

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

Dated: 10.01.2023

Date of Zero Draft MoM sent to EAC: 06.01.2023

Approval by Chairman: 10.01.2023

Uploading on PARIVESH: 10.01.2023

MINUTES OF THE 20th EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON DECEMBER 29, 2022

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

Time: 10:30 AM onwards

DECEMBER 29, 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 'F' & 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 19th Meeting of the EAC (Industry-1 Sector) held during December 16 & 19, 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 **19th Meeting of the EAC (Industry-1 Sector) held during December 16 & 19, 2022** conducted through Video Conferencing, and noted that no request has been received for modifications/factual correction, in the minutes of the 19th EAC meeting for the project/activities, and confirmed the same.

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

Consideration of Environmental Clearance Proposals

Agenda No. 20.1

- 20.1 Expansion of Sponge Iron Plant from 75 TPD to 300 TPD by upgrading DRI Kiln (from 1x75 TPD to 1x100 TPD) and adding new DRI Kilns (2x100TPD) along with 3 MW Captive Power Plant by M/s. Sri. Subramanya Sponge Iron Pvt. Ltd., located at Sy. Nos. 135/2, 135/3, 136A/2, 136/A3 136/B, 138/A of Haraginadoni Village, Ballari Taluk & District, Karnataka- Consideration of Environmental Clearance.**

[Proposal No.: IA/KA/IND1/403604/2022; File No. IA-J-11011/173/2021-IA-II(IND-I)]
[Consultant: Environmental Health and Safety Consultants Pvt. Ltd.; valid upto 22.08.2024]

- 20.1.1 M/s. Sri. Subramanya Sponge Iron Pvt. Ltd. has made an online application vide proposal no. IA/KA/IND1/403604/2022 Dated 12.12.2022 along with copy of EIA/EMP report, Form – 2 and inspection 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 S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 20.1.2 Name of the EIA consultant: M/s. Environmental Health and Safety Consultants Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0241; valid upto 22.02.2024, as on December 21, 2022].

Details submitted by Project proponent

- 20.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
21.04.2021	35 th meeting of EAC held on 30.04.2021	Terms of Reference	17.05.2021	16.05.2024

- 20.1.4 The project of M/s. Sri. Subramanya Sponge Iron Pvt. Ltd. located in Survey Nos. 135/2, 135/3, 136A/2, 136/A3 136/B, 138/A of Haraginadoni Village, Ballari Taluk and District, Karnataka is for Expansion of Sponge Iron Plant from 75 TPD to 300 TPD by upgrading DRI Kiln (from 1x75 TPD to 1x100 TPD) and adding new DRI Kilns (2x100TPD) along with 3 MW Captive Power Plant.
- 20.1.5 Environmental Site Settings:

Sl. No.	Particulars	Details submitted by PP	Remarks																						
1.	Total land	<div>5.94 ha. (14.68 Acres - Private land)</div> <div>Land use: The land is already converted for Industrial Use. Details are as follows:</div> <table><tr><th>Sy.No</th><th>Area in Acres</th><th>Land conversion order no. & date</th></tr><tr><td>138/A</td><td>2.89</td><td>328478 Dt: 25.05.2022</td></tr><tr><td>135/8</td><td>2.63</td><td>328480 Dt: 25.05.2022</td></tr><tr><td>136/A3</td><td>1.18</td><td>328481 Dt: 25.05.2022</td></tr><tr><td>135/2</td><td>1.63</td><td rowspan="3">48/2009-10 Dt: 29.06.2009</td></tr><tr><td>136 A/2</td><td>0.27</td></tr><tr><td>136/B</td><td>6.08</td></tr><tr><td>Total</td><td>14.68</td><td></td></tr></table> <div>Copies of the land conversion documents are submitted.</div>	Sy.No	Area in Acres	Land conversion order no. & date	138/A	2.89	328478 Dt: 25.05.2022	135/8	2.63	328480 Dt: 25.05.2022	136/A3	1.18	328481 Dt: 25.05.2022	135/2	1.63	48/2009-10 Dt: 29.06.2009	136 A/2	0.27	136/B	6.08	Total	14.68		
Sy.No	Area in Acres	Land conversion order no. & date																							
138/A	2.89	328478 Dt: 25.05.2022																							
135/8	2.63	328480 Dt: 25.05.2022																							
136/A3	1.18	328481 Dt: 25.05.2022																							
135/2	1.63	48/2009-10 Dt: 29.06.2009																							
136 A/2	0.27																								
136/B	6.08																								
Total	14.68																								
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	There is no land acquisition involved in this project, the entire land is in the name of M/s. Sri. Subramanya Sponge Iron Pvt. Ltd. and is already converted for Industrial use.	-																						
3.	Existence of habitation & involvement of R&R, if any.	<div>Project site: No habitation exists in the project site</div> <div>Study Area:</div> <table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Haraginadoni Village</td><td>1.35</td><td>NW</td></tr></table>	Habitation	Distance	Direction	Haraginadoni Village	1.35	NW	Status of R&R – There is no R & R involved in this Project																
Habitation	Distance	Direction																							
Haraginadoni Village	1.35	NW																							
4.	Latitude and Longitude of all the corners of project site.	<table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>15° 9'12.16"N</td><td>76°46'50.69"E</td></tr><tr><td>B</td><td>15° 9'18.56"N</td><td>76°46'51.75"E</td></tr><tr><td>C</td><td>15° 9'18.32"N</td><td>76°46'53.97"E</td></tr><tr><td>D</td><td>15° 9'19.80"N</td><td>76°46'54.20"E</td></tr><tr><td>E</td><td>15° 9'18.84"N</td><td>76°47'0.40"E</td></tr><tr><td>F</td><td>15° 9'11.41"N</td><td>76°46'59.28"E</td></tr></table>	Point	Latitude	Longitude	A	15° 9'12.16"N	76°46'50.69"E	B	15° 9'18.56"N	76°46'51.75"E	C	15° 9'18.32"N	76°46'53.97"E	D	15° 9'19.80"N	76°46'54.20"E	E	15° 9'18.84"N	76°47'0.40"E	F	15° 9'11.41"N	76°46'59.28"E	-	
Point	Latitude	Longitude																							
A	15° 9'12.16"N	76°46'50.69"E																							
B	15° 9'18.56"N	76°46'51.75"E																							
C	15° 9'18.32"N	76°46'53.97"E																							
D	15° 9'19.80"N	76°46'54.20"E																							
E	15° 9'18.84"N	76°47'0.40"E																							
F	15° 9'11.41"N	76°46'59.28"E																							
5.	Elevation of the project site	493.7 M above mean sea level	-																						
6.	Involvement of Forest land if any.	No forest land involved in the project land	-																						
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<div>Project site: Nil</div> <div>Study area:</div> <table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Allipura Lake</td><td>6.28 Km</td><td>E</td></tr><tr><td>Tungabhadra High Level Canal</td><td>8.0 Km</td><td>NE</td></tr><tr><td>Chathram Halla</td><td>8.1 Km</td><td>NE</td></tr><tr><td>Lake Near Kolagallu</td><td>8.5 Km</td><td>NE</td></tr><tr><td>Avinamudagu Kere</td><td>9.1 Km</td><td>SW</td></tr></table>	Water body	Distance	Direction	Allipura Lake	6.28 Km	E	Tungabhadra High Level Canal	8.0 Km	NE	Chathram Halla	8.1 Km	NE	Lake Near Kolagallu	8.5 Km	NE	Avinamudagu Kere	9.1 Km	SW	-				
Water body	Distance	Direction																							
Allipura Lake	6.28 Km	E																							
Tungabhadra High Level Canal	8.0 Km	NE																							
Chathram Halla	8.1 Km	NE																							
Lake Near Kolagallu	8.5 Km	NE																							
Avinamudagu Kere	9.1 Km	SW																							

Sl. No.	Particulars	Details submitted by PP	Remarks
8	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil. Reserved forests exist within the study area are: <ul style="list-style-type: none"> • Chikkantapur RF – 5.3 Km, SW • Ballari RF – 5.8 Km, S • Thorangallu RF – 8 Km, NW • Metriki RF – 9.25 Km, S • Marutla extension RF - 9.25Km, SW 	-

20.1.6 M/s. Sri Subramanya Sponge Iron Private Limited (SSSIPL), established in the year 2007. The industry had earlier applied for CFE from the KSPCB for establishment of sponge iron unit with capacity of 75 TPD and the same was refused by the KSPCB on 03.12.2009 and also issued closure directions to industry on 19.09.2011. Later on due to various techno-legals & financial reasons the industry was closed in September, 2011 & State Bank of India who had funded for the project took the custody of the project. Considering the easily availability of raw material & growing demand for sponge iron a new ambitious group was formed & this ambitious New Management approached the State Bank of India & taken over the closed unit. The new management of the M/s. SSSIPL has taken over the entire plant from State Bank of India on 25.10.2017 and paid the dues of State Bank of India and SBI vide letter dated issued No Due Certificate to the industry on 19.05.2018. Currently it is non-operating industry. After that, new management took initiatives and proposed for upgrading the existing facilities.

20.1.7 Implementation status of the existing EC/CTE:

S. No.	Existing Facilities	Units	As per EC/CTE/ CTO	Implementation Status as on	Production as per CTO
1.	Sponge iron manufacturing capacity of 75 TPD	TPD	Not obtained	The existing industry is having sponge iron manufacturing capacity of 75 TPD (1 x 75 TPD Kiln) and which was closed in the year of 2011 and currently it is non-operating industry & earlier the EC/ CFE/ CFO was not obtained for the project.	Not obtained

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

Sl. No.	Plant Equipment / Facility	Existing facilities (EC not obtained)						ProposedUnits		Final (Existing + Proposed)	
		Total(A+B)		Implemented (A)		Un-implemented (B)					
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1	Sponge Iron Manufacturing	1 x 75 TPD Kilns	-	1 x 75 TPD Kilns	-	-	-	Upgradation of Existing 75 TPD kiln to 100 TPD & Installation of new 2 x 100 TPD kilns	99,000 TPA	3 x 100 TPD Kilns	99,000 TPA
2	Captive Power Plant	-	-	-	-	-	-	3 MW Captive Power Plant	3 MW	3 MW Captive Power Plant	3 MW

20.1.9 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	Quantity required per annum	Source	Distance from site (Km)	Mode of Transportation
		Total			
1	Iron Ore	1,98,000	Through E – Action from local suppliers	140 Km	By road through covered trucks
2	Coal	84,150	Imported from Mangalore Port through suppliers	450 Km	By road through covered trucks
3	Lime Stone	4,950	Adjacent districts	160 Km	By road through covered trucks

20.1.10 The water requirement for the proposed project is estimated as 234 m³/day, out of which 10 m³/day of fresh water requirement will be obtained from the Bore well for domestic operations and the remaining requirement of 224 m³/day will be met from Sewage Treatment Plant (Treated water), Ballari City Municipal Corporation and permission for the same has been obtained from Ballari City Municipal Corporation vide letter No. BMP/TS/TNH/15 M.L.D/139/2021-22 dated 21.05.2022. Online application has been submitted on 19.11.2022 towards permission for drawl of groundwater of 10 KLD from KGWA is under process.

20.1.11 The total power requirement for the project is estimated as 1850 KVA for operational phase (Existing expansion and proposed) out of which for existing expansion of 75 to 100 TPD is 500 KVA and for Proposed 2x100 TPD is 1350 KVA. During construction phase the required power met from GESCOM (Gulbarga Electric Supply Company Limited) and during operational phase the required power will be used from 3MW in-house captive power plant.

20.1.12 Baseline Environmental Studies:

Period	October 2021 to December 2021 (Post Monsoon Season)
AAQ parameters at 8 Locations (min and max) for both in	<ul style="list-style-type: none"> PM₁₀ = 41 to 84 µg/m³ PM_{2.5} = 9 to 38 µg/m³ SO₂ = 3.02 to 9.42 µg/m³ NO_x = 8.91 to 25.39 µg/m³

study area and project site	<ul style="list-style-type: none">CO = 0.22 to 1.85 mg/m³				
Incremental GLC level	<ul style="list-style-type: none">PM₁₀ = 1.07 µg/m³ (at 5.8 Km in SSW Direction)SO₂ = 0.36 µg/m³ (at 5.8 Km in SSW Direction),NO_x = 0.56 µg/m³ (at 5.8 Km in SSW Direction).				
Ground water quality at 8 locations	<ul style="list-style-type: none">pH: 6.86 (GW-8) to 7.99 (GW-2)TH: 180 mg/L (GW- 4) to 450 mg/L (GW-8)Chlorides: 123.19 mg/L (GW-1) to 680 mg/L (GW-8)Fluoride: 0.54 mg/L (GW-4) to 1.09 mg/L (GW-3)Heavy metals such as Arsenic, Cadmium, Lead, Copper & Mercury were not detected in any of the collected samples.Trace amount of Zinc were detected in four locations: 0.0261 mg/L (GW-5) to 2.4 (GW-3), Iron : 0.027 mg/L (GW-7) to 0.21 mg/L (GW-8).				
Surface water quality at 5 locations	<ul style="list-style-type: none">pH: 7.49 (SW-2) to 8.10 (SW-4)DO: 4.6 to 5.6 mg/lBOD: 5 to 13 mg/lCOD from 28 to 40 mg/l.				
Noise levels Leq (Day and Night)	<ul style="list-style-type: none">43.9 to 67.34 dB(A) for day time35.42 to 55.68 dB(A) for Night time				
Traffic assessment study findings	<ul style="list-style-type: none">Traffic study has been conducted at study area, the project site is accessed through SH 132 (Kuditini - Ballari Road) is passing at a distance of 1.0 Km in southwest direction & NH-67 (Ballari - Hubballi Road) is passing at a distance of 4.20 Km followed by through Haraginadhoni Road (2 Lane road) which is adjacent to the project site (0 Km).Transportation of raw material, fuel & finished product will be done 100 % by road.Existing PCU is 222 PCU/hr on Haraginadhoni Road (2 Lane road) and existing level of service (LOS) is: A.				
	Road	Volume PCU/day	Capacity	Existing V/C	LoS
	Haraginadoni Road (2- Lane undivided)	1848	15000	0.12	A
	<ul style="list-style-type: none">PCU load after proposed project will be 249 (Existing + Additional) PCU/hr and level of service (LOS) will be: A.				
	Road	Changed V/C and LoS after adding the generated traffic			
		Volume PCU/ day	Capacity	V/C	LoS
	Haraginadoni Road (2-lane undivided)	2329	15000	0.16	A
	<i>* Note: Capacity as per IRC 64-1990 Guide line recommended design service is 15,000 PCU/day for 2 lane roads.</i>				
Conclusion: The level of service will be A including additional traffic due to proposed project.					
V/C		LoS	Performance		

		0.0-0.2	A	Excellent	
		0.2-0.4	B	Very Good	
		0.4-0.6	C	Good	
		0.6-0.8	D	Fair/Average	
		0.8-1.0	E	Poor	
		1.0 & Above	F	Very Poor	
Flora and fauna	In buffer zone Black Kite, Black-shouldered Kite, Indian Peafowl and Shikra are Schedule-I Species recorded. Conservation Plan has been prepared with an allotted budget of Rs. 8 Lakhs & submitted to Karnataka Forest Dept., Ballari which was approved by DCF, Ballari on 10.11.2022 & recommended for approval to PCCF, Bangalore				

20.1.13 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 (TPA)		Mode of Treatment
			Existing	Proposed	
Solid Waste					
1	Domestic Solid Waste	From Workers	-	7.425	Segregated into organic and inorganic solid waste and handed over to local municipal body.
2	Iron Ore Fines	Manufacturing Process	-	19800	Will be sold to pellet plant for manufacturing of pellets & MOU made with Kuntumalla Enterprises for giving Iron ore fines.
3	Char		-	17820	The total char will be utilized for AFBC boiler
4	Ash/ESP Dust/ Bag Filter Dust		-	6600	Sold to Brick Manufacturing Units & MOU made with Sagar Trading company for giving Ash/ ESP Dust/ Bag Filter Dust.
Hazardous Waste					
5	Used Oil	DG sets	-	4 (KL/A)	Handed over to Century Eco Solutions India Private Limited, Tumkur for further process.
6	Oil Soaked Cotton Waste		-	0.025	
7	E-waste	From industry	-	0.015	Disposed to KSPCB authorized agency.
8	Plastic waste	From industry	-	0.02	Handed over to KSPCB approved recyclers
9	Batteries Waste	From industry	-	0.03	Handed over to Battery waste recyclers
10	Biomedical waste	From labours	-	0.017	Handed over to CBMWTF

20.1.14 Public Consultation:

Details of advertisement given	Local newspaper (Kannada) "Kannada Prabha" National newspaper (English) "The Hindu"
--------------------------------	--

	Date of paper advertisement: 05.03.2022
Date of public consultation	05.04.2022
Venue	Project site Premises of M/s. Sri. Subramanya Sponge Iron Pvt. Ltd., Haraginadoni Village, Ballari Taluk & District, Karnataka
Presiding Officer	Additional Deputy Commissioner and Additional District Magistrate, Ballari District, Karnataka
Major issues raised	<ul style="list-style-type: none"> • Pollution levels in the nearby Villages by surrounding industrial cluster is causing Health problems • Provision for Drinking Water Supply to villages • Employment opportunities for local people • Plantation in the region • Infrastructure Development in the region

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

S. No	Physical activity and action plan		Year of implementation (Budget in Lakhs)			Total Expenditure (in Lakhs)	
	Name of the Activity	Physical Targets	1 st year	2 nd year	3 rd year		
1	Support for Agriculture	Construction of Farm Ponds in nearby villages i.e., Haraginadoni, Janikunte Thanda, Belagallu, Belagal Thanda, Veniveerapura, Kuditini, Janikunte Thanda, Janikunte	8 Nos	3 Units i.e., Haraginadoni, Janikunte Thanda & Belagallu	3 Units i.e., Belagal Thanda, Veniveerapura & Kuditini	2 Units i.e., Janikunte Thanda & Janikunte	15.00
				6.0	5.50	3.50	
2	Education	Renovation & construction of classrooms in at Government School Buildings in nearby Villages	2 Nos	1 Unit i.e., Haraginadhoni Village		1 Unit i.e., Belagal Thanda	6.00
				3.0		3.0	
		Conducting awareness programmes in schools & colleges on single use plastic ban in surrounding villages	7 Nos	2 Units at Haraginadhoni Village Govt. School & Tumati Thanda Govt. Schools	3 Units at Kuditini Govt. School, Govt. ITI College & Govt. PU College	2 Units at Belagal & Belagal Thanda Govt. Schools	2.00
				0.60	0.80	0.60	
		Construction toilets in Govt. schools in two villages	2 Nos	-	1 Unit i.e., Haraginadhoni Village	1 Unit i.e., Kuditini	2.00
					1.0	1.0	
		Providing teaching aids/books, Computers, library, Sports materials to schools	3 Nos	1 Unit i.e., Haraginadhoni Village	1 Unit i.e., Kuditini	1 Unit i.e., Belagal Thanda	6.00
				2.0	2.0	2.0	
		Renovation of play grounds in schools	3 Nos	1 Unit i.e., Haraginadhoni Village	1 Unit i.e., Kuditini	1 Unit i.e., Belagal	4.00
				1.50	1.50	1.0	
3	Health	Renovation of Government Hospital at Kuditini	1 No	1 Unit at Kuditini		4.50	
				1.50	1.50		1.50
		Provision of Medical equipment's & required material set at Kuditini	1 No	-	1 Unit at Kuditini		2.00
					1.0	1.0	
		Conducting preventive health programmes on Women and children in the nearby villages i.e, Haraginadhoni Village, Janikunte,	4 Nos	2 Units (Haraginadhoni Village & Janikunte)	1 Unit (Belagallu)	1 Unit (Veniveerapura)	2.00

S. No	Physical activity and action plan			Year of implementation (Budget in Lakhs)			Total Expenditure (in Lakhs)
	Name of the Activity		Physical Targets	1 st year	2 nd year	3 rd year	
		Belagallu & Veniveerapura		0.70	0.70	0.60	
		Distribution of need-based medicines in the villages i.e., Haraginadhoni Village, Kuditini, Janikunte, Janikunte Thanda, Veniveerapura & Bealgallu	6 Nos	2 Units at Haraginadhoni Village & Kuditini 0.60	2 Units at Janikunte & Janikunte Thanda 0.70	2 Units at Veniveerapura & Bealgallu 0.70	2.00
		Distribution of First Aid kits schools & Anganwadis of Haraginadhoni & Veniveerapura	2 Nos	-	1 Unit i.e., Haraginadhoni 0.75	1 Unit i.e., Veniveerapura 0.75	1.50
4	Plantation around lakes	Planting various native species around the lakes of Haraginadoni, Lake near Kuditini and Kolagal Lake	1500 Saplings	500 Saplings around Haraginadoni Lake 1.0	500 Saplings around Lake near Kuditini 1.0	500 Saplings around Kolagal Lake 1.0	3.0
Total cost in Lakhs				16.90	16.45	16.65	50.00
Action Plan & Physical Target for issues raised in Public Hearing Held on 05.04.2022							
1	Pollution levels in the nearby Villages by industrial cluster is causing Health problems	M/s. Sri. Subramanya Sponge Iron Pvt. Ltd. has to undertake that, all the necessary APCEs will be installed to avoid dust pollution causing health impacts. However Medical Camps & Health check-ups will be carried out in the surrounding villages i.e., Haraginadoni, Janikunte, Janikunte Thanda, Vaniveerapura, Belagallu & Kuditini	750 Nos @ 6 Villages	2 Unit i.e., 250 Nos Haraginadoni & Janikunte 4.50	2 Unit i.e., 250 Nos Vaniveerapura & Janikunte Thanda 5.0	2 Units i.e., 250 Nos Belagallu & Kuditini 4.50	14.0
2	Provision for Drinking Water Supply	SSSIPL has proposed to make provision of drinking water facilities in Haraginadhoni Village, Veniveerapura and Janikunte Village	3 Nos	1 Unit at Haraginadhoni Village 4.00	1 Unit at Veniveerapura 4.00	1 Units at Janikunte Village 4.00	12.00
3	Employment	Provision of 150 No of employment opportunities to local villagers i.e., Haraginadoni Village, Belgal Village, Belgal Thanda, Janikunte and Janikunte Thanda and providing training on innovative courses to Youth in local villages	Training to 600 Nos	200 Nos 2.00	200 Nos 2.00	200 Nos 2.00	6.00
4	Plantation	Planting various native species in immediate villages i.e., Haraginadoni, Janikunte, Janikunte Thanda & Veniveerapura & also along the road from Haraginadoni Village to Industry	3,000 Saplings	1000 Saplings 2.00	1000 Saplings 2.00	1000 Saplings 2.00	6.00
5	Infrastructure Development	Provision of water storage facilities for cattles in 4 Villages i.e., Haraginadoni, Janikunte, Belagal Thanda & Veniveerapura	4 Nos	1 Unit at Haraginadoni 0.50	2 Units at Janikunte & Belagal Thanda 1.0	1 Unit at Veniveerapura 0.50	2.00
		Desilting & renovation of lake bunds in Haraginadoni lake & Kolagal Lake	2 Nos	1 Unit at Haraginadhoni Lake 3.00	1 Unit at Kolagal Lake 3.00	-	6.00
		Construction of Drains in	2 Nos	-	1 Unit at	1 Unit at	4.00

