

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

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**Dated: 23.05.2023**

*Date of Zero Draft MoM sent to EAC: 19.05.2023*

*Approval by Chairman: 22.05.2023*

*Uploading on PARIVESH: 23.05.2023*

**MINUTES OF THE 30<sup>TH</sup> EXPERT APPRAISAL COMMITTEE**  
**(INDUSTRY-1 SECTOR) MEETING HELD ON 15<sup>TH</sup> MAY, 2023**

**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

**DAY : MAY 15, 2023 [MONDAY]**

**(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 27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> Meeting of the EAC (Industry-1 Sector) held during 27<sup>th</sup> April, 28<sup>th</sup> April and 1<sup>st</sup> May, 2023 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 **27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> Meeting of the EAC (Industry-1 Sector) held during 27<sup>th</sup> April, 28<sup>th</sup> April and 1<sup>st</sup> May, 2023** conducted

through Video Conferencing, and noted that there is no modifications/factual correction, in the minutes of the 27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> EAC meeting for the project/activities.

Details of the proposals considered during the 30<sup>th</sup> 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. 30.1**

**30.1 Proposed 1X18 MVA (Submerged Arc Furnace) Silico-Manganese (25,000 TPA) ferro-alloys production plant by M/s MOIL Limited, located at Plot No.: 50, 59, 60, 61/1, 61/2, 61/3, 61/4, 61/5, 63, Gumgaon Mines, Village – Ranjhana, Khapa; Tehsil-Saoner, Dist. - Nagpur; Maharashtra – Consideration of Environmental Clearance.**

**[Proposal No. IA/MH/IND1/407743/2022; File No. J-11011/79/2021-IA.II(I)]**

**[Consultant: Ultra-Tech ; Valid upto 06.06.2023]**

30.1.1 M/s MOIL Limited has made an online application vide proposal No-IA/MH/IND1/407743/2022 dated 21<sup>st</sup> April, 2023 along with copy of EIA report and Forms (Part A, B and C) 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) under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

30.1.2 Name of the EIA consultant: M/s. Ultra-Tech [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2700; valid upto 06.06.2023, as on May 8, 2023].

#### **Details submitted by Project proponent**

30.1.3 The details of the ToR are furnished as below:

<b>Date of Application</b>	<b>Consideration</b>	<b>Details</b>	<b>Date of Accord</b>	<b>ToR Validity</b>
20/02/2021	32 <sup>nd</sup> meeting of Reconstituted EAC (Industry-1) held on 15-17 <sup>th</sup> March, 2021	Terms of Reference	26/03/2021	25/03/2025

30.1.4 The project of M/s Manganese Ore India Limited (MOIL) located at Village- Ranjhana, Tehsil- Nagpur, District- Nagpur, State: Maharashtra is for setting up of a new 1x18 MVA Si-Mn Ferro-alloys plant for production of Silico-Manganese - 25,000 Tons Per Annum (TPA).

30.1.5 Environmental Site Settings:

S. No.	Particulars	Details	Remarks																													
i.	Total land	10.02 ha	Land use: Industrial																													
ii.	Land acquisition Details as per MoEF&CC O.M. dated 7/10/2014	The land required for the proposed ferro alloy plant is already under possession of M/s MOIL Limited.	--																													
iii.	Existence of habitation & involvement of R&R, if any.	<b>Project site:</b> No R&R involved	Not Applicable																													
		<b>Study Area:</b>																														
		<table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Khapa</td> <td>1.0 km</td> <td>NW</td> </tr> <tr> <td>Wakodi</td> <td>2.0 km</td> <td>SE</td> </tr> </tbody> </table>		Habitation	Distance	Direction	Khapa	1.0 km	NW	Wakodi	2.0 km	SE																				
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iv.	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th rowspan="2">Pillar No.</th> <th colspan="2">Coordinates</th> </tr> <tr> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>21°24'25.8"N</td> <td>78°59'49.4"E</td> </tr> <tr> <td>B</td> <td>21°24'27.0"N</td> <td>79°00'0.9" E</td> </tr> <tr> <td>C</td> <td>21°24'20.9"N</td> <td>79°00'01.3"E</td> </tr> <tr> <td>D</td> <td>21°24'20.9"N</td> <td>78°59'59.3"E</td> </tr> <tr> <td>E</td> <td>21°24'14.4"N</td> <td>78°59'57.3"E</td> </tr> <tr> <td>F</td> <td>21°24'17.52"N</td> <td>78°59'50.47"E</td> </tr> <tr> <td>G</td> <td>21°24'20.96"N</td> <td>78°59'50.99"E</td> </tr> <tr> <td>H</td> <td>21°24'21.58"N</td> <td>78°59'48.18"E</td> </tr> </tbody> </table>	Pillar No.	Coordinates		Latitude	Longitude	A	21°24'25.8"N	78°59'49.4"E	B	21°24'27.0"N	79°00'0.9" E	C	21°24'20.9"N	79°00'01.3"E	D	21°24'20.9"N	78°59'59.3"E	E	21°24'14.4"N	78°59'57.3"E	F	21°24'17.52"N	78°59'50.47"E	G	21°24'20.96"N	78°59'50.99"E	H	21°24'21.58"N	78°59'48.18"E	--
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v.	Elevation of the project site	Highest – 314 m MSL; Lowest – 304 m MSL	--																													
vi.	Involvement of Forest land if any.	No forest land involved	-																													
vii.	Waterbody exists within the project site as well as study area	<b>Project site:</b> None within the project site. <b>Study area</b> Kanhana River – 18.07 m, E (distance from the project boundary)	HFL of Kanhana river flowing adjacent to the plant is 309.41 m Application for NOC has been submitted to Irrigation Department, Nagpur on 06.04.2023 in pursuance of MOEF&CC OM 14 <sup>th</sup> February 2022. Receipt of the same is submitted.																													
viii.	Existence of ESZ/ESA/ national park/wildlife sanctuary/biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<b>Study area</b> <b>Name of the ESZ/ESA:</b> Mansinghdeo Wildlife Sanctuary – 9.5 km, NE <b>Status of Notification:</b> Notification finalized on 13.09.2017 vide S.O 3029(E). <b>Distance of project from ESZ/ESA:</b> Distance from ESZ boundary – 5.64 km, NE <b>List of Reserved and protected forests:</b> Sitagondi Reserve Forest – 5.64 km, NE	--																													

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

Name of unit/facilities	Proposed unit	
	Configuration	Production Capacity (TPA)
Ferro Alloys Plant	1 x 18 MVA Submerged Arc Furnace (SAF)	Silico-Manganese - 25000

30.1.7 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 Materials	Quantity required per Annum	Mode of transport	Source of raw material
1	<b>Silico-Manganese</b>			
1a	Manganese Ore, SM Grade	14,800	Self Tipped Truck	Gumagaon Mine and nearby mines of MOIL
1b	Manganese Ore, Grade GM 4516	25,575	Self Tipped Truck	
1c	Manganese Ore, GM 4187	16,150	Self Tipped Truck	
2	Dolomite	6,500	Self Tipped Truck	Domestic
3	Coke	12,125	Self Tipped Truck	Domestic
4	Coal	3,000	Self Tipped Truck	Local supply
5	Iron Ore	1,875	Self Tipped Truck	Domestic
6	Quartz	1,375	Self Tipped Truck	Domestic
7	Electrode paste	575	Truck	Aluminum producers

30.1.8 The total one time water requirement for the project is estimated 585 KLD, out of which daily fresh water requirement will be 35 KLD. Circulation water/recycled water 550 KLD. Water will be sourced from Gumgaon mine pit water. The water from Kanhan River can also be used as secondary source of water as per requirement.

30.1.9 The power requirement for the project is estimated as 22 MVA, which will be obtained from MSEDCL.

30.1.10 Baseline Environmental Studies:

Period	1 <sup>st</sup> October 2020 to 31 <sup>st</sup> December 2020
AAQ parameters at 8 locations	<ul style="list-style-type: none"> <li>PM<sub>2.5</sub> = 24 to 37 µg/m<sup>3</sup></li> </ul>
	<ul style="list-style-type: none"> <li>PM<sub>10</sub> = 51 to 75 µg/m<sup>3</sup></li> </ul>
	<ul style="list-style-type: none"> <li>SO<sub>2</sub> = 7 to 14 µg/m<sup>3</sup></li> </ul>
	<ul style="list-style-type: none"> <li>NO<sub>x</sub> = 10 to 24 µg/m<sup>3</sup></li> </ul>
	<ul style="list-style-type: none"> <li>CO = 0.7 to 1.5 mg/m<sup>3</sup></li> </ul>
AAQ modelling (Incremental GLC)	<ul style="list-style-type: none"> <li>PM<sub>10</sub> = 0.009 µg/m<sup>3</sup>, 1.7 km, SE</li> <li>PM<sub>2.5</sub> = 0.005 µg/m<sup>3</sup>, 1.7 km, SE</li> <li>SO<sub>2</sub> = 0.020 µg/m<sup>3</sup>, 2.0 km, SE</li> <li>NO<sub>x</sub> = 0.018 µg/m<sup>3</sup>, 2.0 km, SE</li> </ul>
Ground water quality at 8 locations	<ul style="list-style-type: none"> <li>pH: 7.3 to 7.7</li> <li>Total Hardness: 184 to 452 mg/l</li> </ul>

	<ul style="list-style-type: none"> <li>Chlorides: 94 to 200 mg/l</li> <li>Fluoride: 0.3 to 0.7 mg/l</li> <li>Boron: 0.2 to 0.4 mg/l</li> <li>Zinc: &lt;0.02 mg/l</li> <li>Heavy metals i.e. Cadmium, Chromium etc are found below detectable limit.</li> </ul>				
Surface water quality at 8 locations	<ul style="list-style-type: none"> <li>pH: 7.2 to 7.5</li> <li>DO: 5.3 to 6.2 mg/l</li> <li>BOD: &lt;2.0 to 3.6 mg/l.</li> <li>COD: 4 to 32 mg/l</li> <li>Zinc: &lt;0.02 mg/l</li> <li>Boron: 0.2 to 0.5 mg/l</li> </ul>				
Noise levels	51.4 to 54.0 dB(A) for the day time and 41.1 to 44.7 dB(A) for the Night time.				
Traffic assessment study findings	Traffic study has been conducted at NH-753 which is approximately 1.5 km from the plant site.				
	<ul style="list-style-type: none"> <li>Transportation of raw material, fuel &amp; finished product will be done 100% by road.</li> <li>Existing PCU is 475.05 PCU/hr on NH-753 and existing level of service (LOS) is: "B" (Very Good)</li> </ul>				
	<b>Road</b>	<b>V (Volume in PCU/hr)</b>	<b>C (Capacity in PCU/hr)</b>	<b>Existing V/C Ratio</b>	<b>LOS</b>
	NH-753	475.05	1500	0.316	"B" (Very Good)
	<ul style="list-style-type: none"> <li>PCU load after proposed project will be 475.05 (Existing) + 12.33 (Additional) = 487.38 PCU/hr and level of service (LOS) will be: "B" (Very Good)</li> </ul>				
	<b>Road</b>	<b>V (Volume in PCU/hr)</b>	<b>C (Capacity in PCU/hr)</b>	<b>Existing V/C Ratio</b>	<b>LOS</b>
	NH-753	487.38	1500	0.325	"B" (Very Good)
<p>* Note: Capacity as per IRC-106-1990 Guide line for capacity for roads.</p> <p><b>Conclusion:</b> The level of service will remain "B – Very Good" after including additional traffic due to proposed project.</p>					
Flora and fauna	Schedule-I Fauna i.e. Indian Peafowl is observed within the study area. Conservation plan for the Indian Peafowl has been prepared and submitted to Chief Conservator of Forest (Wildlife) on 17/10/2022 and it is again submitted to Principal Chief Conservator of Forests (Wildlife) on 03/11/2022. An amount of Rs. 6 Lakhs has been allocated for conservation of the said species.				

