59.37"E</td></tr><tr><td>R3</td><td>21°32'20.94"N</td><td>78°49'1.80"E</td></tr><tr><td>R4</td><td>21°32'20.56"N</td><td>78°49'1.30"E</td></tr><tr><td>R5</td><td>21°32'20.08"N</td><td>78°49'1.20"E</td></tr><tr><td>R6</td><td>21°32'19.29"N</td><td>78°49'1.39"E</td></tr><tr><td>R7</td><td>21°32'18.59"N</td><td>78°49'1.79"E</td></tr><tr><td>R8</td><td>21°32'18.63"N</td><td>78°49'3.33"E</td></tr><tr><td>R9</td><td>21°32'18.92"N</td><td>78°49'4.94"E</td></tr><tr><td>R10</td><td>21°32'21.46"N</td><td>78°49'8.64"E</td></tr><tr><td>R11</td><td>21°32'25.97"N</td><td>78°49'4.86"E</td></tr><tr><td>R12</td><td>21°32'27.41"N</td><td>78°49'6.70"E</td></tr></table></td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>352 m Above Mean Sea Level</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land is involved</td><td></td></tr>
<tr><td>vii.</td><td>Waterbody exists within the project site as well as study area</td><td><u>Project site</u>: Nil

<u>Study area</u><table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>River Kanhan</td><td>6.5</td><td>East</td></tr><tr><td>Jam Nadi</td><td>6.0 Km</td><td>NE</td></tr></table></td><td></td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant</td><td>Nil

However, following forests are present within study area:
Dhoda Borgaon RF: 3-5 km/ East
Khondar RF: 9 km/ E
Pareghat RF: 9 km/ W</td><td></td></tr>
</table>

9.1.6 The existing project was accorded environmental clearance Vide F. No. J-11011/7/2010-IA.II(I) dated 29/10/2010. Consent to Operate for the existing unit was accorded by Madhya Pradesh State Pollution Control Board (MPPCB) vide. Consent No.: AW-51293 on 05/03/2020. The validity of CTO is up to 31/03/2023.

9.1.7 Implementation status of the existing EC:

Facilities	Units	As per EC dated 29/10/2010	Implementation Status	Production as per CTO
Production of Asbestos Cement Sheets & Accessories Unit	TPA	60,000	60,000	60,000

9.1.8 The unit configuration and capacity of existing and proposed project is given as below:

Name	Existing Units		Proposed Units		Total (Existing +Proposed)	
	Configuration	Production TPA	Configuration	Production TPA	Configuration	Production TPA
Asbestos Cement Sheets Project	--	60000	--	190000	--	250000

9.1.9 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S No	Raw material	Existing – 60000 TPA	Proposed – 250000 TPA	Total	Source	Distance (km)	Mode of Transport
1.	Cement (OPC)	26400	110000	136400	Chhindwara, Nagpur, Satna, Katni, Maihar	500	By Rail / Road
2.	Fiber (Chrysotile)	5400	22500	27900	Imported (Russia)	1250	By Ship up to the Kolkata and Mumbai port then by Road (Closed containers)
3.	Fly ash	16200	67500	83700	Nearby Power Plant	300	By Road (Trucks)
4.	Pulp	360	1500	1860	Chennai	1500	By Road (Trucks)
5.	Slag	4602	19174	23776	Chhindwara, Nagpur	50	By Road (Trucks)
6.	DWR	684	2851	3535	Plant Generation	--	Internal
7.	MMF002	138	576	714	Patalganga, Maharashtra	500	By Road (Trucks)
8.	FR2	720	3000	3720	Rajasthan	600	By Road (Trucks)

9.1.10 Existing water requirement is 77 m^3/day. Water requirement is obtained from Radial Collector Well of MP Industrial Development Corporation (MPIDC) at Kanhan River and Undertaking for supply of water has been obtained from MP Industrial Development Corporation Ltd. vide letter no MPIDC/Kh./Bo.Taknike/2022/26 dated 23.04.2022. The water requirement for the proposed project is estimated as 288 m^3/day which will be obtained from Radial Collector Well of MP Industrial Development Corporation (MPIDC) at Kanhan River.

9.1.11 Existing power requirement of 0.9 MW is obtained from Energy Deptt., Govt. of Madhya Pradesh. The power requirement for the proposed is estimated as 2 MW, which will be obtained from Energy Deptt., Govt. of Madhya Pradesh.

9.1.12 Baseline Environmental Studies:

<table>
<tr><td>Period</td><td>March to May, 2021</td></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>$PM_{2.5}$= 19.9 to 48.7 µg/m^3
PM_{10}= 40.4 to 79.4µg/ m^3
SO_2= 7.5 to 33.2 µg/ m^3
NO_2= 10.1 to 38.7 µg/ m^3
CO= 50 to 670 mg/ m^3</td></tr>
<tr><td>Incremental GLC Level</td><td>PM= 0.6 µg/m^3 (at 4.0 Km. in SE Direction)
SO_2 = 0.21 µg/m^3 (at 4.0 Km. in SE Direction)
NO_2 = 0.24 µg/m^3 (at 4.0 Km. in SE Direction)</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH:7.11 to 7.54,
Total Hardness: 200.5 to 478.0mg/l,
Chlorides: 25.1to160mg/l,
Fluoride: 0.76 to1.58mg/l.
Heavy metals are within the limits.</td></tr>
<tr><td>Surface water quality at 2 locations</td><td>pH:7.75 to 8.11,
DO:4.8 to 5.1mg/l,
BOD: 3.0to 3.3 mg/l.
COD: 8 to 12 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>40.5 to 62.1 dBA for the day time and 28.9 to 41.4 dBA for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at, SH 19 (NH 547) which connects Chhindwara via Sausar in north and Nagpur via Satnoor in south, which is approximately 1 Km. E from the plant site.
Transportation of raw material, fuel & finished product will be done 100% by road.
Existing PCU is 192 PCU/hr (4597 PCU/day) on SH 19 (NH 547) and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V Volume in PCU/hr)</th><th>C Capacity in PCU/hr)</th><th>Existing V/C Ratio)</th><th>LOS</th></tr>
<tr><td>SH-19</td><td>192</td><td>416</td><td>0.46</td><td>B</td></tr>
</table>
PCU load after proposed project will be 198 (192+ 8) PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Road</th><th>V Volume in PCU/hr)</th><th>C Capacity in PCU/hr)</th><th>Proposed V/C Ratio)</th><th>LOS</th></tr>
<tr><td>SH-19</td><td>200</td><td>416</td><td>0.48</td><td>B</td></tr>
</table>
Capacity as per IRC 73-1980 – Table 9 Guideline for capacity of roads.
Conclusion: The level of service will B after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No Endangered species of Flora and schedule I species of Fauna observed in study area.</td></tr>
</table>

9.1.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S No	Type of Waste	Source	Quantity Generated	Mode of Treatment	Disposal
1.	Broken Sheets	Industrial Waste	2500 TPA	These sheets will be pulverized and recycled in the close circuit manufacturing process	Recycle and Reuse within Premises
2.	Sediments from Cone Tank	Industrial Waste	25 TPA	These waste will be processed through ball mill and recycled in the close circuit manufacturing process	Recycle and Reuse within Premises

9.1.14 Public Consultation:

Details of advertisement given	15/09/2021
Date of public consultation	22/10/2021
Venue	Within premises of RURPL at Industrial Growth Centre, Borgaon, Sausar, Chhindwara, MP
Presiding Officer	ADM, Chindwara
Major issues raised	i. Employment ii. Air Pollution Control iii. Social Welfare iv. Tree Plantation v. Environmental Management

Action plan as per MoEF&CC O.M. dated 30/09/2020:

S.No	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. In Crores)	Target date for implementation of action plan
	Name of the Activity	Physical Targets	1st	2nd	3rd		
A.	**Based on local needs as per outcome of Public Hearing**						
1.	Employability	Skill development for 100 nos. local youths (as per employability potential) from villages within 10 km. radius. Training Charges Rs. 7500/= plus Rs. 2500/= stipend per month for 3 months. (Rs. 10000 / youth)	**10 Lakhs**	**10 Lakhs**	--	Rs. 20 Lakhs	December'2022: 50 youths June'2023: 50 youth
2.	Construction of Library	Construction of library in Borgaon. Cost of Civil Infrastructure Rs. 10 Lakhs & Cost of Books etc. 5 Lakhs	**15 Lakhs**	--	--	Rs. 15 Lakhs	December'2022

S.No	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. In Crores)	Target date for implementation of action plan
	Name of the Activity	Physical Targets	1st	2nd	3rd		
3.	Installation of Tower Light	Installation of Tower light at Ambedkar Chowk & Shivaji Chowk	**15 Lakhs**	--	--	Rs. 15 Lakhs	December'2022
B.	**Additional CER activity**						
1.	Use of Renewable source of Energy	Provision of solar panels with LED Ligths for community lighting in the 25 villages having population < 500 nos. (25 nos.) (25 Nos. Villages * Rs. 1 Lakh)	**13 Lakhs**	**12 Lakhs**		Rs. 25 Lakhs	50 % of the villages by Dec.'2022 & 50% villages will be covered by Jun.'2023.
2.	Ground Water Aquifer Recharge	Adoption of near by village Pond for developing the same for recharging the ground water by providing recharge infrastructure and maintenance of same.	**5 Lakhs**			Rs. 5 Lakhs	December'2022
3.	Health Infrastructure	Provision of Modern Ambulance in nearby Gram Panchayat within study area.	**15 lakhs**			Rs. 15 Lakhs	By the end of Dec.'2022
Total Budget Allocation for CER Activities						Rs. 95 Lakhs	

9.1.15 Existing capital cost of project was Rs. 250 Crores. The capital cost of the proposed project is Rs 40 Crores and the capital cost for environmental protection measures is proposed as Rs 1.95 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.14 crores. The employment generation from the proposed project expansion is 180 nos. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Existing (Rs. In crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
i.	Air Pollution Control/Noise	0.25	0.05	0.60	0.25
ii.	Water Pollution Control	0.05	0.02	0.15	0.05

iii.	Environmental Monitoring and Management	0.25	0.10	0	0.24
iv.	Green Belt Development	0.05	0.05	0.25	0.6
v.	Addressal of Public Consultation concerns (CER)	0.60	0.22	0.95	0
	TOTAL	**1.2**	**0.44**	**1.95**	**1.14**

9.1.16 Existing green belt has been developed in 2.05 ha. area which is about 34.4 % of the total project area of 5.958 ha with total sapling of 2200 Trees. Proposed greenbelt will be developed in 0.218 ha which is about 3.6 % of the total project area. Thus total of 2.268 ha area (38% of total project area) will be developed as greenbelt. A 3 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 3450 saplings will be planted and nurtured in 2.26 hectares in 2 years.

9.1.17 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction issued for RURPL.

Certified Compliance report from RO

9.1.18 The Status of compliance of earlier EC was obtained from Regional Office, Madhya Pradesh vide letter no. J-11011/7/2010-IA II(I), dated 29.10.2010 in the name of M/s. Royal Uniforce Roofings Pvt. Ltd. (RURPL). The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Madhya Pradesh vide letter, dated 10.12.2021. MoEF&CC (IRO), Bhopal evaluated the same and has issued letter dt: 11.05.2022 along with its re-assessment / present status as furnished by the PP is given as below:

Sl.	**Non-compliances details**	**Observation of RO (abridged)**	**Condition no.**			**Re-assessment by IRO / Response by PP**
			EC date	**Specific**	**General**	
1.	As per Noise Monitoring test result furnished by the project proponent, it is noted that noised levels are well within the stipulated noise standards. However copies of the test reports of the NABL accredited laboratory are yet to be furnished.	In view of the information furnished by PP and as per site observations noted above w.r.t. said site visit, the stipulated condition is considered as partly complied till submission of requisite test report of noise monitoring as monitored by an NABL accredited laboratory.	J-11011 / 7 / 2010-IA II(I) Dt: 29th Oct.'2010	NA	vi	As per the updated information furnished by the project proponent, Ambient Noise monitoring of the two locations, in and around the plant area were undertaken from MoEF&CC approved laboratory (Shiva Test House, Patna) & perusal of the test reports reveal that the monitored parameters conform to the standards prescribed under EPA rules. In view of the observations noted above, the overall compliance of the stipulated condition is considered as complied.
2.	During the site visit, project proponent is seen complying all the environmental protection measures	In view of the information furnished by the project proponent and as per the site	J-11011/7/2010-IA II(I) Dt: 29th Oct.'2010	NA	ix	As per the updated information furnished by the project proponent, it is submitted that PP was not able to spend money

Sl.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
	as noted in the observations against each of the Conditions stipulated in the said Environment Clearance. During the site visit, project proponent informed that several socioeconomic development measures were undertaken in the surrounding villages during covid pandemic. However, details of socioeconomic development measures undertaken in the surrounding villages during, covid pandemic. However, details of socioeconomic development measures undertaken in the surrounding village since the grant of Environment Clearance are still awaited from the project proponent.	observations noted above w.r.t. said site visit the stipulated condition is considered as party complied till submission of requisite information as noted above.				on socio-economic development activities as the company was in loss till 2018-19. However, it was noted that several socio-economic development measures were undertaken in the surrounding villages post 2018-19. Further, PP has to submit an Action plan prior to start of every financial year w.r.to socio-economic development measures. Compliance towards formulated action plan shall be reported in the six monthly compliance reports to be furnished to MoEFC&CC, IRO Bhopal. In view of the updated information furnished by the project proponent and the justification related to the company being in losses prior to 2018-19, the stipulated condition is presently considered as complied with respect to actions after 2018-19.
3.	Requisite documentary evidence in compliance of the stipulated condition are yet to be furnished by the project proponent. Copy of environment clearance is yet to be uploaded on company's website.	In the view of the information furnished by the project proponent and as per the site observations noted above w.r.t. said site visit the stipulated condition is considered as party complied till submission of requisite information.	J-11011/7/2010-IA II(I) Dt: 29th Oct.'2010	NA	XI	As per the documentary evidence furnished by the project proponent, Copy of Environment Clearance has been uploaded on company's website. In view of the observation noted above, the stipulated condition is considered as complied.
4.	As per the records furnished during the site visit, it is noted	In view of the information furnished by PP and	J-11011/7/2010-IA II(I)	NA	XII	As per the photographic evidence provided by the project proponent and

Sl.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
	that half yearly compliance reports in respect of the stipulated prior environmental clearance conditions are being submitted to all the regulatory agencies on a regular basis however, the environment clearance compliance report are yet to be uploaded on the company's website. Environmental air quality data is being displayed at the main gate as per norms as well as on company's website.	as per site observations noted above, w.r.t. said site visit, the stipulated condition is considered as partly complied till uploading of the data on the company's website.	Dt: 29th Oct.'2010			the details available on company website, Display board has been installed at gate and environment clearance compliance reports has been uploaded on the company's website. In view of the observations noted above, the overall compliance of the stipulated condition is considered as complied.
5.	As per there records furnished subsequent to the visit it was noted that copy of the environmental statement for the year 2019-20 and 2020-21 was submitted on 21st Sept, 2020 and 9th August, 2021 respectively. Copy of the same is furnished to MOEFCC, IRO Bhopal along with this compliance report. Project proponent shall ensure regular submission of Form-V through e-mail to MOEFCC IRO Bhopal.	In view of the information furnished by the project proponent and as per the site observations noted above w.r.t said site visit, the stipulated condition is considered as partly complied till submission of requisite documents to MOEFCC, IRO Bhopal by e-mail.	J-11011/7/2010-IA II(I) Dt: 29th Oct.'2010	NA	XIV	As per the documentary evidence furnished by the project proponent, Copy of Environment Statement in Form-V for the year 2020-21 submitted by e-mail on 25.09.2021. In view of the observation noted above, the stipulated condition is considered as complied. MoEFCC, IRO Bhopal as well in this respect, which shall be ensured during the expansion project, for which EC certification is being sought.
6.	Requisite documentary evidence in compliance of the stipulated condition are yet to be	In view of the information furnished by the project proponent and as per the site observations noted	J-11011/7/2010-IA II(I) Dt: 29th Oct.'2010	NA	XVI	As per the updated information/documentary evidences by the project proponent, it was noted that the plant was commissioned on

Sl.	Non-compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by IRO / Response by PP
			EC date	Specific	General	
	furnished by the project proponent.	above w.r.t said site visit, the stipulated condition is considered as partly complied till submission of requisite information.				01.04.2023 and the Consent to Establish for the unit was accorded on 30.06.2011 by MPPCB. Intimations in this regard were provided to local government authorities. Prior intimation are also to be given to MoEFCC, IR Bhopal as well in this respect, which shall be ensured during the expansion project, for which EC certification is being sought. In view of the observations noted above the overall compliance of the stipulated condition is considered as deemed complied.

9.1.19 The project proponent had initially applied for EC vide proposal no. IA/MP/IND/236722/2009 dated 21/12/2021 and the proposal was considered in 51st meeting of the Re-constituted EAC (Industry-I) held on 11 – 12th January, 2022 wherein the Committee returned the proposal in its present due to the technical deficiencies. Further, the Committee also recommended for issuance of show cause notice to the consultant for submitting poor quality EIA report.

9.1.20 M/s. Royal Uniforce Roofing Private Limited has again applied for EC vide proposal no. IA/MP/IND/267575/2009 dated 17.06.2022 after addressing the technical issues deliberated in the meeting held on 11 – 12thJanuary, 2022. The proposal is considered in the 9th meeting of the EAC for Industry-I sector held on 14-15th July, 2022. The deliberations and recommendations of the Committee are as follows:

Written representations:

9.1.21 During the meeting, based on the deliberations made by the EAC, the project proponent vide email dated 14.07.2022 submitted the revised information w.r.t. to the following:

1. Domestic Water Requirement breakup
2. Water Balance flow sheet.
3. Action Plan to Address PH Issue
4. CER Activity Details as incorporated on para 9.1.14 above.
5. Baseline Study Summary Report as incorporated on para 9.1.12 above.

Deliberations by the Committee

9.1.22 The Committee noted the following:

1. The instant proposal is for enhancement of production of Asbestos Cement Sheets from 60000 to 250000 MTPA.

2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

5. The Committee noted that the issues raised in the earlier application has been addressed and found to be satisfactory.

6. The Committee has also found that the baseline data and incremental GLC due to the proposed project within NAAQ standards except for CO which has been reported to 50-670 mg/m3. The PP should implement the mitigation measures in this regard to implement the NAAQ standards for all the parameters including CO.

7. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP that the green belt development shall be completed within a year.

8. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

9. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

10. The Committee deliberated upon the certified compliance report of IRO as well as action taken report submitted by PP with respect to the observations reported by IRO and found it satisfactory.

11. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

12. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to

time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee:

9.1.23 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant expansion proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. <u>Specific Conditions</u>

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
iii. The project proponent shall adhere to the prescribed BIS standards and laws regarding use and handling of asbestos, safety of employees etc. Raw materials like asbestos fibre and cement shall be transported in closed containers. Asbestos fibre shall be brought in pelletized form in-impermeable bags and under compressed condition.
iv. Only Chrysotile white asbestos fibre shall be used. Blue asbestos shall not be utilized as raw material in the manufacturing process.
v. There shall be no manual handling/opening of asbestos fibre bags. The company shall install fully automatic asbestos fibre debagging system.
vi. Fugitive emissions shall be controlled by bringing cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer. Dust collectors shall be provided to Fibre. mill, Bag opening device (BOD), Cement and Fly ash silos to control emissions. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle it into the process. Fugitive emissions generated from hopper of Jaw crusher and pulverizer shall be channelized through hood with proper suction arrangement, bag filter and stack.
vii. The project proponent shall comply with total dust emission limit of 2 mg/Nm^3 as notified under the Environment (Protection) Act, 1986. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.
viii. Bags containing asbestos fibre shall be stored in enclosed area to avoid fugitive emissions of asbestos fibre from damaged bags, if any,
ix. Proper housekeeping shall be maintained 'within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:
    a) All monitoring transfer points shall be connected to dust extraction system.
    b) Leakages or dust from machines and ducts shall be plugged.
    c) Floor shall be cleaned by vacuum cleaner only.

x. Quarterly monitoring of pollutant (PM10, asbestos fibre count) in the work zone area and stack(s) shall be undertaken by the Project proponents. In addition, the asbestos fibre count including the fugitive dust in the work zone area shall! be monitored by an Independent monitoring agency like NIOH /ITRC / NCB or any other approved agency on six monthly basis and reports shall be submitted to the Ministry's Regional Office, SPCB and CPCB.

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

xii. The cut and damaged fibre bags shall be repaired immediately. Empty fibre bags will be shredded into fine particles in a bag shredder and recycled into the process. Piling of AC sheets shall be done in wet condition only.

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

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

xv. Workers must wear the appropriate personal protective equipment (PPE) clothing and respirator for the type of work they are doing.

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

xvii. The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

xviii. Project Proponent shall construct a boundary wall along the project site to prevent flow of effluent/waste in the seasonal nallah flowing adjacent to the project site.

xix. Occupational health studies for all staff once in six months shall be carried out.

xx. PM level shall be less than 30 mg/Nm^3.

xxi. The total particulate generation month (in tonnes/annum) and the percentage captured by pollution control units, must be reported every six months to the IRO, MoEFCC.

xxii. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Plantation in gaps in the green belt shall be done by the PP during the present monsoon period and maintenance shall be done in the following years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

xxiii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

xxiv. As reflected in the Environmental Management Plan, all the treated effluent shall be recycled and reused in the manufacturing process. No process water shall be discharged outside the premises and 'zero' discharge shall be maintained. All the domestic Wastewater shall be treated in septic tank followed by soak pit and used for green belt development.

xxv. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report.

xxvi. All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xxvii. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

xxviii. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions:

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems 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 including asbestos fibre count in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited NIOH / ITRC / NCB or any other approved agency.

iii. The project proponent shall provide appropriate dust collectors to Fibre mill, Bag opening device (BOD), Cement and Fly ash silos. Bag filters followed by wet washer shall be provided at automatic bag opening machine, bag shredder, fibre mill and to cement silo to collect the dust and recycle the same into the process.
iv. High Efficiency Particulate Air filters (HEPA) preceded by primary filters shall be installed on all asbestos contaminated areas.
v. Total dust emission limit of 2 mg/Nm3 as notified under the Environment (Protection) Act, 1986 shall be complied. Adequate measures shall be adopted to control the process emission and ensure that the stack emission of asbestos fibre shall not exceed the emission limit of 0.2 fibre/cc. Asbestos fibre in work zone environment shall be maintained within 0.1 fibre/cc.
vi. Provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
vii. Pollution control system in the steel 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. Channelize through hood with proper suction arrangement, bag filter and stack the fugitive emissions generated from hopper of Jaw crusher and pulveriser.
x. Separate truck parking area shall be provided and monitor vehicular emissions at regular interval.
xi. Bring the cement in closed tankers, fly ash in covered trucks and asbestos in impervious bags opening inside a closed mixer.
xii. The bags containing asbestos fibre including damaged bags, if any shall be stored in enclosed area.
xiii. Place the asbestos contaminated materials (non-encapsulated) for off-site removal in sealed packaging such as double sealed heavy duty (700 gauge) plastic bags, suitably labelled.
xiv. Empty and damaged fibre bags shall be shredded into fine particles in a bag-shredder and recycled into the process.
xv. AC sheets shall be piled in wet condition only.
xvi. 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.
xvii. Proper housekeeping shall be maintained within the plant premises. Process machinery, exhaust and ventilation systems shall be laid in accordance with Factories Act. Better housekeeping practices shall be adopted for improvement of the environment within the work environment also. These include:
    a. All monitoring transfer points shall be connected to dust extraction system.
    b. Leakages or dust from machines and ducts shall be plugged.
    c. Floor shall be cleaned by vacuum cleaner only and the dust collected shall be reused in the process.
    d. Enclosed belt conveyer shall be used instead of manual transportation of asbestos within the premises
xviii. 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 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. No. 913 (E) dated 24thOctober, 1989 as amended time to time(Asbestos) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these systems 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. Adhere to 'Zero Liquid Discharge'

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

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

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

V. Energy Conservation measures

i. Energy conservation measures may be adopted such as adoption of solar energy and provision of LED lights etc., to minimize the energy consumption.

VI. Waste management

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

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

iii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. 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.

ii. Project proponent shall submit a study report on Decarburization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

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. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

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, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

viii. The project 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.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be

carried out and spent in next three years, in the company web site for the information to public/public domain.

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

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

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

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

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

xv. 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.

Agenda No. 9.2

9.2 **Expansion of Integrated Steel Plant with addition Steel Melting Shop-3,72,352 TPA producing steel Rolled Product of 3,43,312 TPA, Sponge Iron Plant of 2× 350 TPD , Captive Power plant 40 MW(AFBC-21, WHRB-19) to the Existing Facility: Sponge Iron Plant: 6× 100 TPD, Pellet Plant: 6,00,000 TPA, Captive Power Plant 15 MW(WHRB) and Iron Ore beneficiation Plant 6,00,000 TPA by M/s. Janki Corporation Limited located at Sidiginamola village, Bellary Taluk and District, Karnataka – Consideration of Environmental Clearance.**

[Proposal No. IA/KA/IND/269776/2009; File No. J-11011/576/2009-IA-II (I)]
[Consultant: Ardra Consulting Services Pvt. Ltd.; Valid upto: 29.12.2022]

9.2.1 M/s. Janki Corp Limited has made an online application vide proposal no. IA/KA/IND/269776/2009, dated 16.06.2022 along with copy of EIA/EMP Report, Form - 2 and Certified EC Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation and 1(d) Thermal Power Plantsunder Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

9.2.2 Name of the EIA consultant: M/s Ardra Consulting Services Pvt. Ltd. [Sl. No. 96, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/1922/IA0055; valid upto 29.12.2022, Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.2.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
29.03.2020	17th meeting of EAC held on 09.04.2019	Terms of Reference	10.06.2020	09.06.2024

9.2.4 The project of M/s Janki Corp Limited located in Sidiginamola Village, Bellary Tehsil, Bellary District, Karnataka State is for setting up of for new Steel Melting Shop-3,72,352 (TPA), Steel Rolled Product of 3,43,312 TPA, Sponge Iron Plant of 2× 350 TPD, Captive Power plant of 40 MW (AFBC-21 MW, WHRB-19 MW) to the Existing Facility**:** Sponge Iron Plant: 6× 100 TPD, Pellet Plant: 6,00,000 TPA, Captive Power Plant 15 MW (WHRB) and Iron Ore Beneficiation Plant 6,00,000 TPA within the existing premises.

9.2.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>Total land</td><td>155.805 ha (385.16 acres) [KIADB: 219.11acres, NA Land: 116.37acres and KLA(u/s) 109: 49.68acres]</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land is in possession of JCL</td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>R&R is not applicable
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Karekallu Village</td><td>2.26</td><td>N</td></tr>
<tr><td>SidiginamolaVillage</td><td>3.10</td><td>W</td></tr>
<tr><td>MeenahalliVillage</td><td>4.08</td><td>WSW</td></tr>
<tr><td>GollanaganahalliVillage</td><td>3.25</td><td>NNW</td></tr>
<tr><td>KarekalluVeerapuraVillage</td><td>5.24</td><td>E</td></tr>
<tr><td>Godehal Village</td><td>9.64</td><td>SSW</td></tr>
<tr><td>Chakibanda Village</td><td>7.60</td><td>E</td></tr>
</table></td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Corner</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>01</td><td>15°11'17.47"</td><td>77°6'23.94"</td></tr>
<tr><td>02</td><td>15°11'17.18"</td><td>77°6'25.96"</td></tr>
<tr><td>03</td><td>15°11'3.86"</td><td>77°6'25.40"</td></tr>
<tr><td>04</td><td>15°11'2.13"</td><td>77°6'32.35"</td></tr>
<tr><td>05</td><td>15°11'0.00"</td><td>77°6'32.78"</td></tr>
<tr><td>06</td><td>15°10'57.17"</td><td>77°6'44.54"</td></tr>
<tr><td>07</td><td>15°10'52.51"</td><td>77°6'43.42"</td></tr>
<tr><td>08</td><td>15°10'53.72"</td><td>77°6'38.12"</td></tr>
<tr><td>09</td><td>15°10'40.62"</td><td>77°6'25.50"</td></tr>
<tr><td>10</td><td>15°10'39.67"</td><td>77°6'31.31"</td></tr>
<tr><td>11</td><td>15°10'28.91"</td><td>77°6'28.78"</td></tr>
<tr><td>12</td><td>15°10'43.33"</td><td>77°6'35.82"</td></tr>
<tr><td>13</td><td>15°10'44.16"</td><td>77° 6'33.20"</td></tr>
<tr><td>14</td><td>15°10'54.51"</td><td>77° 6'35.54"</td></tr>
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<tr><td>16</td><td>15°10'28.82"</td><td>77° 6'25.30"</td></tr>
<tr><td>17</td><td>15°10'18.19"</td><td>77° 6'21.83"</td></tr>
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</table>

<table>
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<tr><td></td><td></td><td>
<table>
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<tr><td>34</td><td>15°11'13.18"</td><td>77° 6'15.53"</td></tr>
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<tr><td>36</td><td>15°11'14.33"</td><td>77° 6'23.41"</td></tr>
</table>
</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>426 m above mean sea level</td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No involvement of Forest Land.</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td><u>Project site:</u>
Name: Village Pond in Sidiginamola

<u>Study area</u> Within 10 km Radius
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Tungabhadra Right Canal</td><td>5.49 km</td><td>WNW</td></tr>
<tr><td>Hagari/Vedavathi</td><td>3.9 km</td><td>W</td></tr>
</table>
</td></tr>
<tr><td>8.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>Nil

Tungabhadra Otter conservation WLS is at 54km in S direction
Moka Reserve Forest 7.20 km</td></tr>
</table>

9.2.6 The existing project was accorded environmental clearance vide lr.no. F.No.J-11011/576/2009-IA-II(I) dated 23.01.2012 for expansion of Sponge Iron Plant (1,80,000 TPA to 4,00,000 TPA) and installation of Iron Ore Beneficiation Plant (0.6 MTPA). The latest Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide lr. No.AW-330986 dated 21.04.2022. The validity of CTO is upto 30.06.2027.