S. No	Physical activity and action plan		Year of implementation (Budget in Lakhs)			Total Expenditure (in Lakhs)
	Name of the Activity	Physical Targets	1 st year	2 nd year	3 rd year	
	Haraginadoni & Veniveerapura			Haraginadoni 2.00	Veniveerapura 2.00	
	Total cost in Lakhs		16.00	19.00	15.00	50.00

20.1.15 The existing capital cost of project was 18.50 Crores. The capital cost of the proposed project is Rs. 49 Crores and the capital cost for environmental protection measures is proposed as Rs. 5.02 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 0.66 Crores. The employment generation from the proposed project is 150 Nos. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Existing (in lakhs)		Proposed (in lakhs)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
1.	Air Pollution Control / Noise Management				
	Air Pollution Control Equipment such as Fume extraction system with bag filters, stack arrangements, Truck mounted mist cannons/dry fog systems & Purchasing of vacuum cleaner	-	-	220.00	8.00
	Continuous online monitoring for stack emissions	-	-	30.00	3.50
	Stack arrangements for DG set & other sources of emissions	-	-	15.50	2.00
	Water Sprinklers with truck mounted mist system	-	-	50.00	4.00
	Provision of PPEs for workers, enclosures and barriers for attenuation of noise	-	-	15.00	3.00
	Increase of boundary wall height	-	-	10.00	-
	Metallic slip seal to kiln inlet & outlets, closed wood system for collected of ESP dust, chutes for bag filters	-	-	15.00	5.00
2.	Water Pollution Control				
	Installation of STP	-	-	16.00	3.00
	Provision of garland drains and catch pit	-	-	7.00	2.00
	Rainwater harvesting	-	-	20.00	
3.	Provision of additional sheds for storage of raw materials/ finished products	-	-	25.00	2.00
4.	Environmental Monitoring & Management	-	-	2.95	10.26
5.	Solid & hazardous waste management	-	-	6.50	2.00
6.	Greenbelt development	-	-	10.00	10.95
7.	Traffic management and asphalting of internal roads	-	-	30.00	3.00

S. No.	Description of Item	Existing (in lakhs)		Proposed (in lakhs)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
8.	Occupational health and safety	-	-	15.00	6.00
9.	Provision of solar lighting as part of Energy Conservation measures	-	-	6.05	2.00
10.	Conservation Plan for Schedule-I Species	-	-	8.00	-
Total				502.00	66.71

20.1.16 Existing green belt has been developed in 1.0 ha (2.48 acres) area which is about 35% of the total project area of the existing industry 2.83 ha (7 Acres) with total sapling of 2500 Trees. Proposed greenbelt will be developed in 1.043 ha (2.55 Acres) which is about 17.55 % of the total project area (5.94 Ha). Thus total of 2.043 ha area (34 % of total project area) will be developed as greenbelt. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 4900 saplings will be planted and nurtured in 2.043 hectares in 3 years.

20.1.17 It is submitted that M/s Sri Subramanya Sponge Iron Pvt Ltd withdrew the writ petition filed at Hon'ble High Court of Karnataka in WP No 39266/2019 and based on the request of the M/s Sri Subramanya Sponge Iron Pvt Ltd., Hon'ble High Court of Karnataka disposed the petition on 09.11.2021 and the copy of the order dated 09.11.2021 is submitted.

Inspection report from Regional office, SPCB

20.1.18 Environmental officer, KSPCB, Regional Office, Ballari inspected the site on 21.09.2022 and made the following observations:

Infrastructure facilities available at site:

Sl.No	Particulars	Capacity	Remarks
1	Rotary Kiln 1 x 75 TPD	Chimney of height 40 m AGL attached with GCT and ESP	Machinery is in rusted condition and needs maintenance
2	Coal Crushing and Screening System	Chimney of height 10 m AGL with Bag filters	
3	Cooler Discharge	Chimney of height 10 m AGL with Bag filters	
4	Iron ore crushing and screening system	--	
5	Intermediate Bin	Chimney of height 10 m AGL with Bag filters	
6	DG Set 400 KVA	Chimney provided with 7 m ARL	Needs Maintenance

Other observations:

1. The Plant was not in operation and the machinery was lying unused over a long period of time. The machinery needs maintenance.

2. Provided Chimney of height 40 m to Rotary kiln (1 x 75 TPD) with GCT and ESP as APC measure.
3. Provided Raw material storage shed.
4. Provided compound wall along with the boundary of the industry.
5. Provided Weigh Bridge, Laboratory and Labor rooms facility within the premises.
6. Conveyors are closed with semi-circular MS sheets.
7. Housekeeping is good, there is a scope for future improvement.
8. Project Proponent informed that total land area available within the existing industry is 3.229 Ha and they have purchased additional land of 2.71 Ha totaling to 5.94 Ha. The project proponent recently in the month of August, 2022 has planted about 1500 trees within the plant premises to develop greenbelt.

Written representations:

20.1.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 29.12.2022 through email dated 29.12.2022 submitted the following information:

Sl.No	Observation	Compliance			
		Sl. No.	Requirement	Compliance	
1.	Compliance as per CPCB siting guidelines with respect to establishment of Sponge Iron Industry	1	The plant should be at a distance of at least 1 Km from residential habitation and Ecologically or otherwise sensitive area.	The nearest village is Haraginadoni Village which is 1.35 Km away from the plant in Southwest direction.	
		2	The plants should be at least 500 m from the National and State Highways.	The Plant is located at a distance of 1.0 Km away from SH 132 (Kuditini-Ballari Road) in southwest direction and 4.20 Km away from NH-67 (Ballari - Hubballi Road) in NE direction.	
		3	Radial distance between two plants should be 5 Km for plants with 0.165 MTPA capacities.	The plants located within 5 Km radius around the industry are Hothur Ispat Pvt Ltd (300 TPD), Hindusthan Steels (200 TPD), Jai Raj Ispat Limited (200 TPD), Suvan Steels (100 TPD), PGM Ferro Steels (200 TPD), Agarwal Sponge and Energy Pvt Ltd (300 TPD).	
		4	If any plant/cluster is located within 1 Km from any residential area/village, they may be shifted by the SPCB/State government in a phased manner.	The Plant is located at a distance of 1.35 Km from the nearest village Haraganadoni.	
2.	Details on day to day disposal of Solid Waste in the industry	Sl. No	Particulars	Quantity TPD	Mode of Disposal
		By-product			
		1	Iron Ore Fines	60 TPD	It will be sold to pellet plant for manufacturing of pellets & MOU made with Kuntumalla Enterprises for giving Iron ore fines.
		2	Char	54 TPD	The total char will be utilized in the AFBC boiler

Sl.No	Observation	Compliance																									
		3	Ash/ESP Dust/Bag Filter Dust	20 TPD	Sold to Brick Manufacturing Units & MOU made with Sagar Trading company for giving Ash/ESP Dust/Bag Filter Dust.																						
		Other Wastes																									
		1	Used Oil	4 KL/A	Handed over to Century Eco Solutions India Private Limited, Tumkur for further process.																						
		2	Oil Soaked Cotton Waste	25 Kgs/A																							
		3	Empty Barrels/Containers	10-15 Nos	Disposed to KSPCB authorized agency.																						
		4	E-waste	0.01 TPA	Disposed to KSPCB authorized agency.																						
		5	Plastic waste	0.02 TPA	Handed over to KSPCB approved recyclers																						
		6	Batteries Waste	0.03 TPA	Handed over to Battery waste recyclers																						
		7	Biomedical waste	0.017 TPA	Handed over to CBMWTF																						
	8	Domestic Solid Waste from Workers	22.5 Kg/day	Segregated into organic and inorganic solid waste and handed over to Ballari Municipal Corporation																							
3.	Land conversion documents	Total land of the industry is 14.68 Acres and the land conversion details for industrial purpose is as follows; <table><tr><th>Sy.No</th><th>Area in Acres</th><th>Land conversion order no. & date</th></tr><tr><td>138/A</td><td>2.89</td><td>328478 Dt: 25.05.2022</td></tr><tr><td>135/8</td><td>2.63</td><td>328480 Dt: 25.05.2022</td></tr><tr><td>136/A3</td><td>1.18</td><td>328481 Dt: 25.05.2022</td></tr><tr><td>135/2</td><td>1.63</td><td rowspan="3">48/2009-10 Dt: 29.06.2009</td></tr><tr><td>136 A/2</td><td>0.27</td></tr><tr><td>136/B</td><td>6.08</td></tr><tr><td>Total</td><td>14.68</td><td></td></tr></table>				Sy.No	Area in Acres	Land conversion order no. & date	138/A	2.89	328478 Dt: 25.05.2022	135/8	2.63	328480 Dt: 25.05.2022	136/A3	1.18	328481 Dt: 25.05.2022	135/2	1.63	48/2009-10 Dt: 29.06.2009	136 A/2	0.27	136/B	6.08	Total	14.68	
Sy.No	Area in Acres	Land conversion order no. & date																									
138/A	2.89	328478 Dt: 25.05.2022																									
135/8	2.63	328480 Dt: 25.05.2022																									
136/A3	1.18	328481 Dt: 25.05.2022																									
135/2	1.63	48/2009-10 Dt: 29.06.2009																									
136 A/2	0.27																										
136/B	6.08																										
Total	14.68																										
		Copies of the land conversion documents are submitted.																									
4.	Details of Court case	M/s Sri Subramanya Sponge Iron Pvt Ltd withdraw the writ petition filed at Hon’ble High Court of Karnataka in WP No 39266/2019 and based on the request of the M/s Sri Subramanya Sponge Iron Pvt Ltd Hon’ble High Court of Karnataka disposed the petition on 09.11.2021 and the copy of the order is enclosed as Annexure-2 .																									
5.	Acknowledgment towards obtaining NOC from KSPCB to re-start the industry with all the necessary and mandatory approvals since Closure order was issued earlier.	M/s Sri Subramanya Sponge Iron Pvt Ltd submitted a request to KSPCB on 29.12.2022 for issuance of NOC to restart the industry with all the necessary and mandatory approvals. The acknowledgment copy is submitted.																									

Deliberations by the Committee

20.1.20 The Committee noted the following:

1. The instant proposal is for expansion of Sponge Iron Plant from 75 TPD to 300 TPD by upgrading DRI Kiln (from 1x75 TPD to 1x100 TPD) and adding new DRI Kilns (2x100TPD) along with 3 MW Captive Power Plant.
2. M/s. Sri Subramanya Sponge Iron Private Limited (SSSIPL), established in the year 2007. The industry had earlier applied for CFE from the KSPCB for establishment of sponge iron unit with capacity of 75 TPD and the same was refused by the KSPCB on 03.12.2009 and also issued closure directions to industry on 19.09.2011. Later on due to various techno-legals & financial reasons the industry was closed in September 2011 & State Bank of India who had funded for the project took the custody of the project. Considering the easily availability of raw material & growing demand for sponge iron a new ambitious group was formed & this ambitious New Management approached the State Bank of India & taken over the closed unit. The new management of the M/s. SSSIPL has taken over the entire plant from State Bank of India on 25.10.2017 and paid the dues of State Bank of India and SBI vide letter dated issued No Due Certificate to the industry on 19.05.2018. Currently it is non-operating industry. After that, new management took initiatives and proposed for upgrading the existing facilities.
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 the 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 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 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. Total land area available within the existing industry is 3.229 Ha and they have purchased additional land of 2.71 Ha totaling to 5.94 Ha. The entire land is in the name of M/s. Sri. Subramanya Sponge Iron Pvt. Ltd. and is already converted for Industrial use.
7. The nearest habitation to plant is Haraginadoni village located at 1.35 away from the project site boundary in NW direction.
8. The water requirement for the proposed project is estimated as 234 m³/day, out of which 10 m³/day of fresh water requirement will be obtained from the Bore well for domestic operations and the remaining requirement of 224 m³/day will be met from Sewage Treatment Plant (Treated water), Ballari City Municipal Corporation.

9. Allipura Lake (6.28 Km, E), Tungabhadra High Level Canal (8.0 Km, NE), Chathram Halla (8.1 Km, NE), Lake Near Kolagallu (8.5 Km, NE) and Avinamudagu Kere (9.1 Km, SW) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
10. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
11. The EAC noted that existing green belt has been developed in 1.0 ha (2.48 acres) area which is about 35% of the total project area of the existing industry 2.83 ha (7 Acres) with total sapling of 2500 Trees. Proposed greenbelt will be developed in 1.043 ha (2.55 Acres) which is about 17.55 % of the total project area (5.94 Ha). Thus total of 2.043 ha area (34 % of total project area) will be developed as greenbelt. Total no. of 4900 saplings will be planted and nurtured in 2.043 hectares in 3 years. The Committee deliberated on the action plan and budget allocation for green belt development and is of the view that the greenbelt shall be completed within a span of one year.
12. The EAC noted that in buffer zone Black Kite, Black-shouldered Kite, Indian Peafowl and Shikra are Schedule-I Species are recorded. Conservation Plan has been prepared with an allotted budget of Rs. 8 Lakhs & submitted to Karnataka Forest Dept., Ballari which was approved by DCF, Ballari on 10.11.2022 & recommended for approval to PCCF, Bangalore.
13. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
14. The Committee 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.
15. The Committee also took note of the inspection report of RO, SPCB while appraising the proposal and based on the report the EAC noted that the earlier Unit was sick Unit and now the new management has taken over. The Plant was not in operation since 2011 and the machinery was lying unused over a long period of time. The machinery needs maintenance.
16. The Committee also deliberated on the written submission of PP and found it satisfactory.
17. 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.
18. 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:

20.1.21 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 and subject to the stipulation of following specific conditions and general conditions;

A. Specific Condition:

- 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 water requirement for the proposed project is estimated as 234 m³/day, out of which 10 m³/day of fresh water requirement shall be obtained from the Bore well for domestic operations and the remaining requirement of 224 m³/day shall be met from Sewage Treatment Plant (Treated water), Ballari City Municipal Corporation after obtaining necessary permissions.
- iv. Following additional arrangements to control fugitive dust shall be provided:
 - a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
 - b. Proper covered vehicle shall be used while transport of materials.
 - c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- v. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.
- vi. Scheme for 100% waste utilization shall be implemented. No dumping shall be permitted.
- vii. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.
- viii. 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.
- ix. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Regional Office of the MoEF&CC.
- x. Particulate matter emission from stacks shall be less than 30 mg/Nm³. Action plan submitted to limit the dust emission shall be strictly implemented.

- xi. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant.
- xii. Allipura Lake (6.28 Km, E), Tungabhadra High Level Canal (8.0 Km, NE), Chathram Halla (8.1 Km, NE), Lake Near Kolagallu (8.5 Km, NE) and Avinamudagu Kere (9.1 Km, SW) are flowing within 10 Km. radius of the plant site. A robust and full proof 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.
- xiii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- xiv. The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
- xv. The nearest habitation to plant is Haraginadoni village located at 1.35 away from the project site boundary in NW direction. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this locations in its environmental monitoring programme.
- xvi. The PP shall undertake village adoption programme and implement a robust plan for socio-economic development of these villages to develop them into model villages in 10 years.
- xvii. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- xviii. Three tier Green Belt shall be developed in at least 33% of the project area in a time frame of 1 year as per the commitment 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. Gap filling shall be undertaken and 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. PP shall develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy to act as green barrier for air pollution & noise levels towards the Haraginadoni village inside the plant premises. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- xix. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- xx. Dolochar generated from DRI kiln shall be completely utilised in CPP.
- xxi. Air Cooled condensers shall be used in the captive power plant.
- xxii. Indian coal shall be used in the Captive Power Plant as committed by project proponent.
- xxiii. The PP shall install carbon-monoxide sensors at appropriate locations for monitoring of CO gas and submit the compliance status to concerned Integrated Regional Office of the MoEF&CC.
- xxiv. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

- xxv. 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 Integrated Regional Office of MoEF&CC.
- xxvi. 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.
- 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.
- xxix. An Action plan for waste disposal and reusing of fines shall be implemented and monitored on a regular basis.

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 two 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 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 laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iii. 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.
- iv. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.
- vii. Plant internal roads shall be concreted and a vacuum cleaner shall be used to regularly clean the roads.
- viii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
- ix. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); 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. 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.

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. Used refractories shall be recycled as far as possible.
- ii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused in melting Furnaces.
- 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 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.

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).
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.
- iv. The PP shall facilitate and collaborate with the Educational University/Institution primarily handling the issues related to Rural development and Panchayat Raj for the betterment of the people located within the study area of the project.
- v. The PP should develop farm ponds in agriculture areas and the village adoption program should focus on economic and ecological aspects as well besides other activities.

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 approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly 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. 20.2

- 20.2 Greenfield project for production of 70,500 TPA Billets through 1x350 TPD DRI kilns with Hydrogen Injection System, 1x25 T Induction Furnace with Billet Caster, 2x20 T Gas Oxygen Refiner and 10 MW Captive Power Plant by M/s Raiseland Steel Pvt. Ltd., located at Village: Dhatara P.S: Raghunathpur, District: Purulia, West Bengal- Consideration of Environmental Clearance.**

[Proposal No. IA/WB/IND1/401516/2022; File No. J-11011/64/2020-IA-II(I)]
[Consultant : Vardan Environet; Valid upto 05.05.2023]

- 20.2.1 M/s Raiseland Steel Pvt. Ltd has made an online application vide proposal no. IA/WB/IND1/401516/2022 dated 13.12.2022 along with copy of EIA/EMP report, Form – 2 seeking Environmental Clearance under 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 Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 20.2.2 Name of the EIA consultant: M/s Vardan Environet [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0158; valid upto 05.05.2023, as on December 21, 2022].
- 20.2.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
27.02.2020	17 th meeting of REAC (Industry-1) held on 9 th April, 2020	Terms of Reference	22.05.2020	21.05.2024

Details submitted by the project proponent

- 20.2.4 The project of M/s Raiseland Steel Pvt. Ltd., located at Village: Dhatara P.S: Raghunathpur, District: Purulia, West Bengal is for production of 70,500 TPA Billets through 1x350 TPD DRI kilns with Hydrogen Injection System, 1x25 T Induction Furnace with Billet Caster, 2x20 T Gas Oxygen Refiner and 10 MW Captive Power Plant. The targeted production capacity of the plant is 0.0705 million TPA of MS Billets.
- 20.2.5 Environmental site settings

S. No.	Particulars	Details submitted by PP	Remarks
1	Total land	16.285 Ha (40.22 Acres) [Private land]	Present land form is Industrial
2	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land has already been acquired. Land was earlier in the name of Daynight Beverage Pvt. Ltd. Name has been changed to	--

S. No.	Particulars	Details submitted by PP	Remarks																														
		Raiseland Steel Pvt. Ltd as per Certificate of Incorporation pursuant to change of name issued from ROC, Ministry of Corporate Affairs on 15.02.2019.																															
3	Existence of habitation & involvement of R&R, if any.	<div>R&R is not applicable</div> <div>Existence of Habitation</div> <div>Project Site – Nil</div> <div>Study Area</div> <table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Dhatara</td><td>0.95 km</td><td>South</td></tr></table>	Habitation	Distance	Direction	Dhatara	0.95 km	South	--																								
Habitation	Distance	Direction																															
Dhatara	0.95 km	South																															
4	Latitude and Longitude of all corners of the project site.	<table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>23° 36' 45.9" N</td><td>86° 42' 27.0" E</td></tr><tr><td>B</td><td>23° 36' 51.1" N</td><td>86° 42' 35.0" E</td></tr><tr><td>C</td><td>23° 36' 52.3" N</td><td>86° 42' 37.2" E</td></tr><tr><td>D</td><td>23° 36' 57.2" N</td><td>86° 42' 43.0" E</td></tr><tr><td>E</td><td>23° 36' 55.1" N</td><td>86° 42' 49.4" E</td></tr><tr><td>F</td><td>23° 36' 43.2" N</td><td>86° 42' 44.8" E</td></tr><tr><td>G</td><td>23° 36' 41.6" N</td><td>86° 42' 39.5" E</td></tr><tr><td>H</td><td>23° 36' 42.2" N</td><td>86° 42' 27.8" E</td></tr><tr><td>I</td><td>23° 36' 44.5" N</td><td>86° 42' 27.9" E</td></tr></table>	Point	Latitude	Longitude	A	23° 36' 45.9" N	86° 42' 27.0" E	B	23° 36' 51.1" N	86° 42' 35.0" E	C	23° 36' 52.3" N	86° 42' 37.2" E	D	23° 36' 57.2" N	86° 42' 43.0" E	E	23° 36' 55.1" N	86° 42' 49.4" E	F	23° 36' 43.2" N	86° 42' 44.8" E	G	23° 36' 41.6" N	86° 42' 39.5" E	H	23° 36' 42.2" N	86° 42' 27.8" E	I	23° 36' 44.5" N	86° 42' 27.9" E	--
Point	Latitude	Longitude																															
A	23° 36' 45.9" N	86° 42' 27.0" E																															
B	23° 36' 51.1" N	86° 42' 35.0" E																															
C	23° 36' 52.3" N	86° 42' 37.2" E																															
D	23° 36' 57.2" N	86° 42' 43.0" E																															
E	23° 36' 55.1" N	86° 42' 49.4" E																															
F	23° 36' 43.2" N	86° 42' 44.8" E																															
G	23° 36' 41.6" N	86° 42' 39.5" E																															
H	23° 36' 42.2" N	86° 42' 27.8" E																															
I	23° 36' 44.5" N	86° 42' 27.9" E																															
5	Elevation of the project site	137 m above mean sea level	--																														
6	Involvement of Forest land, if any	No involvement of Forest Land	--																														
7	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<div>Project Site: No water bodies within the project site</div> <div>Study area</div> <table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Uttala nadi</td><td>1.25</td><td>W</td></tr><tr><td>Atta nadi</td><td>6.32</td><td>SW</td></tr><tr><td>Pathartikuri nadi</td><td>6.51</td><td>SW</td></tr><tr><td>Panchet Reservoir</td><td>8.0</td><td>NW</td></tr></table>	Water Body	Distance	Direction	Uttala nadi	1.25	W	Atta nadi	6.32	SW	Pathartikuri nadi	6.51	SW	Panchet Reservoir	8.0	NW	--															
Water Body	Distance	Direction																															
Uttala nadi	1.25	W																															
Atta nadi	6.32	SW																															
Pathartikuri nadi	6.51	SW																															
Panchet Reservoir	8.0	NW																															
8	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<div>Nil</div> <div>Reserved Forests:</div> <div>Panchet RF – (3.2 Km, NE)</div> <div>Senara RF – (5 km, S)</div>	--																														

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

Units	Facilities	Production Capacity (TPA)
Sponge Iron Plant		
DRI Kiln with Hydrogen Injection System	1x350 TPD	105,000
Steel Melting Shop		
Induction Furnaces	1x25 Tons	75,000
Gas Oxygen Refiner	2x20 Ton	71,250
CCM (Billet Caster)	6/11m	70,500
CPP – 10 MW		
WHRB	36 TPH	8 MW
AFBC	9 TPH	2 MW

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

Sl. No.	Raw Material	Quantity (TPA)	Source	Dist. (km) (w.r.t. Plant)	Mode of Transport
1.	Iron Ore	173,250	Barbil, Odisha	255	By Road
	Or Pellets	157,500	Jamshedpur	130	By Road
3.	Coal	77,063	South Africa	308	By Ship up to Haldia Port, then by road
4.	Dolomite	5,250	Local Market	100	By Road
5.	Scrap (10%)	9,375	Local Market + In house	50	By Road
6.	Pig Iron (5%)	4,688	Local Market	100	By Road
7.	Ferro-Alloy	1499	Local Market	50	By Road
8.	Coke	675	Local Market	50	By Road
9.	Flux	5,250	Local Market	50	By Road
10.	Lime Stone	4,275	Local Market	100	By Road
12.	Boiler Coal	7,200	Local Market	70	By Road

20.2.8 The water requirement for proposed project is estimated as 1118 KLD. Water will be sourced from Panchet Dam. Permission for drawl of 0.132 MGD (597 KLD) surface water was granted by DVC on 13th March, 2013 in the name of Day & Night Beverage. RSPL vide letter 29th August, 2022 to DVVRC, CWC, Maithan has requested to change the name in the permission to Raiseland Steels Pvt. Ltd. and enhanced the water permission to 0.244 MGD to meet the water requirement for the proposed plant.