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

Sr. No	Description	Quantity (TPA)	Treatment/ disposal
1	Si-Mn Slag	29000	Si-Mn slag will be used in road construction
2	Mn Ore Dust	1155	It will be given to briquetting plant to produce briquette
3	Bag Filter Dust	990	
4	Municipal Solid Waste	19 kg/Day	To be disposed as per MSW rules

<b>Hazardous waste generation its Management</b>				
1	Used Oil	Machineries	0.5 KL/Annum	Stored in covered HDPE drums in a designated area and will be given to SPCB authorized recyclers & re-processors.

30.1.12 Public Consultation:

Details of advertisement given	09/02/2022
Date of public consultation	11/03/2022
Venue	At Project Site, Ferro Alloy Plant, Gumgaon Mine, Taluka - Gumgaon, Dist- Nagpur
Presiding Officer	Additional District Magistrate & Residential Deputy Collector, Nagpur
Major issues raised	<ul style="list-style-type: none"> <li>i. Local employment</li> <li>ii. Social Infrastructure Development</li> <li>iii. Plantation</li> <li>iv. Environmental Pollution</li> </ul>

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

Sr No	Concerns raised during the Public Hearing	Physical activity to be done	YEAR OF IMPLEMENTATION			Cost in (lacs)
			1stYear	2nd years	3rd year	
<b>A. Based on Public Consultation / Hearing</b>						
1	Jobs & skill development	Construction of a 3 – room building for skill development	1 Nos (Gumgaon, village)	-	-	10
		Installation of 10 sewing machines, 5 computer systems & 7 machines for making hand craft items along with necessary raw materials for training purpose	2 Nos (Gumgaon, Wakod villages)	2 Nos (Khairy, Kodegaon villages)	3 Nos (Kodegaon, Bawangaon&T ighai villages)	
			Rs 5 Lakhs	Rs .5 lakhs	Rs .5 lakhs	15
2	Greenbelt Development/ plantation	Distribution/Plantation of saplings and tree guard in the village	Development of 1 no. park along with	Development of 1 no. park along with 2000 nos.	Development of 1 no. park along with	

Sr No	Concerns raised during the Public Hearing	Physical activity to be done	YEAR OF IMPLEMENTATION			Cost in (lacs)
			1stYear	2 <sup>nd</sup> years	3 <sup>rd</sup> year	
		Govt. offices and Schools	2000 nos. tree plantation & distribution of saplings. Rs 6 Lakhs	tree plantation & distribution of saplings. Rs 6 Lkajs	2000 nos. tree plantation & distribution of saplings. Rs 6 Lkajs	18
3	Infrastructure development	Development & maintenance of approach road in adjacent villages i.e Gadegaon to Tadasghat Village	Development & maintenance of road in adjacent villages i.e Gadegaon to Tadasghat Village in consultation with Local GP Rs 27 Lakhs	Development & maintenance of road in adjacent villages i.e Gadegaon to Tadasghat Village in consultation with Local GP Rs 27 Lakhs	Development & maintenance of road in adjacent villages i.e Gadegaon to Tadasghat Village in consultation with Local GP Rs 27 Lakhs	81
		Construction of Toilets and maintenance of drainage facilities in nearby Village and school	Construction of toilet & maintenance of drain facilities in nearby villages in consultation with Local GP Rs 14 Lakhs	Construction of toilet & maintenance of drain facilities in nearby villages in consultation with Local GP Rs 12 Lakhs	Construction of toilet & maintenance of drain facilities in nearby villages in consultation with Local GP Rs 12 Lakhs	38
		Beautification of nearby crematorium	Construction of electric furnace in nearby crematorium Rs 18 Lakhs	Beautification of nearby crematorium Rs 3 Lakhs	Beautification of nearby crematorium Rs 3 Lakhs	24
		Basic infrastructure like community dustbin, drinking water facilities for livestock	Basic infrastructure like community dustbin, drinking water facilities in nearby village for livestock Rs 3 Lakhs	Basic infrastructure like community dustbin, drinking water facilities in nearby village for livestock Rs 3 Lakhs	Basic infrastructure like community dustbin, drinking water facilities in nearby village for livestock Rs 3 Lakhs	9
<b>B. Based on Need Based &amp; SIA Study</b>						
4	Health	Health check up camp, vaccination for polio, dengue, typhoid, malaria	Health checkup camps shall be organized on yearly basis, in	Health checkup camps shall be organized on half-yearly	Health checkup camps shall be organized on	

Sr No	Concerns raised during the Public Hearing	Physical activity to be done	YEAR OF IMPLEMENTATION			Cost in (lacs)
			1stYear	2 <sup>nd</sup> years	3 <sup>rd</sup> year	
			2 nearby villages for general body, eyes, blood test along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 assistants shall be deputed.	basis, in 2 nearby villages for general body, eyes, blood test along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 assistants shall be deputed.	half-yearly basis, in 2 nearby villages for general body, eyes, blood test along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 assistants shall be deputed.	
			Rs 4 Lakhs	Rs 3 Lakhs	Rs 3 Lakhs	10
<b>Total (A+B)</b>						<b>205</b>

30.1.13 The capital cost of the project is Rs 136.44 Crores and the capital cost for environmental protection measures is proposed as Rs 411.6 Lakhs. The annual recurring cost towards the environmental protection measures are proposed as Rs 24.5 Lakhs. The employment generation from the proposed project is 42. The details of cost for environmental protection measures is as follows:

S. No.	Description of Item	Capital Cost (In Lacs)	Recurring Cost (In Lacs)
1	Pollution control during Construction stage	30	-
2	Air/Noise Pollution Control	90	10
3	Water Pollution Control	30	5
4	Environmental Monitoring and Management	15	5
5	Green Belt Development	25.6	1
6	Occupational Health	10	3
7	Conservation of Indian Peafowl	6	0.5
8	Social Environment development	205	--
<b>Total</b>		<b>411.6</b>	<b>24.5</b>

30.1.14 Greenbelt will be developed in 4.02 ha which is about 40.07% of the total project area. On south and western side 25m wide greenbelt shall be planted, 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 10050 saplings will be planted and nurtured in 4.02 ha in 3 years.



30.1.15 It is submitted that there there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

**Written representations:**

30.1.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.05.2023 through email dated 15.05.2023 submitted the following information:

Sl. No.	Observations raised by EAC	Reply of PP
1.	PP to submit revised compliances of Specific ToR conditions	Revised specific ToR compliances are as under: ToR Reference: J-11011/79/2021-IA. II(I), dated 26 <sup>th</sup> March, 2021 has submitted.
i.	Scheme to draw water from mine pits shall be proposed. No ground water shall be abstracted.	Total Water Requirement – 35 KLD Source – Mine Pit water from adjacent Gumgaon underground mine Domestic Usage – 4 KLD SAF Cooling – 20.5 KLD (th. Soft water plant) Fire Fighting – 5 KLD Green Belt & Dust Suppression – 5.5 KLD
ii.	PM level from stacks shall be less than 30 mg/Nm <sup>3</sup> . To protect agriculture crop.	Particulate emission from stack will be maintained less than 30 mg/Nm <sup>3</sup> . Mitigation measure: 1. Greenbelt will be developed in 4.02 ha which is about 40.07% of the total project area. On south and western side 25m wide 3 tier greenbelt will be developed, 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 10050 saplings will be planted and nurtured in 4.02 ha in 3 years. 2. Soil erosion will be prevented by planting thick plantation on south & western side (25m) towards agricultural fields. In other part of the plot, normal width of 10-15m shall be permitted. 3. Mist type fixed & mobile water sprinkling arrangement will be provided to arrest fugitive emission. 4. The roads within the plant premises and the approach road from mine gate to plant will be concreted / paved to avoid vehicular dust emissions.
iii.	Closed SAF with 4th hole extraction system shall be used.	Closed SAF with 4 <sup>th</sup> hole extraction system will be installed.
iv.	SiMn slag shall be used for road construction. Maximum 90 days storage shall be permitted inside the plant for slag.	Quantity of generation of Si-Mn slag is 29000 TPA. Si-Mn slag will be used for internal road construction.