9.2.7 Implementation status of the existing EC

S. No.	Facilities	Units	As per EC dated 23.01.2012	Implementation Status as on date	Production as per CTO
1	Sponge Iron Plant	6 x 100 TPD (1,80,000 TPA)	23.01.2012	Implemented	180000 TPA
2	Sponge Iron Plant	2 x 350 TPD (2,20,000 TPA)	23.01.2012	Not Installed	Nil
3	Pellet Plant	600000 TPA	23.01.2012	Implemented	600000 TPA
4	Iron Ore Beneficiation Plant	600000 TPA	23.01.2012	Implemented	600000 TPA
5	Captive Power	WHRB-15 MW AFBC - 9 MW	23.01.2012	Implemented WHRB-15 MW	15 MW

9.2.8 The unit configuration and capacity of existing and proposed project is given as below:

S. No	Plant Equipment / Facility	Existing facilities as per EC dated 23.01.2012								Proposed Units		Final (Existing + Proposed)	
		Total (A+B)		Implement ed (A)		Un- implemented (B)		As perCTO					
		Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity	Config	Capacity
1	Sponge Iron Plant	6 ×100 TPD, 2 x350 TPD	4,00,000	6 ×100 TPD	1,80,000 TPA	2 x350 TPD	2,20,000 TPA	6 ×100 TPD	1,80,000 TPA	2×350 TPD	2,30,000 TPA	6 ×100 TPD, 2 x350 TPD	4,10,000 TPA
2	Pellet Plant	6,00,000 TPA	6,00,000 TPA	6,00,000 TPA	6,00,000 TPA	--	--	6,00,000 TPA	6,00,000 TPA	--	--	6,00,000 TPA	6,00,000 TPA
3	Iron Ore Beneficiation Plant	6,00,000 TPA	6,00,000 TPA	6,00,000 TPA	6,00,000 TPA	--	--	6,00,000 TPA	6,00,000 TPA	--	--	6,00,000 TPA	6,00,000 TPA
4	Captive Power	15MW (WHRB) + 9 MW (AFBC)	15MW (WHRB) + 9 MW (AFBC)	15MW (WHRB)	15MW (WHRB)	9 MW (AFBC)	9 MW (AFBC)	15MW (WHRB)	15 MW (WHRB)	(AFBC-21, WHRB-19)	40 MW	(AFBC-21, WHRB-34)	55 MW
5	Steel Melting Shop	--	--	--	--	--	--	--	--	3,72,352 TPA	3,72,352 TPA	3,72,352 TPA	3,72,352 TPA
6	Rolling Mill	--	--	--	--	--	--	--	--	3,43,312 TPA	3,43,312 TPA	3,43,312 TPA	3,43,312 TPA

9.2.9 The details of the raw material requirement for the expansion cum proposed project along with its source and mode of transportation is given as below:

S. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1	Iron Ore Fines	7,50,000	Nil	7,50,000	Local Market	Less than 110 km	Road / Rail
2	Lime stone	15000	Nil	15000	Local Market	Less than 100 km	Road
3	Bentonite	7,500	Nil	7,500	Local Market	About 1,700 km	Sea and Road or byRoad
4	Coke Fines	37500	Nil	37500	Local Market	About 1,100 km	Road
5	Imported Coal	1,73,076	1,87,924	3,61,000	South Africa	Received through Ennore and KP Ports, which are located at about 600 and 400 km respectively.	By sea from source and by Road or Rail from Port
6	Dolomite	9,900	11,600	21,500	Local Market	Less than 150 km	Road
7	Pig Iron	Nil	46,400	46,400	Local Market	Less than 100 km	Road
8	Indian Coal	Nil	22,830	22,830	Local Market	Less than 700 km	Road
9	Scrap/Mill scale	Nil	37040	37040	In House From RM & SMS	-------	Road

9.2.10 Existing Water requirement is 2610 KLD, water requirement is obtained from Sewage Treatment Plant of Ballari, City Corporation and permission for the same has been obtained from City Corporation, Ballari vide letter no. MB/T/SW/01/2006-2007 dated 19.06.2007. Total water requirement for Integrated Steel Plant is 9469 KLD. The water requirement for the proposed project is estimated as 6859 KLD, out of which 73 KLD of fresh water requirement will be obtained from the Hagari water supply unit and the remaining requirement of 6786 KLD will be met from Sewage Treatment Plant of Ballari City Corporation. The permission for drawl of water from Hagari water supply is obtained vide Lr. No.9/0809/2011-12 Dated 23.03.2017.

9.2.11 Existing power requirement of 10.20 MW is obtained from own 15 MW CPP plant. The total power requirement after the expansion project is estimated as 41.23.MW, which will be obtained from the 55 MW CPP plant.

9.2.12 Baseline Environmental Studies:

Period	01.12.2019 to 29.02.2020

<table>
<tr><td>AAQ parameters at 8 Locations (min and max</td><td>$PM_{2.5}$ = 9.4 to 21.6µg/m^3
PM_{10} = 42.1 to 78.6 µg/m^3
SO_2 = 4.1 to 14.8µg/m^3
NOx = 9.1 to 18.7µg/m^3
CO = 0.08 to 0.3µg/m^3</td></tr>
<tr><td>Incremental GLC level</td><td>PM_{10} =0.041µg/m^3 (Level at 3.10.km in WDirection)
SO_2 = 0.160 µg/m^3 (Level at Project Site)
NOx = 0.150 µg/m^3 (Level at Project Site)</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH: 6.97.to7.52, Total Hardness: 144 to 602 mg/l,Chlorides: 15 to 68 mg/l, Fluoride:0.24 to 0.88 mg/l.</td></tr>
<tr><td>Surface water quality at 2 locations</td><td>pH:6.79 to 7.48,</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>35.5 to 88.3 for the day time and 32.7 to 65.5 For theNight time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at NH 67 which isapproximately 210 m (distance) from the plant site.
• Transportation of raw material, fuel & finishedproduct will be done 100 % by road.
• Existing PCU is 125 PCU/hr on (SH 176 and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>Two- Lane-Two- Way Concrete Road</td><td>125</td><td>625</td><td>0.2</td><td>A</td></tr>
</table>
• PCU load after proposed project will be 125(Existing) + 32 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>Two- Lane-Two- Way Concrete Road</td><td>157</td><td>625</td><td>0.25</td><td>A</td></tr>
</table>
* Note: Capacity as per IRC-64:1990 Guide line for capacity for roads.

Conclusion: The level of service will not change. After including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No Endangered species of Flora and schedule I species of Fauna observed in study area.</td></tr>
</table>

9.2.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

(A) **Solid waste generation and management**

S. No.	Type of Waste	Source	Existing quantity (TPA)	Proposed quantity (TPA)	Total Quantity (TPA)	Disposal
1	Tailing	Beneficiation Plant	1,50,000	-	**1,50,000**	Stored at earmarked area in cake form and sold to the Cement Plants
2	MS Scrap	SMS& Rolling mill	-	29,040	**29,040**	Used as raw material in Induction Furnace
3	Ash	DRI	25500	67500	**93,000**	Sold to Cement plants and Used for Land fill
4	Dolochar	DRI	128700	150150	**2,78,850**	Used as fuel in AFBC Boiler of Power plant
5	Slag	IF	-	55900	**55,900**	Used for construction and road making
6	Pellet Waste	Pellet Plant	18,360	-	**18,360**	Recycle in Pellet Plant
7	Fly Ash and Bottom Ash	AFBC Boiler	52930	123500	**1,76,430**	Sold to local Cement Plants and for road making
8	Clarifier Sludge	From Common ETP	13700	21940	**35,640**	From Sludge Bed to Bio Manure to be utilized for Greenbelt Development
9	Metallic Scale (mill)	From SMS& Rolling mill	-	8000	**8,000**	Used as raw material in Pellet plant
10	Used Refractories	Pellet, DRI, IF	200	500	**700**	Sold as raw material for manufacture of Refractory Grog and fire clay refractories.

(B) **Hazardous waste generation and management**

S. No.	Type of Waste	Source	Quantity generated (TPA)	Disposal
1.	Waste residue containing Oil	Equipment	20MT	Collected in the leak proof containers and disposed to KPSCB authorized Re-processor/Incinerator
2.	Used/Spent Oil & Used grease	Equipment	25 KLT	Collected in the leak proof containers and disposed to KPSCB authorized Re-processor/Incinerator
3.	Empty barrels/ containers/ liners contaminated with hazardous chemicals /wastes	Equipment	2 MT	Handed over to KPSCB authorized Re- Cyclers.

S. No.	Type of Waste	Source	Quantity generated (TPA)	Disposal
4.	Organic Residues	Producer Gas Plant	3500 MT	Utilized for quenching of Hot gases in after Burning chamber of Sponge Iron Plant.
5.	Exhaust Air or Gas cleaning residue	Producer Gas Plant	700 MT	Utilized as fuel in Hot Air Generator attached to Iron Ore Grinding Mill of Pellet plant.
6.	Used Lead acid battery	Equipment	4 MT	Handed over to KPSCB authorized Re- cyclers

9.2.14 Public Consultation:

Details of Advertisement	Deccan Herald & Kannada Prabha-24.07.2021
Date of Public consultation	24.08.2021
Venue	Plant site, Sidiginamola Village
Presiding Officer	Deputy Commissioner
Major issues raised	• Medical facility/ Health, Skill based training, Water management, Employment, Solid waste disposal, Air pollution Control

Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

Sl. No.	Issues	Commitment	Physical Activities	Target Date (Year Wise)				Amount In Lakhs (Rs)
				2022-23	2023-24	2024-25	2025-26	
1	Medical facility/ Health	In Sidiginamola Village-appointed servants to the health center	Servants assisting Helath center shall be made available by Janki Corp Limited.	1.2	1.2	1.2	1.2	4.8
		In K. Veerapura Village-Eye Camps	Eye camp shall be organised in co-ordination with District Medical authorities in K.Veerapur Village and all other villages Sidiginamola, Karakellu, Paramadevana Halli, Meenahalli, Gollanaganahalli are also involved in this camp. Eye check up and medicines are made available	2.5	0	2.5	0	5
		In Sidiginamola Village - supply of proteins supplements to pregnantwomen and infants	Protein supplements to pregnant women and Infants shall be provided on Continuous basis to Sidiginamola, Karakellu, Paramadevana Halli, Meenahalli, Gollanaganahalli , K.Veerapura villages	1.5	1.5	1.5	1.5	6
		In Karakellu Village providing Ambulance	An ambulance shall be made available for giving 24 hours services to the Sidiginamola, Karakellu, Paramadevana Halli, Meenahalli, K.Veerapura, Gollanaganahalli villages	15	0	0	0	15
2	Skill based training	In Sidiginamola Village	Skill based training shall be organised in Sidiginamola Village to provide locals to gain the knowledge and abilities necessary to fulfil the specific job requirements. Also all other Karakellu, Paramadevana Halli, Meenahalli, K.Veerapura, Gollanaganahalli village compete tent persons shall be involved	3	3	3	3	12
3	Developmental work in local villages	In Sidiginamola Village - Providing Toilets, Uniform for School children's, Library facilities, Water	Already all facilities are provided by Janki Corp Limited, shall be continued on regular basis	5	5	5	5	20

Sl. No.	Issues	Commitment	Physical Activities	Target Date (Year Wise)				Amount In Lakhs (Rs)
				2022-23	2023-24	2024-25	2025-26	
		Purification Plant, Furniture supply to the school						
		In Karekallu village - Providing Toilets, Uniform for School children's, Library facilities, Water Purification Plant, Furniture supply to the school	Already all facilities are provided by Janki Corp Limited, shall be continued on regular basis	5	5	5	5	20
		In Gollanaganahalli Village -Providing Toilets, Uniform for School children's, Library facilities, Water Purification Plant, Furniture supply to the school	Already all facilities are provided by Janki Corp Limited, shall be continued on regular basis	5	5	5	5	20
		In Itareltallu (Paramadevana Halli) Village -Providing Toilets, Uniform for School children's, Library facilities, Water Purification Plant, Furniture supply to the school	Already all facilities are provided by Janki Corp Limited, shall be continued on regular basis	5	5	5	5	20
		In K. Veerapura Village - Providing Toilets, Uniform for School children's, Library facilities, Water Purification Plant, Furniture supply to the school	Already all facilities are provided by Janki Corp Limited, shall be continued on regular basis	5	5	5	5	20
		In Meenahalli Village - Providing Toilets, Uniform for School children's, Library facilities, Water Purification Plant, Furniture supply to the school	Already all facilities are provided by Janki Corp Limited, shall be continued on regular basis	5	5	5	5	20
4	Plantation	In Sidiginamola Village	The saplings will be distributed and all required assistance shall be provided to the					

Sl. No.	Issues	Commitment	Physical Activities	Target Date (Year Wise)				Amount In Lakhs (Rs)
				2022-23	2023-24	2024-25	2025-26	
			for development of Plantation in Sidiginamola, Karakellu, Paramadevana Halli, Meenahalli, K.Veerapura, Gollanaganahalli villages	2	2	2	2	8
5	Water management	In Sidiginamola Village- Rain water harvesting structures	Recharge pits which will be used for rainwater harvesting, shall be made in consultation with Gram Panchat after proper site selection	2	2	2	2	8
6	Employment	In Sidiginamola Village, In Karekallu Village, In Gollaranaganahalli Village	Already most of the Skilled, Semi- skilled and unskilled labors are sourced from the peripheral villages. For upcoming projects same shall be continued and suitable position shall be given considering education, skills and experience	10	10	10	10	40
7	Solid waste disposal	In Sidiginamola Village	The required vehicle for collection and disposal of solid waste will be handed over Sidiginamola Gram Panchat	0	0	10	0	10
8	Noise pollution	In Sidiginamola Village	Required controls for Noise pollution shall be carried out, Like installation of Acoustic enclosure to DG sets	40	0	0	0	40
9	Air pollution Control	In Sidiginamola Village in K Verrapura Village-Dust pollution control	The adequate steps will be taken for dust suppression in the plant by installing ESP and Bag filters. The dust generated during movement of vehicles and due to blowing of wind will be minimized by water sprinkling and ensuring trucks are covered with Tarpaulin	5	5	5	5	20
10	CSR activity	In Sidiginamola Village, In K Veerapura Village, In Gollaranaganahalli Village, In Itareltallu Village	Already covered under point number 1 & 3. Also roads will be developed in nearby Villages, Assistance for development of sports shall be provided in Sidiginamola, Karakellu, Paramadevana Halli, Meenahalli, K.Veerapura, Gollanaganahalli villages	4	3	2	2	11
Total Budget								**300**

9.2.15 Existing capital cost of project was 589.47 Crores.The capital cost of the proposed project is Rs 423.43 Crores and the capital cost for environmental protection measures is proposed as Rs 43.11 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 9.939 Crores. The employment generation from the proposed project / expansion is 618 direct employment & 1000 indirect employment. The details of cost for environmental protection measures are as follows:

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
(i).	Air Pollution Control/ Noise Management	1.41	0.56	5.18	0.17
(ii).	Water Pollution Control	11.27	1.77	23.7	6.11
(iii).	Environmental Monitoring and Management	1.84	0.11	4.06	0.58
(iv).	Green Belt Development	0.20	0.07	0.30	0.01
(v).	Addressal of Public Consultation concerns			3.00	

9.2.16 Existing green belt has been developed in 42.18 ha area which is about 27.07 % of the total project area of 155.805ha with total sapling of 76902 Trees. Proposed greenbelt will be developed in 15 ha which is about 9.6% of the total project area. Thus, total of 57.18 ha area (36.67% of total project area) will be developed as greenbelt. A 7.5 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 1,43,000 saplings will be planted and nurtured in 57.18 hectares in Four years.

9.2.17 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified Compliance Report from Integrated Regional Office

9.2.18 The Status of compliance of earlier EC was obtained from Regional Office, Karnataka *vide* letter no. EP/12.1/2011-12/25/KAR/1571 dated 15.03.2022 in the name of M/s. Janki Corp Limited. As per the report of RO, the conditions of environment clearance are compiled and has rated the compliance as Satisfactory.

Deliberations by the Committee

9.2.19 The Committee noted the following:

1. The Committee observed that existing green belt has been developed in 27.07 % of the total project area and proposed greenbelt in additional 15 ha which is about 9.6% of the total project area. The Committee is of the opinion that greenbelt plan shall be revisited.
2. The EAC observed that project proponent has not clearly submitted the linkage details of the raw materials. Details of Raw material and its linkage (source details and supporting

documents, distance etc.) and its mitigation measure during transportation needs to be submitted.

3. The Committee deliberated on the baseline data and observed that:
   a. Project Proponent has not submitted the data of GLC Incremental data pertaining to CO.
   b. The project proponent has not submitted the monitoring and analysis data w.r.t. BOD, COD and DO which are requisite as per TOR.
   c. The maximum noise level is recorded as 88.3 dB(A). PP is required to submit the mitigation measures for noise management.
   d. The units of data submitted w.r.t. AAQ parameters needs to be rechecked.
4. Action plan to address the issues raised during public hearing submitted as per the MoEF&CC O.M. dated 30/9/2020 shall be revisited and submitted.
5. The Committee observed that a nallah is passing through the project site. PP is required to submit the detailed management plan/conservation plan including technical and financial aspects to ensure that the nallah is not disturbed.
6. The traffic load study data is not in consonance to the data provided in EIA/EMP repor with the data submitted during brief submission and presented during the meeting. PP needs to re-analyze the monitored data and re-submit.
7. Project Proponent to consider adopting nearby villages to for socio-economic development.
8. The PP should confirm if the baseline CO level is 0.3 microgrmas (not milligrams) per cubic metre. The PP should include incremental GLC for CO also in its report
9. Project proponent to explore the ways to reduce the water consumption to 3-3.5 m^3/ tonne of production.
10. Project proponent shall also explore the possibility of meeting part of the plant's water requirement from RWH.

Recommendations of the Committee

9.2.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and sought requisite information on the points referred at para no. 9.2.19 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

Amendment/ Modification of ToR Proposal

Agenda No. 9.3

9.3 Expansion of Existing Steel Plant (Proposed to Integrated Steel Plant) by M/s Vanya Steels Private Limited located at Sy. No. 45,47,48, 49-A, 50-62, Hirebaganal, Koppal, Karnataka – Amendment of Terms of Reference.

[Proposal No. IA/KA/IND/275015/2022, File No. J-11011/269/2007-IA.II(I)]
[Consultant: Ecomen Laboratories Pvt. Ltd., Lucknow; Valid upto 21.09.2023]

9.3.1 M/s. Vanya Steels Pvt. Ltd has made an application online vide proposal no. IA/KA/IND/275015/2022 dated 04/06/2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. J-

11011/269/2007-IA.II(I) dated 21.04.2021. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification and appraised at central level.

9.3.2 Name of the EIA consultant: M/s. Ecomen Laboratories Pvt. Ltd., Lucknow [S No 151, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0203 valid till 21.09.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.3.3 M/s. Vanya Steels Pvt. Ltd had earlier applied for grant of ToR vide proposal no. x IA/KA/IND/208301/2021 dated 17.04.2021 for Expansion of existing Steel Plant (Proposed to Integrated Steel Plant comprising of Mineral Beneficiation, Pelletization plant, Sponge Iron Plant, Induction Furnace, Billet Caster, Rolling Mill, Pipe Mill, Galvanizing plant, Oxygen Plant, Cement Grinding Unit and Captive Power Plant) located at Sy. No. 45,47,48,49-A,50-62, Hirebaganal, Koppal, Karnataka. Accordingly Standard TOR was issued vide letter no. J-11011/269/2007-IA.II (I) dated 21.04.2021.

9.3.4 The instant proposal is for seeking amendment in ToR dated 21.04.2021 with respect to revised Plant configuration and capacity with the addition of Submerged Arc Furnace of capacity- 2 No. x 10 MVA and 1 No. X 20 MVA to produce 90,000 TPA Ferro alloys products. It is also envisaged that it is possible to convert liquid steel to higher quality, hence project proponent wishes to increase the Billet Caster capacity (for casting of liquid metal to convert into billet) from 325000 TPA to 525000 TPA.

9.3.5 Changes in configuration & capacity of units in granted ToR vis-à-vis with proposed ToR are as follows:

Industrial Unit	**As per Existing EC**	**As per Approved ToR No. J-11011/269/2007-IA.II(I) dt 21.04.2021**	**As per Proposed ToR Amendment**	**Total Capacity after TOR Amendment**
Iron Ore Mineral Beneficiation	-	0.6 MTPA	-	0.6 MTPA
Sponge Iron Plant	0. 120 MTPA (4 x 100 TPD DRI Kilns)	0.420 MTPA (4 X100 TPD, 2 x 500 TPD DRI Kilns)	-	0.420 MTPA (4 X100 TPD, 2z x 500 TPD DRI Kilns
Pelletization Plant	-	1.2 MT	-	1.2 MT
Induction Furnaces with LRF	-	3 X 40 T IF with 1 X 50 T LRF (3,25,000 TPA Liquid Steel)	-	3 x40 T IF with 1 X 50 T LRF (3,25,000 TPA Liquid Steel)
Submerged Arc Furnace	**-**	**-**	**2 No. x 10 MVA, 1 No. X 20 MVA**	**2 No. x 10 MVA, 1 No. X 20 MVA**
Billet Caster		**0.325 MTPA**	**0.525 MTPA**	**0.525 MTPA**
Rolling Mill	-	2 x 0.5 MTPA [1.0 MTPA]	-	2 x 0.5 MTPA [1.0 MTPA]

Industrial Unit	As per Existing EC	As per Approved ToR No. J-11011/269/2007-IA.II(I) dt 21.04.2021	As per Proposed ToR Amendment	Total Capacity after TOR Amendment
		(Rods, Bars, Light Structural, strip)		(Rods, Bars, Light Structural, strip)
Pipe Mill	-	0.5 MTPA (Structural pipe)	-	0.5 MTPA (Structural pipe)
Galvanizing Plant	-	0.150 MTPA Galvanized products	-	0.150 MTPA Galvanized products
Oxygen Plant	-	500 cum/hr	-	500 cum/hr
Cement Grinding Unit	-	0.6 MTPA (PPC & PSC Cement)	-	0.6 MTPA (PPC & PSC Cement)
Captive Power Plant	-	1x30 MW (WHRB based for utilizing waste Heat from the proposed 2x500 TPD DRI Kilns) 1x12 MW (WHRB based for utilizing waste Heat from the Existing 4x100 TPD DRI Kiln) 1 X 15 MW (AFBC based for utilizing dolochar from the Existing 4x100 TPD as well as proposed 2 X 500 TPD DRI Kilns) **[57 MW Power]**	-	1x30 MW (WHRB based for utilizing waste Heat from the proposed 2x500 TPD DRI Kilns) 1x12 MW (WHRB based for utilizing waste Heat from the Existing 4x100 TPD DRI Kiln) 1 X 15 MW (AFBC based for utilizing dolochar from the Existing 4x100 TPD as well as proposed 2 X 500 TPD DRI Kilns) **[57 MW Power]**

9.3.6 Changes in the Raw Material Requirement:

(Estimated Annual Requirement of Raw Material(Quantities in Ton Per Annum)						
Raw Material	**Existing Plant**	**As per ToR dated 16.04.2021**	**As per Proposed ToR Amendment**	**Total**	**Mode of transport**	**Source**
Mineral Beneficiation						
Iron Ore		600000	600000	600000	Road	Market
Pellet Plant						
Iron Fines	-	6,25,000	1200000	1200000	Road	Market
Bentonite	-	4000	9600	9600	Road	Market
Limestone	-	6000	12000	12000	Road	Market
Coal	-	24,000	60,000	60,000		South Africa
Ferro Alloy Plant						

(Estimated Annual Requirement of Raw Material(Quantities in Ton Per Annum)						
Raw Material	**Existing Plant**	**As per ToR dated 16.04.2021**	**As per Proposed ToR Amendment**	**Total**	**Mode of transport**	**Source**
Ferro Manganese ore	-	-	169500	155000	Road	Market
Coke/Coal	-	-	75400	82800	Road	Imported & Market
Quartz	-	-	20000	35500	Road	Market
Dolomite	-	-	18000	16000	Market	Market
Sponge Iron Plant						
Pellet	2,60,000	6,60,000	4,80,000	7,40,000	Road	Market
Coal	1,00,000	3,00,000	3,60,000	4,60,000	Road	Imported & Market
Dolomite	7,500	22,500	20,000	27,500	Road	Market
SMS (IF route)						
Pig Iron	-	55,000	48,000	48,000	Road	Market
Sponge Iron	-	2,45,000	3,36,000	3,36,000	Road	Market
Ferro Alloys	-	550	7700	7700	Road	Market
Scrap	-	40,000	2,40,000	2,40,000	Road	Market
Rolling Mill						
Billets	-	3,25,000	5,25,000	5,25,000		In-house & Market
Power Plant-AFBC						
Coal	-	32,500	45,000	45,000		Imported and Market
Dolochar	-	42,000	1,50,000	1,50,000		In-house DRI Plant
Galvanizing Unit						
	-		-	-		
Cement Grinding units						
100% PPC						
Clinker	-	3,75,000	3,75,000	3,75,000	Road	Market
Gypsum	-	15,000	15,000	15,000	Road	Market
Fly Ash	-	2,10,000	2,10,000	2,10,000	Road	Market
100% PSC						
Clinker	-	1,95,000	1,95,000	1,95,000	Road	Market
Gypsum	-	15,000	15,000	15,000	Road	Market
Slag (15% moisture)	-	3,90,000	3,90,000	3,90,000		In-house

9.3.7 **Other changes proposed in ToR:**

S. No.	Particulars	Quantity	Source
1	Water Requirement	The water requirement will increase from **1119 KLD to 1255 KLD**, out of which Industrial requirement is 1110 KLD and Domestic requirement is 145 KLD of water.	Local water supply/ Tungabhadra Reservoir.

S. No.	Particulars	Quantity	Source
2	Power Requirement	The Power requirement for the proposed industry will increase from **62.2 MW to 92.2 MW**.	WHRB, AFBC and Discom
3	Capital Cost	The capital cost of the project will increase from **Rs 761 Cr to Rs 831 Cr**.	-

9.3.8 **Reason for seeking amendment in ToR:** Addition of Submerged Arc Furnace of capacity- 2 No. x 10 MVA and 1 No. X 20 MVA to produce 90,000 TPA Ferro alloys products. It is also envisaged that it is possible to convert liquid steel to higher quality, hence Project proponent wishes to increase the Billet Caster capacity (for casting of liquid metal to convert into billet) from 325000 TPA to 525000 TPA.

9.3.9 PP has reported that there is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

Deliberation by the Committee

9.3.10 The Committee noted the following:

i. Standard ToR was issued to M/s. Vanya Steels Pvt. Ltd *vide* letter no. J-11011/269/2007-IA.II(I) dated 21.04.2021 for Expansion of existing Steel Plant (Proposed to Integrated Steel Plant comprising of Mineral Beneficiation, Pelletization plant, Sponge Iron Plant, Induction Furnace, Billet Caster, Rolling Mill, Pipe Mill, Galvanizing plant, Oxygen Plant, Cement Grinding Unit and Captive Power Plant) located at Sy. No. 45,47,48,49-A,50-62, Hirebaganal, Koppal, Karnataka.

ii. Instant proposal is for seeking amendment in ToR dated 21.04.2021 with respect to revised Plant configuration/capacity, raw material requirement and other changes as detailed in para 9.3.5, 9.3.6 and 9.3.7 above.

Recommendations of the Committee

9.3.11 After deliberations, the Committee **recommended** the project proposal for amendment in Terms of Reference no. J-11011/269/2007-IA.II(I) dated 21.04.2021 with respect to the revised Plant configuration/capacity, raw material requirement and other changes as detailed in para 9.3.5, 9.3.6 and 9.3.7 above with stipulation of following additional condition:

i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

Agenda No. 9.4

9.4 **Proposed expansion of Steel Plant – DRI Kiln (Sponge Iron from 1,15,000 TPA to 3,46,500 TPA), Induction Furnaces with matching LRF & CCM (MS Billets / Ingots from 30,000 TPA to 3,46,800 TPA), Rolling Mill with hot charging (Rolled Products 30,000 TPA to 2,90,000 TPA), New Rolling Mill with Conventional with LDO (Rolled Products 30,000 TPA), New Ferro Alloy Unit with 2x18 MVA Submerged Electric Furnaces (FeMn 90,000 TPA/SiMn 60,000 TPA / FeCr 60,000 TPA / FeSi 30,000 TPA/Pig Iron – 90,000 TPA /Cast iron – 90,000 TPA), WHRB based Power Plant from 12 MW to 34 MW, CFBC based Power Plant 4.9 MW to 29.9 MW & New Fly Ash brick manufacturing unit (38,000 Bricks/day) by M/s Sunil Ispat and Power Limited located at Chiraipani Village, Lakha Gram Panchayat, Raigarh Tehsil & District, Chhattisgarh - Consideration of Environmental Clearance.**

[Proposal No. IA/CG/IND/275345/2004, File No. J- 11011/13/2021-IA.II(I)]
[Consultant: Pioneer Enviro Laboratories and Consultants Private Limited; Valid upto 21.09.2022]

9.4.1 M/s. Sunil Ispat & Power Limited has made an online application vide proposal no. IA/CG/IND/275345/2004, dated 20.06.2022 along with copy of EIA/EMP Report, Form - 2 and Certified EC Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), and 1(d) Thermal Power Plantsunder Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

9.4.2 Name of the EIA consultant: M/s Pioneer Enviro Laboratories and Consultants Private Limited [Sl. No. 137, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/1922/SA0148; valid upto 21.09.2022, Rev. 24, July 05, 2022].

Deliberations by the Committee

9.4.3 The Committee noted the following:

1. The Committed noted that compliance report of earlier CTO has been obtained from CECB, Chhattisgarh vide letter No. 2074/RO/CECB/2021 dated 31/03/2021. Also, as per the compliance report, some of the conditions of the CTOs are non-complied / partially complied and PP did not submit any ATR/Closure report of CECB. As per O.M. vide F. No. IA3-22/10/2022-IA.III [E 1772581 dated 08.06.2022, CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project. Since, the submitted CCR is older than a year, as per the said OM, the submitted CCR dated 31.03.2021 is invalid for appraisal of the project. The EAC also noted that the PH was conducted on 15.12.2021, however in this instant proposal the PP has taken almost 6 months for finalization and submission of EC application on Parivesh Portal. It seems that the PP is not serious about the completion of the project on time, however submitted the EC application after expiry of validity of CCR. PP is advised

to submit the latest CCR in pursuance to Ministry's O.M. F. No. IA3-22/10/2022-IA.III [E 1772581 dated 08.06.2022 along-with the ATR and closure report, if any. The EAC warned the consultant to read the rules and guidelines before the uploading the proposal on portal as the whole process is online.

2. The EAC also noted that some of the documents uploaded in Form 2 on PARIVESH are illegible and advised to submit the revised application with legible documents.

3. EAC could not consider the proposal as there are many deficiencies in the proposal. It was also informed to the EAC that the Ministry has earlier asked certain EDS in June 2022, still Consultant has not revised the application on portal. Based on the request of PP/Consultant for revision of the application in Parivesh Portal, the EAC is of the view that the proposal may be presented by the PP after revising the application.

Recommendations of the Committee

9.4.4 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the technical shortcomings enumerated at para no. 9.4.3 and submit the revised application as per the provisions of EIA Notification, 2006 and TOR granted to the project. The EAC has also advised that the Consultant to read the various provisions of EIA Notification, 2006 and OMs/Circular issued in this regard before submission of the proposal on the Parivesh portal.

Consideration in TOR Proposal

Agenda No. 9.5

9.5 Establishment of 3,600 TPA Low Carbon Ferro Manganese Plant and 350,000 TPA Cold Rolling Mill Complex having HCl acid Pickling Line, Cold Rolling Mills, Galvalume Line, Galvanizing Line, Color Coating Line and other Finishing facilities (Greenfield Project) by M/s. Gaurang Profiles India Pvt, Ltd. located at Village – Chasara, Taluka Mundra, District Kachchh, Gujarat – Consideration of TOR.

[Proposal No. IA/GJ/IND/273370/2022, File No. IA-J-11011/173/2022-IA-II(IND-I)]
[Consultant: Vardan Environet; Valid upto 05.05.2023]

9.5.1 M/s. Gaurang Profiles India Pvt Ltd has made an application online vide proposal no. IA/GJ/IND/273370/2022 dated 24.06.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous and Non/ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

9.5.2 Name of the EIA consultant: M/s. Vardan Environet [S No 37, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/SA 0158 valid till 05.05.2023; Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.5.3 The project of Gaurang Profiles India Pvt Ltd proposed to be located at Village – Chasara, Taluka-Mundra, District Kachchh, Gujarat is for setting-up of new plant for production of 3600 TPA Low carbon Ferro manganese and 350,000 TPA Cold Rolling Mill Complex.