20.2.9 The power requirement of the proposed project will be 6.75 MW. Initially the power shall be sourced from West Bengal State Electricity Distribution Company Ltd. (WBSEDCL). Application to WBSEDCL for providing 3 Phase 1500 KVA power line submitted on 29th August, 2022. However, after commissioning of WHRB & AFBC the power shall be sourced from Captive Power Plant (10 MW).

20.2.10 Baseline Environmental Studies

Period	1 st December 2019 to 29 th of February 2020				
AAQ parameters at 8 Locations (min and max)	<ul style="list-style-type: none">PM_{2.5}: 20.1 µg /m³ to 49.8 µg /m³PM₁₀: 34.3 µg /m³ to 84.3 µg /m³SO₂: 5.6 µg/m³ to 40.0 µg/m³NO₂: 14.0 µg/m³ to 45.5 µg/m³CO: 0.30 mg/m³ to 2.06 mg/m³				
Incremental GLC level	<ul style="list-style-type: none">PM₁₀ – 4.21 µg/m³PM_{2.5} – 0.42 µg/m³SO₂ – 0.26 µg/m³NO_x – 1.1 µg/m³CO – 0.0004 mg/m³(All maximum incremental values are at Amtor village which is at 0.4 km from Project site in NW direction, except CO at project site)				
Ground water quality at 8 locations	pH -7.15 to 7.95, Total Hardness -180.5 to 310.3 mg/l, Total Dissolved Solids - 450 to 610 mg/l, Chlorides - 60.02 to 96.4 mg/l, Fluoride- 0.16 to 0.65 mg/l, Zinc – 1.00 to 1.60 mg/l, Fe – 0.18 to 0.30 mg/l				
Surface water quality at 8 locations	pH - 7.15 to 7.65, Dissolved Oxygen - 4.9 to 6.1 mg/l, BOD varies <5 to 18.2 mg/l, COD 10.0 to 56.3 mg/l, TSS 45.0 to 110.0 mg/l				
Noise levels Leq (Day and Night)	38.2 to 58.6 dB(A) for day time and 33.1 to 49.5 dB(A) for night time				
Traffic assessment study findings	<ul style="list-style-type: none">Traffic study has been conducted at SH-5 which is at 2.0km from the project site.Transportation of Raw material, Fuel and Finished product will be done by 100% by RoadExisting PCU is 161.7 PCU/hr on SH-5 and existing level of service (LOS) is B				
	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
	SH-5	161.7	625	0.26	B
	<ul style="list-style-type: none">PCU load after proposed project will be 169.3 PCU/hr. (Existing 161.7 + Addl. 7.6) for SH-5 and level of service (LOS) will be;				
	Road	V (Volume in PCU/hr)	C (Capacity in PCU/hr)	Existing V/C Ratio	LOS
	SH-5	169.3	625	0.27	B
	<i>*Note: Capacity of Roads as per IRC 64 is 15000 PCU/day i.e 625PCU/hr</i>				
Level of Service will be “B” i.e. Very Good for SH-5 including additional traffic due to proposed project.					
Flora and fauna	There is no Schedule-1 Species of Flora and Fauna in the Study area				

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

Type of Waste	Source	Quantity in Tons (TPA)	Mode of Treatment	Disposal
Sponge Iron Plant				
Dolochar	DRI Kilns	10,500	--	Will be used in AFBC Boiler to generate Power

Type of Waste	Source	Quantity in Tons (TPA)	Mode of Treatment	Disposal
ESP Dust	ESP	9,800	--	Will be used in nearby Sinter Plants
Wet Scraper Sludge	DRI Kilns	1,600	--	Will be used in DRI Kiln as fuel
Accretion Slag	DRI Kilns	3,150	--	Will be used in internal road construction / repair
Steel Melting Plant				
IF + GOR Slag	Induction Furnace	17,035	Will be Collected and conveyed to slag crushing unit for recovery of metals	After metal recovery (approx. 10%), recovered metals will be reused in process and remaining slag shall be crushed and will be used as aggregates
IF Bag Filter + GOR Bag Filter Dust	Bag Filter	7,525	--	Will be used in Sinter Plants or Pellet plants
Scale from CCM	CCM	250	---	Will be given to Sinter Plants
End cut/Rejects	CCM	500	--	Will be reused in Induction Furnace
Power Plant				
Fly Ash from AFBC	AFBC	7,800	--	Will be sold to Cement Plant / Fly-ash Brick Plants
Bottom Ash from AFBC	AFBC	1,950	--	Will be given to the nearby Brick Plant, to be used as fuel in their Kiln

20.2.12 Public Consultation:

Details of advertisement given	Millennium post and Aajkal Newspaper on 10.03.2022
Date of public consultation	19.04.2022
Venue	Raghunathpur I Panchayat Samity Community Hall, Block Danga under Raghunathpur I Development Block, Dist- Purulia, West Bengal.
Presiding Officer	Additional District Magistrate, Purulia, West Bengal.
Major issues raised	<ul style="list-style-type: none"> • Employment for the locals • Pollution from the proposed industry • Pollution effect on Human, Animal and Nature

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

Sl. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 st Year	2 nd Year	3 rd Year	
1	Construction of two skill development smart classes for	Land Development and Construction work of two classrooms (area 65 sq.m) at Gogra High School	1200000	--	--	2000000

Sl. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 st Year	2 nd Year	3 rd Year	
	Computer application training at Agaibari village, District Purulia, West Bengal	Installation of 15 nos. of Computer sets and relevant accessories along with furniture in two classrooms	--	800000	--	
2	Establishment of Training and demonstration center for farmers at Amtor village, District Purulia, West Bengal	Land Development and construction work of centre (area 55 sq.m) at Amtor village	--	700000	--	1500000
		Relevant Equipment, Furniture etc. to be provided at Centre	--	--	800000	
3	Renovation of Pond located at Salanchi village, District Purulia, West Bengal	RCC Side lining, two stair platforms and one wharf platform for 3840 Sq.m area pond	--	--	1000000	1000000
4	Construction of Metaled Road for Local Commute from Plant site to SH-5	Land Development and Construction work for laying of road of 2.6 km length and 7 m width connecting plant site to SH-5	7500000	--	--	7500000
5	Adoption of Dhataria village for Socio-economic development					
i.	Renovation of Dhataria Primary School and providing a library and computer lab in the school	Renovation and construction of library and computer lab at Dhataria Primary School	--	800000	--	1500000
		Providing relevant books, Cupboards, Furniture, Computer sets and relevant accessories at Library and computer lab	--	--	700000	
ii.	Establishment of Primary Health Centre and an Ambulance at Dhataria Village	Land Development and Construction of Primary Health center (50 sqm area) at Dhataria Village	--	1100000	--	2500000
		Providing Ambulance and equipments & machineries of Primary health center and Ambulance	--	--	1400000	
iii.	Installation of two Hand pumps and Water Purification unit at Primary School of Dhataria Village	Installation of Hand pumps at Dhataria Village and Water purification unit at Dhataria primary school.	500000	--	--	500000

Sl. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 st Year	2 nd Year	3 rd Year	
iv.	Installation of 10 Solar powered Street Lights at Dhatarā Village	Installation of 10 Solar street lights at Dhatarā Village internal road	--	500000	--	500000
v.	Development of Mango Orchard at Dhatarā Village	Development of Mango Orchard, construction of Benches and providing fences around the boundary in the area allotted by Gram panchayat of Dhatarā village	--	--	1200000	1200000
vi.	Development of Playground and construction of Cultural Program Podium near Dhatarā village	Development of Park in an area allotted by gram panchayat of Dhatarā village	--	400000	--	1000000
		Construction of Cultural program podium and playground equipment at the park in Dhatarā village	--	--	600000	
vii.	Renovation of Dhatarā Hari Mandir and Manasa Mandir at Dhatarā Village	Renovation and Construction of Mandaps, hall at Hari Mandir of Dhatarā Village	--	1000000	--	2000000
		Renovation and Construction of Mandaps, Hall at Manasa Mata Mandir of Dhatarā Village	--	--	1000000	
Grand Total in Rs.			92,00,000	53,00,000	67,00,000	2,12,00,000

20.2.13 The capital cost of the proposed project is Rs. 150.72 Crores and the capital cost for environmental protection measures is proposed as Rs. 10.9606 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 1.101 Crores. The employment generation from the proposed expansion is 250. The details of cost for environmental protection measures are as follows:

Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
1	Air Pollution Control & Noise Management	545.0	45.5
2	Water Pollution Control	65.0	5.0
3	Storage and Solid Waste Management	18.0	1.5
4.	Environment Monitoring Program	100.0	11.12
5.	Occupational Health & Safety	43.0	30.0
6.	Rain Water Harvesting	20.0	4.0
7.	Greenbelt Development	88.06	10.0
8.	Removal of Trees and Compensatory Afforestation	5.0	--

Sub-total		884.06	107.12
9.	Addressal of Public Consultation Concern (including cost for adoption of Dhataria Village)	212.0	-
Total		1096.06	107.12

- 20.2.14 Proposed greenbelt will be developed in 5.37 Ha which is about 33% of the project area of 16.285 Ha. A 9m wide greenbelt, considering of at least 3 tiers around the plant boundary will be developed as greenbelt and green cover as per CPCB/ MoEF&CC, New Delhi guidelines. Indigenous trees will be planted with a tree density of 2500 trees per hectare. Total number of 13,425 saplings will be planted and nurtured in 5.37 Ha in 5 years. The budget of Rs. 88.06 Lakhs (Approx.) has been kept for Green Belt development.

It has been proposed to remove 102 nos. of the trees from the Site for establishment of the Plant. RSPL vide letter dated 01.04.2022 has sought permission from the Forest Deptt., Raghunathpur, Kansabati North Division, Purulia (W.B.) and submitted Form-1B (application for felling of trees in non-forest area) and obtained no objection from Nutandih Gram Panchayat of Raghunathpur Municipality.

- 20.2.15 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.

Deliberations by the Committee

- 20.2.16 The Committee noted the following:

1. The EAC observed that PP has not presented the Drone survey of the project site during the appraisal of the project although the same has been clearly mentioned in the agenda of the meeting. In view of the same, the EAC advised PP/ Consultant to present the drone survey during appraisal of the proposal. The EAC advised the Consultant to read the instructions/guidelines given in the Agenda before coming to the EAC meeting.
2. The EAC noted that PP has added AFBC (2 MW) in the instant EC proposal. Also, the water requirement has been increased from 998 KLD to 1118 KLD, power requirement from 6.55 MW to 6.75 MW and project cost from 140.21 Crores to 150.72 Crores in comparison to the granted ToR dated 22.05.2020 for the instant proposal. However, PP has not pointed out the same during the appraisal of the project. The EAC is of the view that such facts shall be specifically stated in the EIA/EMP Report and also presented during the appraisal of the project. The EAC also advised PP/Consultant to present such changes in a tabular form for each parameter with the quantity defined in ToR, PH and EIA/EMP Report.
3. The water requirement of 1118 KLD is proposed to be sourced from Panchet Dam. Permission for drawl of 0.132 MGD (597 KLD) surface water was granted by DVC on 13th March, 2013 in the name of Day & Night Beverage. RSPL vide letter 29th August, 2022 to DVVRC, CWC, Maithan has requested to change the name in the permission to Raiseland Steels Pvt. Ltd. and enhanced the water permission to 0.244 MGD to meet the

water requirement for the proposed plant. The EAC noted that request for name in the existing water permission and enhancement of the water withdrawal quantity to 0.244 MGD to meet the water requirement for the proposed plant is still not obtained by the project proponent. The EAC opined that PP shall obtain requisite water permission in their name from the Competent Authority.

4. The EAC deliberated on water balance diagram and is of the view that industry shall revisit on water quantity demarcated to greenbelt development and other operations, and submit the revised water balance.
5. The EAC noted that greenbelt is proposed to be developed in 5.37 Ha which is about 33% of the project area of 16.285 Ha. Total number of 13,425 saplings will be planted and nurtured in 5.37 Ha in 5 years. The EAC opined that maximum plantation shall be completed within 1st year. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.
6. Uttala nadi (1.2 km, NW), Atta nadi (6.32 km, SW), Pathartikuri nadi (6.51 km, SW) and Panchet Reservoir (8.0 km, NW) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted. PP shall also obtain HFL of Uttala nadi from the Competent Authority.
7. The EAC deliberated on the raw material requirement and is of the view that only imported coal shall be used in the plant operations. PP shall submit an undertaking in this regard.
8. The nearest habitation to plant is Dhataria village located at 0.95 km away from the project site boundary in South direction. Project Proponent shall submit environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.
9. PP shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted.
10. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and opined that action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised and submitted as per Ministry's OM dated 30.09.2020.
11. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that revised EMP cost for the project shall be submitted.
12. In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.
13. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee:

- 20.2.17 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 20.2.16 above. The proposal may be considered after submission of the requisite information.

Agenda No. 20.3

- 20.3 Expansion within the existing Chanderiya Lead Zinc Smelter Complex [Expansion in Hydro Plant by adding 1 Induction Furnace, 1 Slab Casting Line & Integration of RZO Unit in Hydro-II , Change in Product Mix in Pyro Unit on total metal basis & Installation of 1 Lead Refinery, Expansion of CPP through Modernization and Installation of 1 BPTG, Recovery of Minor Metals & Installation of 5 DG Sets] by M/s. Hindustan Zinc Ltd. located at villages Putholi, Ajoliya Ka Khera & Biliya, Tehsil Gangrar & Chittorgarh, District Chittorgarh, Rajasthan - Consideration of Environmental Clearance.**

**[Proposal No. IA/RJ/IND1/408023/2022; File No. IA-J-11011/279/2006-IA-II(IND-I)]
[Consultant : J. M. EnviroNet Pvt. Ltd. valid upto 07.02.2023]**

- 20.3.1 M/s. Hindustan Zinc Limited has made an online application vide proposal no. IA/RJ/IND1/408023/2022 dated 16th December, 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 S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 20.3.2 Name of the EIA consultant: M/s. J. M. EnviroNet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186; valid upto 07.02.2023, as on December 21, 2022].

Details submitted by Project proponent

- 20.3.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
05.09.2021	44 th meeting of the REAC (Industry-I) held on 13-14 th September, 2021	Term of Reference	27.09.2021	26.09.2025

- 20.3.4 The project of Hindustan Zinc Limited located in Villages: Putholi, Ajoliya Ka Khera & Biliya, Tehsil: Gangrar & Chittorgarh, District: Chittorgarh, Rajasthan is for expansion within the existing Chanderiya Lead Zinc Smelter Complex [Expansion in Hydro Smelter Unit by adding

1 Induction Furnace, 1 Slab Casting Line & Integration of RZO Unit in Hydro-II , Change in Product Mix in Pyro Unit on total metal basis & Installation of 1 Lead Refinery, Expansion of CPP through Modernization and Installation of 1 Back Pressure Turbine Generator, Recovery of Minor Metals & Installation of 5 DG Sets].

20.3.5 Environmental Site Settings:

S No.	Particulars	Details submitted by the PP			Remarks																																																		
i.	Total land	335.89 Ha The total area is under possession of M/s. Hindustan Zinc Ltd.			Present land use of the Complex is Industrial & it will remain same after the expansion. Only the intensity of land use will be increased.																																																		
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The land is under the possession of the company.			-																																																		
iii.	Existence of habitation & involvement of R&R, if any.	Plant Site: No habitation exists within the plant site and as the proposed expansion will be done within the existing plant premises, which is already in possession of the company, Therefore, no R&R is applicable for the proposed expansion project. Study Area: <ul style="list-style-type: none">• Putholi (~0.5 km in SW direction from plant site)• Ajoliya Ka Khera (~ 1 km in West direction from plant site)• Biliya (~ Adjacent in North direction from plant site). There are approx. 75 villages and 1 city in 10 km radius study area.			-																																																		
iv.	Latitude and Longitude of the project site	<table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>1.</td><td>24°58'30.50"N</td><td>74°39'9.46"E</td></tr><tr><td>2.</td><td>24°58'34.43"N</td><td>74°39'11.60"E</td></tr><tr><td>3.</td><td>24°58'35.82"N</td><td>74°39'14.43"E</td></tr><tr><td>4.</td><td>24°58'33.96"N</td><td>74°39'36.32"E</td></tr><tr><td>5.</td><td>24°58'18.91"N</td><td>74°39'33.98"E</td></tr><tr><td>6.</td><td>24°58'13.18"N</td><td>74°39'34.88"E</td></tr><tr><td>7.</td><td>24°57'57.79"N</td><td>74°39'30.35"E</td></tr><tr><td>8.</td><td>24°57'55.63"N</td><td>74°39'38.71"E</td></tr><tr><td>9.</td><td>24°57'54.54"N</td><td>74°39'41.36"E</td></tr><tr><td>10.</td><td>24°57'53.91"N</td><td>74°39'43.87"E</td></tr><tr><td>11.</td><td>24°57'56.10"N</td><td>74°39'51.41"E</td></tr><tr><td>12.</td><td>24°57'58.60"N</td><td>74°39'57.23"E</td></tr><tr><td>13.</td><td>24°57'59.74"N</td><td>74°40'8.81"E</td></tr><tr><td>14.</td><td>24°58'8.09"N</td><td>74°40'12.37"E</td></tr><tr><td>15.</td><td>24°58'10.99"N</td><td>74°40'0.27"E</td></tr><tr><td>16.</td><td>24°58'9.02"N</td><td>74°39'51.19"E</td></tr></table>	Point	Latitude	Longitude	1.	24°58'30.50"N	74°39'9.46"E	2.	24°58'34.43"N	74°39'11.60"E	3.	24°58'35.82"N	74°39'14.43"E	4.	24°58'33.96"N	74°39'36.32"E	5.	24°58'18.91"N	74°39'33.98"E	6.	24°58'13.18"N	74°39'34.88"E	7.	24°57'57.79"N	74°39'30.35"E	8.	24°57'55.63"N	74°39'38.71"E	9.	24°57'54.54"N	74°39'41.36"E	10.	24°57'53.91"N	74°39'43.87"E	11.	24°57'56.10"N	74°39'51.41"E	12.	24°57'58.60"N	74°39'57.23"E	13.	24°57'59.74"N	74°40'8.81"E	14.	24°58'8.09"N	74°40'12.37"E	15.	24°58'10.99"N	74°40'0.27"E	16.	24°58'9.02"N	74°39'51.19"E	-	
Point	Latitude	Longitude																																																					
1.	24°58'30.50"N	74°39'9.46"E																																																					
2.	24°58'34.43"N	74°39'11.60"E																																																					
3.	24°58'35.82"N	74°39'14.43"E																																																					
4.	24°58'33.96"N	74°39'36.32"E																																																					
5.	24°58'18.91"N	74°39'33.98"E																																																					
6.	24°58'13.18"N	74°39'34.88"E																																																					
7.	24°57'57.79"N	74°39'30.35"E																																																					
8.	24°57'55.63"N	74°39'38.71"E																																																					
9.	24°57'54.54"N	74°39'41.36"E																																																					
10.	24°57'53.91"N	74°39'43.87"E																																																					
11.	24°57'56.10"N	74°39'51.41"E																																																					
12.	24°57'58.60"N	74°39'57.23"E																																																					
13.	24°57'59.74"N	74°40'8.81"E																																																					
14.	24°58'8.09"N	74°40'12.37"E																																																					
15.	24°58'10.99"N	74°40'0.27"E																																																					
16.	24°58'9.02"N	74°39'51.19"E																																																					

S No.	Particulars	Details submitted by the PP			Remarks															
		17.	24°58'16.98"N	74°39'56.74"E																
		18.	24°58'28.38"N	74°39'58.81"E																
		19.	24°58'31.63"N	74°40'0.68"E																
		20.	24°58'31.40"N	74°40'3.51"E																
		21.	24°58'30.70"N	74°40'11.81"E																
		22.	24°58'29.86"N	74°40'27.02"E																
		23.	24°58'24.68"N	74°40'34.25"E																
		24.	24°58'24.91"N	74°40'35.92"E																
		25.	24°58'21.04"N	74°40'43.80"E																
		26.	24°58'0.39"N	74°40'23.62"E																
		27.	24°57'31.40"N	74°40'10.48"E																
		28.	24°57'29.94"N	74°40'9.10"E																
		29.	24°57'34.48"N	74°39'53.20"E																
		30.	24°57'32.78"N	74°39'26.91"E																
		31.	24°57'24.84"N	74°39'5.46"E																
		32.	24°57'20.34"N	74°38'37.47"E																
		33.	24°57'21.27"N	74°38'34.40"E																
		34.	24°57'28.56"N	74°38'35.20"E																
		35.	24°57'49.89"N	74°38'41.86"E																
		36.	24°57'47.01"N	74°38'55.92"E																
		37.	24°57'48.63"N	74°38'57.71"E																
		38.	24°57'50.88"N	74°39'5.55"E																
		39.	24°57'50.82"N	74°39'9.21"E																
		40.	24°57'53.17"N	74°39'10.77"E																
		41.	24°57'53.43"N	74°39'13.24"E																
		42.	24°57'53.35"N	74°39'15.57"E																
		43.	24°57'56.21"N	74°39'18.65"E																
		44.	24°57'59.88"N	74°39'25.09"E																
		45.	24°58'4.03"N	74°39'23.47"E																
		46.	24°58'18.43"N	74°39'27.68"E																
		47.	24°58'23.31"N	74°39'20.43"E																
		48.	24°58'26.55"N	74°39'14.98"E																
v.	Elevation of the project site	390 m to 400 m above mean sea level.																		
vi.	Involvement of Forest land if any.	No Forest Land is involved in the plant site.			-															
vii.	Water body exists within the project site as well as study area	<p>Plant site: Putholi Nala (Passing through the plant site plant site.</p> <p>Study area: Following water body fall within 10 km radius:</p> <table><tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr><tr><td>Berach River</td><td>Adjacent</td><td>East</td></tr><tr><td>Gambhir Nadi</td><td>~4.0 km</td><td>South</td></tr><tr><td>Nagdi ka Nala</td><td>~8.5 km</td><td>NNE</td></tr><tr><td>Canal</td><td>~8 km</td><td>WNW</td></tr></table> <p>●</p>			Water body	Distance (km)	Direction	Berach River	Adjacent	East	Gambhir Nadi	~4.0 km	South	Nagdi ka Nala	~8.5 km	NNE	Canal	~8 km	WNW	-
Water body	Distance (km)	Direction																		
Berach River	Adjacent	East																		
Gambhir Nadi	~4.0 km	South																		
Nagdi ka Nala	~8.5 km	NNE																		
Canal	~8 km	WNW																		
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/	Nil. 17 Reserved Forest and 1 Protected Forests exist within 10 km radius of the plant site.																		