Sl. No.	Observations raised by EAC	Reply of PP				
Particulars	Width of the road	Material utilized for initial road construction (ton)	Annual Maintenance requirement (TPA)			
Construction & Maintenance of Approach Road from Plant to Mine	Length: 2 km Width: 6 m	12000	9000			
Construction & Maintenance of Village Road from Gadegaon to Tadasghat village	Length:2.5km Width: 4 m	12500	8000			
Internal Mines Road	Length: 3 km Width: 6 m	18000	12000			
Maintenance of Internal Road of Plant			2000			
<b>Total</b>	-	<b>42500</b>	<b>31000</b>			
<i>The construction of above roads required material 42500 Tons. Out of which, 29000 Ton slag will be utilized and rest of the quantity will be waste rock from Mine.</i>						
v.	40 % green belt shall be planted. On south and western side 25 m green belt shall be planted towards agriculture fields. In other part of the plot, normal with of 10-15 m shall be planted.	Out of the total land area (10.02 Ha), 4.02 Ha area (40.07%) has been allotted for Greenbelt development. Considering 2500 trees per Ha, 10500 nos. of trees will be planted inside the project site. On south & western side 25m greenbelt towards agricultural fields has been proposed. Green belt development schedule & budget allocation is as under:				
S. No.	Common name	Scientific name	Family	Nos. of sampling	Time bound action plan	Cost (Rs.)
1.	Amba	<i>Mangifera indica</i>	<i>Anacardiaceae</i>	670	1 <sup>st</sup> Year	25,64,500
2.	Akashmoni	<i>Acacia auriculiformis</i>	<i>Mimosaceae</i>	750		
3.	Arjun	<i>Terminalia arjuna</i>	<i>Combretaceae</i>	830		
4.	Pipal	<i>Ficus religiosa</i>	<i>Moraceae</i>	670		
5.	Babhul	<i>Acacia nilotica</i>	<i>Mimosaceae</i>	580		
6.	Satvin	<i>Alstonia scholaris</i>	<i>Apocynaceae</i>	670	2 <sup>nd</sup> Year	
7.	Karanj	<i>Pongamia pinnata</i>	<i>Fabaceae</i>	1080		
8.	Palas	<i>Butea monosperma</i>	<i>Fabaceae</i>	700		
9.	Rain tree	<i>Samanea saman</i>	<i>Fabaceae</i>	1250		
10.	Kadam	<i>Anthocephalluscadamba</i>	<i>Rubiaceae</i>	500	3 <sup>rd</sup> Year	
11.	Neem	<i>Azadirachta indica</i>	<i>Meliaceae</i>	420		
12.	Gulmohar	<i>Delonix regia</i>	<i>Caesalpinaceae</i>	630		
13.	Chinch	<i>Tamarindus indica</i>	<i>Caesalpinaceae</i>	720		
14.	Mahagoni	<i>Swietenia mahagoni</i>	<i>Meliaceae</i>	580		
<b>Total</b>				<b>10050</b>		

Sl. No.	Observations raised by EAC	Reply of PP				
vi.	All plant roads shall be paved and industrial vacuum cleaners shall be used to clean the roads regularly.	All roads within the plant premises will be made concreted/pucca. PP hereby confirms that, industrial vacuum cleaner will be used in the plant.				
vii.	Action plan to reduce the fugitive emissions from the plant shall be furnished.	<ul style="list-style-type: none"> <li>In order to avoid fugitive emissions from different sources (like loading and unloading, transfer points, material storage, transportation etc.) spraying of water will be done. Mist type fixed and mobile water sprinkler will be provided.</li> <li>The roads within the plant premises will be concreted / paved to avoid vehicular dust emissions.</li> <li>All transportation vehicles will be ensured to carry a valid PUC (Pollution under Control) Certificate.</li> <li>Proper servicing and maintenance of vehicles will be carried out.</li> <li>Regular sweeping of all the roads by using Industrial Vacuum cleaner and floors will be done,</li> <li>40.07% of the total plant area (i.e. 10.02 ha) will be developed as green area. Green belt act as surface for settling of dust particle and thus will reduce the particulate matter in air.</li> </ul>				
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.	<ul style="list-style-type: none"> <li>All stockyards will be having impervious flooring and equipped with water spray system for dust suppression.</li> <li>Stock yards will also have garland drains to trap the run off material.</li> </ul>				
ix.	Action plan for rain water harvesting shall be furnished	Rain water harvesting potential calculation is given below. Harvested rainwater will be stored in 1 no. underground storage tank of capacity 478 KL capacity for usage at green belt development & dust suppression.				
	<b>Catchment area</b>	<b>Area in Sq. m.</b>	<b>Rainfall in m</b>	<b>Runoff coefficient</b>	<b>Filter efficiency</b>	<b>Total runoff generated (cum/annum)</b>
	Roof Top of building/Shed	36377.51	1.0	0.85	0.9	27828.80
	Road/Paved area	11600	1.0	0.65	0.9	6786.00
	Open land	11395.37	1.0	0.20	0.9	2051.17
	Greenbelt	40152.12	1.0	0.15	0.9	5420.54
	<b>Total</b>					<b>42086.51</b>
	The total rainwater harvesting potential 42086.51 m <sup>3</sup> /annum.					
2.	NOC from Irrigation department in pursuance of MOEF&CC OM 14 <sup>th</sup> February 2022	Application for NOC has been submitted to Irrigation Department, Nagpur on 06.04.2023 in pursuance of				

Sl. No.	Observations raised by EAC	Reply of PP
		MOEF&CC OM 14 <sup>th</sup> February 2022. Receipt of the same is enclosed. Required NOC will be submitted soon.
3.	Clarify the difference of distance from River to project site in TOR letter and presentation	<p>The distance of the plant boundary was roughly calculated during submission of the TOR application which was approx. 0.5 km as mentioned in DPR. After detailed study and finalization of engineering plant layout the distance is as below:</p> <ul style="list-style-type: none"> <li>• Distance from edge of the river to the nearest point of the extended part from the main plant boundary (NE)- 18.07 m, East</li> <li>• The extended area (distance from the edge of the river to 220 m towards landward side) will be dedicated for development of greenbelt/plantation.</li> <li>• Distance of Kanhan River from major installations of the plant is 225 m.</li> </ul>
4.	Mitigation measures to be adopted for protection from Flood	<ul style="list-style-type: none"> <li>• Dyke will be constructed along with the boundary of the plant towards River side</li> <li>• The ground level of the project site will be elevated where is required to avoid flooding of the site</li> <li>• Besides the Boundary wall inside factory premises, garland drains and settling ponds shall be provided to take care of soil erosion during rainy season.</li> <li>• A thick green belt of 25 mtr on South and western side and 10-15 m normal width in East, North side. Native tree species will be planted</li> </ul>

### **Deliberations by the Committee**

30.1.17 The Committee noted the following:

1. The instant proposal is for setting up of a new 1x18 MVA Si-Mn Ferro-alloys plant for production of Silico-Manganese - 25,000 Tons Per Annum (TPA).
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The total project area is 10.2 ha. As reported, the land required for the proposed ferro alloy plant is already under possession of M/s MOIL Limited.
6. The Khapa Village is a distance of 1 km in NW and Wakodi is at a distance of 2 km in SE of the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.
7. The Kanhan River is at a distance of 18.07 m in the East direction, within 10 Km. radius of the plant site. HFL of Kanhan river is 309.41. Application for NOC has been submitted to Irrigation Department, Nagpur on 06.04.2023 in pursuance to MOEF&CC OM dated 14<sup>th</sup> February 2022. Receipt of the same is submitted. The EAC is of the opinion that water body shall not be disturbed. Mitigation measures w.r.t. safeguarding the water body shall be implemented.
8. The EAC noted that Mansinghdeo Wildlife Sanctuary is at a distance of 9.5 km in NE of project site and its ESZ at a distance of 5.64 km from the project site boundary. The proposed project is outside of the notified ESZ.
9. The total one time water requirement for the project is estimated 585 KLD, out of which daily fresh water requirement will be 35 KLD and Circulation water/recycled water will be 550 KLD. Water will be sourced from Gumgaon mine pit water. The water from Kanhan River can also be used as secondary source of water as per requirement. The EAC is of the opinion that water permission shall be obtained from the Competent Authority prior to commencement of project.
10. The Committee has found that the baseline data and incremental GLC due to the proposed project and found it satisfactory.
11. The PP has submitted that Greenbelt will be developed in 4.02 ha which is about 40.07% of the total project area. On south and western side 25 m wide greenbelt shall be planted, 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. Total no. of 10050 saplings will be planted and nurtured in 4.02 ha in 3 years. The EAC deliberated on the greenbelt action plan and is of the opinion that maximum greenbelt shall be completed within 1<sup>st</sup> year of grant of EC.
12. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
13. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

14. Schedule-I species namely Indian Peafowl is found within 10 km radius of the study area of the plant site during biological study. It is reported that as Conservation plan for the Indian Peafowl has been prepared and submitted to Chief Conservator of Forest (Wildlife) on 17/10/2022 and it is again submitted to Principal Chief Conservator of Forests (Wildlife) on 03/11/2022. An amount of Rs. 6 Lakhs has been allocated for conservation of the said species. The EAC is of the opinion that approved conservation plan shall be strictly implemented.
15. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
16. 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.
17. 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.
18. The EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.
19. The EAC also warned the consultant [M/s Ultra-Tech] to be careful while preparing the ToR compliance keeping in mind the requisite information / documents required at the time of appraisal and also to present the correct facts during the appraisal of the project.

#### **Recommendations of the Committee:**

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

#### **A. Specific Condition:**

- i. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- ii. 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.
- iii. 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.
- iv. Khapa Village is a distance of 1 km in NW and Wakodi is at a distance of 2 km in SE of the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include these locations in its environmental monitoring programme.
- v. The total one time water requirement of 585 KLD, shall be obtained from Gumgaon mine pit water. The water from Kanhan River can also be used as secondary source of water as per requirement. No ground water shall be abstrated.
- vi. SiMn slag shall be used for road construction. Maximum 90 days storage shall be permitted inside the plant for slag.
- vii. Three tier Green Belt shall be developed in at least 40% of the project area in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. On south and western side 25 m green belt shall be planted towards agriculture fields. In other part of the plot, normal width of 10-15 m shall be planted. PP shall also 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 along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Khapa and Wakodi Village. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- viii. 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.
- ix. All the commitments made towards socio-economic development of the nearby villages 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 amounting to 2.05 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC. PP shall adopt nearby villages and prepare and implement a robust plan to develop them into model villages in next 5 years.
- x. 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.

## **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 Nos. Continuous Ambient Air Quality Station (CAAQMS) 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 carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iii. 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.
- iv. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- ix. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.



- x. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xi. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xii. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- xiii. 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.
- xiv. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
- xv. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
- xvi. The particulate matter emissions from the process stacks shall be less than 30 mg/Nm<sup>3</sup> and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
- xvii. Following additional arrangements to control fugitive dust shall be provided:
  - a. Fog / Mist Sprinklers at all 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.
- xviii. Closed SAF with 4<sup>th</sup> hole extraction system shall be used.
- xix. Industry is going to use silica quartz in large quantities and going to produce Silico Manganese alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m<sup>3</sup> for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.

### **III. Water quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 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 recognized 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

- iii. 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. Tyre washing facilities shall be provided at the entrance of the plant gates.
- v. Water meters shall be provided at the inlet to all unit processes in the steel plants.
- vi. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.
- vii. 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. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.
- viii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
- ix. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

#### **IV. Noise monitoring and prevention**

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

#### **V. Energy Conservation measures**

- i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.

#### **VI. Waste management**

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
- ii. Kitchen waste shall be composted or converted to biogas for further use.
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The 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.

- v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

## **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 by trees.
- 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 capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.
- iii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

## **VIII. Public hearing and Human health issues**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

## **IX. Environment Management**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any

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

- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

## **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. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
- vi. 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.
- vii. 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.
- viii. 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.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

- x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) 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.
- xi. 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.
- xii. 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).
- xiii. 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.
- xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xvi. 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.
- xvii. 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.