9.5.4 Environmental site settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i</td><td>Total land</td><td>5.27 ha
[Private land]</td><td>Land use: Agriculture</td></tr>
<tr><td>ii</td><td>Land Acquisition Details as per MoEFCC OM dated 7/10/2014</td><td>The land is freehold and is in possession of project authorities.</td><td></td></tr>
<tr><td>ii</td><td>Existence of habitation & involvement of R&R, if any.</td><td>No existence of habitation. Hence R&R is not involved</td><td></td></tr>
<tr><td>iii</td><td>Latitude and Longitude of all corners of project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>22^{O}57’36.64” N</td><td>69^{O}49’ 12.39”E</td></tr>
<tr><td>B</td><td>22^{O}57’39.95” N</td><td>69^{O}49’ 21.17”E</td></tr>
<tr><td>C</td><td>22^{O}57’40.74” N</td><td>69^{O}49’ 22.69”E</td></tr>
<tr><td>D</td><td>22^{O}57’43.12” N</td><td>69^{O}49’ 26.43”E</td></tr>
<tr><td>E</td><td>22^{O}57’41.86” N</td><td>69^{O}49’ 26.26”E</td></tr>
<tr><td>F</td><td>22^{O}57’33.80” N</td><td>69^{O}49’ 20.27”E</td></tr>
<tr><td>G</td><td>22^{O}57’33.66” N</td><td>69^{O}49’ 19.38”E</td></tr>
<tr><td>H</td><td>22^{O}57’32.16” N</td><td>69^{O}49’ 11.32”E</td></tr>
<tr><td>I</td><td>22^{O}57’33.39” N</td><td>69^{O}49’ 11.12”E</td></tr>
<tr><td>J</td><td>22^{O}57’34.69” N</td><td>69^{O}49’ 12.11”E</td></tr>
</table>
</td><td></td></tr>
<tr><td>iv</td><td>Elevation of the project site</td><td>125 meters AMSL</td><td></td></tr>
<tr><td>v</td><td>Involvement of Forest land if any.</td><td>No involvement of Forest Land</td><td></td></tr>
<tr><td>vi</td><td>Water body exists within the project site as well as study area</td><td>Project site: No water body within the plant site area

Study area:
Babia Nadi- 0.73 km in WNW.
Rupare Nadi-6.19 km in NNE.
Chhasara pond is adjacent to the plant site</td><td></td></tr>
</table>

Sl. No.	Particulars	Details	Remarks
vii	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil Bhadreshwar RF – 8.6 km in SSE direction.	

9.5.5 The unit configuration and capacity of proposed project is given as below:

Sl. No.	Unit	Production Capacity in TPA	Product
Ferro-Manganese Plant			
1	Low Carbon Ferro-Manganese Plant	3,600	Lc Fe Mn (Final Product)
CRM Complex			
2	HR Slitting Line	4,00,000	HR Coil (intermediate Product)
3	Pickling Line	3,50,000	Pickled HR Coil (Intermediate Product)
4	Cold Rolling Mill #1	2,00,000	Cold Rolled Coil (Intermediate / Final Product)
5	Cold Rolling Mill #2	1,50,000	
6.	Galvanizing Line	2,00,000	GL Coil (Final product or Input to Color Coating Line)
7.	Galvalume Line	60,000	GL Coil (Final product or Input to Color Coating Line)
8	Color Coating Line	2,00,000	PPGL/PPGI Coil (Final Product)
9.	BP Furnace	30,000	BP Sheet (Final Product)
10.	Bell Annealing Furnace	30,000	CRCA Coil / Sheet (Final Product)
11.	Skin Pass Mill	30,000	

9.5.6 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S. No.	Item	Requirement TPA	Source	Transportation (By Road in km)
Ferro Alloys - Ferro Manganese (Proposed – 3600 TPA)				
1	Mn - ore	6,228	MOIL, Nagpur	500
2	Aluminum	1,854	Mumbai	500
3	MS Scrap	425	Inhouse	--
4	Fluorspar	414	Local Market	100
5	Babool Charcoal	1080	Local Market	80
Total		**10,001**	**-**	**-**
For Cold Rolling Mill complex				

S. No.	Item	Requirement TPA	Source	Transportation (By Road in km)
1	HR Coils	400,000	Bokaro/Tata Angul/ JSW Bellary/ AMNS, Imported (Mundra Port)	1867 kms. by Rail then 30 km by road
2	Al-Si alloy	1683	Hindalco/ Imported (Mundra Port)	30
3	Zinc	11377	HZL, Udaipur	564
4	Paints	1850	Akzo Nobel (Kolkata)/ JSW Paint (Vasind)	540

9.5.7 The water requirement for the project is estimated as 720 KLD. The requirement will be met from Gujarat Water Supply and Sewerage Board. Permission for the quantity shall be obtained from Gujarat Water Supply and Sewerage Board.

9.5.8 The power requirement for the project is estimated as 20 MW Power which will be sourced from Paschim Gujarat Vij Company Ltd (PGVCL).

9.5.9 The capital cost of the project is Rs 105.25 Crores. The employment generation from the proposed project/expansion is 450.

9.5.10 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

9.5.11 Proposed Terms of Reference: [Baseline data collection period: March to May 2022]

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
A. Air				
a. Meteorological parameters	Temp., Relative Humidity, Wind Speed, Wind Direction, Rainfall	1 Location	24-hourly sampling for three months	Secondary data from IMD, New-Delhi for the nearest IMD station
b. AAQ parameters	PM10, PM2.5, SO2, NOx, CO	8 Locations	24-hourly sampling, twice a week for 12 weeks	Monitoring Network: 2 locations in upwind side, 2 locations in downwind side / impact zone. All the sensitive receptors are covered
B. Noise	Leq (Day & Night), Lmax (Day & Night),	8 Locations	24-hourly sampling, twice in a week (working and	Monitoring Network: 2 locations near to project site, 5 sites in impact zone. All the

Attributes	Parameters	Sampling		Remarks
		No. of stations	Frequency	
	Lmin (Day & Night)		non-working day) for 3 months	sensitive receptors are covered
C. Water				
a. Surface water quality parameters	pH, EC, NO3, Na, K, Fe, Al, Ca, Cl, Cr, Mg, TDS, TSS, DO, SO4, F, BOD, COD, Zn, Cu, Mn, Cd, Turbidity, Odour	8 Locations	Once in a day in each month for one season	One grab sample per location
b. Ground water quality parameters	pH, Ca, Cl, Mg, TDS, SO4, F, NO3, Fe, Al, Zn, Cu, Mn, Cd, Pb, Hg, EC, Turbidity, Odour	8 Locations	Once in a day in each month for one season	One grab sample per location
D. Land				
a. Soil quality	pH, Conductivity, Soil Texture, Water Holding Capacity, Cl, Ca, Na, K, Organic matter, Mg, N, Zn, Mn, Phosphorus, Pb, Cd, Cr, Cu	8 Locations	Once in a day in each month for one season	One surface sample from project site, Agriculture, forest, water body and prime villages.
E. Biological				
a. Aquatic	Species of Plants and Avifauna	10 km Radius study area	One season	Secondary data to collect from Government offices, NGOs, published literature
b. Terrestrial	Species of Plants and Animals	10 km Radius study area	One season	Secondary data to collect from Government offices, NGOs, published literature
F. Socio-economic parameters	Demographic details and Occupational details	10 km Radius study area	One season	Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies

Written representations:

9.5.12 During the meeting, based on the deliberations made by the EAC, the project proponent vide email dated 14.07.2022 submitted the following information:

1. Land document / Sale Agreement w.r.t. to the proposed project site for an area of 5.27 ha.

Deliberation by the Committee

9.5.13 The Committee noted the following:

i. Instant proposal is for setting-up of new plant for production of 3600 TPA Low carbon Ferro manganese and 350,000 TPA Cold Rolling Mill Complex.

ii. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is green field project.

Recommendations of the Committee

9.5.14 After deliberations, the Committee **recommended** the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study along with conduction of Public Hearing in addition to the generic ToRs enclosed at Annexure-1 read with additional ToRs at Annexure-2:

(i) The Chhasara pond is adjacent to the plant site. Also, the Babia Nadi is at a distance of 0.73 km from the project site. The PP shall submit the suitable steps /conservation plan along with contouring (close intervals), Run -off calculations, disposal etc. A robust and full proof Micro-Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.

(ii) There is a lake adjacent to the project, PP shall conduct the ecological study of the aquatic species living in the lake. The PP shall strictly ensure that no HCL acid is discharged to the lake.

(iii) An action plan for developing green belt towards the pond adjacent to the plant site shall be submitted.

(iv) Micro drainage plan with 2-5 m contour interval shall be done by the PP in separate Auto CAD layers.

(v) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(vi) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(vii) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

(viii) PP shall submit action plan for rainwater harvesting system.

(ix) Action plan for 100 % solid waste utilization shall be submitted.

(x) PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

(xi) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.

(xii) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.

(xiii) Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames", when PP comes for EC proposal. This study shall be formulated keeping in view of India's Net-zero commitment at the COP-26 Climate Summit.

(xiv) As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey (10 Kms radial coverage from the project site) and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.

(xv) 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.

(xvi) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

(xvii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm^3 shall be furnished.

(xviii) Monitoring and control of NOx, SO_2 and CO gases from the furnace must be included in the pollution control scheme.

(xix) The total quantity of PM generated per annum and the percentage of this captured by the pollution control equipment must be reported regularly.

(xx) A Plan of Action for disposal of e-waste must be drawn up and implemented.

(xxi) A Standard Operation Procedure for arresting emissions (PM as well as gas) when these approach critical values may be established.

Consideration in Modification in TOR Proposal

Agenda No. 9.6

9.6 Proposed Expansion Project by adding Iron Ore Beneficiation Plant - 0.6 MTPA, Sponge Iron 2 X 100 TPD, Induction Furnace 2 X 15 TPD, Rolling Mill 120000 TPA, Captive Power Plant 15 MW (WHRB – 8 MW + AFBC – 7 MW) by M/s. Bhadrashree Steel and Power Private Limited at Kunikeri village, Koppal Taluk & District, Karnataka – Amendment of Terms of Reference.

[Proposal No. IA/KA/IND/264821/2022, File No. IA-J-11011/45/2019-IA-II(I)]
[Consultant: Ardra Consulting Services Pvt. Ltd; Valid upto 29.12.2022]

9.6.1 M/s. Bhadrashree Steel and Power Ltd. has made an application online vide proposal no. IA/KA/IND/264821/2022 dated 23.06.2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification and appraised at central level.

9.6.2 Name of the EIA consultant: M/s. Ardra Consulting Services Pvt. Ltd. [S No 96, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/1922/IA0055 valid till 29.12.2022; Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.6.3 M/s. Bhadrashree Steel and Power Ltd. had earlier applied for grant of ToR vide proposal no. IA/KA/IND/91002/2019 dated 09.01.2019 for Proposed Expansion Project by adding Iron Ore Beneficiation Plant -0. 6 MTPA, Sponge Iron 2 X 100 TPD, Induction Furnace 2 X 15 TPD, Rolling Mill 120000 TPA, Captive Power Plant 15 MW (WHRB – 8 MW + AFBC – 7 MW) by M/s. Bhadrashree Steel and Power Private Limited at Kunikeri village, Koppal Taluk & District, Karnataka. The aforesaid proposal was initially considered in 4th meeting of the Re-constituted EAC (Industry-I) held during 20-22nd February, 2019 and reconsidered during 25th meeting of the Re-constituted EAC (Industry-I) held during 25-27th November, 2020. Accordingly, TOR was issued vide letter no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020.

9.6.4 The instant proposal is for seeking amendment in ToR dated 15.12.2020 with respect to revised plant configuration and capacity through enhancement of the production capacity by optimizing the configuration capacities of Induction Furnace, Captive Power Plant and Rolling Mill, with dropping the Beneficiation proposal from the Existing TOR configuration within the Existing Sponge Iron Plant.

9.6.5 Changes in configuration & capacity of units in granted ToR vis-à-vis with proposed ToR are as follows:

Sr. No.	Unit	Existing Configuration	As per TOR dated 15.12.2020	Proposed Amendment / change in configuration	Final Configuration after proposed amendment
1	Sponge Iron plant	2 X 100 TPD	2 X 100 TPD	Addition of 2 x 100 TPD	2 X 100 TPD + 2 X 100 TPD = 400 TPD
2	Captive Power Plant	Nil	15 MW (WHRB – 8 MW & AFBC – 7 MW)	19 MW (WHRB – 9 MW & AFBC – 10 MW)	19 MW (WHRB – 9 MW & AFBC – 10 MW)
3	Induction Furnace	Nil	2 X 15 T	2x20 T	2 X 20 T
4	Beneficiation Plant	--	0.6 MTPA	To be dropped	-
5	Rolling Mill	Nil	120000 TPA	Addition of 25000 TPA	145000 TPA

9.6.6 **Changes in the Raw Material Requirement:**

Sr. No.	Particulars	As per TOR dated 15.12.2020 (TPA)	After proposed modification (TPA)	Source	Mode of Transportation
1	Iron Ore	96000	1,37,280	Bellary	Truck By Road
2	Indian Washed Coal	72000	35,000	Chandrapur	Truck by Road
3	Coke		8,400	Imported	By Rail & Truck By Road
4	Imported Coal		16,400	Imported	By Rail & Truck By Road
5	Dolomite	3000	5,840	Maharashtra	By Road
6	IO Pellet	-	89,600	Local and Open Market	By Road
7	Pig Iron	-	14,500	Open Market	By Road
8	Iron Scrap	11250	72,400	Open Market	By Road

9.6.7 **Other changes proposed in ToR:**

SL. NO.	Type	As per TOR dated 15.12.2020	After proposed modification	Source	Mode
1	Water Requirement	62500 KLD	175 KLD	Bore well	Pipe line
2	Power/ Energy	15 MW	20.10 MW	Captive Power Plant	-

SL. NO.	Type	As per TOR dated 15.12.2020	After proposed modification	Source	Mode
3	Cost of the Project	Rs. 225.28 Crores	Rs. 219.35 Crores	-	-

9.6.8 **Reason for seeking amendment in ToR:** Based on Financial Analysis of the project in the present scenario, management decided to optimize the proposed plant capacity to maximize production and profitability. Due to land constraint, the proposal for beneficiation plant is dropped, instead of 2 X 15 TPH of IF in SMS, 2 X 20 TPH of IF with CCM followed by Rolling Mill is decided for space optimization. Further, to optimize the usage of Dolochar and extraction from waste heat, the Captive power generation can be changed to 10 MW AFBC with 9 MW WHRB from DRI.

9.6.9 PP has reported that there is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

Deliberation by the Committee

9.6.10 The Committee noted the following:

i. The EAC observed that the Project Proponent / Consultant are not very specific about the proposed amendment in the instant proposal. The EAC advised Project Proponent / Consultant to present specific amendments required in the ToR dated 15.12.2020.

ii. ToR was issued to M/s. Bhadrashree Steel and Power Ltd. *vide* letter no. IA-J-11011/45/2019-IA.II(I) dated 15.12.2020.

iii. The instant proposal is for seeking amendment in said ToR with respect to revised plant configuration/facility/capacity. The EAC noted that the project proponent has submitted the proposal after 1.5 years with respect to revised plant configuration/facility/capacity.

iv. The EAC noted that in the ToR, specific condition has been stipulated that only surface water shall be used. GW abstraction shall not be permitted. However, in the instant proposal, PP has submitted that 175 KLD of water requirement shall be met from borewell and has not formally applied for amendment with respect to the same in the instant proposal.

v. The committee noted that water balance diagram needs to be revisited for the proper distribution facility wise. Further, in the ToR dated 15.12.2020, permission for water withdrawal was granted for a quantity of 62500 KLD whereas in the instant proposal, the changes in the water requirement is proposed to be 175 KLD. Project Proponent shall submit the justification with the revised water balance diagram.

vi. PP shall revisit the kml and project layout map and shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing. PP needs to submit the revised kml and layout map.

vii. The project proponent appraised that there is a water body / dam within the study area of the project site. The EAC advised that the PP shall submit the complete details of the water bodies and suitable steps /conservation plan along with contouring.

viii. The EAC also advised that HFL study of the water stream shall be submitted by the project proponent.

ix. The EAC noted that in the ToR dated 15.12.2020, configuration of CPP is 15 MW (8 MW & AFBC – 7 MW). However, in the instant proposal, PP has mentioned the configuration granted in the ToR dated 15.12.2020 as 18 MW (8 MW & AFBC – 10 MW). The EAC opined that Project Proponent shall take due diligence while submitting the data in the proposal.

Recommendations of the Committee

9.6.11 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the technical shortcomings enumerated at para no. 9.6.10 and submit the revised application as per the provisions of EIA Notification, 2006.

***

DAY-2: JULY 15, 2022 [FRIDAY]

Consideration of Environmental Clearance Proposals

Agenda No. 9.7

9.7 **Expansion of cement plant [Clinker – 5000 to 7000 TPD; Cement Plant - 1.80 to 3.60 MTPA; Captive Power Plant (CPP) - 18 MW] of M/s. Ambuja Cements Ltd located at Village Rabriyawas, Tehsil Jaitaran, District Pali, Rajasthan – Consideration of Environmental Clearance under para 7(ii) of EIA Notification, 2006 w.r.t. Amendment in existing EC for Installation of Wet Fly Ash Dryer (1000 TPD) for drying of fly ash within the existing premises of M/s Ambuja Cements Ltd.**

[Proposal No. IA/RJ/IND/267095/2022; File No. J-11011/189/2006-IA-II (I)]
[Consultant: Enkay Enviro Services Pvt Ltd; Valid upto: 12.12.2023]

9.7.1 M/s Ambuja Cements Ltd. (Rabriyawas unit) has made an online application vide proposal no IA/RJ/IND/267095/2022 dated 27.06.2022 along with copy of addendum EIA/EMP report, Form – 2 and certified compliance report seeking Environmental Clearance under para 7(ii) of EIA Notification, 2006 w.r.t. Amendment in existing EC for Installation of Wet Fly Ash Dryer (1000 TPD) for drying of fly ash within the existing premises of Ambuja Cements Ltd. for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Cement Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

9.7.2 Name of the EIA consultant: M/s. Enkay Enviro Services Pvt Ltd. [Sl. No. 112, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0183; valid upto 12.12.2023, Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.7.3 The project of M/s. Ambuja Cements Ltd located at Village Rabriyawas, Tehsil Jaitaran, District Pali, Rajasthan State is for amendment in existing EC for Installation of Wet Fly Ash Dryer (1000 TPD) for drying of fly ash within the existing premises of Ambuja Cements Ltd.

9.7.4 Environmental Site Settings:

S.No.	Particulars	Details
i	Total land	470.74 Ha (Industrial)
ii	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	The total land is under the possession of the company. Out of total land area 470.74 ha, approx. 5000 SQM will be utilized for FAD.
iii	Existence of habitation & involvement of R&R, if any	R& R is not applicable.
iv	Latitude and Longitude of the project site	Latitude 26°17'29.87"N to 26°19'46.16"N Longitude 74° 7'56.06"E to 74° 8'29.82"E
v	Elevation of the project site	356 AMSL

S.No.	Particulars	Details	
vi	Involvement of Forest land if any.	No Forest land Involved	
vii	Water body exists within the project site as well as study area	**Project site:** Nil **Study area:**	
		Particulars	**Distance & direction from project boundary**
		Lilri Nadi	3.09 Km, SE
		Pond Near Village Balara	10.91 Km, W
		LuniNadi	12.86 Km, NW
		SukriNadi	10.95 Km, S
viii	Existence of ESZ/ ESA /national park/ wildlife sanctuary/ biosphere reserve /tiger reserve/ elephant reserve etc. if any within the study area	Nil	
		Forest	
		Particulars	**Distance & direction from project boundary**
		Ras P.F.	1.78 Km, SE
		Amarpura LambiyaJod P.F.	5.71 Km, NW
		KalulambiyaJod P. F	4.42 km, NW
		Gopalpura PF	10.63 Km, SE

9.7.5 The existing project was initially accorded environmental clearance vide letter no. J-11011/189/2006- IA- II(I) dated 31st August 2006 for Expansion of cement plant [Clinker – 5000 to 7000 TPD; Cement Plant - 1.80 to 3.60 MTPA; Captive Power Plant (CPP) - 18 MW] in the name of M/s. Gujarat Ambuja Cement Ltd. The name of the company was changed to M/s Ambuja Cements Ltd., and letter for name change was issued vide letter F.No. J-11011/189/2006 – IAII.(I) dated 30.04.2020. Thereafter, EC was amended for addition of steel silo (2500 MT), Installation of electronic packer (18 spouts), wagon trippler for railway siding (4.0 rakes/day) vide MoEF&CC letter dated 14.07.2020. Consent to Operate for the existing unit was accorded by Rajasthan State pollution Control Board for Cement (3.60 MTPA) and WHRB 7.50 MW vide order no. 2017-2018/CPM/5109 dated 14.03.2018 (valid upto 31.05.2022), for CPP (18 MW) vide order no. 2018-2019/CPM/5378 dated 27.12.2018 (valid upto 31.01.2022) and for CPP (15 MW) vide order no. 2019-2020/CPM/5568 dated 22.11.2019 (valid upto 30.11.2023).

9.7.6 Implementation status of the existing EC

SI. No	Facilities	Units	As per EC dated 31.08.2006 & amendment 14.07.2020.	Implementation Status as on 05.07.2022	Production as per CTO
1	Rotary Kiln (Clinker)	1 x 7000 TPD	2.4 million TPA	Implemented	2.4 million TPA
2	Cement Cement (OPC, PPC, PSC, & Composite	CM#1-1X300 TPH	3.6 million TPA	Implemented	3.6 million TPA

SI. No	Facilities	Units	As per EC dated 31.08.2006 & amendment 14.07.2020.	Implementation Status as on 05.07.2022	Production as per CTO
	Cement and microfine OPC)	CM#2- 1X120 TPH			
3	Captive Power Plant	1x15 MW 1x18 MW	15 MW and 18 MW	Implemented	15 MW and 18 MW
4	WHRB	7.5 MW	-	Implemented	7.5 MW
5	Synthetic Gypsum Plant	-	-	Implemented	1000 TPD
6	Addition of Steel Silo (2500 MT)	-	2500 MT	Implemented	2500 MT
7	Installation of Electronic Packer (18 spouts),	-	-	Under construction	Under construction
8	Proposed Wagon Tippler for Railway siding (4.00 Rakes/day)	-	-	Implemented	Implemented

9.7.7 The unit configuration and capacity of existing and proposed project is given as below:

S. No	Plant Equipment's/ Facility	Existing facilities as per EC dated 31.08.2006 and subsequent amendment dated 14.07.2020		Proposed Units		Total (Existing +Proposed)	
		Configuration	Capacity Million TPA	Configuration	Capacity Million TPA	Configuration	Capacity Million TPA
1	Clinker	Raw mill - 340(Atox40)/ 260(Atox37.5) (TPH) Coal Mill-40 TPH Pre-Heater-6 stage Kiln-7000 TPD	2.4	-	-	Raw mill - 340(Atox40)/ 260(Atox37.5) (TPH) Coal Mill-40 TPH Pre-Heater-6 stage Kiln-7000 TPD	2.4
2	Cement (OPC, PPC, PSC, & Composite Cement and microfine OPC)	CM#1- 1X300 TPH CM#2- 1X120 TPH Packer-1-3600 bag/hr/180 tph Packer-2-2400 bags/hrs/120 tph Packer-3-2400 bags/hr/120 tph	3.6	-	-	CM#1- 1X300 TPH CM#2- 1X120 TPH Packer-1-3600 bag/hr/180 tph Packer-2-2400 bags/hrs/120 tph	3.6

S. No	Plant Equipment's/ Facility	Existing facilities as per EC dated 31.08.2006 and subsequent amendment dated 14.07.2020		Proposed Units		Total (Existing +Proposed)	
		Configuration	Capacity Million TPA	Configuration	Capacity Million TPA	Configuration	Capacity Million TPA
		Packer-4-3600 bags/hr/180 tph Gypsum crusher-50 TPH				Packer-3-2400 bags/hr/120 tph Packer-4-3600 bags/hr/180 tph Gypsum crusher-50 TPH	
3	Power Plant	Boiler Capacity 80 TPH & Turbine 18.7 MWH	18 MW	-	-	Boiler Capacity 80 TPH & Turbine 18.7 MWH	18 MW
		Boiler Capacity 80 TPH & Turbine 15.00 MWH	15 MW	-	-	Boiler Capacity 80 TPH & Turbine 15.00 MWH	15 MW
4	WHRB	1 x 7.5 MW	7.5	-	-	1 x 7.5 MW	7.5 MW
5	Synthetic Gypsum Plant	-	1000 TPD	-	-	-	1000 TPD
6	Fly Ash Dryer	-	-	FAD	1000 TPD	-	1000 TPD

9.7.8 **Justification under para 7(ii) of EIA, 2006**

The project proponent has submitted that proposal is not a new or expansion. There will be no change in the land area, capacities and other specification of the plant. The earlier EC granted on 31.8.2006 & 14.07.2020 will have no change. There is a mere addition of fly ash dryer to remove unwanted moisture from wet ash so that dried ash can be used for manufacturing of cement. Adding more fly ash will help to optimize Raw material consumption and reduction in CO: emissions thereof, which is Key Sustainability KPI (Key Performance Indicator). As per MOEF&CC OM dated 11.04.2022 at point no. 2C, the proponent has proposed for the amendment in their existing Environmental Clearance under section 7(ii) of EIA Notification 2006 as amended thereof.

9.7.9 It has been reported that following will be resource consumption after the proposed change:

Particulars	As per EC dated 31.08.2006 and subsequent amendment dated 14.07.2020	After Proposed change under para 7(ii)	% Increase
Land	470.74	No change (Out of total land area 470.74, approx. 5000 SQM will be utilized for FAD)	No change

Particulars	As per EC dated 31.08.2006 and subsequent amendment dated 14.07.2020		After Proposed change under para 7(ii)	% Increase
Greenbelt (ha)	143		12.35	2.62
Water (KLD)	2000.77		No change	No change
Power (MW)	35.5		0.5	36
Raw materials	Limestone (MMTPA)	3.6	-	
	Additive (MMTPA) (Red Ochre, Alumina Clay, China Clay, Copper/Zinc/Iron Slag, Pond Ash, Feldspar, Siliceous Sand/Stone Sand, Laterite, Iron Dust, Bentonite Clay etc.)	0.036	-	
	Fly Ash (Dry/Wet) (MMTPA)	0.7	0.7	100
	Coal/Pet coke (Imported/ Indigenous)/AFR/ MSW/RDF/Haz. Wastes/Biomass etc. (MMTPA)	0.36	0.030	8.34
	Gypsum (Mineral/ Chemical etc.) (Anhydrous/Hydrated) (MMTPA)	0.45	-	
Products	Clinker	2.4 MMTPA	No change	
	Cement	3.6 MMTPA		
	Power Plant	15 & 18 MW		

9.7.10 Pollution load assessment

Particulars	As per EC dated 31.08.2006. and subsequent amendment dated 14.07.2020		After proposed change under para 7(ii)			% Increase
Air	**Pollutant**	**Value (µg/m3)**	**Baseline (µg/m3)**	**Incremental (µg/m3)**	**Resultant (µg/m3)**	
	PM10	87.4	87.4	1.89	89.3	2.2
	PM2.5	45.3	45.3	1.18	46.5	2.60
	NOx	25.5	25.5	3.92	29.4	15.37
	SO2	13.4	13.4	2.74	16.14	20.44
Water	**Particulars**	**KLD**				
	Cement Plant& WHRB	485.68	No change			-
	WHRB	400	No change			-
	Captive Power Plant	377.35	No change			-
	Plant (Drinking)	54	No change			-
	Township	471.55	No change			-

Particulars	As per EC dated 31.08.2006. and subsequent amendment dated 14.07.2020		After proposed change under para 7(ii)	% Increase
	Plant utility	88.71	No change	-
	Firefighting, Dust suppression, crusher & other misc	123.48	No change	-
	Total	**2000.77**	No change	-
	Greenbelt Development /Plantation	198.05*		
Solid and Hazardous waste	**Solid waste**	**Existing qty**		
	Dust captured through APCE	1437761 TPA	-	
	Ash from CPP	270 TPD	-	
	Sludge from STP	1.2TPM	-	
	Used or spent oil	44.68 KL/Annum	0.1 KL/yr	0.22
Traffic load	716 PCU/hr		11.51 PCU /hr	1.60

Deliberations by the Committee

9.7.11 The Committee noted the following:

1. There are number of errors in Form 2. PP has provided incomplete/wrong information in the proposal viz., through it is an expansion, in s.no. 6 of Form 2 for details of existing EC, PP has mentioned as Not applicable. Also other sections such 4(a) for Location of project s.no. 16 for Baseline information, PP has given inadequate information. PP in form 2 at S. No. 4(a), the details of location of the project mentioned as "enclosed as annexure 1".
2. It was informed to the EAC that on grant of approval for EC, digital EC is being generated from the Parivesh portal which fetches information from the Form 2 on PARIVESH automatically. In case of wrong information / inadequate information, the project proponent will again come for amendment.
3. The project proponent has not uploaded the valid water permission letter from the concerned authority. PP has only submitted the application made for renewal of their water withdrawal permission.
4. After detailed deliberations, the EAC warned the Project Proponent/Consultant and advised them to submit the complete application along with all the requisite documents and fill the complete form 2 on Parivesh portal as the whole process is online on Parivesh portal for grant of EC.
5. The PP has requested that they will revise the application on Parivesh portal and resubmit the same.

Recommendations of the Committee

9.7.12 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to correct the errors enumerated at para no. 9.7.21 and resubmit the revised application as per the provisions of EIA Notification, 2006. The proposal shall be appraised after submission of application with requisite correction. The EAC also advised the Ministry to warned the consultant for providing incomplete/misleading information on the Parivesh portal /Ministry.

Agenda No. 9.8

9.8 **Proposed Semi Coke Unit: 2030 KTPA and Cement Plant: 6.0 MTPA; Clinker: 4 MTPA by M/s. Adani Enterprises Limited located near Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat – Consideration of Environmental Clearance.**

[Proposal No. IA/GJ/IND/230852/2021; File No. IAJ-11011/423/2021-IA-II(IND-I)]
[Consultant: Kadam Environmental Consultants; Valid upto 19.03.2023]

9.8.1 M/s. Adani Enterprises Limited has made an online application vide proposal no. IA/GJ/IND/230852/2021 dated 07.06.2022 along with copy of EIA/EMP Report, Form - 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement plant and 4(b) Coke oven plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

9.8.2 Name of the EIA consultant:

1. **For 4(b) Coke Oven Plants:** M/s. Kadam Environmental Consultants [Sl. No. 18, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0164; valid upto 19.03.2023, Rev. 24, July 05, 2022]
2. **For 3(b) Cement Plants:** M/s Centre for Sustainable Development, [Sl. No. 174, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA0238; valid upto 18.07.2024, Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.8.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
06.10.2021	48th meeting of the Re-constituted EAC (Industry-I) held on 11-12th November, 2021	Terms of Reference	03.12.2021	02.12.2025

9.8.4 The project of M/s. Adani Enterprises Limited located in Tunda & Vandh Village, Mundra Tehsil, Kutch District, Gujarat State is for setting up of a new Semi Coke – 2030 KTPA, Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA; Clinker–4 MTPA plant as a part of "Proposed Coal to Poly-Vinyl Chloride (PVC) Project of Adani Enterprises Ltd. (AEL) in land notified as Industrial area of APSEZ, Taluka Mundra, District Kachchh, Gujarat comprising of Industry-I projects i.e. Semi Coke – 2030 KTPA, Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA; Clinker–4 MTPA, Industry-II projects i.e. VCM–2002 KTPA, PVC–2000 KTPA, Ethylene Glycol– 400 KTPA and Industry-III projects i.e. Acetylene–860 KTPA and Caustic Soda–1310 KTPA") located at industrial area of APSEZ, Taluka- Mundra, District-Kutch, State Gujarat by Adani Enterprises Ltd. (where, KTPA: Kilo Tonne Per Annum; MTPA: Million Tonne Per Annum).

9.8.5 Environmental Site Settings:

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i)</td><td>Total land</td><td>Total land: 800 Acres (323.69 Ha)
Semi coke and calcium carbide will be set up in Pocket 1.
Cement, Clinker will be set up in Pocket 2.

(The proposed project will be established in the land allocated by APSEZL, Taluka Mundra, and District Kutch in the state of Gujarat.)</td><td>The Project would be located in three separate land pockets.
Pocket 1:502.2acres (203.20 ha) (falling under Tunda village)
Pocket 2:114.9acres (46.49 ha)
Pocket 3:182.9Acres (74 ha)
Pocket 2 & 3 falling under Mundra Village (which is diverted forest land for SEZ development)</td></tr>
<tr><td>ii)</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land requirement is 323.69 Ha. Proposed land is already notified as industrial land of APSEZ Ltd. Willingness letter from APSEZ Ltd. is received.</td><td></td></tr>
<tr><td>iii)</td><td>Existence of habitation & involvement R&R, if any.</td><td>The land for the proposed project has no human habitation. Hence, R & R is not involved.