S No.	Particulars	Details submitted by the PP	Remarks
	tiger reserve/ elephant reserve etc. if any within the study area		
ix.	Interlinked Project	Fertilizer plant is an interlinked project at project site, however it is not installed yet due to land conversion issue.	

- 20.3.6 The existing project was accorded Concurrence letter initially for Pyro Plant vide no. J-11013/29/92-EI dated 03/06/1983; Production capacity of Pyro Plant was increased from 105000 TPA (Zn - 70,000 TPA + Pb – 35,000 TPA) to 140000 TPA (Zn – 105000 TPA + Pb - 35000 TPA) vide NOC obtained from RSPCB vide no. F.12 (Chittor-60)RPCB/Gr. III/19418 dated 05/03/2004. Environmental Clearance for {Hydro Plant} Zinc Smelter I (1,70,000 TPA Zinc Production) & CPP (154MW) vide F.No.J-11011/158/2003-IA.II(I) 31/03/2004; Environmental Clearance for Ausmelt Lead Smelter Plant (60,000 TPA) vide F.No.J-11011/17/2005-IA.II (I) 3/8/2005; Environmental Clearance for {Hydro Plant } Zinc Smelter II (2,10000 TPA) and expansion of {Hydro Plant } Zinc Smelter I (From 1,70,000 TPA to 2,10,000 TPA) vide no J-11011/279/2006-IA.II(I) dated 06/12/2006; Environmental Clearance for Inclusion of Fumer Plant within the {Hydro Plant } Zinc Smelter II vide F.No.J-11011/279/2006-IA.II(I) 5/10/2015; Environment Clearance for Capacity Expansion in Hydro I & Hydro II Zinc Smelters (from 4,20,000 TPA to 5,04,000 TPA) through debottlenecking vide letter no. J-11011/279/2006-IA.II (I) dated 14/10/2020.

Existing Environmental Clearances obtained as reported by the PP		
Particulars	Document no.	Date
Concurrence for the Lead Zinc Smelter {Pyro Plant} by Principle Scientific Officer, GOI Environmental Department, New Delhi	Vide Letter No. J-11013/29/92-EI	03.06.1983
EC letter for Hydro-I plant	Vide F.No.J-11011/158/2003-IA.II(I)	31.03.2004
EC for Ausmelt Lead Smelter Plant	Vide F.No.J-11011/17/2005-IA.II (I)	03.08.2005
EC letter for Hydro-II plant	Vide F.No. J-11011/279/2006-IA.II (I)	06.12.2006
EC letter for Inclusion of Fumer plant with Hydro-II Plant	Vide F.No.J-11011/279/2006-IA.II(I)	05.10.2015
Environment Clearance (EC) for Hydro-I & II unit on combined basis with production capacity of 5, 04,000 TPA Zinc by MOEFCC, New Delhi	vide letter no. J-11011/279/2006-IA.II (I)	14.10.2020

- 20.3.7 Current CTO for Pyro Plant has been accorded by Rajasthan State Pollution Control Board (RSPCB) vide Order no. 2020-2021 / HDF /3070 dated 08/06/2020 (valid upto 29/02/2024). CTO for Hydro–I Plant and CPP (154 MW) has been accorded by RSPCB vide Order No. 2019-2020/HDF/2859 dated 16/01/2020 (valid upto 31/08/2023). CTO for Hydro– II Plant & CPP

(100 MW) has been accorded by RSPCB vide Order no. 2019-2020/HDF/2818 dated 18/12/2019 (valid upto 31/01/2024). CTO for Fumer Plant within existing Hydro -II plant was accorded by RSPCB vide Order no. 2020-2021/HDF/3009 dated 08/05/2020 (valid upto 31/03/2025). CTO for Ausmelt Lead Plant was accorded from RSPCB vide Order no. 2020-2021/HDF/3069 dated 05/06/2020 (valid upto 31/08/2023). CTO for installation of 2 D.G. Sets (2 x 8MW) was obtained from RSPCB vide Order no. 2020-2021 / HDF / 3068 dated 05/06/2020 (valid upto 30/04/2024). CTO for Township was obtained vide Order no. 2018-2019/CPM/5201 dated 23/05/2018.

Existing Consents to Establish / Consent to Operate obtained as reported by the PP		
Particulars	Document no.	Date
N.O.C for the adequacy of pollution control measures for Proposed Lead Zinc Smelter at Village Chanderiya, Dist. Chittorgarh, Raj.	vide letter no. 12(723) RPCB/NOC/1535	26.04.1991
CTE for proposed enhancement of production zinc from 70,000 TPA to 1,05,000 TPA at Zinc Smelter, Chanderiya	vide letter no. F.12 (Chittor-60) RPCB/Gr. III/19418	05.03.2004
CTE for installation of Zinc smelter plant (1,70,000 TPA) and captive power plant (154MW) at Chanderiya, Chittorgarh	vide letter no. F.12 (Chittor-60) RPCB/Gr. III/14372	19.07.2004
CTE for Zinc manufacturing unit up to 2,50,000 MT/Annum capacity & captive power plant of 100 MW	vide letter no. F.12(CH-78) RPCB/Gr.III/2588	08.01.2007
CTE for Fumer plant (Pyro Metalurgical Fuming Process) within existing Hydro Zinc Smelter Phase-II Plant	Vide Order no. 2017-2018/CPM/4915	01.08.2017
CTE for implementation of pollution control scheme for 60,000 TPA Lead Smelter with existing Zinc Smelter	Vide letter no. F.12(CH-70) RPCB/Gr.III/752	14.09.2005
CTE for DG (2*8 MW) at Pyro plant	Vide Order no. 2012-2013/CPM/1610	20.03.2013
CTO for Pyro Metallurgical Zinc Smelter Plant	Vide Order no. 2020-2021 / HDF /3070	08.06.2020
CTO for production/manufacturing of Cadmium Sponge(680 MTPA), Copper Cement (510.00MTPA), Electric Power (154.00MW), Low Grade Lead Concentrate (30,000MTPA), Sulphuric Acid (289,000 MTPA) & Zn	Vide Order No. 2019-2020/HDF/2859	16.01.2020
CTO for Hydro-II & 100MW electricity	Vide Order no. 2019-2020/HDF/2818	18.12.2019
CTO for Fumer Plant (Pyro Metallurgical fuming process) within existing Hyro Zinc Smelter Phase-II plant	Vide Order no. 2020-2021/HDF/3009	08.05.2020
CTO for Ausmelt Lead Plant	Vide Order no. 2020-2021/HDF/3069	05.06.2020
CTO for installation of 2 D.G. Sets (2 x 8MW)	Vide Order no. 2020-2021/ HDF / 3068	05.06.2020
CTO for WHRB and STP	Vide Order no. 2021-2022/HDF / 8858	18.01.2022
CTO for Township	Vide Order no. 2018-2019/CPM/5201	23.05.2018

Existing Consents to Establish / Consent to Operate obtained as reported by the PP		
Particulars	Document no.	Date
CTO letter obtained for the expansion of Hydro-I plant (As per the EC obtained on 14.10.2020)	Vide Order No. 2020-2021/HDF/3324	26.03.2021
CTO letter obtained for the expansion of Hydro-II plant (As per the EC obtained on 14.10.2020)	Vide Order No. 2020-2021/HDF/3325	26.03.2021

20.3.8 Implementation status of the existing EC:

S. No	Name of the facility	Unit	Existing		Reference	Status of Implementation
			Capacity	Configuration		
Lead Zinc Smelter Unit (Pyro Plant)						
1.	Refined Lead	TPA	35,000	1 x 140,000	<ul style="list-style-type: none">• Concurrence letter vide no. J-11013/29/92-EI dated 03.06.1983• CTE vide letter no. F.12 (Chittor-60)RPCB/Gr. III/19418 dated 05.03.2004• CTO vide Order no. 2020-2021 / HDF /3070 dated 08.06.2020	<u>Implemented</u>
2.	Refined Zinc	TPA	105,000			
3.	Total	TPA	140,000			
4.	Captive Power Plant	MW	90	1 x 90	<ul style="list-style-type: none">• Concurrence letter vide no. J-11013/29/92-EI dated 03.06.1983	<u>Not Implemented</u>
6.	Zn-Cd Alloy / Cadmium Metal (on equivalent cadmium basis) (By-product)	TPA	375	1 x 375	<ul style="list-style-type: none">• CTO vide Order no. 2020-2021 / HDF / 3070 dated 08.06.2020	<u>Implemented</u>
7.	Copper Matte / Copper Metal (on equivalent copper basis) (By-product)	TPA	2100	1 x 2100		
8.	Silver (on equivalent silver basis) (By-product)	TPA	74	1 x 74		
9.	Sulphuric Acid (By-product)	TPA	1,76,000	1 x 1,76,000		
Hydro-I + Hydro-II Zinc Smelter Unit & Captive Power Plant (Combined Capacity)						
1.	Zinc (Hydro- I + II) / Zinc Alloys and its Compounds	TPA	5,04,000	2 x 2,52,000	<ul style="list-style-type: none">• EC vide no. J-11011/158/2004-IA.II(I) dated 41.04.2004	<u>Implemented</u>
					<ul style="list-style-type: none">• EC vide no J-11011/279/2006-IA.II(I) dated 06.12.2006	<u>Implemented</u>
					<ul style="list-style-type: none">• EC vide no. J-11011/279/2006-IA.II(I) dated 05.10.2015	The Fumer plant has been installed but could not be operated due to some process incident during commissioning. Its operation is expected soon.
					<ul style="list-style-type: none">• EC vide no J-11011/279/2006-IA.II(I) dated 14.10.2020	<u>Implemented</u>
2.	Captive Power Plant	MW	154	2x77	<ul style="list-style-type: none">• EC vide no J-11011/158/2004-IA.II(I) dated 41.04.2004• CTO vide Order No. 2019-2020/HDF/2859 dated 16.01.2020.	<u>Implemented</u>
4.	DG	KVA	1750	1 x 750 1 x 1000	<ul style="list-style-type: none">• CTO vide Order no. 2020-2021/HDF / 3068 dated 05.06.2020 (Valid upto 30.04.2024).	<u>Implemented</u>
4.	WHRB	MW	9.4	1 x 9.4		

S. No	Name of the facility	Unit	Existing		Reference	Status of Implementation
			Capacity	Configuration		
					<ul style="list-style-type: none">• CTO vide Order no. 2021-2022/HDF / 8858 dated 18.01.2022 (Valid upto 31.12.2026).	
7.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	CTO vide Order No. 2019-2020/HDF/2859 dated 16.01.2020	<u>Implemented</u>
8.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510		
9.	Low grade lead concentrate (By-product)	TPA	30, 000	1 x 30, 000		
10.	Sulphuric Acid (By-product)	TPA	3,07,774	1 x 3,07,774	<ul style="list-style-type: none">• CTO vide Order No. 2019-2020/HDF/2859 dated 16.01.2020• CTO for Hydro 1 vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6085 - 6087 dated 26.3.2021	<u>Implemented</u>
11.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	<ul style="list-style-type: none">• CTO for Hydro 1 vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6085 - 6087 dated 26.3.2021	<u>Implemented</u>
12.	Sodium Chloride (By-product)	TPA	250	1 x 250		
14.	Sodium Sulphate (By-product)	TPA	1250	1* 1250		
Hydro II						
1.	Captive Power Plant	MW	100	1 x 100	<ul style="list-style-type: none">• EC vide no. J-11011/279/2006-IA.II(I) dated 06.12.2006	<u>Implemented</u>
2.	DG	KVA	21,780	1 x 625 2 x 1250 1 x 125 2 x 9265	<ul style="list-style-type: none">• CTO vide Order no. 2020-2021/HDF / 3068 dated 05.06.2020 (Valid upto 30.04.2024).	<u>Implemented</u>
4.	WHRB	MW	25.3	1 x 4.3 1 x 21	<ul style="list-style-type: none">• EC vide no. J-11011/279/2006-IA.II(I) dated 05.10.2015• CTO vide Order no. 2020-2021/HDF/4009 dated 08.05.2020	<u>Implemented</u>
4.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	<ul style="list-style-type: none">• EC vide no J-11011/279/2006-IA.II(I) dated 14.10.2020	<u>Implemented</u>
5.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510		
6.	Lead Silver Cake (By-product)	TPA	16000	1 x 16000	<ul style="list-style-type: none">• CTO vide Order no. 2020-2021/HDF/4009 dated 08.05.2020	<u>Implemented</u>
7.	Copper Speiss/ Copper Residue (By-product)	TPA	700	1 x 700		
8.	Sulphuric Acid (By-product)	TPA	307774	1 x 307774	<ul style="list-style-type: none">• CTO vide Order no. 2019-2020/HDF/2818 dated 18.12.2019• CTO vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6088-6090 dated 26.3.2021	<u>Implemented</u>
9.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	<ul style="list-style-type: none">• CTO vide F(HDF) / Chittorgarh (Gangrar) / 2 (1) / 2020 – 2021 / 6088-6090 dated 26.3.2021	<u>Implemented</u>
10.	Sodium Chloride (By-product)	TPA	250	1 x 250		
11.	Sodium Sulphate (By-product)	TPA	1250	1 x 1250		
Ausmelt Lead Smelter Plant						
1.	Lead	TPA	60, 000	1 x 60, 000	<ul style="list-style-type: none">• EC-J-11011/17/2005-IA.II(I) dated 04.08.2005.	<u>Implemented</u>

S. No	Name of the facility	Unit	Existing		Reference	Status of Implementation
			Capacity	Configuration		
					• CTO vide Order no. 2020-2021/HDF/4069 dated 05.06.2020	
2.	Sulphuric Acid (By-product)	TPA	50500	1 x 50500	• CTO vide Order no. 2020-2021/HDF/4069 dated 05.06.2020	<u>Implemented</u>
4.	Copper Sulphate (By-product)	TPA	7920	1 x 7920		
4.	Silver (on equivalent silver basis) (By-product)	TPA	94.71	1 x 94.71		
5.	Zinc Rich Dust (By-product)	TPA	6600	1 x 6600		

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

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configura tion	Capacity	Configura tion	Capacity	Configu ration	
Lead Zinc Smelter Unit (Pyro Plant)									
1	Refined Lead	TPA	35,000	1 x 140,000	1,05,000	1x 140,000	140000	1 x 140,000	Change in product mix*
2	Refined Zinc	TPA	105,000		35,000		[Total Metal Basis]		
	Total	TPA	140,000		140,000 (Change in product mix only)		140,000 (Change in product mix only)		
3	Captive Power Plant	MW	90	1 x 90	NIL		90		Not installed
4	DG	KVA	NIL	NIL	2875	1x625 1x1500 1x750	2875	1x625 1x1500 1x750	To be added
5	Zn-Cd Alloy / Cadmium Metal (on equivalent cadmium basis) (By-product)	TPA	375	1 x 375	222	1 x 222	597	1 x 597	Increase in production capacity
6	Copper Matte / Copper Metal (on equivalent copper basis) (By-product)	TPA	2100	1 x 2100	1238	1 x 1238	3338	1 x 3338	Increase in production capacity
7	Silver (on equivalent silver basis) (By-product)	TPA	74	1 x 74	728.29	1 x 728.29	802.29	1 x 802.29	Increase in production capacity
8	Sulphuric Acid (By-product)	TPA	1,76,000	1 x 1,76,000	47,505	1 x 47,505	2,23,505	1 x 2,23,505	Increase in production capacity
9	Antimony Slag/Antimony Trioxide(Sb2O3) (on equivalent Antimony basis) (By-product)	TPA	NIL	NIL	992	1 x. 992	992	1 x. 992	To be added
10	Lead Oxide/ Concentrate (by products)	TPA	NIL	NIL	20,000	1 x 20,000	20,000	1 x 20,000	To be added
11	Calomel/Mercury Sludge (on equivalent mercury basis) (By-product)	TPA	NIL	NIL	14.8	1 x 14.8	14.8	1 x 14.8	To be added
Hydro-I + Hydro-II Zinc Smelter Unit & Captive Power Plant (Combined Capacity)									
1.	Zinc (Hydro- I + II) / Zinc Alloys and its Compounds	TPA	5,04,000	2 x 2,52,000	1,26,000	1 x 1,26,000	6,30,000	2 x 2,52,000 1 x 1,26,000	Increase in Production Capacity
Hydro I									

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	
2.	Captive Power Plant	MW	154	2x77	36	2x18	190	2x95	Increase in Production Capacity
3.	DG	KVA	1750	1 x 750 1 x 1000	NIL	Nil	1750	1 x 750 1 x 1000	No change
4.	WHRB	MW	9.4	1 x 9.4	Nil	Nil	9.4	1 x 9.4	No change
5.	Back Pressure Turbine Generator	MW	NIL	Nil	6	1 x 6	6	1 x 6	To be added
6.	DG FGD	KVA	NIL	Nil	500	1 x 500	500	1 x 500	To be added
7.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	NIL	NIL	680	1 x 680	No change
8.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510	NIL	NIL	510	1 x 510	No change
9.	Low grade lead concentrate (By-product)	TPA	30,000	1 x 30,000	NIL	NIL	30,000	1 x 30,000	No change
10.	Sulphuric Acid (By-product)	TPA	3,07,774	1 x 3,07,774	Nil	Nil	3,07,774	1 x 3,07,774	No change
11.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	NIL	NIL	20	1 x 20	No change
12.	Sodium Chloride (By-product)	TPA	250	1 x 250	Nil	Nil	250	1 x 250	No change
13.	Sodium Sulphate (By-product)	TPA	1250	1* 1250	Nil	Nil	1250	1* 1250	No change
Hydro II									
1.	Captive Power Plant	MW	100	1 x 100	NIL	Nil	100	1 x 100	No Change
2.	DG	KVA	12,515	1 x 625 2 x 1250 1 x 125 2 x 9265	750	1 x 750	13,265	1 x 625 2 x 1250 1 x 125 2 x 9265 1 x 750	Additional DG to be installed
3.	WHRB	MW	25.3	1 x 4.3 1 x 21	1	1 x 1 -	26.3	1 x 5.3 1 x 21	Increase in power generation
4.	Cadmium Metal/ Cadmium Sponge (equivalent metal) (By-product)	TPA	680	1 x 680	NIL	NIL	680	1 x 680	No change
5.	Copper Cement/ Copper sulphate/ Copper matte/ (equivalent metal) (By product)	TPA	510	1 x 510	NIL	NIL	510	1 x 510	No change
6.	Lead Silver Cake (By-product)	TPA	16000	1 x 16000	16000	1 x 16000	32000	1 x 32000	Increase in production capacity
7.	Copper Speiss/ Copper Residue (By-product)	TPA	700	1 x 700	500	1 x 500	1200	1 x 1200	Increase in production capacity
8.	Sulphuric Acid (By-product)	TPA	307774	1 x 307774	Nil	Nil	307774	1 x 307774	No change

S. No	Name of the facility	Unit	Existing		Additional		Total after expansion		Remarks
			Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	
9.	Calomel (Mercury Chloride) (By-product)	TPA	20	1 x 20	NIL	NIL	20	1 x 20	No change
10.	Sodium Chloride (By-product)	TPA	250	1 x 250	Nil	Nil	250	1 x 250	No change
11.	Sodium Sulphate (By-product)	TPA	1250	1 x 1250	Nil	Nil	1250	1 x 1250	No change
Ausmelt Lead Smelter Plant									
1.	Lead	TPA	60,000	1 x 60,000	NIL	NIL	60,000	1 x 60,000	No Change
2.	Sulphuric Acid (By-product)	TPA	50500	1 x 50500	NIL	NIL	50500	1 x 50500	No Change
3.	Copper Sulphate (By-product)	TPA	7920	1 x 7920	NIL	NIL	7920	1 x 7920	No Change
4.	Silver (on equivalent silver basis) (By-product)	TPA	94.71	1 x 94.71	NIL	NIL	94.71	1 x 94.71	No Change
5.	Zinc Rich Dust (By-product)	TPA	6600	1 x 6600	NIL	NIL	6600	1 x 6600	No Change
Minor Metal Recovery Unit									
1.	Lead Bullion / Lead Silver Cake / Lead Cake/Low Grade Lead Cake / Low Grade Lead Material (on Equivalent metal basis)	TPA	NIL	NIL	8873	1 x 8873	8873	1 x 8873	To be added
2.	Cadmium Sponge/ Cadmium Metal/ Low Grade Cadmium (on Equivalent metal basis)	TPA	NIL	NIL	3050	1 x 3050	3050	1 x 3050	To be added
3.	Cobalt / Cobalt Concentrate (on Equivalent metal basis)	TPA	NIL	NIL	50	1 x 50	50	1 x 50	To be added
4.	Ni cake / Ni Compounds (on Equivalent metal basis)	TPA	NIL	NIL	30	1 x 30	30	1 x 30	To be added
5.	Zn So4 Solution (on Equivalent metal basis)	TPA	NIL	NIL	2781	1 x 2781	2781	1 x 2781	To be added
6.	CuSO4 Solution/ Copper Cement/ CU Matte (on Equivalent metal basis)	TPA	NIL	NIL	2436	1 x 2436	2436	1 x 2436	To be added
<i>*In Pyro Plant, Change in Product Mix has been proposed on total Metal basis i.e. 1,40,000 TPA (Refined Lead or Refined Zinc or Product Mix of both Metals).</i>									