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### **Agenda No. 30.2**

**30.2 Proposed expansion of the existing Steel Plant by installation of 4x30 T Induction Furnaces with 1x40T LRF & two (2-strand each) CCM and enhancement of the capacity of the Rolling Mill from 2,22,000 TPA to 5,02,000 TPA, by M/s Adhunik Industries Ltd., located at Village: Angadpur, Raturia, Durgapur, District: Paschim Bardhaman, West Bengal- Consideration of Environmental Clearance.**

**[Proposal No. IA/WB/IND1/401118/2022; File No. IA-J-11011/62/2020-IA-II(I)]**  
**[Consultant: Envirotech East Pvt. Limited; Valid upto 12.09.2025]**

30.2.1 M/s Adhunik Industries Ltd. has made an online application vide proposal No-IA/WB/IND1/401118/2022 dated 21<sup>st</sup> April, 2023 along with copy of EIA report and Forms (Part A, B and C) 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) under

Category “B1” of the schedule of the EIA Notification, 2006 and attracts general conditions as the projects falls under Severely Polluted Area of Durgapur and therefore being appraised as Category “A” at Central Level.

30.2.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Limited [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2225/RA 0279; valid upto 12.09.2025, as on May 8, 2023].

**Details submitted by Project proponent**

30.2.3 The details of the ToR are furnished as below:

<b>Date of Application</b>	<b>Consideration</b>	<b>Details</b>	<b>Date of Accord</b>	<b>ToR Validity</b>
20.02.2020	Standard Terms of Reference issued	Terms of Reference	31.03.2020	30.03.2024

The PP also reported the following:

- Post grant of ToR, the Draft EIA/EMP Report was prepared, and the Public Hearing was conducted successfully on 6th January, 2021.
- In the mean time, one Office Memorandum of MoEF&CC, New Delhi was published (F. No. 22-23/2018-IA.III), dated 28th January 2021, where the Hon’ble Supreme Court has imposed a stay on the operation of the impugned order of the NGT mentioned above. In view of the orders of the Hon’ble Supreme Court, the two office Memoranda dated 31st October 2019 and 30th December 2019 are hereby kept in abeyance. In this context, the proposed project of M/s Adhunik Industries Ltd. falls under Item no. 3(a) of Category “B” of the Schedule under EIA Notification, 2006, would require prior Environmental Clearance from State Level Environment Impact Assessment Authority (SEIAA), West Bengal. After that the Final EIA Report was prepared and submitted for getting Environmental Clearance from State Level Environment Impact Assessment Authority (SEIAA). Accordingly, the online EC application was submitted along with all supporting documents on 18.08.2021 and subsequently, the project was appraised in the 25th SEAC meeting dated 08.12.2021.
- In the 42<sup>nd</sup> reconstituted SEAC meeting held on 01.06.2022 for further consideration of the proposal for the appraisal to grant Environment Clearance, the Committee made some observations stating that It has come to the notice, that MoEF&CC recently has not considered a few expansion proposals in and around Durgapur SPA. For such proposals, EAC mentioned that ‘the project is located in Severely Polluted Area. As per the direction of Hon’ble Supreme Court, expansion / new industry cannot be set up in SPA/CPA.
- Considering the above, the SEAC decided that since the project activity falls within Durgapur Municipal Corporation area which is declared as SPA, the expansion proposal cannot be permitted at this stage. Hence, the project proposal may be forwarded to SEIAA for taking an appropriate decision.
- Subsequently, OM of MoEF&CC dated 5<sup>th</sup> July, 2022 was published on the Ministry’s Website vide which it declared the Lifting of abeyance on Ministry's OMs, in pursuance to the Order dated 25/02/2022 of Hon'ble Supreme Court in Civil Appeals Nos. 2218-2219 of 2020 in the matter of Chamber of Small Industry Associations Vs Central Pollution

Date of Application	Consideration	Details	Date of Accord	ToR Validity
		Control Board & Others with Civil Appeal Nos. 2220- 2221/2020, 2434/2020, 2462/2020, 3319-3321/2020 & 1656-4658 of 2022.		
		<ul style="list-style-type: none"> <li>Consequently, the file pertaining to the proposed project was transferred from SEIAA, West Bengal to MoEF&amp;CC for the further appraisal for the grant of the necessary environmental clearance.</li> </ul>		

30.2.4 The project of M/s Adhunik Industries Ltd., located at Village: Angadpur, Raturia, Durgapur, District: Paschim Bardhaman, West Bengal is for expansion of the existing Steel Plant by installation of 4x30 T Induction Furnaces with 1x40T LRF & two (2-strand each) CCM and enhancement of the capacity of the Rolling Mill from 2,22,000 TPA to 5,02,000 TPA.

30.2.5 Environmental Site Settings:

Sl. No.	Particulars	Details submitted by the PP	Remarks
i.	Total land	7.04 Hectares (17.40 Acres)	Land use: Industrial land.
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	7.04 Hectares (17.40 Acres) allotted by Asansol Durgapur Development authority (ADDA). The proposed project will be installed on the available land within the existing plant.	The land for the proposed project is already under the possession of the Company.
iii.	Existence of habitation & involvement of R & R, if any.	Total land is under the possession of the company. No additional land is involved in the project. Hence, R & R issue is not applicable.	-
iv.	Latitude and Longitude of the project site	<b>Latitude:</b> 23°30'25.22"N to 23°30'41.39"N & <b>Longitude:</b> 87°16'24.32"E to 87°16'30.80"E	-
v.	Elevation of the project site	Above Mean Sea Level (AMSL): 304 m (997 ft)	-
vi.	Involvement of Forest land if any.	No forest land is involved	-
vii.	Water body exists within the project site as well as study area	<b>Project site:</b> No water body exists within the project site <b>Study area :</b> River Damodar – about 200 m from the project site.	-
viii.	Existence of ESZ/ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve	Nil.	-

Sl. No.	Particulars	Details submitted by the PP	Remarks
	etc. if any within the study area		

30.2.6 The consent to establish was initially issued on 24.09.2003 and thereafter on 03.02.2011 for Enhancement capacity of Hot Roll Finished Iron & Steel Products - 7500 ton/month, 90,000 (ton/year) from 1,32,000 TPA to 2,22,000 TPA and tar-140 ton/month alongwith 2 nos. Coal Gasifier Plant of capacity 7500 NM<sup>3</sup>/hr each. The coal gasifier has been kept as standby and CBM is being used as fuel. The latest Consent to Operate has been obtained vide Memo no.3342 - dr - co-o/11/1529 dated 20.11.2018 for Hot Rolled Iron & Steel Product (7,500 MT/Month) and TMT Bars & Wire Rods (11,000 MT/Month) which is valid upto 31.10.2023. The details of the existing clearances are as follows:

Facilities envisaged	Consent Status		Implementation Status	Remarks
	(CTE)	(CTO)		
Rolling Mill	Memo no. 3376-2N-225/2002), dated 24.09.2003		Implemented	Hot Rolled Long & Flat products - 11000 MT/month (1,32,000MT/anum)
	Memo no. 19-7/WBPD-Cont(2209)/04, dated 03.02.2011			Capacity enhancement of Hot Roll Finished Iron & Steel Products - 7500 ton/month, 90,000 (ton/year) from 1,32,000 TPA to 2,22,000 TPA and tar-140 ton/month
	Memo no. 645-7/WBPD-Cont(2209)/04 dated 21.03.2011			This NOC as issued in lieu of NOC (NO10034) dated 24.09.2003 for change of Name and Ownership of the unit from Adhunik Ispat Pvt. Limited to Adhunik Industries Limited
		Memo no.3342 - dr - co-o/11/1529) dated 20.11.18, Valid Upto 31.10.2023		Hot Rolled Iron & Steel Product (7,500 MT/Month) TMT Bars & Wire Rods (11,000 MT/Month)

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

Unit Description	Capacity	Product
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<b>EXISTING UNIT:</b>		
Rolling Mill	2,22,000 TPA	Hot Rolled Iron & Steel products i.e., TMT Bars, Wire Rods, etc.
Coal Gasifier*	15,000 Nm <sup>3</sup> /hr	Producer Gas
<b>PROPOSED UNIT:</b>		
Induction Furnace (4x30 T) with 1x40T LRF & two (2-strand each) CCMs	3,13,600 TPA	Billets/Blooms
Enhancement of the existing capacity of the Rolling Mill	From 2,22,000 TPA to 5,02,000 TPA (Total enhancement- 2,80,000 TPA)	Hot Rolled Iron & Steel Products i.e., TMT Bars & Wire Rods etc.
Note: *Coal Gasifier shall be phased out after implementation of the proposed units.		

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

Raw Material	Quantity (in TPA)	Source	Mode of Transportation (in TPA)	
			Internal	Road
<b>4x30 T Induction Furnaces :</b>				
Sponge Iron	2,62,500	Local Market	-	2,62,500
Pig Iron	42,000	Local Market	-	42,000
Scraps	42,000	Local Market	-	42,000
Ferro Alloys	3,500	Local Market	-	3,500
<b>Rolling Mill after capacity enhancement (5,02,000 TPA)</b>				
Billet	5,11,600	Local Market & In House	3,13,600	1,98,000
<b>Total raw material to be transported from outside</b>				5,48,000

30.2.9 As per an initial estimate, additional make up water to the tune of 323 KLD will be required for the proposed expansion project including 11 KLD for Drinking, Sanitary & Laboratory use. Now, the existing plant consumes 240 KLD water. Therefore, total make-up water requirement for the plant after expansion will be 543 KLD (Since, the Coal Gasifier will be phased out after the implementation of the proposed project, 20 KLD make up water will not be needed in future). The raw water will be sourced from Durgapur Municipal Corporation through their water supply system.

30.2.10 The power requirement for the existing plant is 6 MW, which is sourced from WBSEDCL. The power requirement of the proposed unit is estimated as around 44 MW. Therefore, the total power consumption will be 50 MW (44 MW + 6 MW) after expansion. The power required for the proposed plant will be sourced from DVC/ WBSEDCL.