Study Area:
<table>
<tr><th>S. No.</th><th>Habitation</th><th colspan="2">Distance from Pocket</th><th>Direction</th></tr>
<tr><td>1.</td><td>Vandh</td><td>Pocket 3</td><td>0.1 km</td><td>N</td></tr>
<tr><td>2.</td><td>Tunda</td><td>Pocket 3</td><td>3.1 km</td><td>NNW</td></tr>
<tr><td>3.</td><td>Kandagara</td><td>Pocket 3</td><td>4.3 km</td><td>NNW</td></tr>
<tr><td>4.</td><td>Shiracha</td><td>Pocket 3</td><td>4.2 km</td><td>NNE</td></tr>
<tr><td>5.</td><td>Navinal</td><td>Pocket 1</td><td>3.0 km</td><td>NE</td></tr>
<tr><td>6.</td><td>Jarpara</td><td>Pocket 1</td><td>8.2 km</td><td>ENE</td></tr>
<tr><td>7.</td><td>Mota Bhadiya</td><td>Pocket 3</td><td>5.9 km</td><td>WNW</td></tr>
</table></td><td>---</td></tr>
</table>

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>8.</td><td>Tragadi</td><td>Pocket 3</td><td>7.2 km</td><td>WNW</td></tr>
<tr><td>9.</td><td>Nana Bhadiya</td><td>Pocket 3</td><td>8.4 km</td><td>NW</td></tr>
<tr><td>10.</td><td>Nani Khakar</td><td>Pocket 3</td><td>8.6 km</td><td>NNW</td></tr>
<tr><td>11.</td><td>Moti Khakhar</td><td>Pocket 3</td><td>8.4 km</td><td>N</td></tr>
<tr><td>12.</td><td>Deshalpar</td><td>Pocket 3</td><td>8.9 km</td><td>NNE</td></tr>
<tr><td>13.</td><td>Moti Bhujpur</td><td>Pocket 1</td><td>9.6 km</td><td>NE</td></tr>
<tr><td>14.</td><td>Nani Bhujpur</td><td>Pocket 1</td><td>9.3 km</td><td>NE</td></tr>
<tr><td>15.</td><td>Modhva</td><td>Pocket 3</td><td>9.8 km</td><td>W</td></tr>
</table>
</td><td></td></tr>
<tr><td>iv)</td><td>Latitude and Longitude of the project site</td><td>
<table>
<tr><th>Sr. No.</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td colspan="2">Pocket - 1</td></tr>
<tr><td>1</td><td>22˚47’53.80” N</td><td>69˚34’32.69” E</td></tr>
<tr><td>2</td><td>22˚47’11.71” N</td><td>69˚34’38.80” E</td></tr>
<tr><td>3</td><td>22˚46’59.14” N</td><td>69˚34’50.48” E</td></tr>
<tr><td>4</td><td>22˚46’32.63” N</td><td>69˚34’37.72” E</td></tr>
<tr><td>5</td><td>22˚46’47.69” N</td><td>69˚34’1.83” E</td></tr>
<tr><td>6</td><td>22˚47’11.44” N</td><td>69˚34’4.04” E</td></tr>
<tr><td>7</td><td>22˚47’20.39” N</td><td>69˚34’14.21” E</td></tr>
<tr><td>8</td><td>22˚47’24.62” N</td><td>69˚33’54.85” E</td></tr>
<tr><td>B</td><td colspan="2">Pocket – 2</td></tr>
<tr><td>1</td><td>22˚47’21.22” N</td><td>69˚33’37.65” E</td></tr>
<tr><td>2</td><td>22˚46’50.00”N</td><td>69˚33’44.73” E</td></tr>
<tr><td>3</td><td>22˚46’48.07” N</td><td>69˚33’35.72” E</td></tr>
<tr><td>4</td><td>22˚47’15.51” N</td><td>69˚33’20.29” E</td></tr>
<tr><td>C</td><td colspan="2">Pocket – 3</td></tr>
<tr><td>1</td><td>22˚48’7.71” N</td><td>69˚32’12.72” E</td></tr>
<tr><td>2</td><td>22˚48’11.55” N</td><td>69˚33’21.75” E</td></tr>
<tr><td>3</td><td>22˚48’1.78” N</td><td>69˚33’24.93” E</td></tr>
<tr><td>4</td><td>22˚48’9.03” N</td><td>69˚32’55.95” E</td></tr>
<tr><td>5</td><td>22˚47’46.06”N</td><td>69˚32’33.01” E</td></tr>
<tr><td>6</td><td>22˚47’45.40” N</td><td>69˚32’12.49” E</td></tr>
</table>
</td><td>---</td></tr>
<tr><td>v)</td><td>Elevation of project site</td><td>6-15 m above MSL</td><td></td></tr>
<tr><td>vi)</td><td>Involvement of forest land, if any.</td><td>For this project proposed by M/s AEL, no fresh Forest Clearance is required. This project is proposed on the Land which is already notified as industrial land of M/s APSEZ Ltd.

The majority of the land for the proposed project was forest land for which clearance was already obtained by M/s APSEZ Ltd vide F.no.8-2/19on99-FC(pt) dated</td><td>-</td></tr>
</table>

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>30/09/2009 and subsequent to forest clearance this land was notified as industrial land vide Gazette Notification no.S.O.3029(E) dated 21/09/2016 issued by Ministry of Commerce and Industry.

M/s APSEZ Ltd has provided the letter to M/s AEL that identified land for the project will be transferred to M/s AEL upon obtaining Environmental Clearances by M/s AEL for proposed project and due land lease documentation and commercials.</td><td></td></tr>
<tr><td>vii)</td><td>Water body exists within the project site as well as study area</td><td><u>Project Site:</u>
Not existing within the proposed location.

<u>Study Area:</u>
<table>
<tr><th>Water Body</th><th>Distance, km</th><th>Direction</th></tr>
<tr><td>Jarpara Lake</td><td>8.08 (from Pocket 1)</td><td>ENE</td></tr>
<tr><td>Khari River</td><td>0.5 (from Pocket 3)</td><td>N</td></tr>
<tr><td>Nagvanti River</td><td>5.6 (from Pocket 1)</td><td>ENE</td></tr>
<tr><td>Dhanesri River</td><td>0.7 (from Pocket 1)</td><td>NNE</td></tr>
<tr><td>Phot River</td><td>12.05</td><td>ENE</td></tr>
<tr><td>Gulf Of Kachchh</td><td>1.17 (from Pocket 2)</td><td>S</td></tr>
<tr><td>Baradi Mata Creek</td><td>7.05 (from Pocket 1)</td><td>SE</td></tr>
<tr><td>Kotdi Creek (also Between Pocket 1 & 2)</td><td>2.48 (from Pocket 3)</td><td>E</td></tr>
<tr><td>Modhva Coast</td><td>9.7 (from Pocket 2)</td><td>W</td></tr>
</table></td><td></td></tr>
<tr><td>viii)</td><td>Existence of ESZ/ ESA/ national park/wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>None

Details on Reserved Forest in the study area
<table>
<tr><th>Reserve Forest</th><th>Distance, km</th><th>Direction</th></tr>
<tr><td>Presence of Turtle</td><td>10</td><td>W</td></tr>
<tr><td rowspan="3">Siracha R.F</td><td>2.2 (From Pocket-1)</td><td>N</td></tr>
<tr><td>2.6 (From Pocket-2)</td><td>NNE</td></tr>
<tr><td>1.2 (From Pocket-3)</td><td>NNE</td></tr>
<tr><td rowspan="3">Danderi R.F.</td><td>3.0 (From Pocket-1)</td><td>NNW</td></tr>
<tr><td>3.6 (From Pocket-2)</td><td>NNE</td></tr>
<tr><td>2.1 (From Pocket-3)</td><td>NNE</td></tr>
<tr><td rowspan="3">Navinal R.F.</td><td>2.5 (From Pocket-1)</td><td>NE</td></tr>
<tr><td>4.3 (From Pocket-2)</td><td>NE</td></tr>
<tr><td>3.8 (From Pocket-3)</td><td>NE</td></tr>
</table></td><td></td></tr>
</table>

S. No	Particulars	Details		Remarks
		Mundra Dhoa R.F.	1.4 (From Pocket-1) 3.2 (From Pocket-2) 3.0 (From Pocket-3)	ENE ENE E
		Dhrab R.F.	9.6 (From Pocket-1) 11.5 (From Pocket-2) 11.8 (From Pocket-3)	ENE ENE E
		Mundra Mangrove R.F	Adjacent (From Pocket-1) Adjacent (From Pocket-2) 0.15 (From Pocket-3)	- - SE
ix)	Interlinked Project, if any, with status	The proposed 'Coal to PVC' project is an integrated project, as the product of one plant is used as raw material for the downstream plants.		

9.8.6 The unit configuration and capacity of proposed project is given as below:

S. No.	Facility	Product/by-product	Proposed Capacity
1	Semi – Coke (4(b))	Coke	2030 KTPA
2		Tar	370 KTPA
3		Crude Benzene	26 KTPA
4		Ammonium Sulphate	18 KTPA
5		Sulphur	5 KTPA
6		Coking Gas	1360 MNm^3/A
7	Cement (3(b))	Ordinary Portland Cement, Portland Pozzolona Cement, Portland Slag Cement, Portland Composite Cement	6000 KTPA
8		Clinker	4000 KTPA
9	Calcium Carbide (Not specified in any industrial committee)	Calcium Carbide	2900 KTPA
10		Lime fines and lime residue	2870 KTPA

9.8.7 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S. No.	Raw Material	Quantity Required per Annum	Source	Distance from Site (kms)	Mode of Transportation
1	Coke (from semi coke production)	2480 KTPA	In-house (Semi-coke Plant)	4	Conveyor belt
2	Lime stone	5124.8 KTPA	Domestic (open Market)	60	Road
3	Iron Sheet	5.68 KTPA	Outsourcing (Open Market)	60	Road
4	Sulphuric Acid (92.5%)	17 KTPA	Open Market	60	Road

S. No.	Raw Material	Quantity Required per Annum	Source	Distance from Site (kms)	Mode of Transportation
5	NaOH (42.5wt%)	15 KTPA	In-house (from Caustic Soda Plant)	1	Conveyor belt
6	Fly Ash	2015 KTPA	Mundra Power Plant	10	Conveyor belt
7	Coal	600 KTPA	Open market imported coal of suitable mines to meet the quality requirements (Indonesia, Australia) via sea route from source country to APSEZ port	5	Conveyor belt
8	Clinker	4000 KTPA	In-house (from clinker plant)	1	Conveyor belt
9	Gypsum/Phospho gypsum	300 KTPA	Domestic: Bhuj/Copper smelter plant	60	Road
10	Electrode Paste	56.96 KTPA	Outsourcing (Open Market)	60	Road
11	Non Coking Coal	4900 KTPA	Open Market	4	Road
12	Calcium Carbide Sludge	5694 KTPA	In-house (From Acetylene Plant)	2	Conveyor belt
13	Copper Slag	135 KTPA	Copper Smelter Plant	7	Conveyor belt

9.8.8 There will be no groundwater extraction for this project. The total water requirement for Coal to PVC project will be 222.875 MLD. This will be met by internal recycling of 62 MLD and makeup water of 160.053 MLD from PSEZL Seawater Desalination plant. This make up water quantity includes 4.865 MLD water requirement for Semi Coke, Calcium Carbide and plant falling in the scope of Ind-1 EAC and others common utilities 65.948 MLD.

9.8.9 The power requirement for the project during operation phase is estimated as 2000 MW and during construction phase is estimated as 30MW, which will be supplied by the DISCOM within APSEZL.

9.8.10 Baseline Environmental Studies:

Period	22nd March, 2021 to 22nd June, 2021
AAQ parameters at 12 Locations (min and max)	$PM_{2.5}$ = 7 To 48 µg/m^3 PM_{10} = 33 To 91 µg/m^3 SO_2 = 3.8 to 16.8 µg/m^3 NOx = 6 To 23 µg/m^3 CO = 0.76 to 0.88 mg/m^3
Incremental GLC level	$PM_{2.5}$= 6.2 µg/m^3 (Level at 1.7 km in SE Direction) PM_{10} = 8.8 µg/m^3 (Level at 3.2 km in SE Direction) SO_2 = 5.8 µg/m^3 (Level at 2.2 km in SE Direction)

<table>
<tr><td></td><td>NOx = 11.7 μg/m^3 (Level at 1.3 km in SE Direction)</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH: 8.05 to 8.44,
Total Hardness: 110 to 500 mg/l,
Chlorides: 150 to 1999 mg/l, Fluoride: 0.55 to 1.43 mg/l.
Heavy metals: below detection Limit</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH: 6.89 to 7.89;
DO: 4.3 to 4.7 mg/l and
BOD: 2 to 7 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>49 to 69.9 for the Day time and 37.5 to 66 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at Adani Power Road is approximately 0.1 km from the plant site
• Transportation of raw material & fuel finished product will be done 40 to 70 % by road, with . Non-coking coal and Coke (from semi coke production) will be transported through conveyor belt or by road.
• Existing PCU is 205 PCU/hr on Adani Power Road and existing level of services (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>Adani Power road</td><td>205</td><td>1500</td><td>0.14</td><td>B</td></tr>
</table>
• PCU load after proposed project will be (205 + 140=) 345 PCU/hr and level of services (LOS) will be
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>Adani Power road</td><td>345</td><td>1500</td><td>0.23</td><td>C</td></tr>
</table>
Note: Capacity as per IRC- 106-1990 Guide line for capacity for roads.</td></tr>
<tr><td>Flora and fauna</td><td>The chief wildlife warden, Gandhinagar vide letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022 has approved wildlife Conservation plan for schedule I species i.e Gazella Bennettii, Varanus bengalensis, Lissemus punctatea, Pavo cristatus, Acipiter Badius, Circus aeruginosus and Platalealeucordia identified in 10 km Study area.</td></tr>
</table>

9.8.11 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

S. No.	Type of Wastes	Source	Quantity Generation (TPA)	Mode of Treatment	Disposal	Remarks
1	Oily/ Tarry Sludge	Oily Sludge from Semi Coke Oven Plant ETP	65 x 365 = 23,725	Collection in Barrels / Drums	Disposal to authorized Incineration	Mode of Transport By Road

S. No.	Type of Wastes	Source	Quantity Generation (TPA)	Mode of Treatment	Disposal	Remarks
					Facility / co-processing	
2	Chemical Sludge	ETP Area	2300	Collection in Bags	Disposal to authorized TSDF Facility/co-processing	Mode of Transport By Road
3	Used Oil / Spent Oil	Industrial Operation using mineral or Synthetic Oil as lubricant in hydraulic system or other applications, e.g. workshop / Heavy m/c	25	Collection in Barrels / Drums	Sent to registered oil reprocessor	Mode of Transport By Road
4	Empty barrels, containers, liners contaminated with hazardous chemicals Empty	Handling of hazardous chemicals and waste	2000 Nos (10 MT)	Collection in Drums / Containers / Bags	Recyclers/Disposed to authorized TSDF facility	Mode of Transport By Road

9.8.12 Public Consultation:

Details of advertisement given	Gujarati Newspapers "Gujarat Samachar" & "Kutch Mitra" on dated 28th March, 2022 and in English newspaper "Times of India" on dated 28th March, 2022.
Date of public consultation	30th April 2022
Venue	Community premises, (Samajvadi) Centre, Opp. Tunda Primary School, Village: Tunda, Taluka: Mundra, District Kutch
Presiding Officer	Resident Additional Collector & Additional District Magistrate, Bhuj-Kutch
Major issues raised	1. Employment 2. CESR/ Solar panels 3. Base line Analysis issues 4. Air Pollution 5. Land related issues 6. Greenbelt 7. Cumulative impact of industries in Study area

	8. Water 9. Safety related issue/accident 10. Health related issue

Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

S. No.	Activities	Proposed expenditure in project (INR in crores)					Total proposed Expenditure (INR in crores)
		1st year	2nd Year	3rd Year	4th year	5th Year	
A	**Education Initiatives**						
1	Supporting in creation of assembly halls, prayer hall, classrooms, computer labs, space for mid-day meal, playground, school walls, necessary requirement of students etc. for government school.	7	5	5	4	4	**25**
2	Igniting mind of students through science on wheels, UDAN schemes.						
3	Educational Vocational Guidance Fair (EVGF) for career talk.						
4	Balwadis for the kids of fisher-folk community to provide awareness about education, health, hygiene, and discipline.						
5	Programme for skills improvements of teaching staffs in govt. schools.						
6	Contingency and monitoring						
7	Skill development						
B	**Community Health Initiatives**						
1	Senior Citizen Health Card Scheme to address the needs of the senior citizens.	8	7	7	6.5	6.5	**35**
2	Various health camps organization at regular intervals i.e. Gynaecological care, Blood donation, Health awareness programs, HIV/AIDS, Cataract detection						
3	Provision of Free Mobile Health Care Units (MHCU).						
4	Promotion of awareness of malnutrition and anaemia						
5	Setting up rural clinics to ensures outreach services.						
6	Contingency and monitoring						

S. No.	Activities	Proposed expenditure in project (INR in crores)					Total proposed Expenditure (INR in crores)
		1st year	2nd Year	3rd Year	4th year	5th Year	
C	**Sustainable Livelihood and Women Empowerment**						
1	Extend assistance to start SHGs to empower women and material and financial support to take up self-employment	8	7	7	6.5	6.5	**35**
2	Amenities like equipment support, sanitation facilities, approach roads, fish lending sheds, fisher-folk vasahats (Settlements); training for livelihood, Insurance etc.						
3	Skill Development Centre (SDC) to make the youth for achieving their Goals in life by becoming Skilled Professionals						
4	Provision of fodder support, promote bio-gas installation in agri and animal husbandry-based families' households. Construction of cattle sheds, Awareness meetings and exposure visits for animal husbandry						
5	Research institute , marketing and plantation of Gugal plants						
6	Mangrove plantation and community plantation promotion by awareness, donation of saplings, creating the green-clubs in schools and direct plantation by the project proponents						
7	Support for Drip irrigation						
8	Contingency and monitoring						
D	**Community Rural Infrastructure Development**						
1	To provide facility for potable drinking water by providing RO Plants, drinking water supply system, overhead tank and underground pump in villages,	7	6	5	5	5	**28**
2	Creation of clean and hygienic environment by proper drainage systems, sewage treatment plants, community led sanitation campaign etc.						

S. No.	Activities	Proposed expenditure in project (INR in crores)					Total proposed Expenditure (INR in crores)
		1st year	2nd Year	3rd Year	4th year	5th Year	
3	Construction of various community centers to facilitate social activities, upgradation of facility at crematoriums, Gaushala, and creation of bus stands etc.						
4	Conservation of water by construction of check dams and pond.						
5	Upgradation of primary health centers, burn care center, local hospital, renovation of roads and expansion of roads, construction of toilet facilities etc.						
6	Provision of solar street lighting, green nurturing programs, implementation of swachchh bharat initiatives						
7	Contingency and monitoring						
	Total Expenditure	**30**	**25**	**24**	**22**	**22**	**123**

Note: M/s AEL vide letter dated 15.07.2022 has undertaken the following:

I. To improve the proposed amount of Rs. 75 cr. To Rs. 123 Cr. for community activities through Adani Foundation which is a group level CSR agency to cover all points of public hearing including requirement to support / establish cancer hospital and burn care center in district / taluka center in the Kutch area, construction of overhead water tanks/RO water ATM centers in villages where it is needed for drinking water availability.

II. All these community developmental activities will be focused in all 15 nearby villages.

III. The impact assessment of CER activities will be conducted on yearly basis and summery shall be submitted along with compliance report to MoEF&CC.

IV. The budget has been revised and increased in initial years in the plan to complete measure social activities within the project periods.

9.8.13 The capital cost of the proposed project is Rs. 34,900 Crores, which includes Rs. 15,900 crores for the proposed activities within the domain of EAC Industry – 1. For the Coal to PVC project, the capital cost for environmental protection measures is proposed as Rs. 2874.59 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1494.55 Crores. Project Proponent (PP) proposes to allocate Rs. 123 Crores towards Extended EMP (Corporate Environment and Social Responsibility). Total Employment will be ~12000 numbers during construction phase (i.e. ~5000 direct and ~7000 indirect) and ~11,600 numbers during operation phase (i.e. ~3600 on direct and ~8000 indirect). The details of cost for environmental protection measures is as follows:

S. No.	Item	Approximate Capital cost (Rs. In Crores)	Approximate recurring cost per annum (Rs. in Crores)
1	Air Pollution Control Systems	1650	450
		0	3.5
2	Material consumption of Air Pollution Control	---	175
3	Online Continuous Emission Monitoring System for APCM	390	39
4	Water Pollution Control Systems	553.21	451.5
		1.97	2.95
5	Material consumption of Water Pollution Control	---	124.5
6	Online Continuous Emission Monitoring System for effluent	98.3	9.8
7	Solid and hazardous waste Handling and management At site	36.11	156.8
8	Hazardous waste Disposal	0	40
9	Environment management systems	25	3.5
10	Laboratory	45	8
11	Greenbelt within the project area and Eco-development drive in Study area	75	30
12	Addressal of Public Consultation concerns	123	CSR expenditures as per The Company's act during operations
TOTAL		**2997.59= 2874.59 + 123 (including extended EMP cost to address PH comments)**	**1494.55**

9.8.14 Proposed greenbelt will be developed in 107.14 ha which is about 33.09% of the total project area of 323.69 ha area. A 96 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.

9.8.15 One PIL has been filed by Kheti Vikas Seva Trust. PIL is registered as No. 36 of 2022. Respondents are (1). Union of India, (2). State of Gujarat, (3). Central Pollution Control Board-New Delhi, (4). Gujarat Pollution Control Board-Gandhinagar, (5). District Collector-Kutch, (6). Regional Officer, IRO MOEF&CC- Gandhinagar, (7). Adani Enterprises Ltd.-Ahmedabad.

Kheti Vikas has raised objections on conducting one Public Hearing for various projects. Kheti Vikas has prayer to the court for stay on Public Hearing. Matter was posted in Gujarat High court on dated 18.04.2022. Matter was heard by court and next date posted on 20th June and as per the court order which reads that "*Issue notice through RPAD returnable by 20.6.2022. Learned counsel appearing for the petitioner is permitted to serve notice on Mr. Devang Vyas, learned Additional Solicitor General of India for respondent No.1. Mr. K.M. Antani, learned AGP accepts and waives notice for respondent Nos.2 and 5 and Mr. Sandeep Singhvi, learned counsel who is present in Court accepts and waives notice for respondent No.7. Any decision taken by the respondents would be subject to result of this petition*". Matter could not come for hearing on 20th June, 2022 & 5th July, 2022 and it is further proposed to 22nd July, 2022.

Written representations:

9.8.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.07.2022 submitted the following information:

1.	***Revise CER plan according to Office Memorandum (O.M) of MoEF dated 1st May, 2018 and 30th September 2020 and Provide plan to spend these funds in initial years of starting of Project Implementation to address all points of Public Hearing and Social needs assessment done during EIA Study. Undertaking for the same to be submitted.*** **Submission of PP:** The details submitted by PP has been updated in para 9.8.12 above.
2.	***M/s AEL to explain about compliance with specific condition no. 14 (ii) of ToR about emission standard for proposed Semi-coke unit and view of the CPCB of the same. The EIA consultant should update the chapter 5 (Analysis of alternatives) of EIA report by bringing the Semi Coke alternative technology discussion and emissions from proposed Semi-Coke technology as studies by CIMFR. The EIA report after this update also to be uploaded on PARIVESH portal.*** **Submission of PP:** The details submitted by PP are as follows: 1. M/s AEL submitted that CIMFR has been engaged to study the proposed technology of Semi Coke by M/s AEL and compare the same with other available technology and available standards in India. Central Institute of Mining and Fuel Research (CIMFR) has conducted the study which has been referred by EIA agency M/s Kadam Environmental Consultancy. Final report of the CIMFR is provided as Annexure of EIA on PARIVESH. 2. After deliberation during the EAC meeting, the EIA consultant and project proponent agreed to update the EIA report by bringing the relevant discussion and conclusion from the CIMFR report into the chapter – 5 of EIA. 3. M/s AEL submitted that the emissions from proposed Semi-coke unit will be far less than the standard set for Coke oven plants vide G.S.R no. 277(E) dated 31st March, 2012. The technology of Semi Coke proposed by M/s AEL is capable to achieve the emissions of PM≤30 mg/Nm3, SOx ≤100 mg/Nm3. The CIMFR representative present in the meeting submitted that the theoretical (stoichiometry) NOx emission can be achieved ≤50 mg/Nm3 which will not exceed 250 mg/Nm^3 practically after deviation and abnormal condition emission from proposed Semi Coke plant. EIA consultant and project proponent (M/s AEL) submitted that the Air Emission Modeling, the predicted GLC has been done considering these higher limits of emission from Semi Coke plant and stacks of other units in the project as provided in Table 4.10 of EIA. 4. Some sources of emission like PLL, PLD will not be applicable at all for proposed Semi coke technology as following. **COKE OVEN PLANTS (by product recovery type)** |

	Standards for Coke Oven	Proposed Semi-coke plant	Remarks for Worst Case Scenario Modelling for GLC
Stack Emission of Coke Oven			
SO_2(mg/Nm^3)	800	≤100	≤100
NOx,(mg/ Nm^3)	500	≤50	≤250
PM,(mg/Nm^3)	50	≤30	≤30
PM during charging (For stamp charging battery)	25	Not applicable	--
PM emission during coke pushing (stack emission) gm/ton of coke	5	Not applicable	--
Fugitive Visible Emissions			
Leakage from door	5(PLD)*	Not applicable. No Emission. There is no oven door	--
Leakage from charging lids	1(PLL)*	Not applicable. No Emission. Charging lead is not there, coal valves are hydraulically closed	--
Leakage from AP Covers	4(PLO)*	Adopted similar technology as used in modern byproduct type coke oven. Suggested 4(PLO)*	--
Charging emission (Second/charge)	16(with HPLA)*	No emission. Automatically charging from bottom of coal bunker with hydraulically controlled valves	--
Fuel gas for oven heating - *Emission for quenching operation*			
Particulate matter gm/tone of coke produced	50	No emissions. Quenching emission passes through the furnace, do not come into atmosphere	--

3. ***Drainage Conservation for the proposed project location.***

Submission of PP: The details submitted by PP are as follows:

a) The proposed project land in all 3 pockets are outside the CRZ area which proved by the superimposition of project boundary on approved CRZ Maps.
b) The drainage map of 5 km radius area is prepared and provided as Map 3.10 in EIA report. The boundary of all 3 pockets lands is superimposed on the drainage map. It is visible that there is no drainage / river flowing through any of the pocket of the proposed project land. The development of the project on these pockets of the land have no interaction with any natural drainage hence will not disturbed any drainage patterns of the area. drainage map of the area is submitted by PP**.**
c) Topographic survey of the entire area is conducted. The High Tide level area is 5.4 meter above CD. The present site elevation is in the range of 8.5 meter above Chart Datum (CD). It is visible that the proposed pockets of the land are like plateaus and will not disturb the drainage of the area. Site within all 3 pockets shall be graded after detailed engineering to enable the gravity flow of drainage within each pocket of the land to rainwater harvesting tanks to recycle and reuse the water. The cutting volume of the soil for the foundation shall be used for filling volume of the soil required to raise the level of certain areas within the project.
d) M/s AEL is proposing this project in the land allocated for this project by APSEZ Ltd and have no interaction with drainage outside the pockets of the land for this project. As noted by M/s AEL, the APSEZ Ltd already have relevant conditions in its EC vide letter no. 10-138/2008-IA.III dated 15th July, 2014

	specific condition no. (ii) "*conserve the creeks, river and mangroves area in the area*". and the compliance report is being submitted for the same as available on MoEF&CC portal.
4.	***Provide Mangrove Development/Conservation Plan for the project.*** **Submission of PP:** The details submitted by PP are as follows: a) Proposed project of M/s AEL have no interaction with CRZ area. Rs. 10 lakh have been proposed by M/s AEL for mangrove conservation in nearby area through awareness generation and plantation as part of Wildlife Conservation Plan which is already approved by Chief Wildlife Warden, Gujarat State, Gandhinagar. b) Besides the above, the fund of Rs. 75 Cr has been increased to Rs. 123 Cr as extended EMP (CER) as detailed above which also covers mass plantation drive within study area including promotion of activated for mangrove. c) M/s AEL shall construct the boundary wall of the project to avoid any interference and disturbance in the Mangrove area by any man power of the project. d) This project by M/s AEL is proposed on the land allocated within Special Economic Zone of M/s APSEZ and it is understood and known that a "Comprehensive and Integrated plan for preservation and conservation of mangroves and associated creeks in and around the APSEZ" is already prepared by NCSCM Chennai and APSEZ Ltd is submitting periodically compliance report for the same. Copy of the plan is submitted by the PP.
5.	***Provide details of project boundary superimposed on approved CZMP Maps by NCSCM.*** **Submission of PP:** The details submitted by PP are as follows: a) Project boundary is superimposed on CRZ maps of indicating HTL and LTL and CRZ classification by authorized agency i.e National Centre for Sustainable Coastal Management, Chennai. Superimposed CRZ maps and report received from NCSCM is submitted by PP. **b)** NCSM has given the conclusion in sec. 9 at page 9 of the report which reads that**:** *"Pocket – I :* • *The CRZ categories around the proposed project boundary (Pocket-I) are CRZ IA (Mangroves, 50m Mangrove Buffer Zone, Mudflat and Reserved Forest), CRZ IB (Intertidal Zone), CRZ Ill (No Development Zone and 200 to 500m from HTL), and CRZ IVB (River/Creek). The western side of the proposed project boundary (Pocket-1) lies about 30m away from the CRZ IA (50m Mangrove buffer zone).* • *The Proposed Project Boundary (Pocket 1) falls outside the CRZ Categories such as CRZ IA (Mangroves, 50m Mangrove Buffer Zone, Mudflat and Reserved Forest), CRZ 1B, CRZ II, CRZ Ill and CRZ IV area.* • *The minimum distance from the Proposed Project Boundary - Pocket I to No Development Zone of CRZ Ill is about 2.5 m which has been observed in the North - North West side of the Proposed Project Boundary.* • *The Proposed Project Boundary (Pocket- I) falls in Reserved Forest (as given in Land use Map of 2011) and the same area has been shown as Diversion of Reserved Forest area in the approved CZMP as per CRZ Notification, 2011.* • *The CRZ map (1:4000 scale) has been prepared in accordance with the CRZ Notification 2011 and approved CZMP maps of Gujarat State.* • *The Proposed Project Boundary- Pocket I fall within the Sheet Number F 42 J 9/SW and Map Number GJ 179 of approved CZMP of Gujarat State prepared as per CRZ Notification 2011.* • *The proposed layout plan of the proposed project activities is not superimposed into the CRZ map.*" **<u>Note about the last observation point of summary:</u>** Only project outer boundary has been superimposed on CRZ maps by NCSCM. Internal layout plan within this project boundary is not superimposed. Hence, this is categorically commented by NCSCM in last bullet point in summary as above. This is self-explanatory that if the project outer boundary is outside CZR than project internal layout plan will also be outside CZR.