20.3.10 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	Unit	Quantity			Source	Distance	Mode of Transport
			Existing	Additional	Total After expansion			
Zinc Lead Smelter Unit (Pyro Plant+ Ausmelt)								
1.	Zinc concentrate	TPA	199500	58000	257500	HZL mines-RA, SK & Zawar mines	~200 km	Through Trucks
2.	Lead concentrate	TPA	138500	196500	335000	HZL mines-RA, SK & Zawar mines	~200 km	Through Trucks
3.	Coke	TPA	100000	NIL	100000	Indigenous /imported	~1500 km	Through Rail / Trucks
4.	Lime Stone	TPA	45000	NIL	45000	Nearby Mines	~250 km	Through Trucks
5.	Iron ore /Iron Oxide	TPA	30000	NIL	30000	Mines Jabalpur	~1000 km	Through Trucks

S. No.	Raw Material	Unit	Quantity			Source	Distance	Mode of Transport
			Existing	Additional	Total After expansion			
6.	Zinc Oxide /Zinc Dust /Zinc Bearing material/ Zinc Dross	TPA	NIL	50000	50000	Market/ HZL Smelters Approx. / From authorised recyclers	~ 200 km	Through Trucks
7.	Lead Oxide / Lead Silver Cake / Low Grade Lead Material / Lead Bearing Outsourced Secondaries	TPA	Nil	50000	50000	Market/ HZL Smelters Approx./ From authorised recyclers	~ 200 km	Through Trucks
8.	Silica	MT	3600	NIL	3600	Nearby Mines	~150 km	Through Trucks
9.	Coal/ Coke	MT	1500	NIL	1500	Indigenous /imported	~1500 km	Through Rail / Trucks
10.	Dolomite	MT	1700	NIL	1700	Nearby Mines	~150 km	Through Trucks
Hydro I & Hydro-II Zinc Smelter Unit (Incl. Fumer plant) and CPP								
1.	Zinc concentrate	TPA	698458	NIL	698458	HZL mines-RA, SK & Zawar mines	~200 km	Through Trucks
2.	Calcine (ZnO)	TPA	337990	8916	346906	HZL Smelters	~200 km	Through Trucks
3.	Zinc Dross/ Ash/ Zinc bearing waste	TPA	15000	NIL	15000	Market/ HZL Smelters Approx./ From authorised recyclers	~200 km	Through Trucks
4.	Aluminium Metal	TPA	4800	NIL	4800	Market	~200 km	Through Trucks
5.	Magnesium Metal	TPA	60	NIL	60	Market	~200 km	Through Trucks
6.	Copper Metal	TPA	600	NIL	600	Market	~200 km	Through Trucks
7.	Limestone for FGD	TPA	NIL	131465	131465	Nearby Mines	~200 km	Through Trucks
8.	Zinc Cathode	TPA	NIL	200000	200000	HZL Smelter	~200 km	Through Trucks
9.	RZO	TPA	NIL	45000	45000	HZL Smelter	~200 km	Through Trucks
Minor Metal Recovery Unit								
10.	PF Cake	TPA	NIL	8800	8800	HZL Smelter	Captive / 200 km,	Through Trucks
11.	Cadmium Sponge	TPA	NIL	4000	4000	HZL Smelter	Captive / 200 km,	Through Trucks
12.	Copper Matte	TPA	NIL	3500	3500	HZL Smelter	Captive / 200 km,	Through Trucks
13.	Cobalt Cake	TPA	NIL	2000	2000	HZL Smelter	Captive / 200 km,	Through Trucks
14.	Copper Dross	TPA	NIL	12000	12000	HZL Smelter	Captive / 200 km,	Through Trucks
15.	Coal	TPA	NIL	1480	1480	HZL Smelter	Approx. 1500kms	Through Trucks
16.	Zinc Dust	TPA	NIL	2210	2210	HZL Smelter	Captive / 200 km,	Through Trucks
17.	Sulphuric Acid	TPA	NIL	6500	6500	HZL Smelter	Captive / 200 km,	through pipeline; through Tankers

20.3.11 Existing Water requirement for the project is 38570 KLD. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. Therefore, no additional Fresh Water will be required for the proposed expansion project. The water is being / will be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water).

Permissions for drawl of water obtained for CLZS Complex are obtained as under:

- Letter reg. allocation of water (1500 MCFT) from Gosunda Dam obtained from Energy Dept., Govt. of Rajasthan vide letter no. F 2(28)Energy/86-IV/ dated 19/11/1994.

- Agreement signed between Municipal Corporation Udaipur, Urban Improvement Trust, Udaipur and Hindustan Zinc Ltd. on 09/05/2021 for supply of treated water from Proposed STP (20 MLD) at Udaipur .
- Letter of acceptance from Udaipur Smart City Limited vide letter no. {}USCL/2017-18/71 dated 22/06/2017 for Supply of 50% of the treated water of Proposed STPs (25 MLD + 10 MLD + 5 MLD) of Udaipur Town.
- Agreement between Nagar Parishad, Chittorgarh and Hindustan Zinc Ltd. on 05/01/2021 for supply of Treated water (3000 KLD) from STP at Chittorgarh.

20.3.12 Existing Total Power requirement of the Chanderiya Lead Zinc Smelter Complex is 260 MW. The same is being sourced from existing CPPs (154 MW & 100 MW) and WHRS of 34.70 MW capacity, Solar Panels located within the complex & AVVNL. 8 DG Sets are available for back up and emergency purpose with capacity as 38.34 at CLZS Complex. 48 MW additional power will be required for the expansion project, which will be fulfilled from the existing sources and Proposed CPP expansion from 254 MW to 290 MW and BPTG. 5 DG Sets (1 x 625 kVA, 1 x 1500 kVA, 1 x 750 kVA at Pyro Plant; 500 KVA at CPP; 1 x 750 kVA at Hydro II) have been proposed for back up and emergency purpose within the CLZS Complex.

20.3.13 Baseline Environmental Studies:

Period	Post Monsoon Season (October to December, 2020)	One Month Additional Baseline Study (Oct.,2021)
AAQ parameters at 09 locations & Additional study for 13 Locations	<ul style="list-style-type: none"> • PM_{2.5} - 26.1 to 55.4 µg/m³ • PM₁₀ - 58.2 to 92.4 µg /m³ • SO₂ - 5.8 to 19.7 µg/m³ • NO₂ - 13.8 to 38.6 µg/m³ • CO - BDL to 1.13 mg/m³ 	<ul style="list-style-type: none"> • PM_{2.5} - 25.4 to 53.9 µg/m³ • PM₁₀ - 55.4 to 91.5 µg /m³ • SO₂ - 5.5 to 22.1 µg/m³ • NO₂ - 12.3 to 36.9 µg/m³ • CO - BDL to 1.15 mg/m³
Incremental GLC level	<ul style="list-style-type: none"> • PM_{2.5} = 3.49 µg/m³ (~4.5 Km in SW direction from the plant site) • PM₁₀ = 10.51 µg /m³ (~4.7 Km in SW direction from the plant site) • SO₂ = 2.19 µg/m³ (~4.87 Km in SSW direction from the plant site) • NO_x = 8.75 µg/m³ (~7.15 Km in SSW direction from the plant site) • CO = 47.2 µg/m³ (~8.82 Km in SSW direction from the plant site) 	-
Ground water quality at 08 locations	<ul style="list-style-type: none"> • pH - 7.34 to 8.02 • Total Hardness - 250.0 to 1005.0 mg/l • Chlorides – 137.97 to 501.46 mg/l • Fluoride - 0.81 to 1.23 mg/l • Heavy Metals - Iron as Fe: 0.11 to 0.19 mg/l 	-
Surface water quality at 05 Locations	<ul style="list-style-type: none"> • pH - 7.52 to 7.76 • DO - 5.9 to 7.4 mg/l • BOD – 6.1 to 16.0 mg/l • COD – 26.9 to 59.0 mg/l 	-

Noise levels at 09 locations	Noise Level During Day Time –53.1 to 68.9 Leq dB (A) Noise Level During Night Time –43.3 to 62.3 Leq dB (A)	-				
Traffic assessment study findings	<ul style="list-style-type: none">Traffic study has been conducted at approach road to NH – 79 Near Narpath Ki Khedi which is approximately 7.35 km in WSW direction from plant site.Transportation of raw material & finished product will be done 100% by road.Existing PCU is 938.2979 PCU/hr on approach road to NH – 79 Near Narpath Ki Khedi and existing LOS is:					
	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	
	Narpath Ki Khedi	938.2979	5400	0.173	A	
	Conclusion: The level of service will be “A” i.e., Excellent for NH 79					
	➤ PCU load after expansion project will be 34 (Pyro & Ausmelt) + 25 (Hydro I & II) + 9 (minor metal recovery unit) for Inward Traffic and 23 (Pyro) + 11 (Hydro I & II) + 9 (minor metal recovery unit) + 49 (Solid & Hazardous Waste) for outward Traffic and level of service (LOS) will be:					
	Road	Increased PCU / hr.	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS
	Approach road to NH – 79	592 / 24 = 24.67	938.2979 + 24.67 = 962.9679	5400	0.178	A
	* Capacity as per IRC- 64-1990 & 106-1990 Guidelines for capacity for roads.					
	<ul style="list-style-type: none">Conclusion: The LOS value will be “A” i.e. “Excellent” for approach road to NH – 79 due to the proposed expansion project, there will be addition of Heavy and Light motor vehicles in the existing traffic. Thus, it can be concluded that the present road network is good enough to bear the increased traffic load.					
Flora and fauna	Six schedule - I species i.e., <i>Panthera pardus</i> (Leopard), <i>Prionailurus rubiginosus</i> (Rusty Spotted Cat), <i>Gyps bengalensis</i> (White-rumped Vulture), <i>Falco jugger</i> (Laggar Falcon), <i>Pavo cristatus</i> (Indian Peafowl), <i>Varanus bengalensis</i> (Bengal Monitor lizard) recorded in the study area; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act’ 1972. Wildlife conservation plan for the Schedule I species i.e. <i>Panthera pardus</i> (Leopard), <i>Prionailurus rubiginosus</i> (Rusty Spotted Cat), <i>Gyps bengalensis</i> (White-rumped Vulture), <i>Falco jugger</i> (Laggar Falcon), <i>Pavo cristatus</i> (Indian Peafowl), <i>Varanus bengalensis</i> (Bengal Monitor lizard), along with <i>Hystrix indica</i> (Indian Crested Porcupine) & <i>Semnopithecus entellus</i> (Bangal Hanuman Langur) has been prepared and submitted to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide					

	<p>letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The approval of the WLCP is under process with the department.</p> <p>The total budget allocated for implementation of Wildlife Conservation plan is Rs. 7.86 Crores for the implementation period of 10 years.</p>
--	---

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

S. No.	Type of Waste Quantity (Unit)	Cat. Code	Quantity Generated/ Latest EC	Additional	Total after Expansion	Method of Treatment and Disposal
Hazardous waste						
1.	Cooler cake (TPA)	7.2	6,000	NIL	6,000	Reuse/Recycle/Sale to registered recycler/Co-processing/Disposal in SLF
2.	Anode mud (TPA)	7.2	2,200	NIL	2,200	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
3.	Used/Spent oil (KLA)	5.1	96	NIL	96	Reuse/ Sale to registered recycler
4.	Waste oil (KLA)	5.2	270	NIL	270	Reuse/Sale to registered recycler
5.	Cobalt cake (TPA)	7.2	1,000	NIL	1,000	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
6.	Purification cake / Enrichment cake (TPA)	7.2	12,520	NIL	12,520	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
7.	Spent catalyst (KLA)	17.2	60	NIL	60	Sale to registered recycler/disclosed in SLF
8.	Non-ferrous Sludge from ETP and scrubbers (TPA)	7.4	13,600	16400	30000	Reuse/Recycle/Sale to registered recycler /Disposed in SLF/Co processing in Cement industries
9.	Discarded containers/barrels/liners used for Haz. Waste/chemicals (Nos./yr)	33.1	1,400	NIL	1,400	Reuse/Recycle/Sale to registered recycler /Disposed in SLF
10.	Flue gas cleaning residue (TPA)	37.2	2.0	NIL	2.0	Reuse/Recycle/Sale to registered

S. No.	Type of Waste Quantity (Unit)	Cat. Code	Quantity Generated/ Latest EC	Additional	Total after Expansion	Method of Treatment and Disposal
						recycler /Disposed in SLF
11.	Spent ion exchange resin containing toxic metal (TPA)	35.2	1.0	NIL	1.0	Sale to registered recycler/disposed in secure land fill
12.	Water purification Resin (TPA)	34.2	2.0	NIL	2.0	Sale to registered recycler/disposed in secure land fill
13.	Exhaust Air or Gas Cleaning Residue (Kg/Year)	35.1	100	NIL	100	Approved Incinerator
14.	Copper Bearing Lead Residue / Process Residue (TPA)	7.2	11000	NIL	11000	Sale to registered recycler /Disposed in SLF
15.	HGP Dust/HGP Cake (TPA)	7.2	7500	NIL	7500	Sale to registered recycler
16.	Filter and Filter material which contain organic compound (TPA)	-	100	NIL	100	Sale to registered recycler/disposed to secure land fill/approved Incinerator
17.	Oil Soaked Jute/cotton waste/Used PPE's (TPA)	5.2	10.0	NIL	10.0	Sale to registered recycler/disposed to secure land fill/approved incinerator
18.	MEE Salt (TPA)	33.2	5,000	NIL	5,000	Recovery of Glauber Salt/ Disposal in SLF
19.	Process Residues and wastes / Geothite Cake/ (TPA)	7.2	11471	NIL	11471	Captive SLF/Co processing/Sales to registered recyclers
20.	De Fluorination Cake (TPA)	7.2	NIL	2000	2000	Disposal in SLF
21.	ISF Dross (TPA)	7.2	NIL	10000	10000	Sale to registered recycler/disposed to secure land fill
22.	Lead Acid Battery Plates and other lead scarp /ashes/residues not covered under Battery Management and handling rules 2001 (TPA)	7.2	18000	NIL	18000	Recycling /reprocessing
23.	Zn Dross (TPA)	7.2	0	12000	12000	Recycling /reprocessing

S. No.	Type of Waste Quantity (Unit)	Cat. Code	Quantity Generated/ Latest EC	Additional	Total after Expansion	Method of Treatment and Disposal
Non Hazardous Waste						
24.	Ausmelt Slag (TPA)	Non Haz	26000	-	26000	Reuse in process
25.	Fly ash (TPA)	Non Haz	180312	276933	457245	100% in cement
26.	Bottom Ash (TPA)	Non Haz	80657	124772	205429	Cement & bricks manufacturing
27.	Gypsum (TPA) { FGD}	Non Haz	-	120000	120000	Utilization in Cement and other Industries.
28.	Slag (Fumer)	Non Haz	150000	NIL	150000	Utilization in Cement and other Industries
29.	Jarosite Cake (TPA) (Hydro Plant)	Non HAZ	306000	81000	387000 [81000 To be used in Fumer]	Utilization in Cement Manufacturing / Road / Rail embankment / Concrete construction / disposal in Lined Jarofix yard
30.	ISF Slag (TPA)	Non Haz	85000	55000	140000	Cement /highway /reuse in process

20.3.15 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers “Rajasthan Patrika” and “Jannayak” on 15 th June., 2022
Date of Public Consultation	20th July, 2022 at 11:00 am
Venue	Govt. Senior Secondary School, Ajoliya ka khera, Chittorgarh (Raj.).
Presiding Officer	District Magistrate: Shri Arvind Kumar Poswal
Major issues raised	Issues related to Employment, Environment & Pollution, Green Belt Development, Socio-economic development related, water and land related issues.

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

S. No.	Sector	Physical Activity and Action Plan	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Amount (Rs Lacs)
1.	Community Infra	CC Roads i. Nagri to Dhordia village ii. Suwaniya village iii. Ajoliya ka kheda	75	50	50	-	-	175
2.	Education	School renovation i. Munga ka kheda	20	20	20	20	20	100

S. No.	Sector	Physical Activity and Action Plan	1 st Year	2 nd Year	3 rd Year	4 th Year	5 th Year	Total Amount (Rs Lacs)
		ii. Putholi iii. Nagri iv. Biliya v. Ajoliya ka kheda						
3.	Water	Overhead tank and pipeline i. Ajoliya ka kheda ii. Chogawadi	85	-	-	65	-	150
4.	Infra	Community halls & Sagra mata Temple compound wall construction i. Biliya ii. Anwalheda iii. Semalpura iv. Abhaypura v. Ajoliya ka Khera (including Sagra mata Temple compound wall construction)	30	30	30	30	-	120
		Total	210	100	100	115	20	545 Lacs

20.3.16 The existing capital cost of the project was Rs. 429057 Lakhs. The capital cost for the proposed expansion project is Rs. 786 Crores & the capital cost for environmental protection measures is proposed as Rs. 120.05 Crores. The annual recurring cost towards the environmental protection measures for expansion is Rs.15.14 Crores/ annum. The employment generation from the expansion project is 360 people. The details of cost for environment protection measures is as follows:

S. No	Environment /Social Control Measure	Cost of EMP (IN LAKHS)					
		EXISTING		PROPOSED		TOTAL	
		CAPITAL	RECURRING (PER ANNUM)	CAPITAL	RECURRING (PER ANNUM)	CAPITAL	RECURRING (PER ANNUM)
A.	Pollution Control Measures						
i.	Pollution Control at Pyro Plant	48.5	1.4	18	2.7	66.5	4.1
ii.	Pollution Control at CPP	135	0.19	44.2	5.37	179.2	5.56
iii.	Pollution Control at Hydro I & II	0.5	3.9	0.85	0.1250	1.35	4.025
iv.	Pollution Control at DG Sets at Pyro & Hydro	-	-	0.2	0.03	0.2	0.03
v.	Pollution Control at proposed Lead Refinery Plant	Nil	Nil	45	5.4	45	5.4
vi.	Pollution Control at proposed Minor	Nil	Nil	10	1.5	10	1.5

S. No	Environment /Social Control Measure	Cost of EMP (IN LAKHS)					
		EXISTING		PROPOSED		TOTAL	
		CAPITAL	RECURRING (PER ANNUM)	CAPITAL	RECURRING (PER ANNUM)	CAPITAL	RECURRING (PER ANNUM)
	Metal Recovery unit						
vii.	Pollution Control at proposed RZO Unit	Nil	Nil	0.1	0.015	0.1	0.015
	Sub Total			118.35	15.14		
B.	Post Project Compliance Environment Monitoring	-	-	0.20	Nil	0.2	Nil
C.	Greenbelt Development	5	2.16	1.00	Nil	6	2.16
D.	Rain Water Harvesting Structures	-	-	0.50	Nil	0.5	Nil
	Sub Total			1.70			
	Grand Total	189	7.65	120.05	15.14	309.05	22.79
	Addressal of Public Consultation concerns	-	-	-	545 Lacs	-	545 Lacs

20.3.17 Existing greenbelt has already been developed in ~125.02 ha which is about ~37.21 % of the total project area 335.89 ha with total saplings of 1,34,800 Trees. The same will be maintained and enhanced by doing gap plantation to achieve the plantation density@2500/ha for proposed expansion. The proposed greenbelt development & plantation area will be developed in upcoming 3 years within the existing plant premises. 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 guideline. Local and native species will be planted with a density of 2500 trees per hectare. Total 1,79,450 numbers of trees will be planted and nurtured within the existing plant premises in 3 years.

20.3.18 A Show Cause Notice was issued to the M/s. Hindustan Zinc Ltd. by MOEFCC, New Delhi vide letter J-11011/279/2006-IA.II (I) dated 06/04/2021 under Section 5 of Environment (Protection) Act, 1986 for violation of provisions of under EIA Notification, 2006. Reply of the same was submitted to MOEFCC, New Delhi vide letter HZL/CLZS/ENV/38/2021-22 dated 19/04/2021. After detailed deliberation as per the personal hearing held on 05/08/2021, the Show Cause Notice has been withdrawn by MOEFCC, New Delhi vide letter dated 31/08/2021.

Certified Compliance report from Regional office, MoEFCC

20.3.19 The Status of compliance of earlier EC was obtained from Regional Office, MoEFCC Jaipur vide letter no. IV/ENV/R/IND-29/285/04, dated 27.08.2022 followed by letter issued from MOEFCC, New Delhi vide no. IA-J-11014/96/2022 dated 7.10.2022 w.r.t. Non Compliances observed in the name of M/s. Hindustan Zinc Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC, New Delhi vide letter no. HZL/CLZS/ENV/38/2022-23 dated 04.11.2022. MoEF&CC (RO), evaluated the same and closure report from the IRO Office, MoEFCC Jaipur is awaited.

EC ref.	EC Conditions	Partially Complied	Corrective Action Taken	Present status	Remarks
S.C. 16 of EC letter dated 03.06.1983	Contingency & disaster plans should be drafted for adoption	Contingency & disaster plans has not been adopted properly by PP as there was an accident at the premises involving multiple casualties.	✓ No non –compliance against any of the condition stipulated in referred EC. The plans reviewed and updated time to time and submit to concern authority.	Action Taken Report has been submitted to MoEF&CC on 4.12.2022 along with the action plan with respect to non – compliance observed at site.	Response from the IRO Office, Jaipur is awaited.
G.C. i of EC letter dated 14.10.2020	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented	In view of this PP is hereby directed to submit the (i) Clarification for non – Compliance observed during the site visit, (ii) Action Taken Report (ATR) and (iii) Action Plan w.r.t the non-complied conditions	✓ CLZS –HZL has comprehensive safety rules and regulations in place and diligently followed at our sites to maintain the safety of and safe working for the employees & contract workers. ✓ Robust contingency and disaster plans are in place at CLZS-HZL, and they are adopted in letter and spirit and strictly adhered to at the time of any contingency & disaster. ✓ Apart from this, undertake routine mock drills at site, in accordance with the internal standards and in association with the District administration. ✓ Further we are in process of undertaking a detailed structural safety study, through Bureau Veritas ✓ This will assist us, in revising our contingency and disaster plan, if need be.		