30.2.11 Baseline Environmental Studies:

Period	1 <sup>st</sup> December, 2019 – 28 <sup>th</sup> February, 2020										
AAQ parameters at 8 locations	<ul style="list-style-type: none"> <li>• PM<sub>2.5</sub> = 20 - 43 µg/m<sup>3</sup></li> <li>• PM<sub>10</sub> = 56 - 95 µg/m<sup>3</sup></li> <li>• SO<sub>2</sub> = 6 - 19 µg/m<sup>3</sup></li> <li>• NO<sub>2</sub> = 12 - 35 µg/m<sup>3</sup></li> <li>• CO = 0.254 - 1.597 mg/m<sup>3</sup></li> </ul>										
AAQ Modelling (Incremental GLCs) Model Used : ISCST3	<ul style="list-style-type: none"> <li>• PM = 2.40 µg/m<sup>3</sup> (0.5 km in SSE)</li> <li>• NO<sub>x</sub> = 00.51 µg/m<sup>3</sup> (0.8 km in SSE)</li> </ul>										
Ground water quality at 9 locations	<ul style="list-style-type: none"> <li>• pH: 6.5 - 7.6,</li> <li>• Total Hardness: 160 - 215 mg/l,</li> <li>• Chlorides: 77 - 138 mg/l,</li> <li>• Fluoride: 0.25 - 0.55 mg/l,</li> <li>• Iron: 0.22 - 0.55 mg/l,</li> <li>• TDS: 313 - 587 mg/l</li> </ul>										
Surface Water Quality at 10 Locations  (2 locations at Damodar River & 8 locations for pond water)	<p><b><u>River Water</u></b>  pH: 7.6 - 7.8,  DO: 6.9 - 7.2 mg/l,  BOD: 4-5 mg/l,  COD: 12-16 mg/l,  Fe: 0.13 - 0.15 mg/l,  Coliform: 1234 - 1295 MPN/100ml,  TDS: 186- 195 mg/l,  Total Hardness: 98 - 103 mg/l,  Chloride: 33 - 38 mg/l</p> <p><b><u>Pond Water</u></b>  pH: 6.4 - 7.4,  DO: 5.8 - 6.6 mg/l,  BOD: 4 - 8 mg/l,  COD: 12 - 28 mg/l,  Fe: 0.22 - 0.52 mg/l,  Coliform: 315 - 1111 MPN/100ml,  TDS: 230 - 355 mg/l,  Total Hardness: 135 - 238 mg/l,  Chloride: 58 - 98 mg/l</p>										
Noise Levels at 10 Locations	56.2 to 73.3 dBA for day time and 45.5 to 59.3 dBA for night time.										
Traffic assessment study findings	<p>A Traffic density was monitored at :</p> <ul style="list-style-type: none"> <li>• Location T1: on Hannemann Sarani near project site</li> <li>• Existing PCU is 6736 per day at Location T1, and existing level of service (LOS) for the three Location is presented below:</li> </ul> <table border="1" data-bbox="536 1776 1447 2000"> <thead> <tr> <th>Road (Location)</th> <th>Volume PCU/day</th> <th>Capacity</th> <th>Existing V/C</th> <th>LoS</th> </tr> </thead> <tbody> <tr> <td>T1: on Hannemann Sarani near project site</td> <td>6736</td> <td>36000</td> <td>0.18</td> <td>A</td> </tr> </tbody> </table>	Road (Location)	Volume PCU/day	Capacity	Existing V/C	LoS	T1: on Hannemann Sarani near project site	6736	36000	0.18	A
Road (Location)	Volume PCU/day	Capacity	Existing V/C	LoS							
T1: on Hannemann Sarani near project site	6736	36000	0.18	A							

	<ul style="list-style-type: none"> <li>Incremental PCU Load per day for the proposed project is 902. PCU load per day after proposed project will be 7638 at Location T1 and level of service (LOS) at the Location is presented below:</li> </ul>				
	<b>Road (Location)</b>	<b>Volume PCU/day</b>	<b>Capacity</b>	<b>V/C</b>	<b>LoS</b>
	T1: on Hannemann Sarani near project site	7638	36000	0.21	B
	<ul style="list-style-type: none"> <li><b>Conclusion:</b> The level of service will be B” in Location T1, including additional traffic due to proposed project.</li> </ul>				
	<b>V/C ratio</b>	<b>LOS</b>	<b>Performance</b>		
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	F	Very Poor			
Flora and fauna	No schedule I fauna and endangered Flora reported in study area.				

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

Sl. No.	Type	Quantity in Tons/Year	Utilization
1.	Slag from 4x30 T Induction Furnaces	23,000	Induction Furnace slag after metal recovery will be used as land filling / road construction purpose.
2.	End cuts and missed rolls from the CCMs & Rolling Mill	12,800	To be used as raw materials in the Induction Furnaces.

30.2.13 Public Consultation:

Details of advertisement given	25 <sup>th</sup> November, 2020 in Bengali newspaper “Bartaman” and English newspaper “The Times of India” 28 <sup>th</sup> November, 2020 in Hindi newspaper “Sanmarg”
Date of Public Consultation	6 <sup>th</sup> January 2021
Venue	Football Ground (adjacent to the factory of M/s Adhunik Industries Limited) at Village: Angadpur, Raturia, Durgapur, District Paschim Bardhaman in West Bengal
Presiding Officer	Additional District Magistrate (LR), Paschim Bardhaman
Major issues raised	<ul style="list-style-type: none"> <li>Generation of employment opportunities to the unemployed people of the local villagers.</li> <li>School development along with renovation / repairing work at Angadpur High School.</li> <li>Providing of free books &amp; scholarship to the needy student of the</li> </ul>

	<p>locality</p> <ul style="list-style-type: none"> <li>• Providing street lights</li> <li>• Construction of village road etc.</li> <li>• The industry should operate maintaining all the prevailing norms including environmental norms and other existing norms.</li> <li>• Development of cricket &amp; football coaching centre at the playground of Naba Yuvak Sangha under CER Activity.</li> <li>• Contamination of pond due to emission of dust</li> <li>• Plantation of trees</li> <li>• Provision of logistic support to exiting health centre owned by the Government</li> </ul>
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**Action plan as per MoEF&CC O.M. dated 30/09/2020:**

**(I) Budget for PH issues**

Concerns raised during Public Hearing	Physical activity and action plan	Particulars	Year of Implementation		Total Expenditure (Rs. in Lakhs)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
<ul style="list-style-type: none"> <li>• Generation of employment opportunities to the unemployed people of the local villagers.</li> </ul>	<p>In the proposed project, top most priority will be given to the local people based on their academic qualification.</p> <p>Skill development to unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructures for this purpose like different machineries for industries.</p>	Physical Target	Construction of a 4 – room building (total carpet area: 1200 sq.ft.) with infrastructure development like installation of 5 sewing machines, 5 computer systems & 7 machines for making hand craft items along with necessary raw materials for training purpose.		30
		Budget: in Lakhs	15	15	
<ul style="list-style-type: none"> <li>• School development along with renovation / repairing work at Angadpur High School.</li> </ul>	<p>Financial support will be given to the Angadpur High School for the renovation / repairing work through extension of building / class room/ development of library facilities/ provision of computers for educational development purpose.</p>	Physical Target	Renovation of existing building of Angadpur High School by creating extra classroom and repairing work of existing infrastructure.	Supply of 15 nos. of computers to the school along with upgradation of existing libraries.	19
		Budget: in Lakhs	10	9	
<ul style="list-style-type: none"> <li>• Providing of free books &amp; scholarship to the needy student of the locality</li> </ul>	<p>Financial assistance shall be given to the needy students who are unable to buy books due to financial crisis .</p> <p>Scholarship will also be given to the meritorious and needy students.</p>	Physical Target	Providing course fees, books, notebooks and study material to poor students		10
		Budget: in Lakhs	5	5	
<ul style="list-style-type: none"> <li>• Providing street lights</li> </ul>	<p>Street Lighting (Solar) provision at suitable public places in and around Dauka village (90 numbers, @ Rs. 20,000/- per LED Light)</p>	Physical Target	Providing 30 nos. Solar light	Providing 30 nos. Solar light	12
		Budget: in Lakhs	6	6	
<ul style="list-style-type: none"> <li>• Construction of village road etc.</li> </ul>	<p>Construction &amp; necessary repairing of the roads will also be done wherever necessary and to the extent possible.</p>	Physical Target	Development, upgradation and necessary repairment of existing 2 km village roads	Development, upgradation and necessary repairment of existing 2 km village roads	72

Concerns raised during Public Hearing	Physical activity and action plan	Particulars	Year of Implementation		Total Expenditure (Rs. in Lakhs)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
			Budget: in Lakhs		
<ul style="list-style-type: none"> <li>The industry should operate maintaining all the prevailing norms including environmental norms and other existing norms.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate control measures like installation of Bag filters, dust suppression system &amp; Stacks of adequate height at relevant places will be installed.</li> <li>Air borne dust shall be controlled by mobile water tanker inside the plant premises.</li> <li>Maintenance of air pollution control equipment shall be done regularly.</li> <li>All roads shall be paved on which movement of raw materials or products will take place inside the plant premises.</li> <li>No waste water will be discharged outside the plant area. The plant is designed as a zero discharge plant. The entire wastewater will be recirculated and recycled.</li> <li>The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be arranged.</li> </ul>	Physical Target	Shall be complied		-
		Budget: in Lakhs	Included in the EMP Cost.		
<ul style="list-style-type: none"> <li>Development of cricket &amp; football coaching centre at the playground of Naba Yuvak Sangha under CER Activity.</li> </ul>	Cricket & Football Coaching Centre at the playground of Naba Yuvak Sangha will be developed in consultation & co-ordination with Local Authorities	Physical Target	Cricket Coaching Centre at the playground of Naba Yuvak Sangha	Football Coaching Centre at the playground of Naba Yuvak Sangha	10
		Budget: in Lakhs	6	4	
<ul style="list-style-type: none"> <li>Contamination of pond due to emission of dust</li> </ul>	<ul style="list-style-type: none"> <li>Adequate control measures like installation of Bag filters, dust suppression system &amp; Stacks of adequate height at relevant places will be installed.</li> <li>Air borne dust shall be controlled by mobile water tanker inside the plant premises.</li> <li>Maintenance of air pollution control equipment shall be done regularly.</li> <li>All roads shall be paved on which movement of raw materials or products will take place inside the plant premises.</li> </ul>	Physical Target	Shall be complied		
		Budget: in Lakhs	Included in the EMP Cost.		
<ul style="list-style-type: none"> <li>Plantation of trees</li> </ul>	Tree plantation and parks development programme in the nearby villages will be done and distribution of saplings will be done to the nearby villagers and school students.	Physical Target	Development of 1 no. park along with 1500 nos. tree plantation & distribution of saplings.	Development of 1 no. park along with 1000 nos. tree plantation & distribution of saplings.	25

Concerns raised during Public Hearing	Physical activity and action plan	Particulars	Year of Implementation		Total Expenditure (Rs. in Lakhs)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
		Budget: in Lakhs	15	10	
<ul style="list-style-type: none"> <li>Provision of logistic support to exiting health centre owned by the Government</li> </ul>	M/s Adhunik Industries Ltd. already has an ambulance of their own. However, to pursue the requirement of transportation of sick people going to the existing health centre owned by the Government necessary arrangements shall be made.	Physical Target	Health checkup camps shall be organized on half-yearly basis, in 5 nearby villages for general body, eyes, blood test and donation along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 – 3 assistants shall be deputed. This will come under CSR activities of the company.		-
		Budget: in Lakhs	Shall be included in the CSR budget of the company		
<b>Total Budget - Public Hearing related: Rs. 178 Lakhs</b>					