	"Pocket – II : • *The Proposed Project Boundary (Pocket II) fall outside of the CRZ Categories such as CRZ IA, (Mangroves, 50m Mangrove Buffer Zone, Mudflat and Reserved Forest), CRZ 1B, CRZ II, CRZ III and CRZ IV area.* • *The minimum distance from the Proposed Project Boundary to CRZ-III (No Development Zone) is 7 m which has been observed in western side of the Proposed Project Boundary.* • *The Proposed Project Boundary (Pocket- II) falls in Reserved Forest (as given in Land use Map of 2011) and the same area has been shown as Diversion of Reserved Forest area in the approved CZMP as per CRZ Notification, 2011.* • *The CRZ map (1:4000 scale) has been prepared in accordance with the CRZ Notification 2011 and approved CZMP maps of Gujarat State.* • *The Proposed Project Boundary (Pocket II) falls within the Sheet Number F 42 J 9/SW and Map Number GJ 179 of approved CZMP of Gujarat State prepared as per CRZ Notification 2011.* • *The proposed layout plan of the proposed project activities is not superimposed into the CRZ map."* **Note about the last observation point of summary:** Only project outer boundary has been superimposed on CRZ maps by NCSCM. Internal layout plan within this project boundary is not superimposed. Hence, this is categorically commented by NCSCM in last bullet point in summary as above. This is self-explanatory that if the project outer boundary is outside CZR than project internal layout plan will also be outside CZR. "Pocket – 3 • *The Proposed Project Boundary (Pocket III) falls outside the CRZ Categories such as CRZ IA, (Mangroves, 50m Mangrove Buffer Zone, Mudflat and Reserved Forest), CRZ IB, CRZ II, CRZ Ill and CRZ IV area.* • *The minimum distance between the Proposed Project Boundary to CRZ-III (No Development Zone) is about 5 m to 6m which runs parallel to the south side of the proposed Project Boundary.* • *The Proposed Project Boundary (Pocket -Ill) falls in Reserved Forest (as given in Land use Map of 2011) and the same area has been shown as Diversion of Reserved Forest area in the approved CZMP as per CRZ Notification, 2011.* • *The CRZ map (1:4000 scale) has been prepared in accordance with the CRZ Notification 2011 and approved CZMP maps of Gujarat State.* • *The Proposed Project Boundary - Pocket Ill falls within the Sheet Number F 42 J 9/SW and Map Number GJ 179 of approved CZMP of Gujarat State prepared as per CRZ Notification 2011.* • *The proposed layout plan of the proposed project activities is not superimposed into the CRZ map.* • *A CRZ map covering about 7 Km radius of the proposed project boundaries of Pocket-I, Pocket-II and Pocket-Ill representing CRZ categories based on approved CZM P is given in Figure 3."* **Note about the second last observation point of summary:** Only project outer boundary has been superimposed on CRZ maps by NCSCM. Internal layout plan within this project boundary is not superimposed. Hence, this is categorically commented by NCSCM in last bullet point in summary as above. This is self-explanatory that if the project outer boundary is outside CZR than project internal layout plan will also be outside CZR.
6.	***Provide details of Water consumption, wastewater generation with further possibility of reduction in water consumption.*** **Submission of PP:** The details submitted by PP are as follows :. a) Total daily make up water requirement of the project is optimized to 160.053 MLD. Total daily water requirement is 222.875 MLD which includes 62.82 MLD water requirement meeting from recycling – means 39% of recycling. b) The PVC plant is designed at optimum specific water consumption of 2.2 m3/tonne of PVC production. c) Further, M/s AEL commits that besides the above, further recycling and reduction in daily make-up water consumption shall be explore during detailed engineering by passing of waste water generated from DM plant-1700 KLD, Boiler blow down – 97 KLD, cooling tower blowdown – 11163 KLD (total water 12960

KLD) through RO & UF to recover the up to 70% of this water before going to ETP – 1. This can further reduce the daily water consumption and exact figure can be submitted by M/s AEL after detailed engineering through EC compliance report. which will further add 8 MLD in recycle water quantity of project.

d) Present proportion of make-up water through de-saline sea water is as following.

Industrial Committee	Make up water Requirement (in KLD)	Wastewater generation (KLD)	Recycled water (KLD);
Industry-01	4865	5477*	Recycled water includes treated water from ETPs, STPs (54962) and Boiler condensate (7860)
Industry-02	29040	18848	
Industry-03	54462	9966	
Non-EC Product	5738	1553	
Common Utilities	65948	18410	
Total	**160053**	**54254**	**62822**

** Including 612 KLD process generated water.*

7. ***Clarify about the changes in plot plan proposed in TOR application and in EIA with reference to location of semi coke and cement plant.***

Submission of PP: The details submitted by PP are as follows:

a) During conceptual planning & form 1 application cement plant was consider in pocket 1 & semicoke was consider in pocket 2.
b) During EIA stage, based on the progress in engineering, the site layout has been optimized and improved to fit the project within the given land and reduce the environmental impacts by keeping the resources closer to the process units. The location of cement production and Semi coke production is interchanged in Pocket 1 and Pocket 2 layout plan and the same presented in EIA report.

8. ***Provide details of technology of cement plant including raw material and product details, reactions, and thermal energy reduction.***

Submission of PP: The uniqueness of the project lies in its concept of manufacturing clinker by utilizing by-product / waste generated by other businesses of Adani Group. The proposed raw materials for clinker production are as given below:

S. No.	Raw Materials	Expected Proportion	Source	Remarks
1	Carbide Lime Sludge	85%	Acetylene Plant of Coal to PVC	From internal process of proposed project.
2	Copper Slag	4%	Kuchchh Copper Ltd.	Purchase
3	Fly Ash	5%	Mundra Thermal Power Station	Internal / purchase
4	Sand	6%	Locally available	Purchase

<u>Associated benefits of using Carbide Lime Sludge</u>

a) **Reduction in CO2 emission:** The estimated raw meal to clinker factor shall be ~1.16 vis-à-vis 1.45-1.50 in case of a conventional cement plant. The expected reduction in clinker factor is mainly due to replacement of limestone ($CaCO_3$) with lime sludge [$Ca(OH)_2$]. This shall reduce the extent of CO_2 generation from raw meal during clinkerisation process, which is ~0.27 Nm^3/ kg Clinker in case of limestone based clinkerisation plant.

b) **Reduced Heat of Formation (H.O.F)**: Due to use of carbide lime sludge the heat of reaction during

clinkerisation process shall be ~250-300 kcal/ kg Clk. vis-à-vis 380-420 kcal/ kg Clk. for conventional clinker manufacturing with limestone.

c) **Improved Chemical Consistency:** Since, carbide lime sludge (~85% of the overall raw material) shall be a by-product of an industrial process of acetylene preparation plant, its chemical consistency shall be much more vis-à-vis that of conventional limestone.

d) Hence, the associated upset conditions during clinker manufacturing, due to quality variation is envisaged to be much less with carbide lime sludge. This shall ensure sustainable plant operation with lesser downtime, contributing to reduced heat and power consumption, associated with kiln start-stops.

e) **Reduction in grinding power:** Material hardness of carbide lime sludge being much lower than that of limestone, shall reduce the specific power consumption during raw material grinding vis-à-vis that with conventional limestone.

9. ***Detail on the coverage of continuous monitoring system.***

Submission of PP: The details submitted by PP are as follows:.

a) Continuous air quality monitoring system will be provided at all flue gas stacks and will be connected with online server as per CPCB guidelines. Ambient air monitoring will be ensured at upwind of site as per annual windrose, downwind of site at location of maximum GLC considering annual windrose at nearest village.
b) Further, regular monitoring of water quality shall be carried out.
c) Apart from environmental monitoring, for improvement in agriculture environment, M/s AEL will have provision for involvement of Research institute to study and advise further.

10. ***Provide details of Carbon foot-printing.***

Submission of PP: Carbon Footprint of Project and Comparison of CO2 emissions from PVC v/s Steel as PVC will replace steel and other alloys that are used as business as usual for manufacturing of various material for actual use like pipeline etc.

Description	**Emissions behind 1 km of Schedule-40 Pipe made of Steel**	**Emissions behind 1 km of Schedule-40 Pipe made of PVC**
CO2 emissions/km of water delivery pipe of schedule-40	**37.95 tCO2e**	**11.44 tCO2e** **(PVC make pipe will cause 70% loweremission)**

Description	**Limestone Based Cement Plant (Estimation)**	**Carbide Lime Based Cement Plant**
Total CO2 Emission	**0.57 t CO2/ t of Cement**	**0.27 t CO2/ t of Cement (Absolute emission 4900 tpd)**

Potential for CO2 sequestration and mitigation:

- Coal to PVC project will support reduction in CO2 emission at country level on the basis of end use of PVC in comparison to Steel. Example production of schedule-40 PVC pipe for water delivery per Km will emit 70% less CO2 in comparison to Schedule-40 Steel pipe.
- 700 to 1000 tCO2e per Annum shall be sequestered by greenbelt containing 2,67,000 no. of treesin an area of 107.04 Ha.
- Further, 800 to 1100 tCO2e per annum will be sequestered by plantation of ~4,8 lakh numbers of trees within study area and in nearby region for which budget has been allocated in EMP in EIA report for Eco-development drive in 10 km radius area by focusing on activities including association with NGOs to form Eco-clubs in schools with students and teachers so that M/s AEL can donate plant saplings on yearly basis to these eco-club members and promote plantation through them and

directly on peripheral boundary of schools, village panchayat office premises, open land around water ponds. Besides, option of joint efforts or funding to forest department for yearly gap filling plantation of 2 to 3 ha. during the project stage.

- PVC will replace steel consumption in various applications like water pipeline, household appliances hence if these emissions are look in to at national level than there will be 70% less emissions in case of PVC appliances. Considering that we are counting 30% of emission from the present project for calculation of net carbon positivity of this project.

Particular	Total specific emission	30% emission considering PVC make appliances	CO_2 sequestration through Greenbelt and eco-development drive within study area.	Net emission	**Net Carbon status**
Direct emission on account of Fuel Consumptionand process reactions releasing CO2 in PVC project	3.68 tCO2e/tone of PVC	1.106259 tCO2e/tone of PVC	0.00125 tCO2e/tone of PVC (Absolute 2500 tCO2/Annum)	1.1050 tCO2e/tone of PVC	**Net Positive as a standalone PVC project but 70% neutral when compared with MS steel manufacturing.**
Indirect emissionson account of download / purchase of electricity from grid.	5.68 tCO2e/tone of PVC	-	-	-	-

11. ***Transportation of raw material by closed conveyor and pipeline system wherever possible and provide the list of the same.***

Submission of PP: As per the suggestion given by the EAC, AEL commits to transport the following materials within the project through closed conveyer system or pipeline.

Overall Raw material	**Cons. Qty.**	**Unit**	**Source**
Non- Coking Coal	4900	KTPA	Open market imported coal of suitable mines to meet the quality requirements (Indonesia, Australia) via sea route from source country to APSEZ port. Conveyor belt between APSEZ Port to the proposed project by AEL.
NaOH (42.5wt %)	15	KTPA	In-house (From Caustic Soda Plant)
Calcium Carbide Sludge	5694	KTPA	In-house (From Acetylene Plant)
Copper Slag	135	KTPA	Copper Smelter Plant
Fly Ash	2015	KTPA	Mundra Power Plant
Coal	600	KTPA	Open market imported coal of suitable mines to meet the quality requirements (Indonesia, Australia) via sea route from source country to APSEZ port.

			Domestic via road route to the stock yard and conveyor belt between stock yard to the proposed project by AEL.
Clinker	4000	KTPA	In-house (From Clinker Plant)

12. ***Some changes are observed between TOR and EIA report. PP to submit the list of changes.***

Submission of PP: The details of changes in ToR application and EC application due to detailing of the project is given below:

A. Raw Materials as per ToR and EIA: The changes are incorporated at para 9.8.7 above.

B. Effluent Generation as per ToR and EIA.

Details	As per ToR	As per EIA	Reference in EIA	Remark	Justification
Effluent generation details	Industrial: 47280 KLD Domestic: 720 KLD	Industrial 54254 KLD Domestic WW: 1043 KLD	Chapter 2.19	Increased	Process detailing and impact assessed in EIA.

C. Fuel Consumption as per ToR and EIA

Details	As per ToR	As per EIA	Reference in EIA	Remark	Justification
Natural gas	12500 Nm3/hr.	Natural Gas: 85, 126 Nm3/hr.	Point no. 2.20	Quantity Increase	Due to detailing of project. Impact done in EIA
Coal consumption for Boiler	128 TPH	135 TPH	Table no. 2.53	Quantity Increase	
Coal consumption for Cement Plant	125 TPH	75.76 TPH	Table no. 2.53	Quantity Decrease	
Semi Coke Powder	340 TPH	62.8 TPH	Table no. 2.53	Quantity Decrease	
HSD	-	4000 lit./hr.	Table 2.66	Not given in ToR Application	

Deliberations by the Committee

9.8.17 The Committee noted the following:

1. Instant proposal is for setting up of a new Semi Coke – 2030 KTPA, Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA; Clinker–4 MTPA plant as a part of "Proposed Coal to Poly-Vinyl Chloride (PVC) Project of Adani Enterprises Ltd. (AEL) in land notified as Industrial area of APSEZ, Taluka Mundra, District Kachchh, Gujarat comprising of Industry-I projects i.e. Semi Coke – 2030 KTPA, Calcium Carbide–2900 KTPA (Not Specified in Any Industrial Committee), Cement–6 MTPA; Clinker–4 MTPA, Industry-II projects i.e. VCM–2002 KTPA, PVC–2000 KTPA, Ethylene Glycol– 400 KTPA and Industry-III projects i.e. Acetylene–860 KTPA and Caustic Soda–1310 KTPA") located at industrial area of APSEZ, Taluka- Mundra, District-Kutch, State Gujarat by Adani Enterprises Ltd. (where, KTPA: Kilo Tonne Per Annum; MTPA: Million Tonne Per Annum).
2. The Project boundary is superimposed on CRZ maps of indicating HTL and LTL and CRZ classification by authorized agency i.e National Centre for Sustainable Coastal Management,

Chennai. Superimposed CRZ maps and report received from NCSCM. As per the Maps submitted by National Centre for Sustainable Coastal Management, Chennai, the instant project is outside of the CRZ area as per CRZ Notification.

3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
5. The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
6. The Project would be located in three separate land pockets. Pocket1:502.2acres (203.20 ha) (falling under Tunda village), Pocket2:114.9acres (46.49 ha) and Pocket3:182.9Acres (74 ha). Pocket 2 & 3 falling under Mundra Village (which is diverted forest land for SEZ development).
7. No. of water bodies including rivers, lakes, creeks etc. exists within the project site as detailed in para 9.8.5 above.
8. Proposed greenbelt will be developed in 107.14 ha which is about 33.09% of the total project area of 323.69 ha area. A 96 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,. Local and native species will be planted with a density of 2500 trees per hectare.
9. There are Schedule - I species reported in study area, namely *Gazella Bennettii, Varanus bengalensis, Lissemus punctatea, Pavo cristatus, Acipiter Badius, Circus aeruginosus and Platalealeucordia*. Conservation Plan has been prepared and approved by the Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297-298/2022-2023 dated 18/06/2022. The Committee deliberated the plan and found in order.

10. The EAC also noted that CPCB in his comments dated 9th June 2022, inter-alia, mentioned that a representation from M/s Adani Enterprises Limited regarding a semi-coke unit in the proposed Coal-to-PVC project has been received. The actual reference as per ToR issued to the project proponent was as under: "Project Proponent shall undertake a study on validation of technology proposed for Semi-Coke Unit by a reputed organization to evaluate all the environmental concerns arising out of the project activities and their conformity to the Indian Standards issued vide G.S.R. 277 (E) dated 31 March 2012 pertaining to Coke -Oven Plant and same shall be submitted In addition to this, the environmental concerns, if any, not covered under the purview of Indian Standard shall also be enumerated in the report to be submitted In case the proposed project unable to

meet Indian Standards, the project proponent shall obtain the views of CPCB regarding the same". In view of the above condition, project proponent engaged Central Institute of Mining and Fuel Research (CSIRCIMFR), Dhanbad for undertaking a study on validation of technology proposed for semi-coke Unit. CSIR-CIMFR has described the process as below: "The internal & external heated semi coke furnaces are well proven technology to produce semi-coke from non-coking coal. Technology of semi-coke oven works under negative pressure. The lumpy coal charging at the furnace top and gravity feed through closed chute happens through hydraulically operated coal charging device that opens for time-to-time during charging operation and closes as soon as coal charging operation is over; thus reducing charging emission at oven top. There are no oven doors on pushing side or coke side and no oven top charging Lids, like in conventional coke oven Batteries; no PLL and PLO would be applicable here. Same has been elaborated with data of emission, in the latter part of the report. For controlling PLO similar technology as used in standard modern by product type coke oven has been adopted in gas off-takes. The Semi-Coke formed at the bottom of the vertical furnace is cooled by spraying of water inside the hot-coke extractor-box & then discharged intermittently by gravity, in batches by hydraulically controlled valves automatically. Hot-Coke is quenched inside the coke extractor box and then discharged to a conveying belt. The steam generated by the evaporation of the wastewater from the bottom of the furnace moves up to the furnace and the steam reacts with the hot semi coke to produce water gas, which increases gas production quality as well as quantity." Regarding exploring possibility of dry quenching, CSIR-CIMFR has commented that dry quenching mode cannot be considered in such semi coke furnaces. CSIR-CIMFR has conducted comparison of stack emission and fugitive emissions of proposed technology with the standards for coke oven in Table no 13 on page 36 of the report. CSIR-CIMFR has certified that as per the technology documents provided by AEL, the proposed semi-coke production unit meets the pollution, safety, environment and other regulatory standards stipulated vide GSR 277(E) dt.31.3.2012 for newly installed by product recovery type coke ovens. The EAC deliberated and found that the TOR condition is compiled and PP needs to implement the recommendations of CSIR-CIMFR, in this regard.

11. One PIL has been filed by Kheti Vikas Seva Trust. PIL is registered as No. 36 of 2022. Kheti Vikas has raised objections on conducting one Public Hearing for various projects. Kheti Vikas has prayer to the court for stay on Public Hearing. Matter was posted in Gujarat High court on dated 18.04.2022. Matter was heard by court and next date posted on 20th June, 2022. Matter could not come for hearing on 20th June, 2022 & 5th July, 2022 and it is further proposed to 22nd July, 2022. The Committee also deliberated on the PIL and concluded that Public Hearing has been conducted as per the provisions of EIA Notification, 2006. Accordingly, EAC had made due diligence on all the issues raised during public hearing and found that the action plan made by the PP is found to be in order. However the EAC is of the view that a specific condition in this regard may be included while granting EC.
12. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

13. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.
14. The Committee noted that the project proponent, vide letter dated 15.07.2022, has submitted an undertaking and committed to undertake (a) To improve the proposed amount of Rs. 123 Crore will be used for community activities through Adani Foundation which is a group level CSR agency to cover all points of public hearing including requirement to support / establish cancer hospital and burn care center in district / taluka center in the Kutch area, construction of overhead water tanks/RO water ATM centers in villages where it is needed for drinking water availability. (b) The impact assessment of CER activities will be conducted on yearly basis and summery shall be submitted along with compliance report to IRO, MoEF&CC. (c) The budget has been revised and increased in initial years in the plan to complete measure social activities within the project periods. (d) The project shall adopt all 15 villages for holistic development through CER using Rs.123 Crore during project construction period and after that through need-based CSR in operational stage through Adani Foundation as per applicable regulations as per the Companies Act 2013.
15. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the project proponent through written representation to address the issues raised during the public hearing and found that the budget of Rs. 123 Crores allocated towards addressal of PH issues. EAC is of the view that that PP should explore the possibility to increase the budget to Rs. 300 Crores so as to address the issues more efficaciously. Accordingly, a detailed action plan shall be implemented and the status of the same shall be submitted to IRO, MoEFCC.
16. The EAC also deliberated on the written submissions submitted by the proponent and found it satisfactory. However, the EAC is of the view that these written submissions to be uploaded on Portal accordingly advised the Ministry to open the window for uploading this information on portal.
17. The EAC deliberated the environment management plan w.r.t. changes of capacity of raw materials, fuel and found that EIA/ EMP report are in order as per the provisions of the EIA Notification, 2006
18. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.
19. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

9.8.18 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the requisite information on Parivesh portal** (which was submitted by PP vide letter dated 15.07.2022 during the meeting along with revised Report), under the provisions of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

A. <u>Specific conditions:</u>

(i) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project. Project proponent shall abide by all the orders and judicial pronouncements, made from time to time, passed by Hon'ble High Court of Gujarat in PIL No. 36 of 2022.

(ii) The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

(iii) The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iv) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(v) The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

(vi) There are many water bodies including Jarpara Lake, Khari river, Nagvanti River, Dhanesri River, Phot River, Gulf of Kuchchh, Baradi Mata Creek, Kotdi Creek, Modhva Coast exists within the project site. A robust Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(vii) As all the natural drainage including the micro drainage flows into the Gulf of Kutch, a drainage conservation plan shall be implemented. An adequate robust Erosion control and Soil Conservation Program (like Storm water diversion; Storm water drains with catch pits to trap run off material; Garland drains; Retention walls; Settling Ponds; Wheel washing arrangement; Silt removal from settling ponds and utilization; Greening & Paving; Excavated soil preservation for landscaping) shall be implemented.

(viii) The Efforts shall be made to achieve power consumption of 70 units/tone of Portland-Pozzolona cement (PPC) and 95 units/tone of cement for Ordinary Portland Cement and thermal energy consumption of 670 kcal/Kg of Clinker.

(ix) Most of the transportation of raw material is by road, the distance of which is within 10 km. Project Proponent shall use overhead belt conveyor wherever possible. Action plan shall be prepared and implemented in a time bound manner from the date of issue of Environment Clearance after obtaining requisite statutory permissions from the concerned competent authority.

(x) The project proponent shall develop Greenbelt over an area at least 107.14 ha by planting 2,67,600 number of trees in 5 years from the grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. In addition to this as committed by the PP, Industry shall deploy a uniform greenbelt of equal width all-round the plant boundary, it will reduce the width of the green belt by 15 to 25 meters on seaward side of the project and will increase the width of the greenbelt on landward side of the project maintaining the total 33% of the greenbelt. The budget earmarked for the plantation shall be ₹75 crore and shall be kept in separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xi) The total water requirement for Coal to PVC project will be 222.875 MLD. This will be met by internal recycling of 62 MLD and makeup water of 160.053 MLD from PSEZL Seawater Desalination plant. No groundwater extraction is permitted.

(xii) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

(xiii) Slip roads shall be provided at the gates and along crossings on main roads. All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.

(xiv) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.

(xv) Project Proponent shall implement the recommendations of CSIR-CIMFR on the Report which was conducted on validation of technology proposed for Semi-Coke Unit to evaluate all the environmental concerns arising out of the project activities and their conformity to the Indian Standards issued vide G.S.R. 277 (E) dated 31 March 2012 pertaining to Coke - Oven Plant.

(xvi) Coke Oven Gas shall be desulfurized.

(xvii) Coke oven plant shall be equipped with modified wet quenching system.

(xviii) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.

(xix) Project proponent shall develop separate drainage system for storm water and industrial waste water and effectively prevent the pollution of natural waterbody.

(xx) Particulate matter emissions from cement mill stacks shall be less than 20 mg/Nm^3.

(xxi) Entire waste water shall be treated and reused for plantation and dust suppression within the premises. Also, STP water shall be reused in plantation with a view to conserve fresh water.

(xxii) As committed by the project proponent to adopt the 15 villages, where habitation exists within the study area of the project site, namely Vandh, Tunda, Kandagara, Shiracha, Navinal, Jarpara, Mota Bhadiya, Tragadi, Nana Bhadiya, Nani Khakar, Moti Khakhar, Deshalpar, Moti Bhujpur, Nani Bhujpur and Modhva, Project Proponent shall adopt these villages and prepare and implement a robust plan to develop them into model villages in next 10 years.

(xxiii) Hot air dryer shall not be installed. Flue gases of preheater shall be used to dry the slag/bottom ash.

(xxiv) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm^3 by using best available technology.

(xxv) Petcoke dosing shall be controlled automatically to control SO2 emission from chimney within the prescribed limits.

(xxvi) The PP shall develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation.

(xxvii) Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere. The PP to this effect shall implement a time bound Action Plan, and the compliance shall be submitted to IRO, MoEFCC.

(xxviii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xxix) The total quantity of particulate matter generated (kg/month) and the percentage of this captured by pollution control units, must be reported every six months.

(xxx) The project proponent shall take utmost importance in protecting, conserving and enhancing the wildlife fauna in areas falling under their operational activities, especially the aquatic/ marine/ estuarine ecosystems. The recommendations of the approved Site-Specific 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 to the concerned Regional Office of the MoEF&CC.

(xxxi) The project proponent shall not disturb the nearby Mangrove forest and shall take necessary steps to protect, conserve and enhance them.

(xxxii) The project proponent shall implement the Disaster/ Risk Management SOPs and protocols, as the Kutch area is prone to periodic cyclone storms. All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.

(xxxiii) The project proponent shall comply with all the mitigation measures suggested by other divisions of MoEF&CC including Industry-II, Industry-III, Infra-I and also state departments like SPCB in the instant inter-linked PVC to Coal project.

(xxxiv) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is

available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

B. General conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air 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. No. 612 (E) dated 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants), as amended from time to time), G.S.R 277 (E) dated 31st March 2012 (Coke Oven Plants) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized 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 PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.
iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
vii. 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 NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX 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.
xv. 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).
xvi. Land-based APC system shall be installed to control coke pushing emissions.
xvii. Monitor CO, HC and O_2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.
xviii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

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. No. 612 (E) dated 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants), as amended from time to time), G.S.R 277 (E) dated 31st March 2012 (Coke Oven Plants) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall regularly monitor 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iv. 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
v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.
vii. 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.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

i. Waste heat recovery system shall be provided for kiln and cooler.
ii. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.
iv. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

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

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.
ii. Project proponent shall submit a study report within six months on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

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.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

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, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

viii. The project 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.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

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

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

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

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

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

xv. 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.

Agenda No. 9.9

9.9 Establishment of DRI Kilns (1,98,000 TPA), Induction Furnace with matching LRF & CCM (Billets / Ingots / Hot Billets) (1,98,000 TPA), Rolling Mill (TMT Bars / Structural Steel) 1,98,000 TPA, Ferro Alloy Unit 2 x 9 MVA (FeSi-14000 TPA / FeMn-50400 TPA / SiMn28800 TPA / FeCr-30000 TPA / Pig Iron- 50400 TPA, WHRB based Power Plant - 15 MW & CFBC based Power Plant - 16 MW by M/s. Risen Industries Private Limited located at Sarda Village, Berla Tehsil, Bemetara District, Chhattisgarh – Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND/193123/2021; File No. J-11011/16/2021-IA.II(I)]
[Consultant: Pioneer Enviro Laboratories & Consultants Private; Valid upto: 21.09.2022]

9.9.1 Project Proponent, vide an email dated 8th July, 2022, has informed the Ministry that due to unavoidable circumstances, they are unable to attend the meeting. The EAC is of the view that the instant meeting was on Hybrid mode and PP/Consultant can participate the meeting from any of the place through Video conferencing despite that PP is requested for absence. The EAC warned the PP/Consultant that if PP/Consultant is not ready then why applying the proposal on portal. Baseline data was conducted in December 2020-Feb 2021; PH was conducted on December 2022 and PP submitted the EC application on portal in June 2022 after six month of

PH. It seems that PP is not interested to implement the project and wasted the time of the EAC. After detailed deliberations, **the EAC is of the view that this proposal now may only be placed before the EAC after the request of the project proponent online on Parivesh portal.**

Agenda No. 9.10

9.10 Greenfield Alumina Refinery (150000 TPA Alumina) & 2 x l0 MW Captive Cogeneration Power Plant by M/s. Maa Kudargarhi Alumina Refinery Private Limited located at Village Chiranga, Tehsil: Batauli District: Ambikapur, Chhattisgarh–Consideration of Environmental Clearance.

[Proposal No. IA/CG/IND/275654/2020, File No. J-11011/201/2020-IA.II(I)]
[Consultant: Ind Tech House Consult; Valid upto 24.07.2022]

9.10.1 M/s Maa Kudargarhi Alumina Refinery Private Limited has made an online application vide proposal no. IA/CG/IND/275654/2020 dated 30/06/2022 along with copy of EIA/EMP report and Form-2 seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraisal at Central Level.

9.10.2 Name of the EIA consultant: M/s Ind Tech House Consult [S. No. 3, List of ACOs with their Certificate/ Extension Letter no. QCI/NABET/ENV/ACO/22/2327; valid up to 24.07.2022; Rev. 24, July 05, 2022].

Details submitted by the project proponent

9.10.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
30/11/2020	26th EAC Meeting held on 16-12-2020	Terms of Reference	04/01/2021*	03/01/2025
**Note – The project was originally accorded ToR for setting up of 300000 TPA Alumina Refinery and 30 MW Cogeneration Power Plant at Chiranga, tehsil Batauli, district Sarguja, Chhattisgarh. Subsequently, at the time of EC application project proponent downsized the capacity of the alumina refinery as 150000 TPA & Captive Cogeneration Power capacity as 2x10 MW.*				

9.10.4 The project of M/s Maa Kudargarhi Alumina Refinery Private Limited is located in Chiranga Village, Batauli Tehsil, Surguja District, Chhattisgarh State is for setting up of a new Alumina Refinery (150000 TPA) & 2x10 MW Captive Cogeneration Power Plant.

9.10.5 Environmental site settings

S No	Particulars	Details	Remarks
i.	Total land	Total Land - 93.664 Ha Govt. Land - 91.942 Ha Private Land- 1.722 Ha. (Agriculture) Grazing land- Nil	Land use Agriculture Land: 1.722 Ha. Waste Land: 60.40 Ha.

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td></td><td>Water Body: 1.1 Ha
Pahad Chattan: 30.464 Ha</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC OM dated 7/10/2014</td><td>Government of Chhattisgarh has allotted 91.942 Ha. of Land vide letter No. CSIDC/ALT/2021/4234 dated 27/08/2021.
Consent obtained from 4 land owners for purchasing 1.722 Ha private land. It will be purchased immediately after getting EC.</td><td>-</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: No village/ no human habitation / settlement.

Study Area:
<table>
<tr><th>S No</th><th>Name of Village</th><th>Population</th><th>Distance and Direction from Project Site</th></tr>
<tr><td>01</td><td>Chiranga</td><td>2308</td><td>1.8 km SE</td></tr>
<tr><td>02</td><td>Kalipur</td><td>976</td><td>1.8 km NW</td></tr>
<tr><td>03</td><td>Laigu</td><td>492</td><td>0.5 km SW</td></tr>
<tr><td>04</td><td>Manja</td><td>955</td><td>0.8 km E</td></tr>
<tr><td>05</td><td>Jhargaon</td><td>1120</td><td>1.8 km NE</td></tr>
</table></td><td>No R&R is involved.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all the corners of project site</td><td>
<table>
<tr><th>Sl. No.</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>22°58'11.50"N</td><td>83°21'20.76"E</td></tr>
<tr><td>2</td><td>22°58'23.93"N</td><td>83°21'55.58"E</td></tr>
<tr><td>3</td><td>22°58'15.45"N</td><td>83°21'45.72"E</td></tr>
<tr><td>4</td><td>22°58'13.06"N</td><td>83°21'45.29"E</td></tr>
<tr><td>5</td><td>22°58'12.40"N</td><td>83°21'40.43"E</td></tr>
<tr><td>6</td><td>22°58'9.73"N</td><td>83°21'41.09"E</td></tr>
<tr><td>7</td><td>22°58'9.92"N</td><td>83°21'50.90"E</td></tr>
<tr><td>8</td><td>22°58'12.99"N</td><td>83°21'51.68"E</td></tr>
<tr><td>9</td><td>22°58'12.79"N</td><td>83°21'53.53"E</td></tr>
<tr><td>10</td><td>22°58'8.09"N</td><td>83°21'52.65"E</td></tr>
<tr><td>11</td><td>22°58'8.45"N</td><td>83°21'55.23"E</td></tr>
<tr><td>12</td><td>22°58'6.41"N</td><td>83°21'55.74"E</td></tr>
<tr><td>13</td><td>22°58'5.92"N</td><td>83°21'47.73"E</td></tr>
<tr><td>14</td><td>22°58'7.64"N</td><td>83°21'47.60"E</td></tr>
<tr><td>15</td><td>22°58'7.00"N</td><td>83°21'43.45"E</td></tr>
<tr><td>16</td><td>22°58'3.47"N</td><td>83°21'45.30"E</td></tr>
<tr><td>17</td><td>22°58'3.98"N</td><td>83°21'48.32"E</td></tr>
<tr><td>18</td><td>22°58'2.14"N</td><td>83°21'48.56"E</td></tr>
<tr><td>19</td><td>22°58'2.49"N</td><td>83°21'55.11"E</td></tr>
<tr><td>20</td><td>22°58'1.30"N</td><td>83°21'55.14"E</td></tr>
<tr><td>21</td><td>22°58'1.11"N</td><td>83°21'52.61"E</td></tr>
<tr><td>22</td><td>22°57'57.96"N</td><td>83°21'53.51"E</td></tr>
<tr><td>23</td><td>22°57'55.04"N</td><td>83°22'1.37"E</td></tr>
</table></td><td>-</td></tr>
</table>

<table>
<tr><th>S No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>24</td><td>22°57'47.30"N</td><td>83°22'1.86"E</td></tr>
<tr><td>25</td><td>22°57'35.36"N</td><td>83°21'36.59"E</td></tr>
<tr><td>26</td><td>22°57'43.93"N</td><td>83°21'35.85"E</td></tr>
<tr><td>27</td><td>22°57'47.51"N</td><td>83°21'24.96"E</td></tr>
<tr><td>28</td><td>22°57'52.97"N</td><td>83°21'21.10"E</td></tr>
<tr><td>29</td><td>22°57'55.77"N</td><td>83°21'20.78"E</td></tr>
<tr><td>30</td><td>22°58'2.29"N</td><td>83°21'24.73"E</td></tr>
<tr><td>31</td><td>22°58'2.85"N</td><td>83°21'20.68"E</td></tr>
<tr><td>32</td><td>22°58'0.56"N</td><td>83°21'17.53"E</td></tr>
</table>
</td><td></td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>640 - 750 m above MSL</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No Forest Land is involved</td><td></td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site: A small nallah originating inside the project site is passing through the plot from east to west.