Deliberations by the Committee

20.3.20 The Committee noted the following:

1. It was brought to the notice of the Committee about a Show-cause notice (SCN) recently issued by the Ministry during 2022 on account of an accident that took place at the project site. The EAC observed that there is not much reference about the accident in the EIA/EMP report. During the appraisal, on the observation of the EAC, the PP discussed about the accident, but has not given anything in detail in the Report. The EAC is of the view that PP/Consultant shall provide the complete details of the accident and also shall carry out root cause analysis and further present the case along-with the SCN and the reply submitted by the project proponent to the Ministry.
2. The EAC also observed that the area marked for greenbelt in the earlier EC has been used for installation of Fertiliser Plant. PP is required to provide justification in this regard. The green belt density is also very less and not as per 2500 tress/ha.
3. Further, during the meeting PP explained that despite repeated efforts, they have not been able to achieve desired greenbelt density. The PP has obtained many ECs but still the density of tress has not achieved. In this regard, the Committee advised that they shall approach reputed institutions specialised in such activities such as FRI and prepare a plan for effective implementation of greenbelt development.
4. The EAC noted that the Berach River is flowing adjacent to the project site in the East direction. Taking into consideration Ministry's O.M. vide F. No. 22-39/2020-IA.III dated 14.02.2022 pertaining to guidelines for sitting industries which are in close proximity with the river, PP shall submit the NOC from State Irrigation Department in compliance to the said O.M.
5. Putholi Nala is passing through the plant site and Berach River is flowing adjacent to the project site in the East direction. Also, Gambhir Nadi(~4.0 km, S), Nagdi ka Nala (~8.5 km, NNE) and Canal (~8 km, WNW) are flowing within 10 Km. radius of the plant site. A robust and full proof 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.
6. EAC noted that the Existing Water requirement for the project is 38570 KLD. After the expansion project, 500 KLD additional water will be required for the Minor Metal Unit which will be sourced from RO permeate water from ETP. Therefore, no additional Fresh Water will be required for the proposed expansion project. The PP claimed that the water is being / will be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water). There was earlier deliberation also to use the treated STP water of Municipal Corporation Udaipur/Chittorgarh, however PP has only signed the Agreement signed between Municipal Corporation Udaipur, Urban Improvement Trust, Udaipur and Hindustan Zinc Ltd. on 09/05/2021 for supply of treated water from Proposed STP (20 MLD) at Udaipur. The EAC is of the view that PP shall complete all the tasks w.r.t. usage of STP treated water and accordingly layout the pipeline

connection and other related activities for supply of treated water for this expansion project, as the usage of treated water is environmentally and sustainable best practice.

7. The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO is of the view that PP shall complete the compliance of partly / non-complied conditions as per the Action Plan and shall obtain closure report from IRO, MoEF&CC along with compliances of green belt development.
8. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and observed that maximum values of PM₁₀ and PM_{2.5} are found to be on a higher side. Also the incremental GLC for PM₁₀ and PM_{2.5} due to the instant project infers that the PM values will be beyond the NAAQ standards. In this regard, the EAC is of the opinion PP shall submit mineral composition of PM₁₀ and also submit the mitigation measures that will be undertaken to minimise the same.
9. The EAC is of the opinion that PP shall under leaching and toxicity study of the by-products in the proposed project, shall cover their impacts and the mitigation measures.
10. The EAC noted that Six schedule - I species i.e., *Panthera pardus* (Leopard), *Prionailurus rubiginosus* (Rusty Spotted Cat), *Gyps bengalensis* (White-rumped Vulture), *Falco jugger* (Laggar Falcon), *Pavo cristatus* (Indian Peafowl), *Varanus bengalensis* (Bengal Monitor lizard) recorded in the study area; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. Wildlife conservation plan for the Schedule I species has been prepared and submitted to DCF, Chittorgarh for authentication from CWW, Chittorgarh vide letter no. HZL/CLZS/43/2022-23 dated 10.11.2022. The approval of the WLCP is under process with the State Department. The EAC is of the view that the instant Unit is very old and PP has only submitted the conservation plan to the Wildlife Department in November 2022 and operating the Unit without its approval. EAC advised the PP to implement the conservation plan immediately and submit the copy of approval to the EAC/Ministry.
11. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. Also, the EAC advised to quantify the written and oral representation received during the public hearing. EAC is of the view that the PP has made a vague plan.
12. The EAC deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form.
13. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.
14. The EAC also raised concern on the housekeeping issues at the project site and suggested to improve the housekeeping of the plant area. PP shall submit the housekeeping plan along with the photographs in this regard.

15. The PP needs to submit the undertaking that they have not done any violation under the provisions of the EIA Notification, 2006/Air Act/Water Act and never exceeded the production capacity without requisite clearances under the provisions of EIA Notification, 2006/ Air Act, Water Act etc. for the instant project.
16. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing.
17. The nearest habitation to plant are Putholi (~0.5 km in SW), Ajoliya Ka Khera (~ 1 km in West) and Biliya (~ Adjacent in North) from plant site. There are approx. 75 villages and 1 city in 10 km radius study area. Project Proponent shall take submit appropriate environmental safeguard measures to minimise the impact on the habitation of the locals.
18. The water requirement of 38570 KLD (existing) is proposed to be sourced from Gosunda Dam (Fresh Water) & Proposed STP Chittorgarh/ Udaipur/ other proposed STP's (Recycled Water) and 500 KLD additional water for the Minor Metal Unit is proposed to be sourced from RO permeate water from ETP. The EAC is of the view that PP shall explore the possibility to fulfil its water requirement from STP/ETP.
19. This is expansion project. Therefore, it is recommended to monitor most toxic metals such as Pb, Cd & Hg in blood and urine samples for all the employees. As Cd affects kidney function. It is required to monitor the Kidney function test for the employees. The airborne Pb and Cd levels should be monitored in all the process plants and to be compared with Permissible exposure limits (PEL) as per the Indian Factories Act.
20. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

Recommendations of the Committee

- 20.3.21 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para no. 20.3.20 above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

Re-Consideration in Environmental Clearance

Agenda No. 20.4

- 20.4 Proposed Standalone Cement Grinding Unit, Production capacity of 1,03,500 TPA, over an extent of 1.59.44 Ha (159454.16 Sq.m) by M/s Ottathingall India Pvt. Ltd., located at Plot No. B1, SF. No. 1599 (P), 1600 (P), 1601(P) SIPCOT, Pirancheri Village, Tirunelveli Taluk (Now Manur Taluk) & District, Tamil Nadu– Re-Consideration of Environmental Clearance.**

[Proposal No. IA/TN/IND/290087/2021; File No. J-11011/93/2021-IA-II(I)] [Consultant: Aadhi Boomi Mining & Enviro Tech (P) Ltd; valid upto 22.10.2024]

- 20.4.1 Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The Member Secretary appraised the Committee that information was received only on 29th December, 2022 from Consultant pertaining to submission of documents. Also, PP did not attend the meeting. The Committee opined that project proponent has just wasted the time of the Committee for not making timely communication. EAC requested the Ministry to place the proposal in the EAC meeting only after receiving request/communication from project proponent and **deferred** the proposal.

Agenda No. 20.5

- 20.5 5.0 MTPA Iron Ore Processing Plant & 3.0 MTPA Pellet Plant over an area of 26.44 Ha, Integrated with Downhill Pipe Conveyor over an area of 16.58 Ha by M/s MSPL Limited at Village Somalapura, Sandur Taluk, Bellary District, Karnataka – Re-Consideration of Environmental Clearance.**

**[Proposal No.: IA/KA/IND1/402872/2022; File No. IA-J-11011/329/2021-IAII(IND-1)]
[Consultant: M/s. Mineral Engineering Services; valid upto 15.05.2023 and M/s Ardra Consulting Services Pvt Ltd.: valid upto 29.12.2022]**

- 20.5.1 M/s. MSPL Limited has made an online application vide proposal no. IA/KA/IND1/402872/2022 Dated 13.10.2022 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. 2(b) Mineral Beneficiation and 3(a), Metallurgical industries (ferrous & non-ferrous) under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 20.5.2 Name of the EIA consultant:

Beneficiation Plant: M/s. Mineral Engineering Services [S. No. 55, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/SA0163 valid till 15.05.2023; Rev. 25, Sept 05, 2022].

Pellet Plant: M/s Ardra Consulting Services Pvt Ltd. [S. No. 99, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/1922/IA0055 valid till 29.12.2022; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

20.5.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
09.10.2021	47 th meeting of EAC held on 28 th - 29 th Oct, 2021	Terms of Reference	15.11.2021	14/11/2025
01.01.2022	52 nd meeting of EAC held on 07.01.2022 27 th , 28 th and 31 st Jan 2022	Amendment in ToR	14.02.2022	

20.5.4 The project of M/s. MSPL Ltd., located in Somalapur Village, Sandur Tehsil, Ballari District, Karnataka State is for setting up of a new Beneficiation Plant & Pellet Plant integrated with Downhill Pipe Conveyor for production of 5.0 Million Tons Per Annum (MTPA) of Iron Ore Processing Plant & 3.0 MTPA of Pellet Plant.

20.5.5 Environmental Site Settings:

SNo	Particulars	Details	Remarks																						
i.	Total land	<div>124.73 ha [Private: 29.04 ha; Govt: 81.71 ha; and Forest Land : 13.98 Ha.]</div> <div>Land use breakup for Plant area at Somalapura village is as given below.</div> <table><thead><tr><th>Description of the unit</th><th>Area in Ha</th></tr></thead><tbody><tr><td>Iron Ore Processing</td><td>1.68</td></tr><tr><td>Pellet Plant</td><td>1.88</td></tr><tr><td>Green zone</td><td>9.82</td></tr><tr><td>Water storage</td><td>0.85</td></tr><tr><td>Raw material yard</td><td>4.56</td></tr><tr><td>Office space & Ancillary</td><td>5.95</td></tr><tr><td>Slime (tailing reject) storage & Management in Plant</td><td>1.70</td></tr><tr><td>Total</td><td>26.44</td></tr></tbody></table> <div>Land use breakup for Plant area at Kalingeri village</div> <table><thead><tr><th>Description of the unit</th><th>Area in Ha</th></tr></thead><tbody><tr><td>Tailing dumping /stacking & Installation of filtration/dewatering unit.</td><td>20.32</td></tr></tbody></table>	Description of the unit	Area in Ha	Iron Ore Processing	1.68	Pellet Plant	1.88	Green zone	9.82	Water storage	0.85	Raw material yard	4.56	Office space & Ancillary	5.95	Slime (tailing reject) storage & Management in Plant	1.70	Total	26.44	Description of the unit	Area in Ha	Tailing dumping /stacking & Installation of filtration/dewatering unit.	20.32	-
Description of the unit	Area in Ha																								
Iron Ore Processing	1.68																								
Pellet Plant	1.88																								
Green zone	9.82																								
Water storage	0.85																								
Raw material yard	4.56																								
Office space & Ancillary	5.95																								
Slime (tailing reject) storage & Management in Plant	1.70																								
Total	26.44																								
Description of the unit	Area in Ha																								
Tailing dumping /stacking & Installation of filtration/dewatering unit.	20.32																								

SNo	Particulars	Details			Remarks												
		Buildings, water complex & reservoir system.	8.10														
		Internal roads & drainage system.	6.37														
		Future expansion for ancillary facilities	16.41														
		Green belt development.	30.51														
		Total	81.71														
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The proposed land for plant layout at Somlapura is owned by MSPL and the Tailing area at Kalingeri is applied to Karnataka Udhya Mitra which are Non –agriculture land Partially Acquired: Acquired : 29.04 Ha, To be acquired : 95.69 Ha			-												
ii.	Existence of habitation & involvement of R&R if any.	R&R is not involved. Yashwantnagar Village is about 1.5 km			-												
iii.	Latitude and Longitude of the project site	Plant area , Latitude N 15° 01'26.10" to N 15° 01' 56.98" and Longitude E 76° 29' 47.22" to E 76° 30' 11.74" Tailing dump yard at Latitude N 14° 58'31.3" to 14° 59'11.05" and Longitude E 76° 29' 30.86" to E 76° 30' 18.68"			-												
iv.	Elevation of the project site	At Plant site : 609 m to 619 m AMSL, Tailing storage area: 644 m to 673 m AMSL			-												
v.	Involvement of Forest land if any.	Status of stage I Forest Clearance: Application submitted vide File. no. FP/KA/MIN/144985/2021 dated 19/07/2021 Area of the forest land involved: 13.98 Ha			For Downhill pipe conveyor from mine -16.58 ha												
vi.	Water body exists within the project site as well as study area	Project site: Nil Study area: <table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>Narihalla Stream</td><td>0.32 km</td><td>W</td></tr><tr><td>Ankamanuhallu Kere</td><td>3.7 km</td><td>SE</td></tr><tr><td>Bandri Kere</td><td>6.4 km</td><td>SW</td></tr></table> Tungabhadra river is located at 22.6 Kms from the proposed plant site. Only a small seasonal nallah starts adjacent to the plant area and joins Narihalla seasonal nallah/canal. Narihalla has a dam constructed downstream at a distance of 11.7 Kms. The HFL of Tungabhadra dam is at 498m AMSL and the proposed plant site has as elevation of 630m AMSL Therefore there is no impact of flood hazards for the plant site.			Water body	Distance	Direction	Narihalla Stream	0.32 km	W	Ankamanuhallu Kere	3.7 km	SE	Bandri Kere	6.4 km	SW	-
Water body	Distance	Direction															
Narihalla Stream	0.32 km	W															
Ankamanuhallu Kere	3.7 km	SE															
Bandri Kere	6.4 km	SW															

SNo	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. List of Reserved and protected forests: Kumaraswamy betta R.F. : 0.68 km/ E Ramgarh R. F. : 2.3 km/ N Somalapur R. F. : 0.47 km/ SW Tumbbaragudi R. F: 7.0 km/ SE	-

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

S. No	Unit Detail	Unit Configuration	Production Capacities
1.	Iron ore Beneficiation (Beneficiated ore)	5.0 MTPA	5.0 MTPA (through output)
2.	Pellet Plant (Pellet)	3.0 MTPA	3.0 MTPA

20.5.7 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
Beneficiation plant					
1	Iron Ore	50,00,000	NIOM Captive & Other Mines	4	Through DHPC & By road.
Pellet Plant					
1	Iron ore fines	33600000	Beneficiation Plant	4	Online Conveyor.
2	Bentonite	36000	Gujarat	2000	Road
3	Coke breeze	24000	Imported from Australia / Russia	-	Port/ road
4	Coal	96000	Imported	475	Port and by road
5	Limestone	24000	Lokapur, Karnataka	150	Rail/ road
6	Dolomite	24000	Lokapur, Karnataka	150	Rail / road

20.5.8 The water requirement for the project is estimated as 2491 KLD, which will be obtained from the Tungabhadra dam reservoir and the requirement of 336 m³/day during construction for three years will be met from the Bore well. The permission for drawl of surface water at operation stage is obtained from Karnataka Neravari Nigam Ltd., Vide Letter. No. KNN/Tungabadhra/Water to Factories/2022/0465 dated 25/04/2022 and in 35th proceedings of the committee formed water distribution to industries held on 04.08.2022 and the committee has recommended to provide the approval. The permission for drawl of groundwater has been obtained from Karnataka Ground Water Authority Vide Letter. No. KGWAN1673372668 dated 30.06.2022.

20.5.9 The power requirement for the project is estimated as 40 MW, which will be obtained from the Karnataka Power Transmission Corporation Limited.

20.5.10 Baseline Environmental Studies:

Period	Post Monsoon Season (Oct 2021 to Dec 2021)				
AAQ parameters at 12 Locations (min and max)	<ul style="list-style-type: none">PM_{2.5} = 12 to 36 µg/m³PM₁₀ = 29 to 69 µg /m³SO₂ = 5 to 13 µg/m³NOx = 9 to 19 µg/m³CO = 0.32 to 0.58 µg/m³				
Incremental GLC level	<ul style="list-style-type: none">PM_{2.5} = 0.8 µg/m³ (Level at 0.5 .km in NE Direction)PM₁₀ = 2.0 µg/m³ (Level at 0.5 km in NE Direction)SO₂ = 0.1 µg/m³ (Level at 0.5 km in NE Direction)NOx = 0.1 µg/m³ (Level at 0.5 km in NE Direction)CO = 0.1 µg/m³ (Level at 0.5 km in NE Direction)				
Ground water quality at 14 locations	pH: 6.96 to 8.20, Total Hardness: 210 to 770 mg/l; Chlorides: 55 to 550 mg/l, Fluoride: <0.1 to 1.70 mg/l				
Surface water quality at 10 locations	pH: 7.72 to 8.30; DO: min 5.3 to 5.8 mg/l and BOD: <2 to 2.4 mg/l.				
Noise levels Leq (Day and Night)	45.3 to 54.6 for the day time and 36.8 to 43.9 For the Night time.				
Traffic assessment study findings	Traffic study has been conducted at SH-40 which is approximately 1.2 kms (distance) from the plant site. Transportation of raw material, fuel & finished product will be done 100 % by road. Existing PCU is 2127.5 PCU/day on SH-40 and existing level of service (LOS) is:				
	Road	V (Volume in PCU/day.)	C (Capacity In PCU/day.)	Existing V/C, Ratio	LOS
	SH-40 Sandur –Kudgli Road	4571	15000	0.304	B (very good)
	PCU load after proposed project will be 4571(Existing) + 1237 (Additional) PCU/day and level of service (LOS) will be: B good				
	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS
	SH-40 Sandur –Kudgli Road	5808.3	15000	0.387	B (Very good)
* Note: Capacity as per IRC-64. Guide line for capacity for roads.					
Conclusion: The levels of service will same. After including additional traffic due to proposed project.					
Flora and fauna	<ul style="list-style-type: none">Schedule-I species have been observed in the study area – Common Leopard, Sloth Bear, and Indian Rock Python. Wild life conservation plan is prepared and submitted to PCCF (Wildlife) and Chief Wildlife Warden, Karnataka vide letter dated 20.08.2022 and the same is forwarded to DCF				

	(Ballari) vide letter No. PCCF(WL)/D/CR-60/2021-22 dated 20.09.2022 for review.
--	---

20.5.11 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
Solid Waste					
1	Tailing	Beneficiation Plant	0.9 MTPA	Tailings will be stored at Kalingeri village about 6 Kms from within the project site	Nearby Cement Industries, Brick, Tiles, Paver Manufactures.
2	Fines collected from ESP/Bag filters	Pellet Plant	-	Will be recycled in pellet plant alongwith concentrate	
Hazardous Waste					
1	Used Oil & Grease waste	Pump area, DG room	15 KL	KSPCB Authorized recyclers	By road
2	Waste Residue	Work shops	5 KL	KSPCB Authorized recyclers	By road

20.5.12 Public Consultation:

Details of advertisement given	07.06.2022
Date of public consultation	08.07.2022
Venue	Somlapura Village at Plant Site
Presiding Officer	District Magistrate
Major issues raised	Environmental pollution caused from plant, Local Employment, Women empowerment, Education scholarships

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

Sl. No	Issues Raised during Public Hearing	Physical targets	Year of Implementation				Remark
			1 st Year	2 nd Year	3 rd Year	Total amount (In Lakhs)	
1	Pollution Control						
a	Air Pollution During Construction Period: Fugitive dust emission from construction activities.	<ul style="list-style-type: none"> * Use of covered trucks, * Regular water sprinkling at vulnerable areas of construction site and roads * Development of green belt plantation • Plantation around boundary area of plant and boundary area of tailing disposal dump(15.6 Ha area @ 2500/ Ha, 39,000 plants) • Plantation in open area 23.54 Ha with high canopy cover consisting of 	30	30	30	90	The total plantation is been considered under EMP cost

Sl. No	Issues Raised during Public Hearing	Physical targets	Year of Implementation				Remark
			1 st Year	2 nd Year	3 rd Year	Total amount (In Lakhs)	
		Neem, @ 1600 /Ha , 37664 trees * Supply of fruit bearing saplings to Somalapur(300), Yeshwantanagar(450) , Kalingeri (300)and Ankanmanhall (150)villages in consultaion with the village committee and local administration					
	During Operation Period: Degradation of AAQ in the plant & vicinity due to Stack emission (mainly PM) Vehicular traffic may result in air pollution in nearby habitations Fugitive emissions from material handling, transfer, loading and unloading operations	ESP & bagfilter will be installed and all APCDs designed to meet emissions of <30 mg/Nm3	3190	35	50	3275	The respective capital cost is already been included in EMP
		Monitoring of process stacks. Ambient Air Monitoring, Fugitive emission monitoring in the plant and nearby areas	10	10	10	30	
		Fixed water sprinklers on raw material transport roads	20	2	2	24	
		Road Sprinkling by Tankers with Spray fittings	20	1.2	1.2	22.4	
		Concreting/Blacktopping of internal roads (6 Km CC road)	1500	2	2	1504	
		Green belt development along the boundary of the plant	0.5	0.5	0.5	1.5	
	Sub total		4770.5	80.7	95.7	4946.9	
b	Water Pollution Control						
	Surface water During Construction Period: Increase in suspended solids from strom water runoff during heavy rain, situations carrying loose soil/construction material from site	All washable construction material will be stored under sheds or enclosed space to prevent spillage into the drainage network. Monitoring of pollutants on monthly basis	0.25	0.25	0.25	0.75	This cost is only for construction phase
	During Operation Period: Contamination of surface water due to flow of process water and surface runoff	* Process water from beneficiation plant is recycled and kept in closed circuit through thickeners, so there is no discharge of wastewater * STP based on MBBR technology for treatment of domestic wastewater * The tailing dump area will have toe walls and drainage channels followed by stabilization tanks into a tailing pond, from tailing pond water will be recirculate in the process..	1550	60	60	1670	
	Sub total		1550.25	60.25	60.25	1670.75	
c	Noise Pollution Control						
	During Construction Period: Movement of construction equipment's and vehicles, installation of machineries etc.	Vehicles with BS6 standards with PUC will only be deployed. No machinery or vehicle will be kept in idle running beyond 2 min time span. The whole plant is stabilized with honking zone. Workers will be provided with	4	1	1	6	The mentioned procedures will be standard operating procedures under any or every