### (II) Budget for Socio-Economic Need based issues

Need based Activities	Particulars	Year Of Implementation		Total Expenditure (Rs. in Lakhs)
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
Construction of W/C/Toilet (2) each - 4 numbers in schools & villages (@ Rs. 2.00 Lakhs per set of 2 Toilets).	Physical Target:	2 nos. Toilets	2 nos. Toilets	4
	Budget: in Lakhs	2	2	
Providing Dustbins (100 nos @Rs. 1000/- per unit) in nearby villages	Physical Target:	50 nos. Dustbins	50 nos. Dustbins	1
	Budget: in Lakhs	0.5	0.5	
Development of Drinking Water Infrastructure - 12 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target:	6 nos. Tube well	6 nos. Tube well	6
	Budget: in Lakhs	3	3	
Development of Drainage System in nearby villages through local Panchayat.	Physical Target:	Development of drainage system in nearby villages	Development of drainage system in nearby villages	2
	Budget: in Lakhs	1	1	
<b>Total Budget - Need based activities : Rs. 13 Lakhs</b>				
<b>Overall Budget (Public Hearing related + Need based Activities): Rs. 191 Lakhs</b>				
<i>Note: PP will to develop one nearby village namely Angadpur by addressing the socio-economic needs of the villagers.</i>				

30.2.14 The capital cost of the project is Rs.120 Crores and the capital cost for environmental protection measures is proposed as Rs. 6.3 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 0.41 Crores. The employment generation from the expansion is 1855. The details of cost for environmental protection measures is as follows:

Items	Capital Cost (in Crores)	Recurring Cost (in Crores)
Cost of Air Pollution Control Systems	1.75	0.17
Cost of Water conservation & Pollution Control	0.50	0.05
Cost of Solid Waste Management System	0.16	0.01
Green belt development	0.06*	- *

Items	Capital Cost (in Crores)	Recurring Cost (in Crores)
Occupational Health Management	0.43	0.04
Noise Reduction System	0.67	0.06
Risk Mitigation & Safety Plan	0.42	0.04
Environmental Management Department	0.40	0.04
<b>GRAND TOTAL</b>	<b>4.39</b>	<b>0.41</b>
<i>Note - *(considering 3 lakhs/hectare with 10 years maintenance cost)</i>		

30.2.15 M/s Adhunik Industries Ltd. has earmarked 2.82 Hectares (6.96 acres) for Green Belt Development, which is 40% of the total plant area of 7.04 hectares (17.40 acres) of land (Existing & Proposed Project). 0.79 hectares of greenbelt has been developed all around the plant boundary area within the plant premises where around 1185 number of trees (@1500 trees per hectares) have been planted. Green belt for the remaining 2.03 hectares land will be developed within the project site where around 5075 number of trees (@2500 trees per hectares) will be planted. Finally total 7050 number of trees need to be planted in the plant premises (considering (@2500 trees per hectares for the total green belt area of 2.82 hectares). 1185 trees have already been planted. Therefore, the plantation of the remaining 5865 number of trees will be completed in the coming monsoon season. Initiative has already been taken to develop green belt in the remaining area.

30.2.16 It is submitted that there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

#### **Certified Compliance Report of CTO**

30.2.17 The compliance of the conditions of CTO (Consent no CO 114872 dated 20.11.2018) was issued by WBPCB vide letter no 3342-dr-co-11/1529 dated 09.03.2023. As per the report of RO, most of the conditions are complied except greenbelt wherein RO has reported that Green belt is present, but the unit has to plant more trees to achieve the 33% criteria and also PP failed to show the inspection book for any direction or observation issued by the inspecting officers of the Stare Board during inspection.

#### **Deliberations by the Committee**

30.2.18 The Committee noted the following:

1. The instant proposal is for expansion of the existing Steel Plant by installation of 4x30 T Induction Furnaces with 1x40T LRF & two (2-strand each) CCM and enhancement of the capacity of the Rolling Mill from 2,22,000 TPA to 5,02,000 TPA.
2. The project site falls under Severely Polluted Area of Durgapur. The EAC noted that PP failed to present the compliance to CEPI guidelines satisfactorily.
3. The EAC deliberated on the following chronology of facts reported by the PP:
  - Post grant of ToR, the Draft EIA/EMP Report was prepared, and the Public Hearing was conducted successfully on 6<sup>th</sup> January, 2021.

- In the mean time, one Office Memorandum of MoEF&CC, New Delhi was published (F. No. 22-23/2018-IA.III), dated 28<sup>th</sup> January 2021, where the Hon'ble Supreme Court has imposed a stay on the operation of the impugned order of the NGT mentioned above. In view of the orders of the Hon'ble Supreme Court, the two office Memoranda dated 31st October 2019 and 30th December 2019 are hereby kept in abeyance. In this context, the proposed project of M/s Adhunik Industries Ltd. falls under Item no. 3(a) of Category "B" of the Schedule under EIA Notification, 2006, would require prior Environmental Clearance from State Level Environment Impact Assessment Authority (SEIAA), West Bengal. After that the Final EIA Report was prepared and submitted for getting Environmental Clearance from State Level Environment Impact Assessment Authority (SEIAA). Accordingly, the online EC application was submitted along with all supporting documents on 18.08.2021 and subsequently, the project was appraised in the 25<sup>th</sup> SEAC meeting dated 08.12.2021.
  - In the 42<sup>nd</sup> reconstituted SEAC meeting held on 01.06.2022 for further consideration of the proposal for the appraisal to grant Environment Clearance, the Committee made some observations stating that It has come to the notice, that MoEF&CC recently has not considered a few expansion proposals in and around Durgapur SPA. For such proposals, EAC mentioned that 'the project is located in Severely Polluted Area. As per the direction of Hon'ble Supreme Court, expansion / new industry cannot be set up in SPA/CPA.
  - Considering the above, the SEAC decided that since the project activity falls within Durgapur Municipal Corporation area which is declared as SPA, the expansion proposal cannot be permitted at this stage. Hence, the project proposal may be forwarded to SEIAA for taking an appropriate decision.
  - Subsequently, OM of MoEF&CC dated 5<sup>th</sup> July, 2022 was published on the Ministry's Website vide which it declared the Lifting of abeyance on Ministry's OMs, in pursuance to the Order dated 25/02/2022 of Hon'ble Supreme Court in Civil Appeals Nos. 2218-2219 of 2020 in the matter of Chamber of Small Industry Associations Vs Central Pollution Control Board & Others with Civil Appeal Nos. 2220- 2221/2020, 2434/2020, 2462/2020, 3319-3321/2020 & 1656-4658 of 2022.
  - Consequently, the file pertaining to the proposed project was transferred from SEIAA, West Bengal to MoEF&CC for the further appraisal for the grant of the necessary environmental clearance.
  - The EAC is of the view that PP shall submit the complete chronology of the activities undertaken pertaining to the instant proposal. Also, the EAC warned the consultant [M/s. Envirotech East Pvt. Limited] for not guiding the project proponent properly with respect to submitting of instant application to SEIAA / Ministry.
4. The project proponent also brought to the notice of EAC that the name of the company has changed to M/s. Incredible Industries Limited. The EAC deliberated and observed that PP has not disclosed the same at the time of application and also has not submitted any document furnishing the same throughout the process of application and consideration of proposal by EAC. The EAC is of the view that PP should have applied for transfer of ToR in the new name of the company and thereafter application for EC shall have been made.



5. Damodar River is at a distance of 200 m from the plant site. The EAC is of the opinion that HFL data of Tungabhadra River authenticated from Competent Authority needs to be furnished. The project proponent also needs to submit the NOC from the concerned State Irrigation Department. 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 prepared.
6. The EAC deliberated on the CTO compliance report issued by WBPCB vide letter dated 09.03.2023 and observed the non-compliances reported by RO, SPCB pertaining to Green belt and also PP failed to show the inspection book for any direction or observation issued by the inspecting officers of the Stare Board during inspection. In this regard, the EAC is of the opinion that PP needs to submit the action plan and obtain closure report from RO, SPCB.
7. The Committee deliberated on the reported baseline data and incremental GLC due to the proposed project and observed that data is not appropriate considering the project and there is a need for revalidation of baseline data. The PP shall submit the revised data along with the comparison with the existing data. The EAC further observed that incremental GLC of CO ad SO<sub>2</sub> has not been provided. The EAC is of the view that the GLC values for all the parameters shall be submitted.
8. The EAC deliberated on the greenbelt action plan and is of the view that greenbelt shall be completed in the forthcoming monsoons of 2023. PP shall submit an affidavit on this regard.
9. The EAC warned the consultant [M/s. Envirotech East Pvt. Limited] for not guiding the project proponent properly with respect to submitting of instant application to SEIAA / Ministry. The EAC has further directed that Consultant shall undertake the EIA study thoroughly and improve the report before submitting the application on Parivesh portal.
10. 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:**

- 30.2.19 In view of the aforementioned discrepancies, the Committee **recommended to return the proposal in its present form** due to the technical shortcomings mentioned in para 30.2.18 above and submit the revised application as per the provisions of EIA Notification, 2006. The EAC also warned the consultant for not guiding the project proponent properly pertaining to making the application and submission of the requisite information / documents required at the time of appraisal.

**\*\*\***

**Agenda No. 30.3**

**30.3 Rolling Mill with CCM having Installed Capacity of 3,00,000 TPA within the existing Integrated Steel Plant Premises by M/s Viraj Steel & Energy Private Limited, located at: Gurupalli, PO: Lapanga, Tehsil: Rengali, District: Sambalpur, Odisha- Consideration of Environmental Clearance as per the provisions of the Notification dated 20.07.2022.**

**[Proposal No. IA/OR/IND1/415893/2023; File No. IA-J-11011/323/2022-IA-II(IND-I)]  
[Consultant: Kalyani Laboratories Private Limited; Valid upto 01.06.2023]**

30.3.1 M/s. Viraj Steel & Energy Private Limited has made an online application vide proposal no. IA/OR/IND/415893/2023 dated 24.04.2023 along with copy of EIA report and Forms (Part A, B and C) 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) under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

30.3.2 Name of the EIA consultant: M/s. Kalyani Laboratories Private Limited [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2693; valid upto 01.06.2023, as on May 8, 2023].

**Details submitted by Project proponent**

30.3.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
22.08.2022	Standard Terms of Reference issued	Terms of Reference	25.08.2022	24.08.2026

30.3.4 The project of M/s Viraj Steel & Energy Private Limited, located at: Gurupalli, PO: Lapanga, Tehsil: Rengali, District: Sambalpur, Odisha is for Regularization of the existing Rolling Mill with CCM having Installed Capacity of 3,00,000 TPA within the existing Integrated Steel Plant premises as per the provisions under EIA Notification No. S. O. 3250 (E) dated 20<sup>th</sup> July 2022.