Study area:
<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Ghungutta nadi</td><td>600 m</td><td>West</td></tr>
</table>
</td><td>HFL of the Ghungutta Naddi is more than 500 m away from the nearest boundary of project. HFL map submitted in EIA report.</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area.</td><td>Nil.

Details of RF in the study area:
Three reserve forests are present in study area; Chendra RF about 6-7 km NW, Khairban RF about 5-6 km N and Riri RF about 5-6 km NE of project site.</td><td>Certificate obtained from DFO, Ambikapur vide letter No. 2241 dated 28/09/2021.</td></tr>
</table>

9.10.6 The unit configuration and capacity of existing and proposed unit are given as below:

Sl. No	Plant Equipment/ Facility	Proposed Units		Remarks
		Configuration	Capacity	
1	Alumina Refinery	1	150000 TPA	-
2	Cogeneration Power Plant	2	10 MW	1 unit as standby

9.10.7 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S. No.	Raw Materials	Quantity required per annum	Source	Distance from site	Mode of Transportation
01	Bauxite	4,20,000 TPA	Bauxite Mines located at Mainpat Area of Surguja District	30 KM	By Road
02	Lime	6000 TPA	Open Market	200 KM	By Road
03	Coal	88300 TPA	Nearby SECL Coal Mines	50 KM	By Road

S. No.	Raw Materials	Quantity required per annum	Source	Distance from site	Mode of Transportation
04	Sulphuric Acid	425 TPA	Open Market	100 Km	By Road
05	LSHS	11500 TPA	Local Retailer	100 KM	By Road
06	Caustic Soda	13500 TPA	Traders	200 KM	By Road
07	Flocculants	75 TPA	Local Market	200 KM	By Road
08	Lime Stone	1200 TPA	Open Market	50 KM	By Road

9.10.8 The water requirement for the proposed project is estimated as 1339 m³/ day which will be obtained from the Ghunghuta nadi which is 600 meters away from the project site. The recommendation for drawl of surface water is granted by the State Investment Promotion Board, Govt of Chhattisgarh Vide Letter No. 553/SIPB/2020/246 dated 22/02/2021.

9.10.9 The power requirement for the proposed project is estimated as 9 MW which will be obtained from the Captive Power Plant.

9.10.10 Baseline Environmental Studies

Period	From 1st October, 2020 to 31st December, 2020
AAQ parameters at 04 locations	$PM_{2.5}$ = 13.1 to 30.6 µg/m^3 PM_{10} = 20.1 to 45.3 µg/m^3 SO_2 = 4 to 5.7 µg/m^3 NO_x = 9 to 14.5 µg/m^3
Incremental GLC Level	PM_{10} = 0.8 µg/m^3 (Level at 0.5 km in S Direction) SO_2 = 7.1 µg/m^3 (Level at 0.5 km in S Direction) NOx = 2.2 µg/m^3 (Level at 0.5 km in S Direction) CO = 12 µg/m³ (Level at 10 m from edge of NH)
Ground water quality at 8 locations	pH: 6.55 to 6.89, Total Hardness: 40 to 90mg/l, Chlorides: 6 to 15 mg/l, Fluoride. 0.62 to 0.68 mg/1. Heavy metals - Not detectable
Surface water quality at 8 locations	pH: 6.76 to 6.93; DO: 5.5 to 6.8 mg/I and BOD: 1.6 to 2.2 mg/1. COD from 8 to 12 mg/1
Noise levels	48.6 to 52.6 dBA for the day time and 39.8 to 43.4 dBA for the Night time.
Traffic assessment study findings	Traffic study has been conducted at SH Mainpat-Ambikapur, which is approximately 500 m (distance) from the plant site. • Transportation of raw material, fuel & finished product will be done 100% by road. • Existing PCU is 27.7 PCU / hr on SH and existing level of service (LOS) is:

Road	V (Volume in PCU/ hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS
SH	27.7	625	0.044	A

PCU load after proposed project

PCU/hr and level of service (LOS) will be:

Road	V (Volume in PCU/ hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS
SH	96.5	625	0.154	A

	*Note: Capacity as per IRC64-1990, & IRC106 1990 Guideline for capacity for roads. Conclusion: The level of service will remain A (free flow / Excellent) after including additional traffic due to proposed project.
Flora and fauna	Indian Python, Monitor Lizard and Sloth Bear are the Schedule 1 species found in the 10 km study area. Wildlife conservation plan with a budgetary allocation of Rs. 35.2 Lakhs has been allotted for their conservation. Wild life conservation plan has been approved by PCCF / Chief Wild Life Warden, Forest Dept. Govt of Chhattisgarh vide letter No. WildLife/567/118 dated 27.06.2022.

9.10.11 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
1	Bauxite Residue	Alumina Refinery	1,75,000(Dry), 2,33,000 (wet)	Part of Bauxite Residue will be used for cement manufacturing as Some cement plants have expressed interest to consume it. Rest will be disposed in Bauxite Residue Stacking area which will be designed as per Government guide line.	10% utilization in cement making during the first year and then Progressively increases to 50% utilization from 7th year onwards. The Bauxite Residue will be subjected to filtration process. Dry bauxite Residue with <25% moisture will be produced. This dry cake will be Disposed in an Engineered Storage Area.
2	Fly ash	ESP of Co-gen Power Plant	37,100 TPA	Collected in dry form and stored in silos	100% utilization in cement making, bricks, tiles and block making from 1st year itself.
3	Lime grits	Lime slacking	120 TPA	Unburnt limestone, if any present in the grit, will be removed Manually.	Lime grit contains some CaO and MgO. It is suitable for Mixing with fly ash and making brick. Alternately, it will be disposed Along with bauxite residue.
4	Vanadium Sludge	Alumina Refinery	300 TPA	The sludge will be collected in drums and stored at an earmarked place.	Vanadium sludge recovery plant will be established in the Plant Premises. The sludge will be collected in drums and stored at an earmarked place. Later it will be sold to authorized processors
5	Plant Sludge & muck	Drain	150 TPA	Will be stored in drums	Disposal through TSDF
6	STP sludge	Sewerage	175 TPA		Dried sludge will be used as soil conditioning agent

Sl No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
7	Used Oil, Grease & Lubricant	Machinery of Refinery	10 KL	Store onsite at a safe designated place.	Will be disposed through TSDF
8	Used Battery	Automobile / Plant electrical system	750 Pcs/Year	Store onsite at a safe designated place.	Will be sold to manufacturer under buy back policy
9	Electronic waste	Electrical/electronic equipment	2 TPA	It will be collected in drums and will be stored in a safe designated place.	Half yearly it will be auctioned to authorized re-processors.
10	Municipal Solid Waste	From Plant area	16TPA	It will be collected in drums and will be stored in a safe designated place	Organic waste composter will be installed at site. Non-biodegradable, non-recyclable solid wastes will be disposed through authorized vendor.

9.10.12 Public Consultation

Details of advertisement given	11th March 2021 in "Dainik Bhaskar" in Hindi and "Hindustan Times" in English.
Date of public consultation	12/04/2021
Venue	Primary School, Chiranga
Presiding Officer	ADM, Surguja
	i. Employment to local people ii. Loss of livelihood of local people iii. Damage to crops due to pollution iv. Destruction of natural resources (forests and water) v. Poor education facility vi. Poor health care system vii. Poor infrastructure facility

Action plan as per MoEF&CC O.M. dated 30/09/2020

S.No	Name of the Activity	Physical Targets	Year of Implementation			Total Expenditure INR (Lakh/ Crores)
			1	2	3	
1	Employment in the project	Skill Development of Local Youth and then offering them employment in the project 300 semi-skilled jobs exist in the project Willing and employable youths will be identified in consultation with gram panchayat of Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon villages (300 Nos). They will be trained in Ambikapur ITI for trades namely electrician, fitters, welders, painters, and civil construction work, etc. Fees	42	42	42	Target 300 youths Stipend: 1000/- per month stipend to 300 persons for 1 year (36,00,000/-) ITI Fee: 30000/- pp for 1 year (90,00,000/-) Budget 126 Lakhs 1.26 Cr

S.No	Name of the Activity	Physical Targets	Year of Implementation			Total Expenditure INR (Lakh/ Crores)
			1	2	3	
		will be paid by PP. After successful completion of training, the youths will be offered employment in the project				
2	Loss of Livelihood	Livelihood Support for Poor Illiterate People Social Forestry in Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon villages in consultation with village panchayats Self Help Group of women of Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon villages and training them for making clothes/ uniforms, sanitary napkins, pickels, papads, dumlings (badi), paper plates, cups and napkins, organic wastes composting and providing them with seed money to start MSME and then purchase their products.	50	50	50	Target Social forestry development in 20 ha area, planting 50000 trees 150/- per tree (50,00,000/-) Financial support to 130Self Help Groups, 1000000/- to each SHG (100,00,000/-) Budget 150 Lakhs (1.5 Cr)
3	Crop Damage	Modern Agriculture practices Training to farmers of Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon villages through Agriculture college on improved farming techniques, improved and hydrid seens, correct use of fertilizers, insecticides and pesticides, modern irrigation techniques, etc to improve their crop yield. Later seed money will be provided for implementation.	50	50	50	Target 100 poor farmers will be chosen in consultation with village panchayat 1,50,000/- per farmers Budget 150 L (1.5 Cr)
4	Destroy natural resources and aesthetics	Develop Natural Resources Make recharge shaft type RWH structures, provide solar panels and solar street lights, LED lights, desiltation and cleaning of village ponds, in Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon villages and Batauli.	40	40	40	Targets RWH structures in Govt Buildings and Schools (20)- 40 L Solar panels in Govt buildings and schools (20 Nos) – 40 L

S.No	Name of the Activity	Physical Targets	Year of Implementation			Total Expenditure INR (Lakh/ Crores)
			1	2	3	
						LED lights in Govt Buildings and Schools (1000) – 2 L Solar stret light(100) – 20 L Desilting & Cleaning ponds (6) – 18 L Budget: 120 Lakhs (1.2 Cr)
Need Based Analysis						
5	Education	Infrastructure development of Schools in Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon villages and Batauli. PP will make pucca kitchen with fume exhaust in 10 local schools make auditoriums, provide furniture, computers and colour printers, screens, to the 10 schools, develop playgrounds and refurbish the classrooms to make it Digital friendly	30	30	30	Targets Kitchens (10) – 20 L Tables & Chairs (1000) – 5 L Computers (10) – 5 L Colour printer (10) – 5L Screens (10) – 10 L Auditorium (1) – 10 L Classroom Refurbishment (50)-25L Develop playgrounds (10) – 10 L Budget 90 Lakhs (0.9 Cr)
6	Health Infrastructure Development	Develop Infrastructure and provide Ambulances, and Medical equipment to Government Hospital / Health Centre at Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon and Batauli	50	50	50	Targets Buildings – 50 L Ambulance (2) – 50 L Beds (100) – 20 L O_2 Cylinder (60) – 10 L Split AC (60) – 20 L Budget: 150 Lakhs (1.5 Cr)
7	Community Infrastructure Development	Make paved Roads, Sewerage & Drainage, MSW Landfill Sites, Community Halls, Toilets, Water Tank, Pump and Pipelines, Tubewells, Temples, Sports Ground, Charagaha land, at Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon and Batauli	45	45	44	Target Paved roads: (5 km) - 15 L Drainage (5 km) with STP – 50 L MSW landfill site (1) – 20 L Community Hall (1) – 10L

S.No	Name of the Activity	Physical Targets	Year of Implementation			Total Expenditure INR (Lakh/ Crores)
			1	2	3	
						Toilets (40) – 10 L Water Tank & tubewell (1) – 20 L Temple (1) – 4 L Charagaha land development – 5 L Budget 134 L (1.34 Cr)
	Total		**307**	**307**	**306**	**9.2 Crore**

9.10.13 The capital cost of the proposed project is Rs 618.07 crores and the capital cost for environmental protection measures is proposed as Rs 65 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 17.5 Crores. The employment generation from the proposed project is 900. The details of cost for environmental protection measures is as follows.

	Description of Items	Capital cost INR crores	Operating cost INR. Crores/year
1	Pollution control during construction stage	3.0 For 28 months	
2	Air pollution control	5.6	3.0
3	Water pollution control	15.3	2.5
4	Solid waste management	10.0	4.5
5	Noise pollution control	1.5	0.25
6	Environmental monitoring instruments	3.0	0.75
7	Environment Management Department with Laboratory and R&D Centre	4.0	3.0
8	Occupational Health Centre, Infrastructure Testing instruments, PPEs, Ambulance with paramedical staff and equipment,	4.0	1.5
9	Plant Safety and Risk mitigation measures, Fire Brigade	5.5	1.25
10	Greenbelt and greenery development inside plant premises	1.5	0.50
11	Energy conservation measures	2.4	0.25
12	CER Activities	9.2	-
	Grand Total	**65**	**17.5**

9.10.14 Proposed greenbelt will be developed in 35 ha which is about 37.4 % of the total project area. Thus total of 35 ha area (37.4 %of total project area) will be developed and retained as greenbelt. A 10 m to 25-meter-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 25,000 saplings will be planted and nurtured in 10 hectares in 1 years (Trees present on the 25 ha on the south side of plant area will be retained).

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

9.10.16 The project proponent had initially applied for EC vide proposal no. IA/CG/IND/185716/2020 dated 11/02/2022 and the proposal was considered in 1st meeting of the EAC for Industry-I sector held on 5 - 6th March, 2022 wherein the Committee returned the proposal in its present due to the technical deficiencies. The project proponent after addressing the technical issues again applied for EC vide proposal no. IA/CG/IND/266728/2020 dated 15/04/2022 and the proposal was considered in 4th meeting of the EAC for Industry-I sector held on 27-28th April, 2022 wherein the Committee on account of non-inclusion of Schedule-I species and non-submission of conservation plan returned the proposal in its present form and advised to submit the revised application as per the provisions of EIA Notification, 2006 along with requisite conservation plan for schedule I species.

9.10.17 M/s. Maa Kardargarhi Alumina Refinery Private Limited has again applied for EC vide proposal no. IA/CG/IND/275654/2020 dated 30/06/2022 with requisite conservation plan for schedule I species. The proposal is considered in the 9th meeting of the EAC for Industry-I sector held on 14-15th July, 2022. The deliberations and recommendations of the Committee are as follows:

Deliberation by the Committee

9.10.18 The Committee noted the following:

i. The project was originally accorded ToR for setting up of 300000 TPA Alumina Refinery and 30 MW Cogeneration Power Plant at Chiranga, tehsil Batauli, district Sarguja, Chhattisgarh. Subsequently, at the time of EC application project proponent downsized the capacity of the alumina refinery as 150000 TPA & Captive Cogeneration Power capacity as 2x10 MW.

ii. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

iii. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

iv. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

v. Ghungutta nadi exists at a distance of 600 m from the project site. A small nallah originating inside the project site is passing through the plot from east to west.

vi. The water requirement for the proposed project is estimated as 1339 m^3/ day which will be obtained from the Ghunghuta nadi after obtaining necessary permission.

vii. Greenbelt will be developed in 35 ha which is about 37.4 % of the total project area. Thus total of 35 ha area (37.4 %of total project area) will be developed and retained as greenbelt. Total 25,000 saplings will be planted and nurtured in 10 hectares in 1 years (Trees present on the 25 ha on the south side of plant area will be retained). The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.

viii. There are 3 nos. of Schedule - I species reported in study area, namely Indian Python, Monitor Lizard and Sloth Bear. Wildlife conservation plan with a budgetary allocation of Rs. 35.2 Lakhs has been allotted for their conservation. The conservation plan has been approved by PCCF / Chief Wild Life Warden, Forest Dept. Govt of Chhattisgarh vide letter No. WildLife/567/118 dated 27.06.2022.

ix. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

x. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

xi. As committed by the PP in the PH action plan, 7 villages, namely Chiranga, Kardana, Kalipur, Majas, Laigu, Jhargaon and Batauli shall be adopted and will develop the villages into model villages in next 10 years.

xii. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

xiii. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

Recommendations of the Committee

9.10.19 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 pertaining to Aluminium Refineries based on project specific requirements:

A. Specific conditions

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
iii. The activities and the action plan proposed by the project proponent to address the issues raised during public hearing and socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.
iv. Ghungutta nadi exists at a distance of 600 m from the project site. A small nallah originating inside the project site is passing through the plot from east to west. The water bodies shall not be disturbed. Landscaping shall be done on both embankments, with green belt covering 10 m land on both sides of the nallah. This shall be in addition to the 33% green belt development. In no circumstances, plant premises will be within HFL area of the Gunguta nala and 500 m distance will be maintained from project boundary as proposed by the project proponent.
v. The water requirement for the proposed project is estimated as 1339 m^3/ day which will be obtained from the Ghunghuta nadi after obtaining necessary permission. No GW abstraction is permitted.
vi. PM emissions shall be less than 30 mg/Nm^3.
vii. Scheme to utilize red mud and to recover precious metals shall be implemented as submitted in the EIA/EMP report.
viii. Efforts shall be made on minimizing heat pollution on the shop floor. The measures submitted in the EIA/EMP report to minimize the exposure of workers to excessive heat shall be duly implemented.
ix. All plant roads shall be pucca and cleaned regularly using industrial vacuum cleaners. Dust collected from roads and shop floors shall be recycled.
x. As committed, Lime grits shall be used in fly ash brick making plant.
xi. Red Mud shall be utilized in road making Cement making, tiles and back filling of mined out pits.
xii. Ash utilization plan as per the provisions of fly ash notification shall be implemented.
xiii. Storm water drain shall be independent of plant drains. Natural drain passing through the site shall not be disturbed and landscaped suitably. No flow shall be abstracted in any manner.
xiv. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
xv. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
xvi. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
xvii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
xviii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.
xix. Air cooled condensers shall be used in the power plant.
xx. A proper action plan must be implemented to dispose of the electronic waste generated
xxi. The Reserve forest is very close to the project, accordingly the project proponent shall take utmost importance in not disturbing the flora-fauna in the forest area by their

operational activities including noise and extra light that would interfere into the RF. Suitable physical/ biological barrier shall be put in between the project area and the RF.

xxii. The recommendations of the approved Site-Specific 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 to the concerned Regional Office of the MoEF&CC.

xxiii. An action plan must be implemented for the proper disposal of electronic waste as per E-Waste Rues 2016.

xxiv. A standard procedure for implementation in emergency if the emissions cross the critical limits must be drawn up and implemented.

xxv. The total quantity of PM generated per annum and the percentage of this captured by the pollution control equipment must be reported regularly.

xxvi. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

B. General Conditions

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

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 742 (E) dated 30thAugust 1990 and thereafter amended vide G.S.R 46 (E) dated 3rd February 2006 (Aluminium); 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 PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.

iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
vii. Pollution control system in the 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 ore, coal and other raw material to prevent spillage and dust generation.
x. Provide covered sheds for raw materials like bauxite, coal, etc.
xi. Recycle alumina dust collected in ESPs installed in calciner
xii. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 742 (E) dated 30thAugust 1990 and further amended vide G.S.R 46 (E) dated 3rd February 2006(Aluminium); 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. Reduce water consumption in bauxite beneficiation and alumina refinery by concentrating the solids in the tailings
ix. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

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

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

V. Energy Conservation measures

i. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases.
ii. 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;
iii. Provide LED lights in their offices and residential areas.

VI. Waste management

i. Used refractories shall be recycled.
ii. The red mud generated from the project shall be stored in the red mud pond lined with impervious clay prior to use to prevent leakage, designed as per the CPCB guidelines with proper leachate collection system. Ground water shall be monitored regularly all around the red mud disposal area and report submitted to the Regional Office of the Ministry. Proper care shall be taken to ensure no run off or seepage from the red mud disposal site to natural drainage.
iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
iv. Oily scum and metallic sludge recovered from ETP shall be mixed, dried, and briquetted and reused.
v. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016

VII. Green Belt

i. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
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.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.
ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures

to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

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

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, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

viii. The project 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.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
xv. 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.

Agenda No. 9.11

9.11 **Expansion of Iron Ore Pelletizing plant (0.85 MTPA to 1.7 MTPA) by addition of Iron Ore Beneficiation Plant (3.0 MTPA), Pig Iron Blast Furnace (0.60 MTPA), DRI Plant (0.36 MTPA), Sinter Plant (0.60 MTPA), SMS/Arc Furnace (ZPF) (0.72 MTPA), Rolling/Hot Strip Mill (0.7 MTPA) & CPP (WHRB-35 MW & AFBC-35 MW) by M/s. Ardent Steel Limited located at Village Phuljhar, Block Banspal, Tehsil Telkoi and District Keonjhar, Odisha – Consideration of Environmental Clearance.**

[Proposal No. IA/OR/IND/124925/2019; File No. IAJ-11011/112/2013-IA-II(I)]
[Consultant: Centre for Envotech & Management Consultancy Pvt.; Valid upto 18.03.2024]

9.11.1 M/s. Ardent Steel Limited has made an online application vide proposal no. IA/OR/IND/124925/2019 dated 28.06.2022 along with copy of EIA/EMP Report, Form - 2 and Certified EC Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous), 2(b) Mineral Beneficiation and 1(d) Thermal Power Plantsunder Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

9.11.2 Name of the EIA consultant: M/s Centre for Envotech & Management Consultancy Pvt. [Sl. No. 99, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0243; valid upto 18.03.2024, Rev. 24, July 05, 2022].

Details submitted by Project proponent

9.11.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	Validity of ToR
14.05.2018	32nd Meeting of EAC held to 11th-13th June, 2018	Terms of Reference	27.06.2018	26.06.2023
27.10.2021	48th Meeting of EAC held to 11th-12th November, 2021	Amendment of ToR	29.11.2021	

9.11.4 The project of M/s Ardent Steel Limited located in Village- Phuljhar, Tehsil- Banspal, District- Keonjhar, Odisha State is for Expansion of Iron Ore Pelletizing plant (0.85 MTPA to 1.7 MTPA) along with additional installation of Iron Ore Beneficiation (3.0 MTPA), DRI Plant (0.36 MTPA), Pig Iron Blast Furnace (0.6 MTPA), Sinter Plant (0.60 MTPA), SMS (0.72 MTPA), Rolling Mills (0.7 MTPA) & Captive Power Plant- 70 MW (WHRB-35 MW & AFBC-35 MW).

9.11.5 Environmental Site Settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>116.282 ha [Private: 18.334 ha; Govt: 61.166 ha; Other Land: 36.781 ha]

Land Use:
<table>
<tr><th>S. No.</th><th>Particulars</th><th>Area (Ha)</th><th>%</th></tr>
<tr><td>1</td><td>Main Plant</td><td>52.487</td><td>45.13</td></tr>
<tr><td>2</td><td>Green Belt</td><td>39.171</td><td>33.68</td></tr>
<tr><td>3</td><td>Raw Material Storage</td><td>5.075</td><td>4.36</td></tr>
<tr><td>4</td><td>Roads, Others & Open Area</td><td>19.549</td><td>16.83</td></tr>
<tr><td colspan="2">TOTAL PROJECT AREA</td><td>116.282</td><td>100.0</td></tr>
</table></td><td></td></tr>
<tr><td>ii</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Out of the 116.282 hectare of land, 36.781 hectare of land is already in possession of M/s Ardent Steel Limited & for rest of land (79.501 hectare) is under process. In this connection the PP has submitted that they have already deposited desired amount for alienation of the land.</td><td>--</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: Nil

Study Area:
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Keonjhar</td><td>28.0 km</td><td>S</td></tr>
</table>
Ardent Steel Ltd, is going to adopt both "The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFTLARR-2013) by Govt. of India" and Odisha Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act,2016 (ORFTLARR-2013) by Govt. of Odisha, 2016 in order to ensure their improvement in their post acquisition</td><td>Status of R&R: Yet to Start</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>socio-economic status in consultation with direct and indirect stakeholders and other statutory different govt. line department during the time of land acquisition.</td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>
<table>
<tr><td>Name</td><td>Latitude</td><td>Longitude</td></tr>
<tr><td colspan="3">Existing Plant Boundary</td></tr>
<tr><td>Point A</td><td>21°44'16.61"N</td><td>85°25'36.56"E</td></tr>
<tr><td>Point B</td><td>21°44'15.94"N</td><td>85°25'40.96"E</td></tr>
<tr><td>Point C</td><td>21°44'16.46"N</td><td>85°25'43.93"E</td></tr>
<tr><td>Point D</td><td>21°44'13.50"N</td><td>85°25'48.34"E</td></tr>
<tr><td>Point E</td><td>21°44'10.91"N</td><td>85°25'55.11"E</td></tr>
<tr><td>Point F</td><td>21°44'7.56"N</td><td>85°26'0.81"E</td></tr>
<tr><td>Point G</td><td>21°44'4.47"N</td><td>85°26'6.28"E</td></tr>
<tr><td>Point H</td><td>21°44'3.72"N</td><td>85°26'12.13"E</td></tr>
<tr><td>Point I</td><td>21°44'7.29"N</td><td>85°26'16.95"E</td></tr>
<tr><td>Point J</td><td>21°44'18.60"N</td><td>85°26'18.12"E</td></tr>
<tr><td>Point K</td><td>21°44'20.52"N</td><td>85°26'8.07"E</td></tr>
<tr><td>Point L</td><td>21°44'16.22"N</td><td>85°25'53.70"E</td></tr>
<tr><td>Point M</td><td>21°44'20.85"N</td><td>85°25'51.05"E</td></tr>
<tr><td>Point N</td><td>21°44'22.83"N</td><td>85°25'40.20"E</td></tr>
<tr><td>Point O</td><td>21°44'21.25"N</td><td>85°25'37.00"E</td></tr>
<tr><td colspan="3">Proposed Plant Boundary</td></tr>
<tr><td>Point A</td><td>21°44'3.09"N</td><td>85°26'5.82"E</td></tr>
<tr><td>Point B</td><td>21°43'43.35"N</td><td>85°26'16.06"E</td></tr>
<tr><td>Point C</td><td>21°43'45.92"N</td><td>85°26'33.75"E</td></tr>
<tr><td>Point D</td><td>21°43'31.94"N</td><td>85°26'28.22"E</td></tr>
<tr><td>Point E</td><td>21°43'36.85"N</td><td>85°26'37.23"E</td></tr>
<tr><td>Point F</td><td>21°44'4.43"N</td><td>85°26'39.26"E</td></tr>
<tr><td>Point G</td><td>21°44'4.88"N</td><td>85°26'17.53"E</td></tr>
</table>
</td><td>--</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>540 m AMSL.</td><td>--</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land involved.</td><td>The project proponent has submitted in Form 2 on PARIVESH that 3500 trees are required to be felled.</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site:
01 Nos. artificial ponds (rain water harvesting pond).

Study area:
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Baitarani River</td><td>4.3</td><td>W</td></tr>
<tr><td>Jagdala River</td><td>2.5</td><td>E</td></tr>
<tr><td>Malda River</td><td>6.2</td><td>W</td></tr>
<tr><td>Bamni Nalla</td><td>1.5</td><td>W</td></tr>
<tr><td>Jagadhala Nalla</td><td>1.7</td><td>E</td></tr>
<tr><td>Patarpangi Nalla</td><td>7.5</td><td>S</td></tr>
<tr><td>Bragarhia Nalla</td><td>8.5</td><td>NE</td></tr>
</table>
</td><td>--</td></tr>
</table>

Sl. No.	Particulars	Details	Remarks
		Ghagra Nalla – 8.9 – NW Panisuan Nalla – 9.6 – W	
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area	Nil. One Reserve Forest and Four protected forest is present within 10 km area of the project. 1. Nayagarh RF – 4.4 km, NE 2. Amuni PF- 5.6 km, SE 3. Gandhamardan PF- 7.2 km, SE 4. Raiguda PF- 6.9 km, SW 5. Jagar PF- 9.7 km, S	

9.11.6 The existing project was initially accorded environmental clearance vide lr.no. J-11011/12/2013-IA-II(I), dated 29.03.2016 for Iron Ore Pelletizing Plant (0.6 MTPA). Thereafter, project proponent obtained ToR for expansion of existing Pellet Plant to an Integrated Steel Plant of capacity 1.2 MTPA on 27.06.2018. Meanwhile, PP made application for expansion of Pellet Plant from 0.6 MTPA to 0.69 MTPA under para 7(ii) of EIA Notification 2006 vide application no. IA/OR/IND/124925/2019 dated 15.12.2019; and accordingly EC was granted on 13.02.2020 for enhancement in production capacity of existing pelletizing plant from 6,00,000 TPA to 6,90,000 TPA through process optimisation. Thereafter, Consent to Establish for expansion from 0.69 MTPA to 0.85 MTPA Pellet Plant was obtained vide letter no. 1164/IND-II-CTE6437, dated 29.01.2021 under "No Increase Pollution Load Certificate" vide Notification No. S.O. 3518(E), dated 23.11.2016 and amended notification vide S.O. 236(E), dated 16.01.2020. Consent to Operate for the existing unit [Iron Ore Pellet- 8,50,000 TPA, Producer Gas – 25,800 Nm^3/hr and Flux Grinding Unit – 5 Metric Tonnes / Hour] was accorded by Odisha State Pollution Control Board vide lr. No. 16141/IND-I-CON-6363 dated 22.10.2021. The validity of CTO is up to 31.03.2024.