Sl. No	Issues Raised during Public Hearing	Physical targets	Year of Implementation				Remark
			1 st Year	2 nd Year	3 rd Year	Total amount (In Lakhs)	
		necessary PPE, e.g. Ear plug, Earmuffs					contractual conditions
	During Operation Period: Equipments in the plant and auxiliaries	All noise generating equipment's including machine rooms will be covered with paddings for local noise attenuation. Equipment will be designed to confirm to occupational noise levels prescribed by regulatory agencies. A three tier tall plantation is planned all along the boundary wall to stabilization noise transmission beyond the boundary level. Workers will be provided with necessary PPE, e.g. Ear plug, Earmuffs	5	1	1	7	The cost of plantation and stabilize complied machinery cost are already incorporated in EMP Cost and the given cost is only for PPE's
	Sub total		9	2	2	13	
2	Employment opportunity for the local people	About 1500 nos of manpower during construction activity. During operation, Approximately 1652 nos of manpower is required (Direct 752 and 900 Indirect) and considering the suitability, and requirement of MSPL employment to the local shall be provided.					The engagement of local manpower during both construction and operation phase will be on and above the norms of employment as defined by Govt of Karnataka. Considering this above 70% of the work source will be sourced locally.
	Sub total		0	0	0	0	
3	Education for locals population						
a	School infrastructure development Projects (Smart class, science lab, Distribution of furniture, teaching and learning materials for schools)	10 Govt schools shall be supported	20	10	10	40	
	Sub total		20	10	10	40	
4	Health care facilities to the surrounding villages						
a	Facilitating Doctors in dispensaries with provision of basic amenities	Initially Dispensary at Yashvant Nagar is been chosen for furnacing with check up table , autoclave, wall fitted test tube and jar hangers, providing two celling fans for operability. On second year based on the need assessment the second	5	5	5	15	

Sl. No	Issues Raised during Public Hearing	Physical targets	Year of Implementation				Remark
			1 st Year	2 nd Year	3 rd Year	Total amount (In Lakhs)	
		primary health care facility will be chosen for strengthening.					
b	Health Awareness program on Eye screening camps & operation camp and other general health camps	50 camps in a year and 150 such camps in 3 years.	12	12	12	36	
c	Artificial limbs and calliper camp (Jaipur foot camp)	1 camps in a year concluding the total 3 camps in 3 years	13	13	14	40	
	Sub Total		30	30	31	91	
5	Transport opportunity for the local truck drivers	Raw material iron ore fines are being transported directly through DHPC from mines. Hence, there is no requirement of engaging local trucks for this purpose. Only product pellet will be transported by trucks by the purchasers directly. However, we will recommend the local transporters for this work to the pellet purchase vendors	0	0	0	0	
	Sub total		0	0	0	0	
6	Employment to the women, unemployed and disabled people of the surrounding villages of the taluk.						
A	Women empowerment through Self Help Groups	50 SHGs will be formed and provided revolving fund	10	10	10	30	
	Sub total		10	10	10	30	
7	Land Acquisition	Land under possession is litigation free					
8	Preservation of wild life The project doesn't come under the forest area. The Biodiversity survey conducted in 10 KM radius from project site, where we have found the Schedule-I fauna. Wild life conservation Plan is prepared and submitted to Chief Wild Life Warden as per TOR Condition.	10 Nos of awareness programme on wildlife and environment will be conducted in 3 villages every year. Conservation measures will be implemented such as construction of water bodies and maintenance, fruit bearing and shade giving trees around water bodies, erection of watch towers/walkie- talkie, provision of salt licks , anti-poaching guards, fire lines and budget has allocated every year.	15	5	5	25	
	Sub total		15	5	5	25	
9	Basic Infrastructure development						
a	Providing drinking water facilities	RO (Purified Drinking Water) plants will be installed at strategic public locations in 3 villages to meet the drinking water stabilization	10	0.5	0.5	11	

Sl. No	Issues Raised during Public Hearing	Physical targets	Year of Implementation				Remark
			1 st Year	2 nd Year	3 rd Year	Total amount (In Lakhs)	
b	Provision of solar power street light	Solar street lights for 10 villages	5	5	5	15	
	Sub total		15	5.5	5.5	26	
	Grand Total		6419.75	203.45	219.45	6842.65	

20.5.13 The capital cost of the proposed project is Rs.1920 Crores and the capital cost for environmental protection measures is proposed as Rs. 75.14 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 1.47 Crores. The employment generation from the proposed project is 1652 [752 Nos. direct & 900 Nos. indirect]. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Proposed (Rs. In Crores/lakhs)	
		Capital Cost	Recurring Cost
1	Air Pollution Control/ Noise Management	1550	6.03
2	Water Pollution Control	50	2
3	Green Belt Development	77	1.0
4	Occupational health	5	31
5	Fire extinguishers	12	3
6	Fire hydrant with pipe line	100	
7	ESP & Stack	4000	35
8	Bag filter system (PP+IOPB+IOGS)	190	
9	Filter press & Water Recovery	1500	60
Total		7514	147.03

20.5.14 Proposed greenbelt will be developed in 39.14 ha which is about 36% of the total project area. A 2.5 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 77055 saplings will be planted and nurtured in 39.14 Hectares in 3 years.

20.5.15 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction related to the project under consideration.

20.5.16 The proposal was initially considered in the 18th meeting of the EAC for Industry-I sector held on 28-29th November, 2022 wherein the Committee deferred the proposal on account of technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee (EAC during 28-29th November, 2022)

20.5.17 The Committee noted the following:

1. A representation has been received through email dated 23.11.2022 for rejection of the instant Environment Clearance application on multiple issues raised pertaining to the said project. The EAC is of the opinion that the project proponent shall submit the pointwise

clarification on the issues raised in the representation dated 23.11.2022. The EAC advised the Ministry to forward the representation to project proponent for their clarification. In this context, representation has forwarded to PP.

2. EAC noted that in the specific TOR prescribed by the earlier Committee there are very specific conditions stating to submit various action plans relating to erosion control, drainage protection, 100% waste utilisation etc. The PP needs to provide and submit the detailed action plans for mitigation. The Consultant/PP had provided very sketchy information in vague manner with arbitrary statements. Whereas it was noted during the EAC meeting that the project area is falling adjacent to thick lush green forest area and is significantly environmentally sensitive. Further, the PP is going to generate huge amount of waste tailings per year to the tune of about one million tonnes per year and has proposed to store them on a relatively high elevation of about 600 AMSL, which will cause serious pollution problems and land degradation at the dumping site as well as downstream. PP has not provided a concrete action plan to reuse the tailings or an MoU with end-user. Further, PP has to undertake ground water leaching study for heavy metals of the tailing site. Therefore, the PP shall address all the above issues in detail scientifically and with engineering details and specific financial provisions.
3. The EAC noted in the application form on PARIVESH under section for Name of the Company/ Organization/User agency, the name appears as “Dr. Meda Venkataiah” which is also the name of the applicant whereas the name of the company is M/s. MSPL Limited. The EAC also noted that the Ministry has raised EDS also in this regard and issue has not been sorted at the end of project proponent. Taking into consideration that the whole process is online including generation of EC wherein data is fetched automatically from the application form on PARIVESH, it is advised that the same shall be rectified.
4. Total project land is 124.73 ha which also include 13.98 ha of Forest land. As reported, the proposed land for plant layout at Somalapura is owned by MSPL and the Tailing area at Kalingeri is applied to Karnataka Udhya Mitra. So far 29.04 ha has been acquired whereas 95.69 ha is yet to be acquired. Taking into consideration Ministry’s O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *“While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal.....,”* EAC is of the opinion that, credible document showing the status of land acquisition shall be required at the time of appraisal in pursuance to the said O.M.
5. The PP has reported that application for Forest Clearance has been submitted vide File. no. FP/KA/MIN/144985/2021 dated 19.07.2021. The EAC advised the PP to take note of Ministry’s O.M. vide No. J-11013/41/2006-IA.II(I) dated 09.09.2011 as amended on 18.05.2012 and 19.06.2014 pertaining to procedure for grant of environment clearance under EIA Notification, 2006 which involve Forest land.
6. The nearest human settlement from the site is Yashwantnagar Village located at a distance of 1.5 Kms from the project site. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals.
7. Narihalla Stream (0.32 km, W), Ankamanuhallu Kere (3.7 km, SE) and Bandri Kere (6.4 km, SW) exists within the study area of 10 km from the project site. A robust and full

proof Drainage Conservation scheme with design and engineering details to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.

8. On perusal of kml file, the committee noticed that a railway line is passing through the project site. However, the PP/Consultant stated that the aforementioned railway line is passing adjacent to the project site. In this regard, the EAC is of the opinion that the PP/Consultant shall re-verify/recheck the kml file and submit the revised KML file.
9. The EAC noted that PP has not uploaded the covering letter forwarding of PH proceedings addressed to the Ministry. Also, EAC noted that there are several written representations received for the project. The EAC is of the view that PP shall submit the breakup of the written representations received categorically in favour of the project and against the project. The PP is also advised to share the video recording of the PH proceedings in the next consideration of proposal by EAC.
10. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC has advised PP to revise the action plan. The PP agreed to the advice of Committee and also committed to raise the cost of addressing PH issues to 1.5-2% of the total project cost.
11. The EAC noted that the TOR compliance in EIA/EMP report is general and vague and only reference is there. The PP/Consultant shall submit the gist of the TOR compliances and details of specific answers and accordingly revise EIA/EMP Report.
12. PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.
13. The EAC deliberated on the management of tailings generated out of Iron Ore beneficiation plant and is of the view that details related to generation, storage and disposal of tailings shall be submitted in a tabular form.
14. The Committee deliberated on the greenbelt development proposed by the project proponent and noted that proposed 30.51 ha greenbelt shall be developed at Kalingeri village. Since the total project area is distributed in pockets, PP shall clarify whether the greenbelt will be developed in all the pockets @33% as per the norms. PP shall submit a detailed action plan in this regard.
15. Action plan for the stock pile management including the details, financial aspects, drawings etc. shall be submitted.
16. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

Recommendations of the Committee (EAC during 28-29th November, 2022)

- 20.5.18 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para no. 20.5.17 above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

20.5.19 The proponent submitted the ADS reply on PARIVESH on 9th December, 2022 and 21st December, 2022. Point-wise reply of ADS is given as below:

Sl. No	Points raised by MOEFCC	Reply by M/s. MSPL Limited
1	A representation has been received through email dated 23.11.2022 for rejection of the instant Environment Clearance application on multiple issues raised pertaining to the said project. The EAC is of the opinion that the project proponent shall submit the pointwise clarification on the issues raised in the representation dated 23.11.2022. The EAC advised the Ministry to forward the representation to project proponent for their clarification. In this context, representation has forwarded to PP.	The pointwise clarification on the issues raised in the representation dated 23.11.2022 submitted
2	EAC noted that in the specific TOR prescribed by the earlier Committee there are very specific conditions stating to submit various action plans relating to erosion control, drainage protection, 100% waste utilisation etc. The PP needs to provide and submit the detailed action plans for mitigation. The Consultant/PP had provided very sketchy information in vague manner with arbitrary statements. Whereas it was noted during the EAC meeting that the project area is falling adjacent to thick lush green forest area and is significantly environmentally sensitive. Further, the PP is going to generate huge amount of waste tailings per year to the tune of about one million tonnes per year and has proposed to store them on a relatively high elevation of about 600 AMSL, which will cause serious pollution problems and land degradation at the dumping site as well as downstream. PP has not provided a concrete action plan to reuse the tailings or an MoU with end-user. Further, PP has to undertake ground water leaching study for heavy metals of the tailing site. Therefore, the PP shall address all the above issues in detail scientifically and with engineering details and specific financial provisions.	<p>Action Plan for Tailing generation, stacking and re use of the tailings generated is submitted in detail.</p> <p>MOU with end user pertaining to reuse of the tailing is submitted.</p> <p>The surrounding area of kalingeri village where tailing filters and stacking is proposed is having only scrub forest. Please refer 10 Km radius topo sheet as submitted.</p> <p>The 600 AMSL is mentioned about the RL above the sea level whereas the contour map of tailing area at Kalingeri shows gentle gradients with in the area selected. The area is selected for stacking is at a lower level as compare to surrounding areas of the site. Further PP is also constructing retaining wall, drains along the dump for collecting rain water. The contour maps is submitted</p> <p>A groundwater leaching study will be conducted once tailing dumps are established.</p>
3	The EAC noted in the application form on PARIVESH under section for Name of the	PP is constantly following up with NIC and trying to resolve it.

Sl. No	Points raised by MOEFCC	Reply by M/s. MSPL Limited																
	Company/ Organization/User agency, the name appears as “Dr. Meda Venkataiah” which is also the name of the applicant whereas the name of the company is M/s. MSPL Limited. The EAC also noted that the Ministry has raised EDS also in this regard and issue has not been sorted at the end of project proponent. Taking into consideration that the whole process is online including generation of EC wherein data is fetched automatically from the application form on PARIVESH, it is advised that the same shall be rectified.																	
4	Total project land is 124.73 ha which also include 13.98 ha of Forest land. As reported, the proposed land for plant layout at Somalapura is owned by MSPL and the Tailing area at Kalingeri is applied to Karnataka Udhya Mitra. So far 29.04 ha has been acquired. whereas 95.69 ha is yet to be acquired. Taking into consideration Ministry’s O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as “ <i>While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal.....</i> ,” EAC is of the opinion that, credible document showing the status of land acquisition shall be required at the time of appraisal in pursuance to the said O.M.	<div>Status of remaining land proposed to be acquired<table><tr><th>Sl. No</th><th>Project Land</th><th>Area in Ha</th><th>Land Acquisition Status</th></tr><tr><td>1</td><td>DHPC</td><td>13.98</td><td>13.98 Ha Applied for FC. A joint survey of the forest and revenue department has been completed. The file is at the DCF Bellary for further processing.</td></tr><tr><td>1</td><td>Kalingeri (Tailing dump Area)</td><td>81.71</td><td>Karnataka Udyog Mitra sent letter to the Revenue department Bangalore and the Deputy commissioner Ballari district for an opinion. Documents submitted.</td></tr><tr><td colspan="2">Total</td><td>95.69</td><td></td></tr></table></div>	Sl. No	Project Land	Area in Ha	Land Acquisition Status	1	DHPC	13.98	13.98 Ha Applied for FC. A joint survey of the forest and revenue department has been completed. The file is at the DCF Bellary for further processing.	1	Kalingeri (Tailing dump Area)	81.71	Karnataka Udyog Mitra sent letter to the Revenue department Bangalore and the Deputy commissioner Ballari district for an opinion. Documents submitted.	Total		95.69	
Sl. No	Project Land	Area in Ha	Land Acquisition Status															
1	DHPC	13.98	13.98 Ha Applied for FC. A joint survey of the forest and revenue department has been completed. The file is at the DCF Bellary for further processing.															
1	Kalingeri (Tailing dump Area)	81.71	Karnataka Udyog Mitra sent letter to the Revenue department Bangalore and the Deputy commissioner Ballari district for an opinion. Documents submitted.															
Total		95.69																
5	The PP has reported that application for Forest Clearance has been submitted vide File. no. FP/KA/MIN/144985/2021 dated 19.07.2021. The EAC advised the PP to take note of Ministry’s O.M. vide No. J-11013/41/2006-IA.II(I) dated 09.09.2011 as amended on 18.05.2012 and 19.06.2014 pertaining to procedure for grant of environment clearance under EIA Notification, 2006 which involve Forest land.	Noted & Agreed.																
6	The nearest human settlement from the site is Yashwantnagar Village located at a distance of 1.5 Kms from the project site.	Dust collected from all the above locations at the Pellet Plant which contains iron ore micro fines is sent back into the process as Fine Dust is recycled in the process																

Sl. No	Points raised by MOEFCC	Reply by M/s. MSPL Limited								
	Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals.	of pelletization. The green belt has been proposed within the plant area of 26.44 Ha @ 33.3% i.e., 8.8Ha with a density of 2500 saplings per Ha with high canopy i.e, Neem, Radha Chuda (Caesalpinia pulcherrima), Peepal tree etc. This plantation will reduce the dust pollution from the emitted from the plant. Also 30-meter-wide green belt development within the project area towards Yashwant Nagar village (North) is proposed. Detailed Action is explained in EIA & EMP report								
7	Narihalla Stream (0.32 km, W), Ankamanuhallu Kere (3.7 km, SE) and Bandri Kere (6.4 km, SW) exists within the study area of 10 km from the project site. A robust and full proof Drainage Conservation scheme with design and engineering details to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.	Drainage Conservation scheme with design and engineering details submitted.								
8	On perusal of kml file, the committee noticed that a railway line is passing through the project site. However, the PP/Consultant stated that the aforementioned railway line is passing adjacent to the project site. In this regard, the EAC is of the opinion that the PP/Consultant shall re-verify/recheck the kml file and submit the revised KML file.	The Railway line is passing adjacent to the plant site, attached KML file shows the black line is the railway line and whereas red line boundary of the project site which is outside the railway property.								
9	The EAC noted that PP has not uploaded the covering letter forwarding of PH proceedings addressed to the Ministry. Also, EAC noted that there are several written representations received for the project. The EAC is of the view that PP shall submit the breakup of the written representations received categorically in favour of the project and against the project. The PP is also advised to share the video recording of the PH proceedings in the next consideration of proposal by EAC.	Forwarding letter with PH proceedings addressed to the Ministry submitted. <table><tr><th>Description</th><th>Nos of Written statements</th></tr><tr><td>In Favour of Industry</td><td>10108</td></tr><tr><td>Against of Industry</td><td>3396</td></tr><tr><td>Total</td><td>13504</td></tr></table> PP will share the video of PH proceedings at the time of presentation.	Description	Nos of Written statements	In Favour of Industry	10108	Against of Industry	3396	Total	13504
Description	Nos of Written statements									
In Favour of Industry	10108									
Against of Industry	3396									
Total	13504									

Sl. No	Points raised by MOEFCC	Reply by M/s. MSPL Limited			
10	The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC has advised PP to revise the action plan. The PP agreed to the advice of Committee and also committed to raise the cost of addressing PH issues to 1.5-2% of the total project cost.	Points raised in the written submissions have been reviewed and accordingly action plan is revised. Cost of Addressing PH Issues details are as listed below.			
		Cost Involved		Cost In Cr	In Percentage
		Project cost		1920 Cr	-
		Cost Addressing PH issues already mentioned in EIA/EMP		68.43 Cr	3.56% of the Total Project cost
		The public hearing action plan is submitted.			
11	The EAC noted that the TOR compliance in EIA/EMP report is general and vague and only reference is there. The PP/Consultant shall submit the gist of the TOR compliances and details of specific answers and accordingly revise EIA/EMP Report.	Revised ToR Compliance is enclosed in EIA & EMP report			
12	PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.	The report with financial implication for the Same in detail is submitted.			
13	The EAC deliberated on the management of tailings generated out of Iron Ore beneficiation plant and is of the view that details related to generation, storage and disposal of tailings shall be submitted in a tabular form.	A relevant report with all the details is submitted.			
14	The Committee deliberated on the greenbelt development proposed by the project proponent and noted that proposed 30.51 ha greenbelt shall be developed at Kalingeri village. Since the total project area is distributed in pockets, PP shall clarify whether the greenbelt will be developed in all the pockets @33% as per the norms. PP shall submit a detailed action plan in this regard.	Year	Plant Area (Ha)	Tailing Area (Ha)	Total Greenbelt Area (Ha)
		1 st	3.52	12.204	15.724
		2 nd	2.64	9.153	11.793
		3 rd	2.64	9.153	11.793
		Total	8.80	30.51	39.31
		Total Extent	26.44	81.71	108.15
		% of green belt	33.28	37.34	36.34
15	Action plan for the stock pile management including the details, financial aspects, drawings etc. shall be submitted.	A relevant report with all the details is submitted.			

Sl. No	ADS Points	PP Reply
--------	------------	----------

1	PP has uploaded the unsigned letter in Portal.	Due to compression of the document to its maximum extent before uploading in order to be within the storage limits for upload, the graphics of the signature has thinned out with almost non visibility. PP is extremely sorry for this documental upload and submitted herewith a clear copy of the letter.
2	FC is in very initial stage. PP has to expedite the submission of adequate documents for Stage-I FC	<p>a. The Forest Diversion Proposal Vide Proposal No.FP/KA/MIN/144985/2021 is been applied as on 19.07.2021 for the downhill conveyor system, which include service road, approach road and DHC infrastructure area from Narashima Iron Ore mines (one of the feeding mines to the proposed beneficiation plant) by MSPL Ltd.</p> <p>b. As per the narrative of the FC proposal and as proposed in EC, The category of the project comes under Mining; Shape of the forest land proposed to be diverted is Linear and Area of forest land proposed for diversion is 13.98 Ha.</p> <p>c. In lieu of the ADS Point No.5 and taking note of Ministry's O.M vide No. J-11013/41/2006-IA.II(I) dated 09.09.2011 as amended on 18.05.2012, and 19.06.2014. The detail status of the FC process after Scrutiny by the Division Office Bellary is as follows: The evidence of step-wise advancement in DRP process the following attached Annexure is provided for your kind perusal.</p> <ul style="list-style-type: none"> • Application Submission Acknowledgement Copy. • Forwarding of Hard copies of Application & ancillary documents to Divisional Forest Office and as well as District Collector. • Receipt of the proposal being forwarded to the concerned DFO and DC for further processing. • As on date status of the project in the portal is with User agency • DGPS Survey Completion Certificate by the Authorized Vendor. <p>d. As per the proposal status and in compliance to the EDS raised by DFO on 22.10.2021, further advancements are being done for the necessary forest clearance as below: After DCF Bellary processed our application, ordered for Joint Survey by department of Mines & Geology, Revenue and Forest for which the EDS was raised. The joint DGP Survey has been completed and CA land has been identified at Goveli Village, Khanapur Taluk, Belgaum district, which is a "Patta" land within the Bhimgad Wildlife Sanctuary. Further, tree enumeration for the pathway of DHCP is under process at present and shall be completed within a months' time frame. After completion of tree enumeration, the file will be complete in all requirements & shall be processed and moved to the nodal officer and MoEF&CC for stage-1 approval.</p>

Deliberations by the Committee

20.5.20 The Committee noted the following:

1. In the application form on PARIVESH under section for Name of the Company/ Organization/User agency, the EAC observed that the name still appears as “Dr. Meda

Venkataiah” which is actually the name of the applicant whereas the name of the company is M/s. MSPL Limited. The EAC also noted that the Ministry initially raised EDS in this regard, thereafter the Committee raised ADS during its meeting held on 28-29th November, 2022 and issue has not been sorted at the end of project proponent. PP has submitted that they are constantly following up with NIC and trying to resolve it. However, taking into consideration that the whole process is online including generation of digital EC wherein data is fetched automatically from the application form on PARIVESH, the EAC reiterated its earlier concern and advised PP/ Consultant to rectify the same and shall submit a fresh application since it is a technical issue and may not get resolved early.