30.3.5 Environmental Site Settings:

S. No.	Particulars	Details				Remarks
i.	Total land	Total Area of the Company: 105.76 Ac or 42.80 ha			Land use: Industrial	
ii.	Land acquisition Details as per MoEF&CC O.M. dated 7/10/2014	Sl. No.	Description of Land	Already Acquired	Under Process of Acquisition	Remarks
		01	Acquisition Through IDCO	51.40	5.81	

S. No.	Particulars	Details			Remarks	
			Direct Purchase Pvt. Land	26.98	0.67	78.38 Ac already acquired is used for existing plant establishment. And 6.48 Ac under process of Acquisition will be used for RWH and Water Reservoir.
			Sub Total	<b>78.38</b>	<b>6.48</b>	
			<b>Village: Pandloi</b>			For Proposed Steel Plant Expansion
		<b>02</b>	Acquisition Through IDCO	3.06	16.54	
			Direct Purchase Pvt. Land	0.00	1.30	
			Sub Total	<b>3.06</b>	<b>17.84</b>	
			<b>Total</b>	<b>81.44</b>	<b>24.32</b>	
					<b>105.76</b>	
iii.	Existence of habitation & involvement of R&R, if any.	There is no habitation within the Plant Area. Lands are procured through IDCO. Thus no R & R issues involved for the Project Proponent.  Gurupalli village: 0.5 kms			-	
iv.	Latitude and Longitude of the project site	<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	--	
		1	21°41'49.61"N	84° 1'41.96"E		
		2	21°41'52.12"N	84° 1'44.77"E		
		3	21°41'52.78"N	84° 1'46.58"E		
		4	21°41'52.86"N	84° 1'47.98"E		
		5	21°41'53.93"N	84° 1'48.89"E		
		6	21°41'55.06"N	84° 1'50.39"E		
		7	21°41'55.93"N	84° 1'52.18"E		
		8	21°41'56.47"N	84° 1'54.26"E		
		9	21°41'56.38"N	84° 1'55.79"E		
		10	21°41'57.08"N	84° 1'57.52"E		
		11	21°41'56.94"N	84° 1'57.61"E		
		12	21°41'57.41"N	84° 1'58.53"E		
		13	21°41'57.68"N	84° 1'59.63"E		
		14	21°41'57.05"N	84° 2'4.11"E		
		15	21°41'57.45"N	84° 2'6.15"E		

S. No.	Particulars	Details			Remarks															
		16	21°41'56.07"N	84° 2'10.00"E																
		17	21°41'43.98"N	84° 2'16.46"E																
		18	21°41'32.43"N	84° 2'22.87"E																
		19	21°41'34.23"N	84° 2'15.77"E																
		20	21°41'38.64"N	84° 2'2.50"E																
		21	21°41'41.43"N	84° 2'2.30"E																
		22	21°41'43.69"N	84° 1'58.37"E																
		23	21°41'44.90"N	84° 1'50.43"E																
		24	21°41'46.66"N	84° 1'46.61"E																
		25	21°41'49.01"N	84° 1'42.55"E																
v.	Elevation of the project site	Core Area : 196 aMSL to 205 aMSL Buffer Area : 188 aMSL to 382 aMSL			--															
vi.	Involvement of Forest land if any.	No forest land involved			-															
vii.	Waterbody exists within the project site as well as study area	<p><b>Project site:</b> None within the project site.</p> <p><b>Study area</b></p> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Hirakud Reservoir</td> <td>1.0 km from the periphery of the Plant</td> <td>West</td> </tr> <tr> <td>Catchment area of Hirakud Reservoir</td> <td>0.1 kms from the periphery of the Plant</td> <td>West</td> </tr> <tr> <td>River Behden</td> <td>6.5 kms from the periphery of the Plant</td> <td>North west</td> </tr> <tr> <td>River Matwali</td> <td>2.0 kms from the periphery of the Plant</td> <td>South</td> </tr> </tbody> </table>			Water Body	Distance	Direction	Hirakud Reservoir	1.0 km from the periphery of the Plant	West	Catchment area of Hirakud Reservoir	0.1 kms from the periphery of the Plant	West	River Behden	6.5 kms from the periphery of the Plant	North west	River Matwali	2.0 kms from the periphery of the Plant	South	The project site is neither in the vicinity of the river, nor is the industry located within the river flood plain. The River Bheden is flowing at 6.5 kms. from the periphery of the plant and Matwali river is flowing at 2.0 kms from the periphery of the plant site.
Water Body	Distance	Direction																		
Hirakud Reservoir	1.0 km from the periphery of the Plant	West																		
Catchment area of Hirakud Reservoir	0.1 kms from the periphery of the Plant	West																		
River Behden	6.5 kms from the periphery of the Plant	North west																		
River Matwali	2.0 kms from the periphery of the Plant	South																		
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p><b>Study area</b> Nil</p> <p><b>List of Reserved and protected forests:</b> Malda RF : 7.00 kms /SW Ghichamura RF : 6.00 Kms/East Baighara RF : 9.0 Kms /South Mulabhanja RF : 93.00 Kms / SSW</p>			--															

30.3.6 The existing project was initially accorded Environment Clearance vide letter dated 04.10.2007. Thereafter, PP obtained Consent to Establish from State Pollution Control Board, Odisha vide lr.no. 12966/IND-II-CTE-6355 dated 30/11/2019 for establishment of Rolling Mill to produce 0.3 MTPA of TMT Bars and rounds inside the plant premises which is established. The present proposal is for grant of Environmental Clearance for the already established rolling mill as per provision under EIA Notification No. S. O. 3250 (E) dated 20<sup>th</sup> July 2022.

30.3.7 Implementation of previous EC of other existing operating units:

Sl. No.	Facilities Envisaged	Consent Status (CTE/CFO)	Implementation Status	Remarks	Production Details	Details of Violation, if any.
1	DRI – Sponge Iron Existing: 2.20 MTPA + Proposed: 2.20 MTPA = Total 4.40 MTPA	CTE: 4.40 MTPA CFO: 2.20 MTPA	2.20 MTPA	2.20 MTPA not Implemented	2.20 MTPA	Not Implemented within validity period.
2	Captive Power Plant (WHRB) Existing 8.0 MW + Proposed: 8.0 MW = Total 16.0 MW	CTE: 16.0 MW CFO 16.0MW	16.0 MW	8.0 MW Implemented ed	16.0 MW	Implemented within validity period.
3	Captive Power Plant AFBC) Proposed: 78.0 MW	CTE: 78.0 MW CFO: 12.0 MW	12.0 MW	66.0 MW Not Implemented	12.0 MW	Not Implemented neither within the validity period of EC i.e before 03/10/2012 nor within the validity period of CTE i.e. before 30/07/2013
4	SMS 4 x 12 T Induction Furnace 2 x 35 T EAF 2x35T LRF + 1x25 T + 2x3 strand + 1x2	CTE: 6,00,000 TPA CFO: 80,000 TPA	2 X 12 T/H Induction Furnace: 80,000 TPA	Balance not implemented	2 X 12 T/H Induction Furnace: 80,000 TPA	2 X 12 T/H Induction Furnace: 80,000 TPA implemented within the validity period

Sl. No.	Facilities Envisaged	Consent Status (CTE/CFO)	Implementation Status	Remarks	Production Details	Details of Violation, if any.
	strand CCM: 6,00,000 TPA					
5	Coal Washery: 1 X 150 TPH	CTE: 1 x 150 TPH CFO: Nil	Not Implemented	Not Implemented	Nil	Not Implemented
6	Mini Blast Furnace: 2 X 157 m <sup>3</sup> : 2,00,000 TPA of Hot Metal	CTE: 2,00,000 TPA CFO: Nil	Not Implemented	Not Implemented	Nil	Not Implemented

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

Sl. No	Project /Products		Configuration		Production Capacity (in TPA)	
			(Existing)	(Proposed addition)	(Existing)	(Proposed addition)
1	<b>Sponge Iron Plant - DRI Kiln</b>					
	Sponge Iron		2 X 350 TPD	----	2,20,000 TPA	----
2	<b>Steel Meting Shop</b>					
	Induction Furnace	Steel Billets	2 X 12 Ton	----	80,000 TPA	----
3	<b>Captive Power Plant</b>					
	WHRB BASED POWER		2 X 33 TPH 1 X 33 TPH	----	16 MW	----
	AFBC BASED POWER		1 X 48 TPH	----	12 MW	---
4	Steel Rolling Mill with CCM	TMT Bar and Rounds	-	3,00,000 TPA	-	3,00,000 TPA

30.3.9 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 (kms)	Mode of Transportation
		Existing	Expansion	Total			
1	<b>Rolling Mill of 3,00,000 TPA (Proposed)</b>						
	Hot Metal	Nil	3,12,000 TPA	3,12,000 TPA	Hot Charging-In-house		

30.3.10 The water requirement (Make up) for the proposed project of Rolling Mill is estimated at 428.4 m<sup>3</sup> /day. Existing Water requirement is 2019.6 m<sup>3</sup>/day for other existing operating units. The

total water requirement (existing + proposed) is 2448 m<sup>3</sup>/day, out of which 1200 m<sup>3</sup>/day is fresh water, 504 m<sup>3</sup>/day is treated water and 744 m<sup>3</sup>/day is from the Rain Water Harvesting Ponds. The permission for drawl of surface water is obtained from Water Resources Department, Govt. of Odisha vide Lr. No. 17275/WR dated 20/07/2017 for 1223.288 m<sup>3</sup>/day or 0.5 Cusec

30.3.11 The power requirement for the proposed project of Rolling Mill is estimated as 3.0 MW. Existing power requirement of 14.8 MW is obtained from in house. Total power of 17.8 MW will be generated in house by WHRB and AFBC Boilers of 28.0 MW.