9.11.7 Implementation status of the existing EC

Sl. No.	Facilities/Units	As per EC dated 29.03.2016 & 13.02.2020		Implementation Status as on July 2022	Production as per CTO
		Configuration	Capacity		
1	Iron Ore Pellet Plant	One Kiln of 0.69 MTPA	0.69 MTPA	Implemented	8,50,000 Metric Tonne/Annum

9.11.8 The unit configuration and capacity of existing and proposed project is given as below:

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 29.03.2016 & 13.02.2020								Proposed Unit		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO*						
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
1	Iron Ore Pellet Plant	One Kiln of 0.69 MTPA	0.69 MTPA	One Kiln of 0.69 MTPA	0.69 MTPA	--	--	One Kiln of 0.85 MTPA	0.85 MTPA	One Kiln of 0.85 MTPA	0.85 MTPA	One Kiln of 0.85 MTPA and One Kiln of 0.85 MTPA	1.7 MTPA	Pellet
2	Iron Ore Beneficiation Plant	--	--	--	--	--	--	--	--	3.0 MTPA	3.0 MTPA	3.0 MTPA	3.0 MTPA	
3	DRI Plant	--	--	--	--	--	--	--	--	2 x 600 TPD	0.36 MTPA	2 x 600 TPD	0.36 MTPA	
4	Pig Iron (Blast Furnace)	--	--	--	--	--	--	--	--	550 m^3	0.6 MTPA	550 m^3	0.6 MTPA	
5	Sinter Plant	--	--	--	--	--	--	--	--	60 m^2 x 1	0.6 MTPA	60 m^2 x 1	0.6 MTPA	
6	SMS/ Arc Furnace	--	--	--	--	--	--	--	--	1x75T (ZPF) & 1x75T (LRF)	0.72 MTPA	1x75T (ZPF) & 1x75T (LRF)	0.72 MTPA	
7	Rolling Mills	--	--	--	--	--	--	--	--	0.70 MTPA	0.70 MTPA	0.70 MTPA	0.70 MTPA	
8	Captive Power Plant (WHRB + AFBC)	--	--	--	--	--	--	--	--	WHRB 35 MW + AFBC 35 MW	70 MW	WHRB 35 MW + AFBC 35 MW	70 MW	

**Note: Consent to Establish for expansion from 0.69 MTPA to 0.85 MTPA Pellet Plant was obtained vide letter no. 1164/IND-II-CTE6437, dated 29.01.2021 under "No Increase Pollution Load Certificate" vide Notification No. S.O. 3518(E), dated 23.11.2016 and amended notification vide S.O. 236(E), dated 16.01.2020.*

9.11.9 The details of the raw material requirement for the expansion cum proposed project along with its source and mode of transportation is given as below:

Sl. No.	Raw Materials	Quantity Required per Annum (TPA)			Source	Distance from Site (km)	Mode of Transport
		Existing (As per EC)	Expansion (Additional)	Total			
1	Iron Ore Fines	9,52,000	20,48,000	30,00,000	Pvt./Govt. Mines	150	Rail/Road
2	Bentonite	4200	6,070	10,270	Local Mines	150	Rail/Road
3	Dolomite/ Lime Stone	8000	2,80,000	2,88,000	Dolomite from Chhattisgarh/Rajasthan/MP and Limestone from Import/Chhattisgarh/Rajasthan/MP	450	Rail/Road
4	Coke	24000	3,14,000	3,38,000	Imported Coke	250	Rail/Road
5	Coal	30000	8,05,640	8,35,640	MCL Cola Field	250	Rail/Road
6	LDO	6000	16,465	22,465	Local Market	230	Road
7	Calcinated Dolo	15912	15,912	15,912	Local Market	450	Road
8	Ferro Alloys	11271	11,271	11,271	Local Market	450	Rail/Road

9.11.10 Existing Water requirement (as per sanctioned EC) is 500 m^3/day. The water requirement for the proposed project is estimated as 12,830 m^3/day, water requirement will be obtained from Baitarani River and Permission of 6.35 cusec (15,535 KLD) has been approved in 16th Meeting of HLCA on 29.09.2015.

9.11.11 Existing power requirement of 4.8 MW is obtained from State grid. The power requirement for the proposed project is estimated as 56.0 MW. Total power 60.8 MW will be obtained from the captive power plant of 70 MW.

9.11.12 Baseline Environmental Studies:

Period	1st December 2020 to 28th February 2021
AAQ parameters at 8 Locations (min and max)	$PM_{2.5}$ = 22.1 to 44.7 µg/m^3 PM_{10} = 64.2 to 79.3 µg/m^3 SO_2 = 4.2 to 9.6 µg/m^3 NO_X= 9.6 to 16.4 µg/m^3 CO = 0.12 to 0.93 mg/m^3
Incremental GLC level	PM_{10} = 6.88 µg/m^3 (Level at 0.52 km in SE Direction) SO_2 = 7.02 µg/m^3 (Level at 1.48 km in SE Direction) NO_X = 7.05 µg/m^3 (Level at 0.52 km in SE Direction)
Ground water quality at 8 Locations	pH: 7.06 to 7.23, Total Hardness: 118 to 160 mg/l, Chlorides: 30.1 to 38.1 mg/l, Fluoride:0.11 to 0.16 mg/l, Heavy metals (Mercury, Lead, Cadmium & Arsenic): BDL
Surface water quality at 8 Locations	pH: 7.12 to 7.2, DO: 5.6 to 6.6 mg/l, BOD: 2.0 to 2.8 mg/l,

<table>
<tr><td></td><td>COD: 11 to 35 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>50.7 to 72.9 for the day time and 41.2 to 62.6 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>

Traffic study has been conducted on village road which is approximately 1.5 km from the plant site.
Transportation of raw material, fuel & finished product will be done 70% by road.
Existing PCU is 422 PCU/hr on village road and existing level of service (LOS) is:

<table>
<tr><td>Road</td><td>V (Volume in PCU/hr)</td><td>C (Capacity in PCU/day)</td><td>Existing (V/C Ratio</td><td>LOS</td></tr>
<tr><td>Village Road</td><td>422</td><td>15000</td><td>0.12</td><td>A</td></tr>
</table>

PCU load after proposed project will be 422 (Existing) + 800 (Additional) PCU/hr and level of service (LOS) will be:

<table>
<tr><td>Road</td><td>V (Volume in PCU/day)</td><td>C (Capacity in PCU/day)</td><td>Existing (V/C Ratio</td><td>LOS</td></tr>
<tr><td>Village Road</td><td>1222</td><td>15000</td><td>0.34</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC-106:1990 Guide line for capacity for roads.
Conclusion: The level of service will “B” after including additional traffic due to proposed project
</td></tr>
<tr><td>Flora and fauna</td><td>There is 1 no. of Schedule - I species reported in study area, namely Elephant (Elephas maximus). Site Specific Wildlife Conservation Plan has been approved by PCCF(Wildlife) & Chief Wildlife Warden vide letter NO. 2708/CWLW-FDWC-MISC-0002-2022 dated 26.03.2022 with a budgetary provision of Rs. 134.606 Lakhs.</td></tr>
</table>

9.11.13 The details of solid and hazardous waste generation along with its mode of treatment/disposal is furnished as below:

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Transportation	Disposal
1.	Tailings	Iron Ore Beneficiation Plant	82,500 TPA	Road	Dumped in Waste dump yard. To be used for filling nearby empty iron ore mined.
2.	Pellet Plant Fines	Pellet Plant	61,200 TPA	Road	Recycled back to the system.
3.	Coal fines and Dolochar from DRI	DRI	2,16,000 TPA	Road	feed fuel to the FBC Boilers.
4.	Blast Furnace Slag	Blast Furnace	1,59,000 TPA	Road	slag will be granulated and sold to Cement Manufactures.

Sl. No.	Type of Waste	Source	Quantity Generated (TPA)	Mode of Transportation	Disposal
	Sludge / Flue Dust	Blast Furnace	2,22,000 TPA	Road	Reused in Pellet Plant.
5.	Dust generated from Sinter Plant	Sinter Plant	15,200 TPA	Road	used in Pellet Plant.
6.	Slag of Induction Furnace	Induction Furnace	2,22,000 TPA	Road	Steel melting slag will be crushed to coarse and passed through metallic separator for separation of metallic and non-metallic contents. Metallic contents will be recycled back in SMS / Sinter process and non-metallic will be utilized for back filling or reclamation of low lying area / land filling in nearby mines. Cut end, rejects will be recycled in SMS. Flue dust will be utilized in road construction and land filling in nearby mines.
	Flue dust of SMS	SMS	65,400 TPA	Road	Reused in Pellet Plant.
	Cut ends & Rejects of SMS	SMS	84,000 TPA	Road	Recycled back.
7.	Rolling Mill	Rolling Mill	27,300 TPA	Road	Mill Scale will be recycled in SMS /Sinter/ Pellet Plant.
8.	Fly Ash and Bottom Ash of CPP	CPP	2,49,120 TPA	Road	Fly ash will be used for fly ash brick manufacture and Bottom ash will be used as road base material.

9.11.14 Public Consultation:

Details of advertisement	The New Indian Express – 23.01.2019 Samaj – 23.01.2019
Date/Time of Public Hearing	28.02.2019
Venue	Play Ground at Banspal, Khata No. 173 (Rakhit), Plot No. 480, Kissam- Bastijogya, District- Keonjhar, Odisha
Presiding Officer	Additional District Magistrate
Major Issues Raised	1. Employment to Local People 2. Medical Facility 3. Supply of Drinking Water 4. Education

Action plan as per MoEF&CC O.M. F.No. 22-65/2017-IA.III dated 30/09/2020

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
Based on Public Consultation/Hearing						
EDUCATION						
i	Setting up Library	Physical Nos. & Villages	1 No. each Gopabandhu Nodal High School, Phuljhar & UGME School, Kendughati	1 No. each High School, Raigoda & UGME School, Kasia	--	
		Budget in Lacs	4.0	4.0	--	8.0
ii	Setting of Play Zone	Physical Nos. & Villages	1 No. each Gopabandhu Nodal High School, Phuljhar & UGME School, Kendughati	1 No. each High School, Raigoda & UGME School, Kasia	--	
		Budget in Lacs	4	4	--	8.0
iii	Engagement of Teachers	Physical Nos. & Villages	3 Nos. in Gopabandhu Nodal High School, Phuljhar	2 Nos. in Gopabandhu Nodal High School, Phuljhar	1 No. in UGME School, Kendughati, 1 No. in Gopabandhu Nodal High School, Phuljhar, 2 Nos. each High School, Raigoda, 1 No. UGME School, Kasia	
		Budget in Lacs	3.6	2.4	6.0	12.0
iv	Providing Electricity, Internal Lighting & Road	Physical Nos. & Villages	Gopabandhu Nodal High School, Phuljhar	High School, Raigoda	--	
		Budget in Lacs	7.5	7.5	--	15.0
v	Running Nursery School by providing Rent	Physical Nos. & Villages	1 no. in Phuljhar	1 no. in Phuljhar	1 no. in Phuljhar	
		Budget in Lacs	1.5	1.5	1.5	4.5
vi	Computer Education by IT expert	Physical Nos. & Villages	Phuljhar	Kasia	Raigoda	
		Budget in Lacs	--	--	--	--
					Total (A)	**47.5**
HEALTH						
i	Construct of additional rooms in Phuljhar PHC	Physical Nos. & Villages	Phuljhar	--	--	

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
		Budget in Lacs	10.0	--	--	10.0
ii	Construction of 20 Beded Covid Hospital & its management	Physical Nos. & Villages	Plant Premises, Phuljhar	--	--	
		Budget in Lacs	6.0	--	--	6.0
iii	Engagement of Doctors	Physical Nos. & Villages	2 nos. PHC Phuljhar	2 nos. PHC Phuljhar	2 nos. PHC Phuljhar	
		Budget in Lacs	12.0	12.0	12.0	36.0
iv	Engage Ambulance & Management	Physical Nos. & Villages	1 no. PHC Phuljhar	1 no. PHC Phuljhar	1 no. PHC Phuljhar	
		Budget in Lacs	4.0	4.0	4.5	12.5
v	Health Camp	Physical Nos. & Villages	--	Phuljhar Village	Phuljhar Village	
		Budget in Lacs	--	0.5	0.5	1.0
					Total (B)	**65.5**
DRINKING WATER FACILITY						
i	Construction of new Tubewells & Management	Physical Nos. & Villages	1 no. each at Dudukupada Sahi, Rangamatia Sahi, Rugudi Sahi	1 no. each at Majhi sahi & Munda Sahi	1 no. each at Mata Sahi, Ratha Sahi, Bhuina Sahi, Bhuina Sahi, Dhaladhi & Patra Sahi	
		Budget in Lacs	4.5	3.0	7.5	15.0
ii	Distribution of Surface Water through Pipeline	Physical Nos. & Villages	--	--	Phuljhar Village	
		Budget in Lacs	--	--	100.0	100.0
					Total (C)	**115.0**
COMMUNITY & INFRASTRUCTURE DEVELOPMENT						
i	Road Network (Constructed new exist point)	Physical Nos. & Villages	Phuljhar Village	--	Maintenance of Two nos. of bypasses has been planned to construct one in between Anra to Jagadal Dam and another for movement of inward and outward material without using the existing gate after completion	
		Budget in Lacs	5.0	--	50.0	55.0

S. No	Major Activity		Year of Implementation			Total Expenditure (Rs. in Lacs)
			2019-20 (Rs. in Lacs)	2020-21 (Rs. in Lacs)	2021-22 (Rs. in Lacs)	
ii	Installation of Solar Lights	Physical Nos. & Villages	2 nos. (Rugudi Sahi & Rangamatia Sahi) in Phuljahr Village	2 nos. (Mata Sahi & Munda Sahi) in Phuljahr Village	4 nos. (Munda Sahi of Andharikhaman village, Bhuina Sahi, Munda Sahi of Talraiguda village & Mahanta Sahi)	
		Budget in Lacs	6.0	6.0	12.0	24.0
iii	Construction of Community Latrine & Toilets	Physical Nos. & Villages	1 no. each at Rugudi Sahi & Rangamatia Sahi in Phuljhar Village	1 no. each at Mata Sahi, Phuljhar Village & Munda Sahi, Andharikhaman village	1 no. each at Mahanta Sahi, Munda Sahi, Munda Sahi & Bhuina Sahi	
		Budget in Lacs	6.0	6.0	12.0	24.0
iv	Construction of ITI Centre	Physical Nos. & Villages	--	--	1 no. in Phuljhar Village	
		Budget in Lacs	--	--	30.0	30.0
					Total (D)	**133.0**
					Grand Total (A+B+C+D)	**361.0**

9.11.15 Existing capital cost of project was Rs. 133.96 Crores. The capital cost of the proposed project is Rs. 1805.39 Crores and the capital cost for environmental protection measures is proposed as Rs. 50.0 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 10.25 Crores. The employment generation from the proposed expansion is 634 (Direct additional employment - Regular & Contractual). The details of cost for environmental protection measures is as follows:

Sl. No.	Particulars	Capital Cost (Rs. Lakhs)	Recurring Cost (Rs. Lakhs)
1	Air pollution control	4220.0	844.0
2	Water pollution control	126.3	23.5
3	Noise pollution control	8.5	4.5
4	Environmental monitoring and management	265.5	80.45
5	Occupational health	145.0	35.62
6	Green belt	85.6	21.45
7	Others (EIA/EMP, expert advice etc.)	15.3	2.35
8	Conservation Plan for protection of Forest	134.606	13.46
	Total	**5000.5**	**1025.33**

9.11.16 Existing green belt has been developed in 12.171 ha area which is about 33.09% of the total project area of 36.781 ha with total sapling of 18,210 Trees. Proposed greenbelt will be developed in 27.030 ha which is about 34.0% of the total project area 79.501 ha. Thus total of 39.171ha area (33.68% of total project area) will be developed as greenbelt. A 30 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 2,500 trees per hectare. Total no. of 67500 saplings will be planted and nurtured in 27.030 hectares in 4 years.

9.11.17 It has been reported by PP that, there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

Certified Compliance Report from Integrated Regional Office

9.11.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Bhubaneswar vide letter no101-884/18/EPE, dated 25.03.2021 in the name of M/s Ardent Steel Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, Bhubaneswar vide letter no. ASL/MoEF&CC/2022 dated 04.04.2022. MoEF&CC (IRO), Bhubaneswar evaluated the same and has issued letter dated 11.05.2022. The details of the observations made by IRO in the report dated 11.04.2022 along with its re-assessment/present status as furnished by the PP is given as below.

S. No.	Non-compliance details	Observation of IRO	Condition no.			Re-assessment by RO/Response by by PP
			EC date	Specific	General	
1.	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 PM2.5 in reference to PM emission, and S02 and NOX in reference to S02 and NOX emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 1200each), covering upwind and downwind directions.	PAs need to install CAAQMS at the earliest	03.02.2020		II (iii)	The ambient air quality is within the standards stipulated by CPCB. AAQ monitoring is done through a NABL Accredited agency and results are submitted to Ministry's Regional Office at Bhubaneswar/ OPCB/ CPCB once in three month.
2.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	PAs need to provide status of the installation and when it will be completed.	03.02.2020		II (vi)	PTFE Bag Filters have been installed. PP changes Bag Filter in every three months. Differential Pressure has been installed across the bag filter & continuous monitoring is done for the observation for better leakage control & maintenance of bags.
3.	Provide covered shed for raw materials like scrap and sponge iron, lump ore, coal etc	It is recommended to store coal in the shed.	03.02.2020		II (x)	Detailed design of the structure has been completed and execution of the work is completed. Shed has been completed.

S. No.	Non-compliance details	Observation of IRO	Condition no.			Re-assessment by RO/Response by by PP
			EC date	Specific	General	
4.	Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.	PAs need to intimate whether the ventilation system for adequate air changes is according to the ACGIH document for tunnels, Motor houses and oil cellars.	03.02.2020		II (xii)	As per ACGIH proper ventilation & lighting has been done at two nos. of Tunnels, one Motor House & four Cellar. Adequate cross ventilation were arranged in the above site.
5.	The waste oil, grease and other hazardous waste like acidic sludge from pickling, galvanizing, chrome plating mills etc. shall be disposed of as per the Hazardous & Other waste (Management &Transboundary Movement) Rules, 2016.	PAs needs to submit the Toxic metal content in the waste material and its composition and end used and submit it to this office.	03.02.2020		VI (i)	There is no such toxic metal contains in waste material generated from Plant like Used Oil & Oil Sludge (Furnace Oil/LDO)
6.	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.	Pas need to provide details of activities undertaken under CER and their implementation status	03.02.2020		IX (i)	1. IT skill development programms are being conducted to the school students of the nearby villages by company's IT professionals . 2. Distributed of 5000 nos. of saplings to the periphery villagers at a cost of Rs. 1.5 Lakhs. 3. Already supplied of drinking water to nearby villagers at a cost of Rs. 15 lakhs. 4. Already engaged 10 nos. of company recruited teachers and deputed them in different schools of neraby villagers at cost of Rs. 7.8 lakhs per annum. 5. Already engaged dedicated Ambulance at a cost of Rs. 10 lakhs. 6. Already constructed 20 bedded with all equipments & professional to over come Pandemic situation arises due to Covid-19.

9.11.19 M/s. Ardent Steel Limited had earlier made an online application vide proposal no. IA/OR/IND/18852/2013 dated 22/06/2021 and the proposal was considered during 39th meeting of the Re-constituted EAC (Industry-I) held on 30th June - 1st July, 2021 wherein the Committee after deliberations recommended the proposal to be returned in its present form as application for stage 1 FC has not been made by the proponent and the EIA proposal is not in compliance with the prescribed ToRs.

9.11.20 M/s. Ardent Steel Limited has again made an online application vide proposal no. IA/OR/IND/124925/2019 dated 28.06.2022 after addressing the issues made in the previous application by EAC. The proposal is considered in the 9th meeting of the EAC for Industry-I sector held on 14-15th July, 2022. The deliberations and recommendation of the Committee are as follows:

Deliberations by the Committee

9.11.21 The Committee noted the following:

1. The Committee deliberated upon the certified compliance report of IRO MoEFCC as well as action taken report submitted by PP with respect to the observations reported by IRO along with the closure report of IRO. The EAC noted that some of the conditions are still not complied / partially complied. The EAC opined that the project proponent shall submit a photo affidavit for compliance of condition w.r.t. installation of CAAMQS. For other non-complied / partially complied conditions, proponent has submitted that they have complied with the conditions and submitted the report to IRO vide letter dated 07.07.2022. However, IRO has not closed the case. In this regard, EAC advised PP to approach IRO for final closure report after inspection of IRO for further consideration.
2. 3500 nos. of trees are required to be felled at the project site. Project Proponent shall explore the possibility to minimise the felling of trees to bare minimum in their project site.
3. Out of the 116.282 hectare of land, 36.781 hectare of land is already in possession of M/s Ardent Steel Limited & rest of the land (i.e. 79.501 hectare) is under process. PP shall submit the updated status of acquisition of rest of the land (i.e. 79.501 hectare).
4. 01 Nos. artificial ponds (rain water harvesting pond) exists in the project site. Rivers and nallahs exists within the study area from the project site. PP is required to submit the detailed management plan/conservation plan to ensure conservation of water bodies.
5. PP may formulate Village Adoption program consisting of need-based community development activities, in consultation with the district administration and the village panchayats w.r.t. undertaking submitted vide letter dated 15.07.2022 for adoption of 7 villages namely Bhuyansahi, Fuljhar, Rugudisahi, Rangamatia, Andharikhaman, Chhatana and Balabhadrapur.
6. Layout Plan shall be prepared in such a way that the existing GB shall be safeguarded. Further for proposed 27.03 ha of GB @ 2500 density a sufficient water provisions in water balance i.e. around 600 Cum per day shall be provided.
7. The Committee deliberated on the baseline data and observed that Project Proponent has not submitted the GLC Incremental data pertaining to CO.

Recommendations of the Committee

9.11.22 In view of the foregoing and after detailed deliberations, the committee recommended to **defer** the proposal and sought additional information on the points referred at para no. 9.11.21 above. The proposal shall be considered after submission of requisite information on Parivesh portal.

Agenda No. 9.12

9.12 Installation of Ferro-Alloy Plant (SAF 2x9 MVA) and Chrome Ore Briquette Plant (10 TPH) by M/s. Satvik Enterprises Limited located at Mouza: Sahebdihi, PS: Barjora, District: Bankura, West Bengal.

[Proposal No. IA/WB/IND/270104/2022, File No. IA-J-11011/154/2022-IA-II(IND-I)]

9.12.1 Project Proponent, vide an email dated 13h July, 2022, has informed the Ministry that due to unavoidable circumstances, they are unable to attend the meeting. The EAC is of the view that the instant meeting was on Hybrid mode and PP/Consultant can participate the meeting from any of the place through Video conferencing despite that PP is requested for absence. The EAC warned the PP/Consultant that if PP/Consultant is not ready then why applying the proposal on portal. After detailed deliberations, the EAC is of the view that this proposal now may only be placed before the EAC after the request of the project proponent online on Parivesh portal.

Agenda No. 9.13

9.13 Proposed Integrated Cement Plant with capacity of Clinker 2.5 MTPA, Cement – 2.5 MPTA and WHRS - 12 MW by M/s Jindal Panther Cement Pvt. Ltd., located at Villages: Kosampali, Barmuda, Dhanagar, Saraipali, District Raigarh, Chhattisgarh. – Consideration TOR Proposal Additional Condition.

[Proposal No. IA/CG/IND/279025/2022; File No. IA-J-11011/92/2022-IA-II(IND-I)]
[Name of Consultant: M/s. J.M. EnviroNet Pvt. Ltd., Gurugram; QCI NABET Accreditation: valid upto 07/02/2023]

9.13.1 M/s. Jindal Panther Cement Pvt. Ltd has made an application online vide proposal no. IA/CG/IND/279025/2022 dated 27.06.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToR for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S.No. 3 (b) Cement plants Under Category 'A' of the schedule of the EIA Notification, 2006 and appraised at Central Level.

9.13.2 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd., [Sl. No. 41, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/RA 0186 valid till 07/02/2023; Rev. 24, July 05, 2022].

9.13.3 M/s. Jindal Panther Cement Pvt. Ltd had earlier made an application for ToR vide proposal no. IA/CG/IND/260478/2022 dated 17/03/2022. The aforementioned proposal was initially considered by the EAC (Industry 1) in its 3rd EAC meeting held on 11-12th April, 2022. After detailed deliberation, it was observed that

i. Three natural water pond are located in project site.

ii. Two villages are located adjacent to the proposed project site in East and West boundary wherein thick habitation is observed.
iii. There are some constructed sheds located at project site.
iv. Adjacent to the plant site, there is a cement grinding unit and integrated steel plant of the same project proponent.
v. Limestone source for the project is located at distance of 115km and will be transported to the plant site by trucks.
vi. Project proponent has not carried out the alternate site analysis.

In view of the foregoing and after deliberations, the Committee recommended that subcommittee of EAC Industry-1 shall undertake a site visit to the project site and based on the site visit report the instant proposal for ToR shall be considered.

Accordingly, the EAC (Industry-1) sub-committee, conducted a site visit at Villages: Kosampali, Barmuda, Dhanagar, Saraipali, District Raigarh, Chhattisgarh on 03/06/2022 to ascertain the issues for the proposed project "Proposed Integrated Cement Plant with capacity of Clinker 2.5 MTPA, Cement – 2.5 MPTA and WHRS - 12 MW".

At this instance, the proposal was further re-considered by the EAC (Industry 1) in its 7th meeting of EAC held during 13-14th June, 2022. During the meeting, EAC sub-committee presented the site visit report. The deliberations and recommendation of the EAC are as follows:

Deliberation by the Committee (EAC held during 13-14th June, 2022)

The Committee noted the following from the subcommittee's site visit report:

i. There are two other companies of Jindal Group being operated adjacent to the proposed plant.
   1) JSPL ISP being operated after obtaining statutory clearances
   2) JSPL Cement grinding unit being operated after obtaining statutory clearances
ii. Two villages are located adjacent to the proposed project site in East and West boundary wherein thick habitation is observed.
iii. There are some constructed sheds located at project site.
iv. Three natural water pond are located in project site. Total area coved by these ponds is around 13.93 acres. Considerable water exists in one of these ponds even during peak summer time. Nearby Villages are using these ponds.
v. During the meeting Project proponent expressed the willingness to change the plant lay out by avoiding the three natural ponds from project site.
vi. The PP has agreed of revision of TOR application on Parivesh Portal.

Recommendations of the Committee (EAC held during 13-14th June, 2022)

After deliberations considering the aforesaid observations and sub-Committee report, the Committee recommended the proposal of M/s. Jindal Panther Cement Pvt. Ltd. of ToR may be return in present form to revise the application as the whole process is online. New ToR application may be considered with revised land layout and following conditions.

i. Cumulative impact assessment along with integrated risk management study shall be carried out.

ii. Plan to achieve zero liquid discharge shall be submitted.

iii. Traffic management plan shall be submitted.

iv. Integrated water distribution network for all the units of JSPL Group with respect to water drawl from Mahanadi river considering zero ground water abstraction shall be submitted.

v. Three tier Green Belt shall be developed with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. A 50 m wide greenbelt, at plant boundary adjacent to the villages shall be developed for minimising the impact of the proposed project on the habitation.

vi. The layout of plant be in such a way that no discharge/runoff from the plant premises shall enter into the adjacent ponds.

9.13.4 M/s. Jindal Panther Cement Pvt. Ltd has again made a revised application online vide proposal no. IA/CG/IND/279025/2022 dated 27.06.2022 as per the recommendations of EAC with revised land layout and compliance of the aforementioned conditions. Standard ToR was granted by the Ministry on 02.07.2022. The proposal has been placed in the 9th EAC held on 14-15th July, 2022 for providing additional ToR by the Committee. The details of the revised application is as follows:

Details submitted by Project proponent

9.13.5 The project of M/s. Jindal Panther Cement Pvt. Ltd is located at Villages: Kosampali, Barmuda, Dhanagar, Saraipali, District Raigarh, Chhattisgarh proposes for Proposed Integrated Cement Plant with capacity of Clinker 2.5 MTPA, Cement – 2.5 MPTA and WHRS - 12 MW.

9.13.6 Environmental site settings:

S. No	Particulars	Details	Remarks
i.	Total land	65.941 ha [Private land: 35.267 ha; Govt land: 30.055 ha; Forest land: 0.619 ha]	Land Use – Total plant area is 65.941 ha (163 acres) out of which 55.429 ha land has been acquired/ purchased by Jindal Steel & Power Ltd. The same will be transferred to JPCPL. Out of the remaining land i.e. 10.512 ha required for the proposed project, 3.444 ha is Government land, 0.619 ha is Forest land and 6.449 ha is private land which will be converted into Industrial for installation of the Cement Plant.

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEFCC O.M. dated 7/10/2014</td><td>Total plant area is 65.941 ha (163 acres) out of which 55.429 ha land has been acquired/ purchased by Jindal Steel & Power Ltd. The same will be transferred to JPCPL. The land was acquired/ purchased by JSPL for setting up its Cement plant and clinker unit, however JSPL optimized the land and only established 1 MTPA cement grinding unit. The same will be transferred to JPCPL. Out of the remaining land i.e., 10.512 ha required for the proposed project, 3.444 ha is Government land, 0.619 ha is Forest land and 6.449 ha is private land.

<table>
<tr><th>Land Category</th><th>Land acquired</th><th>Land to be acquired</th><th>Total (in ha)</th></tr>
<tr><td>Forest land</td><td>-</td><td>0.619</td><td>0.619</td></tr>
<tr><td>Govt. land</td><td>26.611</td><td>3.444</td><td>30.055</td></tr>
<tr><td>Private land</td><td>28.818</td><td>6.449</td><td>35.267</td></tr>
<tr><td>Total</td><td>55.429</td><td>10.512</td><td>65.941</td></tr>
</table></td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Plant Site – No habitation exists at the plant site.

Study Area
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Gejamuda</td><td>0.18</td><td>E</td></tr>
<tr><td>Muralipali</td><td>1.02</td><td>E</td></tr>
<tr><td>Patrapali</td><td>1.64</td><td>NE</td></tr>
<tr><td>Patrapali</td><td>1.64</td><td>NE</td></tr>
<tr><td>Jorpali</td><td>1.74</td><td>SE</td></tr>
<tr><td>Chiraipani</td><td>2.10</td><td>N</td></tr>
<tr><td>Dhanagar</td><td>2.30</td><td>S</td></tr>
<tr><td>Kalmi</td><td>2.75</td><td>E</td></tr>
<tr><td>Kenapali</td><td>4.00</td><td>SE</td></tr>
<tr><td>Bhagwanpur</td><td>4.58</td><td>E</td></tr>
</table>
*Note: There are approx. 109 villages in the 10 km radius study area of the proposed project site.</td><td>R&R is applicable.</td></tr>
<tr><td></td><td>Latitude and Longitude of all</td><td>
<table>
<tr><th>S.No</th><th>Latitude (N)</th><th>Longitude (E)</th></tr>
<tr><td>1</td><td>21°55'1.70"N</td><td>83°20'17.00"E</td></tr>
</table></td><td>--</td></tr>
</table>

S. No	Particulars	Details			Remarks
	corners of the plant site	2	21°55'0.57"N	83°20'16.94"E	
		3	21°55'0.10"N	83°20'15.49"E	
		4	21°54'55.28"N	83°20'14.01"E	
		5	21°54'52.86"N	83°20'14.34"E	
		6	21°54'45.57"N	83°20'11.50"E	
		7	21°54'33.02"N	83°20'4.04"E	
		8	21°54'33.15"N	83°20'3.76"E	
		9	21°54'30.92"N	83°20'2.41"E	
		10	21°54'30.70"N	83°20'2.71"E	
		11	21°54'24.27"N	83°19'59.26"E	
		12	21°54'12.71"N	83°20'25.73"E	
		13	21°54'22.81"N	83°20'29.73"E	
		14	21°54'32.00"N	83°20'7.40"E	
		15	21°54'47.54"N	83°20'16.54"E	
		16	21°54'43.97"N	83°20'24.46"E	
		17	21°54'35.20"N	83°20'20.41"E	
		18	21°54'35.64"N	83°20'19.70"E	
		19	21°54'33.39"N	83°20'18.62"E	
		20	21°54'33.03"N	83°20'19.33"E	
		21	21°54'28.71"N	83°20'17.17"E	
		22	21°54'23.45"N	83°20'29.94"E	
		23	21°54'31.74"N	83°20'33.31"E	
		24	21°54'36.62"N	83°20'32.96"E	
		25	21°54'40.83"N	83°20'31.74"E	
		26	21°54'41.93"N	83°20'32.08"E	
		27	21°54'45.69"N	83°20'31.50"E	
		28	21°54'46.58"N	83°20'29.57"E	
		29	21°54'47.89"N	83°20'25.28"E	
		30	21°54'51.46"N	83°20'26.25"E	
		31	21°54'54.17"N	83°20'19.20"E	
		32	21°55'0.09"N	83°20'21.01"E	
iv.	Elevation of the plant site	236 m above mean sea level			--
v.	Involvement of Forest land if any.	Area under forest land involved: 0.619 ha.			

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>Application for diversion of the said forest land is under preparation and will be submitted shortly.</td><td></td></tr>
<tr><td>vi.</td><td>Water body exists within the plant site as well as study area</td><td>Project Site: Nil.