2. Total project land is 124.73 ha which also include 13.98 ha of Forest land. As reported, the proposed land for plant layout at Somlapura is owned by MSPL and the Tailing area at Kalingeri is applied to Karnataka Udyoga Mitra which are Non –agriculture land. So far 29.04 ha has been acquired whereas 95.69 ha is yet to be acquired. Further, PP has reported that application for Forest Clearance has been submitted vide File. no. FP/KA/MIN/144985/2021 dated 19/07/2021. However, taking into consideration the Ministry’s O.M. issued vide No. J-11013/41/2006-IA.II(I) dated 09.09.2011 as amended on 18.05.2012 and 19.06.2014 pertaining to procedure for grant of environment clearance under EIA Notification, 2006 which involve Forest land, the EAC deliberated that even if the proposal is recommended, the EC may not be issued by the Ministry and in that case proponent will have to submit Stage-I FC order to the Ministry within 1 year of grant of EC.
3. The EAC deliberated on the pointwise submission of PP to the points raised in the representation dated 23.11.2022 for rejection of the instant Environment Clearance application pertaining to the said project and found it unsatisfactory. The EAC advised PP/Consultant to review its submission and submit revised clarifications on the points raised in the representation.
4. The EAC deliberated on the submitted action plan of Tailing Management and asked to revisit the same with regard to its reuse, storage and different pollution control mitigation measures with supportive documents after a technical study.
5. The EAC after deliberation agreed for ‘in Principle’ recommendation of EC subject to addressing above issues.
6. The PP/Consultant is agreed to the suggestion of EAC and requested to allow for reappearance after revision of the application incorporating the desired information.

Recommendations of the Committee

- 20.5.21 In view of the foregoing and after deliberations, the Committee recommended that proposal to be **returned in its present form** to address the shortcomings enumerated at para no. 20.5.20 above and submit and upload the revised application including all the EDS/ADS reply as sought

by the EAC in earlier meeting. PP shall also revise the EIA/EMP Report accordingly and upload on Parivesh Portal for further deliberations by the EAC.

Consideration of TOR Proposal

Agenda No. 20.6

20.6 Proposed Greenfield Cement Plant of 2.50 MTPA Clinker & 3.50 MTPA Cement (OPC/PPC), 50 MW Thermal Power Plant, and 15 MW Waste Heat Recovery Plant of M/s. Saraswati Power & Industries Private Limited, located at Tangeda, Vemavaram & Chennayyapalem Villages, Dachepalli & Machavaram Mandals, Guntur District, Andhra Pradesh – Consideration of TOR

[Proposal No. IA/AP/IND1/406403/2022; File No. J-11011/543/2009-IA.II(IND-I)]

20.6.1 M/s. Saraswati Power & Industries Private Limited has made an application online vide proposal no. IA/AP/IND1/406403/2022 dated 14.12.2022 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(b) Cement Plants and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at central level.

20.6.2 Name of the EIA consultant: M/s. B.S.Envi Tech Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2023/SA 0157 valid till 15.05.2023; as on 21st December, 2022].

Details submitted by Project proponent

20.6.3 The project of M/s. Saraswati Power & Industries (P) Ltd., located in Tangeda, Vemavaram & Chennayyapalem village, Machavaram Mandal, Palnadu district, Andhra Pradesh State is for setting up of a greenfield Cement Plant – 2.5 MTPA Clinker & 3.5 MTPA Cement (OPC/PPC), 50 MW Thermal Power Plant, 15 MW Waste Heat Recovery Plant.

20.6.4 Environmental site settings:

S. No	Particulars	Details	Remarks		
i.	Total land	121.4 Ha [Private Agricultural land]	Land use:		
			S. No	Descriptions	Area (Ha)
			1	Cement Plant – Process area including cement mill and packing area	10.30
			2	Captive Power Plant with switch yard	10.00

S. No	Particulars	Details	Remarks			
			3	Storages (Limestone, Coal & Additives)	12.00	
			4	Water reservoir	2.70	
			5	Railway siding	12.00	
			6	Truck parking	2.50	
			7	Roads	12.00	
			8	Area inbetween structures	9.40	
			9	Greenbelt	42.50	
			10	Colony	8.00	
				Total	121.4	
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	SPIPL has purchased about 107 Ha. of land directly and balance is under process.	-			
iii.	Existence of habitation & involvement of R&R, if any.	None, No R&R is involved			-	
		Study Area:				
		Habitation	Distance (Km)	Direction		
		Chennayyapalem	0.40	N		
		Vemavaram	0.88	ESE		
iv.	Latitude and Longitude of all corners of the project site.	S. No	LATITUDE N"	LONGITUDE E"	-	
		A	16°38'48.75" N	79°50'35.17" E,		
		B	16°38'48.03" N	79°51'12.52" E,		
		C	16°38'7.09" N	79°51'10.31" E,		
		D	16°38'16.77" N	79°50'35.67" E,		
v.	Elevation of the project site	68-83 m above MSL.			-	
vi.	Involvement of Forest land if any.	No Forest Land Involved			-	
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	Project site: 1. Canal inside the Plant Site - S Study area 2. Krishna River – 3.96 km - E 3. Stream Adjacent to the Plant Site - N. 4. Elaga Vagu – 5.36 km – NE 5. Chintriyal Major – 5.31 km – ENE 6. Ganneru Vagu – 4.07 km – SE 7. Ralla Vagu – 1.59 km – E 8. Tadutla Minor – 3.56 km – SSE 9. Barimeda Vagu – 2.71 km – W 10. Nearest Canal – 1.25 km - W 11. Tangeda Major Canal – 3.36 km – W 12. Nendra Vagu – 5.32 km – W			Krishna River is at 3.96 km HFL of Krishna River is 51 m AMSL Plant site is 83 m AMSL	
viii	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/	Nil. List of Reserved and protected forests: 1. Reserved Forest beside Mamidimota Vagu – 10.07 km – N				

S. No	Particulars	Details	Remarks
	elephant reserve etc. if any within the study area	2. Regulagadda RF – 1.27 km - NE 3. Pittalsarikota RF – 6.06 km – NE 4. Chintalapalem RF – 6.20 km – NE 5. Uranam RF – 5.36 km – ENE 6. Govindapuram RF – 2.76 km – ESE 7. Vemavaram RF – 1.44 km – S 8. Madinapadu RF – 4.19 km – WNW; 9. Tangeda RF – 3.40 – NW	
ix	Interlinked project	The limestone requirement of the plant will be 3.75 MTPA which will be met from the Captive Limestone Mining Leases located at 500 m from the plant site over an extent of 613.476 Ha in Tangeda Village, Dachepalli Tehsil, Palnadu District of Andhra Pradesh. The Captive Limestone mine spreads over an area of 613.476 Ha with about 592.6 Million Tonnes of mineable reserves feeding for more than 178 years. The mine was accorded integrated Environmental Clearance (EC) by MOEF&CC along with the cement plant vide letter No. F.NO. J-11011/543/2009 – IA II (I) dated 29.03.2012. As per SO 1533, EIA Notification, 2006, the EC is valid for the mine for 30 Years.	

20.6.5 The subject project of Saraswathi Power & Industries Limited Cement Plant was granted Environmental Clearance vide letter No. F.NO. J-11011/543/2009 –IA II (I) dated 29.03.2012 for Integrated Cement Plant (Clinker-2.5 MTPA; Cement-3.5 MTPA) along with Captive Power Plant (50 MW) and captive Limestone mine (3.75 MTPA). The EC validity was extended vide letter dated 03.07.2019 for a period of 3 years i.e. up to 28.03.2022. The instant proposal is for obtaining Terms of Reference for obtaining fresh Environmental Clearance for the same Project. There is no change in Capacity and location for which EC was granted earlier.

Implementation of the existing EC:

20.6.6 Due to economic down turn and sluggish market conditions, and delay in land acquisition and issues involved in mining lease, the project on ground could not be initiated. Considering the expiry of the EC validity, and the construction time requirement, SPIPL proposes to obtain fresh Environmental clearance.

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

Sl. No.	Units	Proposed Capacity
1	Clinker (MTPA)	2.5
2	Cement (OPC/PPC) (MTPA)	3.5
3	Coal Based Captive Power Plant (CPP) (MW)	50

4	Waste Heat Recovery Power Plant (MW)	15
5	Colony	150 Houses ($<20000 \text{ m}^2$ – built-up area)

20.6.8 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 (MTPA)	Source	Approx. distance from plant (km)	Mode of Transportation	Remarks
1.	Limestone	3.75	Captive Mine / Outsource	500 M	Covered Conveyor Belt	Covered Stock Pile
2.	Bauxite	0.07	East Godavari & Vishakhapatnam (AP) / Local Market	300	Road	Covered shed
3.	Iron Ore	0.07	Cuddaph District (AP) / Local Market	450	Road	
4.	Gypsum (Mineral / Synthetic)	0.175	Captive Synthetic Gypsum Unit / Near-by Fertilizer Plants at Vizag / Vishakhapatnam	300	Road	
5.	Fly ash	0.95	CPP / Thermal Power Plants at VTPS /TSGENCO and Near-by Power Plants	30-100	Road	Silo
7	Coal for cement plant	0.360	Coal Indian - Preferably SCCL / Open market Imported Coal - Indonesia, South Africa, Australia etc.	220	Rail	Covered Stockpile
8	Coal for power plant	0.328	Coal Indian – E-auction	200-250	Rail	

20.6.9 The water requirement for Cement plant, captive power plant, colony and mines is estimated to be $2300 \text{ m}^3/\text{day}$, of which $350 \text{ m}^3/\text{day}$ is treated recycled wastewater from Power Plants. The net fresh water requirement of the plant and mine will be $1950 \text{ m}^3/\text{day}$. The source of the water is Krishna River & Borewells. The permission for drawl of Krishna water was obtained from Govt. of A.P. vide G.O.MS. No. 16 Dt. 15-05-2020 for 19 Cusecs or 0.0689 TMC or $5345 \text{ m}^3/\text{day}$ and Permission for drawl of Ground water was obtained from Ground Water Department, Govt. of A.P.

20.6.10 The total power requirement for the cement plant including will be about 40 MW and for proposed mine is about 4.0 MW. The total proposed capacity of the captive power plant will be 65 MW (50 MW coal-based power plant and 15 MW WHRB power plant).

20.6.11 The capital cost of the project is Rs.1800 Crores and the capital cost for environmental protection measures is proposed as Rs.150 Crores. The employment generation from the proposed project is 350.

20.6.12 PP has reported that no litigation is pending. However, a Writ Appeal has been filed in WA 340/2021 and leave to appeal is not yet granted by the Hon'ble High Court of Andhra Pradesh.

20.6.13 Proposed Terms of Reference: [Baseline data collection period: October 2022 – December 2022]

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
A. Air				
a) Meteorological Parameters	Temperature, wind speed, wind direction, relative humidity, rainfall, and cloud cover	1	24 hours	
b) AAQ parameters	PM ₁₀ , PM _{2.5} , SO ₂ , NO _x , and CO	9	Twice a week per-month for three months	
B. Noise	Day and Night	9	24hour reading will be collected once in the monitoring season	
C. Water				
Surface water/Ground water quality parameters	Surface water as per CPCB Ground Water as per IS 10500	8 9	Once in monitoring season	
D. Land				
a) Soil quality	As per CPCB covering Texture, pH, Electrical Conductivity, Exchangeable Cations, CEC, Organic Carbon, Organic Matter available NPK and Heavy Metals	9	Once in monitoring season	
b) Land use	Remote sensing satellite data	10 km radial-distance		
E. Biological	Primary as well as secondary data will be conducted for flora and fauna of the study area during monitoring Season.			
a. Aquatic b. Terrestrial				
F. Socio-economic	Primary and Secondary Data Collection			

Attributes	Parameters	Sampling		Remarks
		No. of Stations	Frequency	
parameters	Need Based Studies			

Deliberation by the Committee

20.6.14 The Committee noted the following:

- i. The EAC observed that PP has not presented the Drone survey of the project site during the appraisal of the project although the same has been clearly mentioned in the agenda of the meeting. In view of the same, the EAC advised PP/ Consultant to present the drone survey during appraisal of the proposal. The EAC advised the Consultant to read the instructions given in the Agenda before coming to the EAC meeting.
- ii. The Committee noted that a Writ Appeal has been filed in WA 340/2021 and leave to appeal is not yet granted by the Hon'ble High Court of Andhra Pradesh. The EAC is of the opinion that PP shall submit the details of the court case alongwith requisite documents.
- iii. Total project area is 121.4 ha which is private agricultural land. M/s SPIPL has purchased about 107 Ha (88%) of land directly and balance is under process. PP shall submit credible document w.r.t. acquisition of land for the proposed project in pursuance to Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014. It seems that Consultant is not properly read the provisions of EIA Notification, 2006.
- iv. The nearest habitation to the proposed project site are Chennayyapalem (0.40 km, N) and Vemavaram (0.88 km, ESE). Project Proponent shall submit action plan for environmental safeguard measures to minimise the impact on the habitation of the locals.
- v. There is a Canal inside the Plant Site in the South direction. Also, Krishna River (3.96 km – E), Stream (Adjacent to the Plant Site – N), Elaga Vagu (5.36 km – NE), Chintriyal Major (5.31 km – ENE), Ganneru Vagu (4.07 km – SE), Ralla Vagu (1.59 km – E), Tadutla Minor (3.56 km – SSE), Barimeda Vagu (2.71 km – W), Nearest Canal (1.25 km – W), Tangeda Major Canal (3.36 km – W) and Nendra Vagu (5.32 km – W) exists within the study area of 10 km of the project site. The EAC is of the opinion that the water bodies shall not be disturbed. 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.
- vi. The PP shall explore the possibility to avoid ground water usage and propose alternative source of water for fulfilling its requirement.
- vii. In view of above facts, EAC advised PP to revise the PFR covering all the desired information for further consideration.
- viii. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee

- 20.6.15 In view of the foregoing and after detailed deliberations, the Committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 20.6.14 above and revise the application accordingly. The proposal may be considered after submission of the requisite information.

Agenda No. 20.7

Issues related to Tailing management in the Steel Industries with permission of the Chairman:

With the gradual depletion of high-grade iron ore reserve and resources in the country, beneficiation of low grade iron ore/fines has to be carried out by the steel industries/pellet plants etc. to have acceptable grade of iron ore. This process generates huge tailings.

Recently, in the EAC meeting, the issue of tailing management (for Steel Industry) was discussed and need for detailed discussion was felt by constituting a sub-committee of EAC with the following scope:

Scope:

- (i) The sub-committee will address the issue of tailing of iron ore, its storage pattern, reuse possibilities, and sustainable management of tailing as a whole.
- (ii) The committee also discuss the best and recent practices around the world and recommend the safe, environment friendly and sustainable approaches with regard to storage, reuse and disposal method in the context of our country. The sub-committee also may invite industries and technical experts during their discussion.

The EAC further requests Ministry to consider its suggestion on constitution of a sub-committee of the EAC to have a detailed discussion on tailings management so as to come out with sort of guidelines on tailings management. The Chairman of EAC has recommended to constitute the Sub-committee of the EAC which may comprise the following EAC Members:

1.	Dr. Dipankar Shome	Chairman
2.	Dr. S. Ranganathan	Member
3.	Dr. Tejaswini Ananthkumar	Member
4.	Dr. Ranjit Prasad	Member
5.	Dr. E V R Raju	Member
6.	Shri Nazimuddin, Scientist 'F', CPCB	Member
7.	Dr. R. P Rastogi, Scientist C, MoEFCC	Secretary

The above Sub-committee of the EAC may submit the Report within Two months. The Sub-committee may call Experts/Industries/Consultants for the deliberation on the subject on Tailing management in the Steel Industries.

The Meeting ended with thanks to Chair.

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 <ul style="list-style-type: none">• Wind speed (Hourly)• 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	<ul style="list-style-type: none">• IS 5182 Part 1-20• Site specific primary data is essential• Secondary data from IMD, New Delhi• CPCB guidelines to be considered.
Pollutants <ul style="list-style-type: none">• PM_{2.5}	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	<ul style="list-style-type: none">• Sampling as per CPCB guidelines• Collection of AAQ data (except in monsoon season)• Locations of various stations for different
<ul style="list-style-type: none">• PM₁₀			
<ul style="list-style-type: none">• SO₂			
<ul style="list-style-type: none">• NO_x			
<ul style="list-style-type: none">• CO			
<ul style="list-style-type: none">• HC			

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> Other parameters relevant to the project and topography of the area 			<p>parameters should be related to the characteristic properties of the parameters.</p> <ul style="list-style-type: none"> 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 data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
<ul style="list-style-type: none"> Hourly equivalent noise levels 	At least 8-12 locations	As per CPCB norms	-
C. Water			

Attributes	Sampling		Remarks
	Network	Frequency	
Parameters for water quality <ul style="list-style-type: none">pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinityTotal nitrogen, total phosphorus, DO, BOD, COD, PhenolHeavy metalsTotal coliforms, faecal coliformsPhyto-planktonZoo-planktonMicroalgae/microalgal bloom	Samples for water quality should be collected and analyzed as per: <ul style="list-style-type: none">IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluentsStandard methods for examination of water and wastewater analysis published by American Public Health Association.		
For River Bodies <ul style="list-style-type: none">Total CarbonpHDissolved OxygenBiological Oxygen DemandFree NH4BoronSodium Absorption RatioElectrical ConductivityTDS	<ul style="list-style-type: none">Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies	<ul style="list-style-type: none">Yield of water sources to be measured during critical seasonStandard methodology for collection of surface water (BIS standards)	
For Ground Water	<ul style="list-style-type: none">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			
<ul style="list-style-type: none">Type of vehiclesFrequency of vehicles for transportation of materials	-		

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none">Additional traffic due to proposed projectParking arrangement			
E. Land Environment			
Soil <ul style="list-style-type: none">Particle size distributionTexturepHElectrical conductivityCation exchange capacityAlkali metalsSodium Absorption Ratio (SAR)PermeabilityWater holding capacityPorosity			Soil samples be collected as per BIS specifications
Land use/Landscape <ul style="list-style-type: none">Location codeTotal project areaTopographyDrainage (natural)Cultivated, forest, plantations, water bodies, roads and settlements			-
E. Biological Environment			
Aquatic <ul style="list-style-type: none">Primary productivityAquatic weedsEnumeration of phyto plankton, zoo plankton and benthosFisheriesDiversity indicesTrophic levelsRare and endangered speciesMarine Parks/ Sanctuaries/ closed	<ul style="list-style-type: none">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.		

Attributes	Sampling		Remarks
	Network	Frequency	
areas /coastal regulation zone (CRZ) Terrestrial <ul style="list-style-type: none"> • 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 			<ul style="list-style-type: none"> • Secondary data to collect from Government offices, NGOs, published literature.
F. Socio-economic			
<ul style="list-style-type: none"> • Demographic structure • Infrastructure resource base • Economic resource base • Health status: Morbidity pattern • Cultural and aesthetic attributes • Education 			<ul style="list-style-type: none"> • 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)
- Construction phase
 - 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)
- Construction phase
 - Operation phase
- iv. Impact on traffic (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- Construction phase
 - Operation phase
- v. Impact on soil quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- Construction phase
 - Operation phase
- vi. Impact on land use (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- Construction phase
 - Operation phase
- vii. Impact on surface water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- Construction phase
 - Operation phase
- viii. Impact on ground water resource and quality (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
- 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 N o	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Crores)
	Name of the Activity	Physical Targets	1 st	2 nd	3 rd	

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.

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 (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.

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 (PM₁₀ 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 PM₁₀ to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material 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 (PM₁₀ and P_{2.5}) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM₁₀ to be carried over.

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 P_{2.5}) 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.

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 its acquisition, nearby (in 2/3 km.) water body, population, with in 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora/fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given
- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

List of the Expert Appraisal Committee (Industry-1) members participated during VC meeting

S. No.	Name	Position	29/12/2022
1.	Shri Rajive Kumar	Chairman	<i>Present</i>
2.	Dr. Dipankar Shome	Vice Chairman	<i>Present</i>
3.	Dr. S. Ranganathan	Member	<i>Present</i>
4.	Dr. Ranjit Prasad	Member	<i>Present</i>
5.	Dr. S. K. Singh	Member	<i>Present</i>
6.	Dr. Tejaswini Ananthkumar	Member	<i>Present</i>
7.	Dr. Hemant Sahasrabuddhe	Member	<i>Present</i>
8.	Dr. Jai Krishna Pandey	Member	<i>Present</i>
9.	Dr. E V R Raju	Member	<i>Present</i>
10.	Dr. B. N. Mohapatra, DG, (Representatives of NCCBM)	Member	<i>Absent</i>
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	<i>Present</i>
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH))	Member	<i>Absent</i>
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	<i>Present</i>
14.	Dr. R.B. Lal, Scientist F/Director, MoEFCC	Member Secretary	<i>Present</i>
MoEFCC			
15.	Dr R P Rastogi	Scientist C	<i>Present</i>
16.	Dr Sandeepan BS	Scientist B	<i>Present</i>

Approval of EAC Chairman

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

Re: Compiled Draft minutes of the 20th EAC Meeting held on 20th December 2022 for approval of Chairman (EAC-Industry 1 Sector)-Regarding

From : chairman eac ind 1
<chairman.eac.ind.1@gmail.com>

Mon, Jan 09, 2023 08:53
PM

Subject : Re: Compiled Draft minutes of the 20th
EAC Meeting held on 20th December
2022 for approval of Chairman (EAC-
Industry 1 Sector)-Regarding

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

Cc : rajivekumar1983@gmail.com,
ranganathan metals
<ranganathan.metals@gmail.com>,
ranjitnitj@gmail.com,
rajuevr60@gmail.com,
sksinghdce@gmail.com,
dshome61@gmail.com, tejaswini acf
<tejaswini.acf@gmail.com>, sshemant
801 <sshemant_801@rediffmail.com>,
NCCBM DIRECTOR GENERAL
<dg@ncbindia.com>, Nazimuddin
<nazim.cpcb@nic.in>, Raghavan S
<raghuharihar@gov.in>,
raghuharihar@yahoo.co.in, Sanjay Bist
<sanjay.bist@imd.gov.in>, drjkpandey
eac industry1
<drjkpandey.eac.industry1@gmail.com>
>

Dear Dr. Lal,
The minutes sent by your email dated 09 January 2023 at 5:22 pm are approved.
Kindly do the needful.

Best wishes
Rajive Kumar
Chairman-EAC-Industry-1