Study area:
<table>
<tr><th>S. No</th><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>1.</td><td>Kokritaral Tal</td><td>~3.5 Km</td><td>NW</td></tr>
<tr><td>2.</td><td>Tipakhol Tal</td><td>~3.5 km</td><td>NNE</td></tr>
<tr><td>3.</td><td>Kanthi Tal</td><td>3.0 km</td><td>SSW</td></tr>
<tr><td>4.</td><td>Doliva Nala</td><td>~5.0 km</td><td>WSW</td></tr>
<tr><td>5.</td><td>Kelo river</td><td>~6.5 km</td><td>ENE</td></tr>
<tr><td>6.</td><td>Mand river</td><td>~6 km</td><td>WSW</td></tr>
<tr><td>7.</td><td>Pathari Nala</td><td>~6.5 km</td><td>WSW</td></tr>
<tr><td>8.</td><td>Sanapkhar Nala</td><td>~6.5 km</td><td>ENE</td></tr>
<tr><td>9.</td><td>Ramjharan Nala</td><td>~6.5 Km</td><td>West</td></tr>
</table></td><td>--</td></tr>
<tr><td>vii.</td><td>Existence of ESZ/ ESA/ National Park / Wildlife sanctuary / Biosphere reserve / Tiger reserve / Elephant reserve etc. if any within the study area</td><td>NIL
However, Forests are existing within the Study area are as follows:
• Protected Forest (~8.5 km in ESE direction)
• Protected Forest (~7.5 km in NE direction)
• Lakha PF (~8.0 km in NNE Direction)
• Barkachhar RF (~9.5 km in NNE Direction)
• Dungapani PF (~8.5 km in NE Direction)
• Barlia PF (~9.5 km in NE Direction)
• Boidadar RF (~7.5 km in ENE Direction)
• Gajmar RF (~8.0 km in ESE Direction)
• Lamhidarha PF (~7.5 km in ENE Direction)
• Protected Forest (~6.0 km in NE Direction)
• Urdana RF (~2.5 km in ENE Direction)</td><td>--</td></tr>
</table>

9.13.7 The unit configuration and capacity of proposed project is given as below:

S. No.	Plant equipment / Facility	Proposed Units	
		Configuration	Capacity
1.	Clinker	-	2.5 Million TPA
2.	Cement	VRM	2.5 Million TPA
3.	WHRS	-	12 MW
4.	DG set	-	500 KVA

9.13.8 The details of the raw material requirement for the proposed project along with its source and mode of transportation is given as below:

S No	Name of Raw Material	Quantity (Million TPA)	Source	Approx. Distance from Plant site (Km)	Mode of Transportation
1.	Limestone	3.88	Godadih Mahal No.2 Tehsil Masturi, District Bilaspur	153	By road to the captive railway siding located at Jairamnagar and thereafter by Rail upto Raigarh IU
2.	Iron ore/NOF slag	0.075	JSPL Raigarh	< 1	Will be transported through tippers
3.	BF Slag	1	JSPL Raigarh Steel Plant	< 1	Will be transported through tippers
4.	Gypsum (mineral and chemical)	0.075	Coromandel Fertilizers, Visakhapatnam OR Imported from Middle East	630	By Rail
5.	Fly ash & pond ash	0.375	JSPL Raigarh Power plant	< 1	Through bulkers
6.	Coal (Indian/ Imported Coal)	0.463/ 0.324	Korba coal fields/ imported	120	By Road & Rail
7.	Petcoke	0.241	Indian petroleum industry	Import/ Indian	Petcoke will be sourced from India/ abroad petroleum industry depending upon economic viability.

9.13.9 The water requirement for the plant is estimated as 1000 KLD, which will be sourced from Mahanadi River.

9.13.10 The power requirement for the proposed cement plant will be 35 MVA which will be sourced from Captive power generation and existing power plant of JSPL Raigarh.

9.13.11 The capital cost of the Proposed Integrated Cement Plant is Rs. 2119 Crores and the Capital cost for Environmental Protection Measures is proposed as approximately Rs. 100 Crores. The employment generation from the proposed plant is 80 persons during Implementation Phase and 574 Persons (335 Permanent & 239 Contractual) during Operation Phase.

9.13.12 It has been reported by PP that, court cases related to the project under consideration given as below:

The two court cases (WPC/6171/2011 & WPC/2290/2011) are pending before the Hon'ble High Court of Chhattisgarh, Bilaspur.

i. The matter related to case no. WPC/6171/2011 has been filed by the Petitioner claiming

that notice of the land acquisition proceeding was not served to him due to which he could not have filed proper objection against the land acquisition proceedings. The matter is sub-judice and is pending for final hearing. The Hon'ble High Court has not passed any stay order in the matter.

ii. The matter related to case no. WPC/2290/2011 has been filed by the petitioner alleging that his objections during the land acquisition proceedings were not properly considered and also alleging inadequate land compensation. The matter is sub-judice and is pending for final hearing. The Hon'ble High Court has not passed any stay order in the matter.

9.13.13 Proposed Terms of Reference (Baseline data collection period: March to May, 2022):

Attributes	**Parameters**	**Sampling**		**Remarks**
		No. of Stations	**Frequency**	
A. Meteorology	Temperature, Relative Humidity, Wind Speed, Wind Direction	01 (Plant site)	Hourly	-
B. Air	PM_{10}, $PM_{2.5}$, SO_2, NO_2, CO and PAH	09	Twice a week (24 Hourly)	-
C. Noise	Equivalent noise levels in Leq in dB (A)	09	Once in a season (Day & Night-time)	-
D. Water				
a. Surface water/ b. Ground water quality parameters	Parameters as per IS 10500 - 2012	Surface Water - 04 Ground water - 08	Once in a season	-
E. Land				
a. Soil Quality	Parameters As per IS 2720/USDA	08	Once in a season	-
b. Land Use	Agriculture, Habitation, Industry, Stony waste/ Quarries, Forest area, Plantation/ Vegetation, Open scrub, Water bodies etc.	10 km radius Study Area	Once in a Study period Season	-
F. Biological				
a. Aquatic	Flora and fauna	Study area	Once in a season	-
b. Terrestrial				
G. Socio-economic parameters	Economic Demography	Study area	Once in a season	-

Deliberation by the Committee

9.13.14 The Committee noted the following:

i. Instant proposal is for proposed Integrated Cement Plant with capacity of Clinker 2.5 MTPA, Cement – 2.5 MPTA and WHRS - 12 MW.

ii. M/s. Jindal Panther Cement Pvt. Ltd had earlier made an application for ToR vide proposal no. IA/CG/IND/260478/2022 dated 17/03/2022 and proposal was considered during 3rd EAC meeting held on 11-12th April, 2022 wherein after deliberations, the Committee recommended subcommittee of EAC Industry-1 to undertake a site visit to the project site. Accordingly, the EAC (Industry-1) sub-committee, conducted a site visit on 03/06/2022 to ascertain the issues for the proposed project. The proposal was further re-considered by the EAC (Industry 1) in its 7th meeting of EAC held during 13-14th June, 2022. During the meeting, EAC sub-committee presented the site visit report. After deliberations, the Committee recommended the proposal to be returned in present form to revise the application with revised land layout and other conditions. Accordingly, M/s. Jindal Panther Cement Pvt. Ltd has again made a revised application online vide proposal no. IA/CG/IND/279025/2022 dated 27.06.2022. Standard ToR was granted by the Ministry on 02.07.2022. The proposal has been placed in the 9th EAC held on 14-15th July, 2022 for providing additional ToR by the Committee, if any.

iii. The EAC deliberated on the proposal. Based on the KML file presented by the PP, the proposed Unit is green field project.

iv. Total plant area is 65.941 ha (163 acres) out of which 55.429 ha land has been acquired/ purchased by Jindal Steel & Power Ltd. The same will be transferred to JPCPL. Out of the remaining land i.e., 10.512 ha required for the proposed project, 3.444 ha is Government land, 0.619 ha is Forest land and 6.449 ha is private land.

v. Two court cases (WPC/6171/2011 & WPC/2290/2011) are pending before the Hon'ble High Court of Chhattisgarh, Bilaspur.

Recommendations of the Committee

9.13.15 After deliberations, the Committee **recommended** the project proposal for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2:**

(i) Project proponent shall abide by all orders and judicial pronouncements, made from time to time, passed by Hon'ble High Court of Chhattisgarh, Bilaspur in case no. WPC/6171/2011 and case no. WPC/2290/2011.

(ii) 55.429 ha land acquired/ purchased by Jindal Steel & Power Ltd shall be transferred in the name of M/s. Jindal Panther Cement Pvt. Ltd.

(iii) Project Proponent shall acquire the balance 10.512 ha required for the proposed project.

(iv) Project Proponent shall obtain Forest Clearance for 0.619 ha Forest land involved in the proposed project area.

(v) Action plan for conservation of water bodies located near the project site shall be submitted.

(vi) Action plan for Solid waste utilization shall be submitted.

(vii) Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

(viii) The water permission from the Competent Authority shall be obtained.

(ix) Cumulative impact assessment along with integrated risk management study shall be carried out.

(x) Action Plan to achieve zero liquid discharge shall be submitted.

(xi) Traffic management plan shall be submitted.

(xii) Integrated water distribution network for all the units of JSPL Group with respect to water drawl from Mahanadi river considering zero ground water abstraction shall be submitted.

(xiii) The layout of plant be in such a way that no discharge/runoff from the plant premises shall enter into the adjacent ponds.

(xiv) An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of the project area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years.

(xv) Details of flora and fauna existing in the study area shall duly be authenticated by the concerned DFO of the area. In case of existence of any endangered species and schedule I fauna, authenticated conservation plan shall be submitted.

(xvi) Project proponent shall prepare layout plan showing all internal roads minimum 6 m width and 9m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.

(xvii) Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including rain water harvesting details with calculations mentioning about GW recharge along with relevant drawing.

(xviii) Action plan for fugitive emission control in the plant premises shall be provided.

(xix) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xx) Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

(xxi) The total quantity of PM generated per annum and the percentage of this captured by the pollution control equipment must be reported.

(xxii) A Standard Operation Procedure for arresting emissions (PM as well as gas) when these approach critical values must be established.

Re-Consideration of Modification in ToR Proposal

Agenda No. 9.14

9.14 Establishment of DRI Kilns (Sponge Iron- 2,31,000TPA), Induction Furnace with concast (Billets/ingots /Hot Billets – 3,30,000 TPA), Rolling Mill (2,64,000 TPA), Power Generation – 40 MW (20 MW through Waste Heat Recovery Boiler (WHRB) and 20 WM through Fluidized bed combustion (FBC) Boiler) by M/s. Rama Power and Steel Pvt. Ltd. located at Sy. No. 38/1, 41/1, 42/1 & 2, 43/2, 45/1, 46/3 & 4, 47/1 & 22, 57/1 & 2, CSIDC – 58/1-2, Village: Khamaria, Tehsil: Tehsil: Tilda, District: Raipur, Chhattisgarh –Correction in the Minutes.

[Proposal no. IA/CG/IND/267097/2022; File No. J-11011/278/2020-IA.II(I)]
[Consultant: M/s. Pioneer Enviro Laboratories and Consultants Pvt Ltd; valid upto 21.09.2022]

9.14.1 M/s. Rama Power and Steel Pvt. Ltd. made an application online *vide* proposal no. IA/CG/IND/267097/2022 dated 05.05.2022 along with Form 3, revised Form-1 and revised PFR seeking amendment in Terms of Reference accorded by the Ministry vide letter no. J-11011/278/2020-IA-II (I) dated 14.12.2020. The proposal was considered during 6th EAC meeting held on 30-31st May, 2022 and 7th meeting of the EAC for Industry-I sector held on 13-14th June, 2022. The project proponent, *inter alia*, had proposed for the following amendment w.r.t. water withdrawal:

S. No.	Units	Details as per ToR dated 14th December, 2020	Proposed Amendment in ToR
1.	Water Requirement	1455 KLD water requirement proposed to be sourced water partly from Ground water and **partly from Kirna Reservoir which is at 2.4 kms from the project site**.	900 KLD water requirement proposed to draw partly from Ground water and **partly from Shivnath river which is at a distance of 18 Kms (aerial).**

Recommendations of the Committee (EAC during 7th meeting):

9.14.2 After deliberations, the Committee **recommended** the project proposal for amendment in Terms of Reference no. J-11011/278/2020-IA-II (I) dated 14th December, 2020 with respect to the revised Plant configuration and water with drawl as detailed above. EAC has also recommended the **additional TOR** (i) PP shall submit the Permission letter for Ground water use during EC application. (ii) Project proponent conduct a study on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

Clarification sought by the Project Proponent:

9.14.3 The above recommendations were made in the minutes of 7th meeting of the EAC for Industry-I sector held on 13-14th June, 2022. While processing the proposal, it came to the notice of the Ministry that there is a bit confusion regarding the recommendation made by the EAC w.r.t. water withdrawal. PP has stated that in the ToR dated 14.12.2020, there is a specific condition (i) which reads that *"No ground water abstraction, water to be drawn from Kirna reservoir only."*

9.14.4 In view of the same, the proposal was again placed before the EAC for removing the ambiguity in the PP's submission as there is a mismatching in terms of condition already stipulated in ToR dated 14.12.2020 and the amendment recommended by EAC in the ToR Modification proposal during the 7th meeting held on 13-14th June, 2022.

Recommendations of the Committee:

9.14.5 Considering the above facts, EAC during the 9th meeting held on 14-15th July, 2022 after detailed deliberations, clarified and **recommended** the following modification in TOR:

S. No.	Units	Details as per ToR dated 14th December, 2020	Proposed Amendment in ToR	Justification by PP
1.	Water Requirement	No ground water abstraction, water to be drawn from Kirna reservoir only."	Water required for the project shall be sourced from Shivnath river/Ground water. Permissions shall be obtained for utilisation of surface water/ground water from Central Ground Water Authority (CGWA) as well as Water Resources Department (WRD), Govt. of Chhattisgarh for drawl of water from Shivnath River.	Water from Kirna reservoir is not adequate for our plant requirement. PP propose to draw water from Shivnath river which will have more assured water supply. Hence PP request to consider to permit both the source of water from Shivnath river /ground water. Shivnath river is situated at 18 Kms. from the plant. For laying pipeline it requires some significant time. PP will obtain permission from Central Ground Water Authority (CGWA) as well as Water Resources Department (WRD), Govt. of Chhattisgarh for drawl of water from Shivnath River.

Any Other item with permission of the Chair

Agenda No. 9.15

9.15 Expert opinion/clarification regarding coverage of Activities under Secondary Metallurgy as per the EIA Notification-2006 and amended thereof by M/s Ratnamani Metals and Tube Limited, located at Vastrapur, Ahmedabad, Gujarat- regarding.

[File No: IA-Z-11013/27/2022-IA-II(IND-I), M/s Ratnamani Metals and Tube Limited]

9.15.1 M/s Ratnamani Metals and Tube Limited vide letter dated 14.03.2022 has requested for Expert opinion/clarification regarding coverage of their project activities under Secondary Metallurgy as per the EIA Notification-2006 and amended thereof.

9.15.2 The project of M/s Ratnamani Metals and Tube Limited located at Vastrapur, Ahmedabad, Gujarat involves manufacturing and export of Carbon steel, Stainless-Steel Pipes & Tubes.

Details submitted by Project Proponent

9.15.3 M/s Ratnamani Metals and Tube Limited had filed application with GPCB for CTO. The GPCB interpreted that for making of Pipe/tubes, it is mandatory to seek prior Environment Clearance, taking a view that such activity I falling under metallurgical process under Notification S. O 1533 dated 14th September, 2006 issued by MoEF&CC under Schedule- Projects of Activates in Para 3 (a) Metallurgical Industries (ferrous & non-ferrous).

9.15.4 The project proponent has requested for expert opinion / clarification on the following:

1. To considering the process flow of the industry and clarify it does not fall under the definition of secondary Metallurgy
2. To define the same in the proposed amendments in EIA notification.
3. Requesting to advice concerned authority(GPCB) to issue CTE/CTO amendments.

9.15.5 M/s Ratnamani Metals and Tube Limited has further submitted the following points.

a. Main Raw material used are only Round bar/Coils/Plates/seamless and welded tube/pipes/ Mother Hollows. They don't use ore reduction process, scarp, salvage and ingots as Raw material as mentioned in Para 31 of IL&ES.
b. The secondary metallurgy as per cat (3(a)) includes process of iron making, rerolling, and conventional casting in foundries as an integrated process. PP is not carrying out any kind of melting, iron making, re-rolling, forging, and conventional casting.
c. Under Customs Traffic Act various products are harmonised as per internationally accepted product categories which is understood as Harmonised System Nomenclature (HSN) Accordingly, the Pipes and tubes are classified under Chapter 73 as 'Article of Iron Steel'. Whereas all Steel making activities that have their final product as Round bar, SS HR/CR Coils Plates and Carbon Steel HR/Cils Plates are classified as'lron & Steel' in Chapter 72 of the Tariff.
d. Consider the aforesaid clause c., PP can infer that all steel making activities/process/products are considered separate than the products used as the 'end products'. Considering the same inference, PP feel 'Pipes and Tubes' should not be considered at par with steel making process but as 'Article of Iron & Steel'. Therefore, their

operations should not be subjected to be treated as Secondary Metallurgical process. The segment wise process chart is submitted.

e. The manufacturing process does not involve any induction and electrical arc furnace, submerged arc furnace, and cupola furnace as mentioned in EIA notification -2006.
f. PP has got SS Pipe and Tube plant audited by Schedule-I Auditor (Duly approved by GPCB) and the Auditor have also concluded and certified that our unit do not fall under the applicability of ElA Notification 2006. The said Report is submitted.

Deliberation and Recommendation of the Committee

9.15.6 After detailed deliberations, the Committee advised the project proponent to engage any reputed government / government undertaking institution to examine the process of their industry and give a report whether process adopted in the said industry falls under the purview of Primary / Secondary Metallurgy process or not as per provision of the EIA Notification, 2006 and Technical Guidelines issued under thereon. Based on the submission of the report, the EAC may give its opinion whether the process requires prior EC under EIA Notification, 2006 and amendments thereof.

The meeting ended with vote of thanks to the Chair.

***

ANNEXURE –1

Standard ToR in line with Appendix III of the EIA, 2006. applicable to Proposals Under Industry-1 Sector

Preliminary requirements:

i. EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.

ii. Besides, following points shall be compiled as per QCI/NABET norms:
   a. Disclaimer by the EIA consultant.
   b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
   c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
   d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
   e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

Structure of EIA/EMP report

Executive Summary

i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.

ii. Point wise compliance to the ToR issued by MoEF&CC.

iii. Executive Summary

I. Introduction
   i. Name of the project along with applicable schedule and category as per EIA, 2006.
   ii. Location and accessibility

II. Project description
   i. Resource requirements (Land; water; fuel; manpower)
   ii. Operational activity
   iii. Key pollution concerns

III. Baseline Environment Studies
   i. Ambient air quality
   ii. Ambient Noise quality
   iii. Traffic study
   iv. Surface water quality
   v. Ground water quality
   vi. Soil quality
   vii. Biological Environment
   viii. Land use
   ix. Socio-economic environment

IV. Anticipated impacts
   i. Impact on ambient air quality
   ii. Impact on ambient noise quality
   iii. Impact on road and traffic
   iv. Impact on surface water resource and quality
   v. Impact on ground water resource and quality
   vi. Impact on terrestrial and aquatic habitat
   vii. Impact on socio-economic environment

V. Alternative analysis
VI. Environmental Monitoring program
    i. Ambient air, noise, water and soil quality
    ii. Emission and discharge from the plant
    iii. Green belt
    iv. Social parameters
VII. Additional studies
    i. Risk assessment
    ii. Public consultation
    iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020
VIII. Project benefits
IX. Environment management plan
    i. Air quality management plan
    ii. Noise quality management plan
    iii. Solid and hazardous waste management plan
    iv. Effluent management plan
    v. Storm water management plan
    vi. Occupational health and safety management plan
    vii. Green belt development plan
    viii. Socio-economic management plan
    ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

i. Background about the project
ii. Need of the project
iii. Purpose of the EIA study
iv. Scope of the EIA study

2. Project description

A. Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State.
ii. Site accessibility
iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.
v. Environment settings of the site and its surrounding along with map.
vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.

viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.

ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.

x. Type of land, land use of the project site needs to be submitted.

xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.

xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.

xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.

xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.

xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

B. Forest and wildlife related issues (if applicable):

i. Status of Forest Clearance for the use of forest land shall be submitted.

ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.

iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.

iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

i. Products with capacities in **Tons per Annum** for the proposed project.

ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.

iii. Site preparatory activities.

iv. List of raw materials required and their source along with mode of transportation.

v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
vi. Manufacturing process details along with process flow diagram of proposed units.
vii. Consolidated materials and energy balance for the project.
viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
ix. Water balance diagram
x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
xi. Man-power requirement.
xii. Cost of project and scheduled time of completion.
xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
xiv. Brief on present status of compliance (Expansion/modernization proposals)
   a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
   b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
   c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.
   d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

i. Study period
ii. Approach and methodology for data collection as furnished below.

Attributes	**Sampling**		**Remarks**
	Network	**Frequency**	
A. Air Environment			
Micro-Meteorological • Wind speed (Hourly)			• IS 5182 Part 1-20

Attributes	Sampling		Remarks
	Network	Frequency	
• Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate	Minimum 1 site in the project impact area	1 hourly continuous	• Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants • $PM_{2.5}$ • PM_{10} • SO_2 • NOx • CO • HC • Other parameters relevant to the project and topography of the area	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different parameters should be related to the characteristic properties of the parameters. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from

Attributes	Sampling		Remarks
	Network	Frequency	
			data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
• Hourly equivalent noise levels	At least 8-12 locations	As per CPCB norms	-
C. Water			
Parameters for water quality • pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity • Total nitrogen, total phosphorus, DO, BOD, COD, Phenol • Heavy metals • Total coliforms, faecal coliforms • Phyto-plankton • Zoo-plankton • Microalgae/microalgal bloom	Samples for water quality should be collected and analyzed as per: • IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents • Standard methods for examination of water and wastewater analysis published by American Public Health Association.		
For River Bodies • Total Carbon • pH • Dissolved Oxygen • Biological Oxygen Demand • Free NH4 • Boron • Sodium Absorption Ratio • Electrical Conductivity • TDS	• Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies	• Yield of water sources to be measured during critical season • Standard methodology for collection of surface water (BIS standards)	
For Ground Water	• Ground water monitoring data should be collected at minimum of 8 locations (from existing wells /tube wells/existing current records) from the study area and shall be included.		
D. Traffic Study			

Attributes	Sampling		Remarks
	Network	Frequency	
• Type of vehicles • Frequency of vehicles for transportation of materials • Additional traffic due to proposed project • Parking arrangement	-		
E. Land Environment			
Soil • Particle size distribution • Texture • pH • Electrical conductivity • Cation exchange capacity • Alkali metals • Sodium Absorption Ratio (SAR) • Permeability • Water holding capacity • Porosity	Soil samples be collected as per BIS specifications		
Land use/Landscape • Location code • Total project area • Topography • Drainage (natural) • Cultivated, forest, plantations, water bodies, roads and settlements	-		
E. Biological Environment			
Aquatic • Primary productivity • Aquatic weeds • Enumeration of phyto plankton, zoo plankton and benthos • Fisheries • Diversity indices • Trophic levels • Rare and endangered species • Marine Parks/ Sanctuaries/ closed areas /coastal regulation zone (CRZ)	• 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. Indicator species which indicate ecological and environment degradation should be identified and included to clearly state whether the proposed project would result in to any adverse effect on any species. • Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site. • For forest studies, direction of wind should be considered while selecting forests. • Secondary data to collect from Government offices, NGOs, published literature.		

Attributes	Sampling		Remarks
	Network	Frequency	
Terrestrial • Vegetation-species list, economic importance, forest produce, medicinal value • Importance value index (IVI) of trees • Fauna • Avi fauna • Rare and endangered species • Sanctuaries / National park / Biosphere reserve • Migratory routes			
F. Socio-economic			
• Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education	• Socio-economic survey is based on proportionate, stratified and random sampling method. • Primary data collection through questionnaire • Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies		

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:
- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment

4. Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)

i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

Activity	Environment	Ecological	Socio-economic

Construction phase			
Operation phase			

ii. Impact on ambient air quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase
        - Details of stack emissions from the existing as well as proposed activity.
        - Assessment of ground level concentration of pollutants from the stack emission based on AQIP Modelling The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any along with wind rose map for respective period
        - Impact on ground level concentration, under normal, abnormal and emergency conditions. Measures to handle emergency situations in the event of uncontrolled release of emissions.

iii. Impact on ambient noise quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
    a. Construction phase
    b. Operation phase

5. Analysis of Alternatives (Technology & Site)

i. No project scenario
ii. Site alternative
iii. Technical and social concerns
iv. Conclusion

6. Environmental Monitoring Program

i. Details of the Environment Management Cell
ii. Performance monitoring schedule for all pollution control devices shall be furnished.
iii. Corporate Environment Policy
    a. 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.
    b. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environment or forest norms / conditions? If so, it may be detailed in the EIA.
    c. What is the hierarchical system or Administrative order of the company to deal with the environment issues and for ensuring compliance with the environment clearance conditions? Details of this system may be given.
    d. Does the company have system of reporting of non compliances / violations of environment 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
iv. Action plan for **post-project environment monitoring matrix**:

Activity	**Aspect**	**Monitoring Parameter**	**Location**	**Frequency**	**Responsibility**
Construction phase					
Operation phase					

7. Additional Studies

i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.
iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.
iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S No	**Physical activity and action plan**		**Year of implementation (Budget in INR)**			**Total Expenditure (Rs. in Crores)**
	Name of the Activity	**Physical Targets**	**1st**	**2nd**	**3rd**	

viii. Risk assessment
- Methodology
- Hazard identification
- Frequency analysis
- Consequence analysis
- Risk assessment outcome

ix. Emergency response and preparedness plan

8. Project Benefits
i. Environment benefits
ii. Social infrastructure
iii. Employment and business opportunity
iv. Other tangible benefits

9. Environment Cost Benefit Analysis
i. Net present value
ii. Internal rate of return
iii. Benefit cost ratio
iv. Cost effectiveness analysis

10. Environment Management Plan (Construction and Operation phase)
i. Air quality management plan
ii. Noise quality management plan
iii. Action plan for hazardous waste management

iv. Action plan for solid waste management
v. Action plan for e-waste management.
vi. Action plan for plastic waste management.
vii. Action plan for construction and demolition waste management.
viii. Effluent management plan
ix. Storm water management plan
x. Rain water harvesting plan
xi. Plan for maximum usage of waste water/treated water in the Unit
xii. Occupational health and safety management plan
xiii. Green belt development plan: An action plan for Green Belt development consisting of 3 tiers of plantations of native species all along the periphery of the project of adequate width shall be raised in 33% of total area with a tree density shall not less than 2500 per ha within a time frame of one year shall be submitted. Survival rate of green belt shall be monitored on periodic basis to ensure that survival rate not be less than 80 %.
xiv. Socio-economic management plan
xv. Wildlife conservation plan (In case of presence of schedule I species)
xvi. Total capital cost and recurring cost/annum for environment pollution control measures shall be included.

11. Conclusion of the EIA study

12. In addition to the above, 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.

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ANNEXURE-2

Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment 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 Corporate Responsibility for Environmental Protection (CREP) guidelines shall 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. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.

Standard ToRs FOR INTEGRATED STEEL PLANT [3(a)]

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. PM (PM_{10} and $PM_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.

7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material specially in 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.
21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
25. Action plan for 100 % solid waste utilization shall be submitted.
26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

Standard ToRs FOR METALLURGICAL INDUSTRY (Ferrous and Non-ferrous)[3(a)]

1. 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.
2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.
4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. 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.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.

10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (PM_{10} and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM_{10} to be carried over.

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Standard ToRs FOR PULP AND PAPER INDUSTRY [5(i)]

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.
4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR LEATHER/SKIN/HIDE PROCESSING INDUSTRY [4(f)]

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.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

Standard ToRs FOR COKE OVEN PLANT [4(b)]

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.
6. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019. Provision of CDQ in case of coke oven plant of 0.8 MTPA and above.
7. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
8. Action plan for 100 % solid waste utilization shall be submitted.
9. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR ASBESTOS MILLING AND ASBESTOS BASED PRODUCTS[4(c)]

1. Type of fibres used (Asbestos and others) and preference of selection from techno-environment angle should be furnished
2. 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

3. Technology adopted, flow chart, process description and layout marking areas of potential environment impacts
4. National standards and codes of practice in the use of asbestos particular to the industry should be furnished
5. In case of newly introduced technology, it should include the consequences of any failure of equipment/ technology and the product on environment status.
6. In case of expansion project asbestos fibre to be measured at stack emission and work zone area, besides base line air quality.
7. In case of green field project asbestos fibre to be measured in the ambient air.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM10 and P2.5) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations in case of expansion projects (trace elements /asbestos fibre) of PM10 to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

Standard ToRs FOR IRON ORE BENEFICIATION PLANT [2 (b)]

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.
2. The Project proponent shall submit action plan for conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
3. Treatment details regarding effluent generated from the ore beneficiation plant and the mode of transportation of tailing slurry shall be submitted.
4. Separate chapter on slime management shall be submitted.
5. Action plan for regular monitoring of ground water level and quality in and around the project area of beneficiation plant and tailing/slime pond shall be submitted by establishing a network of existing wells and constructing new piezometers.
6. Details regarding lining of the tailing/slime pond to be provided shall be submitted in order to ensure that there is no leaching from the tailing/slime pond.
7. Details regarding establishment of garland drain around the tailing/slime pond and the quantity of decanted water to be re-circulated from the tailing/slime pond shall be submitted along with complete water balance.
8. Technology to be adopted for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing/slime pond shall be submitted.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

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Executive Summary

Executive summary of the report in about 8/10 pages incorporating the following:

i. Project name and location (Village, Dist, State, Industrial Estate (if applicable)
ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
vi. Capital cost of the project, estimated time of completion
vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of is acquisition, nearby (in 2/3 km.) water body, population, with in 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
x. Likely impact of the project on air, water, land, flora/fauna and nearby population
xi. Emergency preparedness plan in case of natural or in plant emergencies
xii. Issues raised during public hearing (if applicable) and response given
xiii. CSR plan with proposed expenditure.
xiv. Occupational Health Measures
xv. Post project monitoring plan

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ANNEXURE-3

List of the Expert Appraisal Committee (Industry-1) members participated during Physical/Hybrid Mode meeting

S. No.	Name	Position	14/07/2022	15/07/2022
1.	Shri. Rajive Kumar	Chairman	***Present***	***Present***
2.	Dr. S. Ranganathan	Member	***Present***	***Present***
3.	Dr. Ranjit Prasad	Member	***Present***	***Present***
4.	Dr. E V R Raju	Member	***Present***	***Present***
5.	Dr. S. K. Singh	Member	***Present***	***Present***
6.	Dr. Jai Krishna Pandey	Member	***Present***	***Present***
7.	Dr. Dipankar Shome	Member	***Present***	***Present***
8.	Dr. Tejaswini Ananthkumar	Member	***Present***	***Present***
9.	Dr. Hemant Sahasrabuddhe	Member	***Present***	***Present***
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	***Present***	***Present***
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	***Absent***	***Absent***
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH)	Member	***Present***	***Present***
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	***Present***	***Present***
14.	Dr. R.B. Lal, Scientist E, MoEFCC	Member Secretary	***Present***	***Present***

ANNEXURE-4

Approval of EAC Chairman

Email **Additional Director MoEFCC Dr R B LAL**

Re: Draft minutes of the 9th EAC Meeting held on July 14-15, 2022 for approval of Chairman-Regarding

From : rajivekumar1983@gmail.com Mon, Jul 25, 2022 09:30 AM

Subject : Re: Draft minutes of the 9th EAC Meeting held on July 14-15, 2022 for approval of Chairman-Regarding 1 attachment

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Dear Dr Lal,

The draft minutes are approved. Please do needful.

Best wishes
Rajive Kumar

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