30.3.12 Baseline Environmental Studies:

Period	Post Monsoon 2022 (September, October and November 2022)										
AAQ parameters at 09 locations (Min and Max)	• PM <sub>2.5</sub> = 22.30 to 41.63 µg/m <sup>3</sup>										
	• PM <sub>10</sub> = 50.99 to 86.77 µg/m <sup>3</sup>										
	• SO <sub>2</sub> = 5.51 to 9.95 µg/m <sup>3</sup>										
	• NO <sub>x</sub> = 10.05 to 17.10 µg/m <sup>3</sup>										
	• CO = < 1.14 mg/m <sup>3</sup>										
Incremental GLC Level	• PM <sub>10</sub> = 2.10991 µg/m <sup>3</sup> ( with control measures) (Level at 0.5 km in East Direction)										
	• PM <sub>2.5</sub> = 14.64472 µg/m <sup>3</sup> ( with control measures) (Level at 0.5 kms km in West Direction)										
	• SO <sub>2</sub> = 3.91896 µg/m <sup>3</sup> (Level at 0.5 km in East Direction)										
	• NO <sub>x</sub> = 1.95934 µg/m <sup>3</sup> (Level at 0.5 km in East Direction)										
Ground water quality at 08 locations	<ul style="list-style-type: none"> <li>• pH: 6,51 to 7.01</li> <li>• Total Hardness: 94.0 to 482.0 mg/l,</li> <li>• Chlorides:32.52 to 183.30 mg/l,</li> <li>• Fluoride :&lt; 0.1 to &lt; 0.1 mg/l.</li> <li>• Heavy metals are within the limits.</li> <li>• Iron (Fe) : 0.05 to 0.08 mg/l.</li> <li>• Total Chromium : Not Detected</li> </ul>										
Surface water quality at 10 locations	<ul style="list-style-type: none"> <li>• pH: 6.67 to 7.44</li> <li>• DO: 6,7 to 8.1mg/l and</li> <li>• BOD: 3.10 to 4.2 mg/l.</li> </ul>										
Noise levels Leq (Day and Night)	Day time : 43.28 to 52.90 dB(A) Night Time : 38.75 to 48.08 dB(A)										
Traffic assessment study findings	<ul style="list-style-type: none"> <li>• The traffic density study was conducted at Sambalpur –Rourkela State Highway (SH-10) in front of factory Main Gate adjacent to SH 10 during 7.11.2022 to 13.11.2022.</li> <li>• Transportation of raw material, fuel &amp; finished product of the existing operating units are being done 100 % by road.</li> <li>• Transportation of raw material of Proposed Rolling Mill is the finish product of the existing SMS. So additional traffic load.</li> <li>• Existing PCU is 353 PCU/hr including hrly load of 12 of existing operating units on <b>SH - 10</b> and existing level of service (LOS) is ‘C’</li> </ul>										
	<table border="1"> <thead> <tr> <th>Road</th> <th>V</th> <th>C</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Road	V	C	Existing V/C Ratio	LOS					
Road	V	C	Existing V/C Ratio	LOS							

		<b>(Volume in PCU/hr)</b>	<b>(Capacity in PCU/hr)</b>		
	Samalpur – Rourkela Road (SH-10) (To and fro)	353	15885	0.02	C
<p>PCU load after proposed project will be 353 (Existing) + Nil (Additional) PCU/hr and level of service (LOS) will be the same as “C”.</p>					
		<b>V (Volume in PCU/hr)</b>	<b>C (Capacity in PCU/hr)</b>	<b>Proposed V/C Ratio</b>	<b>LOS</b>
	Samalpur – Rourkela Road (SH-10) (To and fro)	353	15885	0.02	C
<p>* Note: Capacity as per IRC-73:1980 Guide line for capacity for roads is 52800.</p> <p>There would not be any additional traffic in operating the said Rolling Mill as the Raw Material of proposed Rolling Mill is Hot Metal which is available in-house. Traffic load in dispatching finish product of the Company from the same location will be either semi finished Steel Billets of existing operating unit or Finish Steel (TMT Bar and Rounds) of the proposed Rolling Mill and the quantity remains the same. Thus, no additional traffic load for dispatching of the Finish Steel (TMT Bar and Rounds) of Rolling Mill on SH – 10.</p> <p><b>Conclusion:</b> Thus, additional traffic load due to said project of Rolling Mill will not pose any significant load to the existing traffic load on SH-10. The level of service will be ‘C’ after operating the proposed project of Rolling Mill.</p>					
Flora and fauna	No schedule I fauna and endangered Flora reported in study area.				

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

S. No	Type of Waste	Source	Quantity generated	Mode of Treatment	Disposal	Remarks
1	Mill Scale	Rolling Mill	34 T/day	To be Stored in designated area	To be used in IF in-house.	Proposed



2	Waste cottons	Maintenance Floor	0.25 TPA	To be Stored in designated area	For use as fuel in AFBC Boiler.	Proposed
	Used or Spent Oil Schedule: 1 Stream: 5.1	Maintenance (Both Electrical and Mechanical & Operation Floor	2.0 KL/Annum (Rolling Mill)	Storage in containers under covered shed over concrete floor followed by partly used in-house and partly sale to Authorized recycler/re-processor.		Proposed

30.3.14 Public Consultation: The Public Hearing is exempted as per MoEF&CC Notification S.O. 3250(E), dated 20<sup>th</sup> July, 2022.

**Action plan implemented to address the PH issues during grant of earlier EC:**

SL.	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. In Lacs)
	Name of the Activity	Physical Targets	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
		<b>Air Pollution Control Devices</b>	Year / Period of Expenditure Made			
1	The unit will install adequate pollution control measures for the prevention of water, air, soil and noise etc. and under no circumstances the degradation of environment shall be allowed.	ESP at 2 X 350 TPD DRI Kiln	2009		195.00	
		ESP at 12 MW AFBC Boiler	2017		85.00	
		Bag Filters at 2 X 350 TPD DRI Kiln	2009		45.00	
		Bag Filters at 2 X 12 T/H Induction Furnace	2009		20.00	
		Mist Spray Nozzle and Rain Gun.	2021		1.47	
		Black topping of roads	2018 - 2022		350.00	
		<b>Water Pollution Control Measures</b>	Year / Period of Expenditure Made			
		Adoption of ZERO LIQUID DISCHARGE Concept	2018 - 2022			
	Rain Water Sedimentation Tank / Rain Water Harvesting Structures with Recharge Points.	2018 - 2022		77.00		
	Adequately Designed Surface Runoff Management inside the Plant premises	2018 - 2022		129.50		
2	The unit will make adequate tree plantation inside the factory premises and also outside the factory in the district of Sambalpur in	Green Belt developed inside the plant premises as per the norms of CPCB /MOEF&CC guidelines over an area of 4.45 Acres in consultation with DFO.	Rs. 1.00 Lacs per year		Already Spent Rs15.00 Lacs from 2018 to 2022.	

SL.	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. In Lacs)
	Name of the Activity	Physical Targets	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
	consultation with the district administration	In addition to this, we are also planting trees to outside of the factory premises in consultation with local District Administration & Divisional Forest Officer. We have planted 12,000 saplings inside the plant premises @2500 trees per acres.				
3	The local people should be given appropriate job opportunity on priority basis depending on their qualification and experience. The company will also provide training facilities to the local unemployed youth for future employment.	Total existing manpower is 331. Company employees 231 Nos and under contractor 100.00 nos. Out of total 331 employees from Sambalpur district is 199 nos. Within Odisha is 90 nos and outside Odisha is 42.nos. Further, we are giving priority to engage the local public depending on our requirement and their qualification and experience.	Since 2009			Gross salary : Company Employee : Rs.54.00 Lacs per month  Under contactor : Rs.13.00 Lacs per month.
4	The industry shall take up the peripheral development of the local area as to be decided in the peripheral development committee meeting by the Collector and Dist. Magistrate, Dist: Sambalpur	Drinking water Supply to Pudupada village through Pipeline	Rs.2.20 Lacs per Year			
		Drinking water Supply to Rohidaspada village	Rs.1.25 Lacs per Year			
		Drinking water Supply to Gurupalli village through Pipeline	Rs.3.50 Lacs per Year			
		Free Ambulance service to near villages like Gurupalli, Pudapada, Kisanpada, Rohidaspada, Pandoloi etc.	Rs.3.50 Lacs per Year			
		Medical camp in nearby villages like Gurupalli, Pudapada, Kisanpada, Rohidaspada, Pandoloi etc in every week.	Rs.2.46 Lacs per Year			

SL.	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. In Lacs)
	Name of the Activity	Physical Targets	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
		Pond Cleaning of Gurupalli village in every year since 2014 to till date	Period from 2014 to 2022			3.60
		Installation of 63 KVA capacity new Transformer at Gurupalli village	2015			1.62
		RCC Roof made at Gupupalli village Anganwadi School	2016			1.846
		Bathing step in Gurupalli village Pond	2016			1.94
		Bhutapada Chowk Development work	2017			23.85
		Pond renovation in village Pudapada	2018			1.18
		Pond renovation in village Rohidaspada	2021			1.82
		Bathing step with dress changing room of Pudidihi pond	2022			5.42
		Pond renovation in village Pudidihi	2022			2.20
5	The unit shall take adequate steps for the safe disposal of solid wastes including hazardous wastes and dispose suitably without causing environmental nuisance in the nearby locality. The unit should take steps for the prevention of ground water contamination nearby area of the solid waste disposal site.	<ul style="list-style-type: none"> <li>SMS slag are generating from existing 2 X 12 T IF. The Slags are sold to outside parties.</li> <li>Dolo Char generated from the DRI Plant are used in AFBC Boilers.</li> <li>All the wastes are being stored properly, before disposal and to avoid any fugitive dust as well as impact to the environment.</li> </ul>	It is a part of the project. Expenses towards these activities cannot be separately estimated.			
6	The unit will obtain environmental clearance from the MoEF, Govt. of India and prior to obtaining	The unit has obtained Environmental Clearance from the Ministry of Environment, Forest and Climate Change, the then Ministry of Environment &	Year 2007 PP is abiding by the condition as recommended -			

SL.	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. In Lacs)
	Name of the Activity	Physical Targets	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	
	the same no constructional activities should be taken up	Forest, Govt. of India, vide letter no. J-11011/87/2007-IA II (I) dated 04 <sup>th</sup> October 2007.	-			

30.3.15 The capital cost of the project is Rs 54.07 Crores excluding Environmental Management Plan. The capital cost for environmental protection measures is proposed as Rs. 638.97 lacs. The annual recurring cost towards the environmental protection measures is proposed as Rs.78.20 Lacs. The employment generation from the proposed project is 320 including contractual. The details of cost for environmental protection measures of the Proposed Rolling Mill are as follows:

Sl. No	Description of Item	Proposed (Rolling Mill) (Rs. In /lakhs)	
		Capital Cost	Recurring Cost
i	Air Pollution Control / Noise Management	345.00	34.40
ii	Water Pollution Control including Water Sprinkling Nozels and Rain Gun	36.47	3.80
iii	Environmental Monitoring and Management	30.00	7.00
iv	Green Belt Development	15.00	1.00
v	Occupational Health	5.00	10.00
vi	Environmental Awareness/ Training Programs	1.00	1.00
vii	Rainwater Harvesting, Water Management	206.50	21.00
viii	Details of Adoption of Villages if any	NIL	NIL
<b>Total</b>		<b>638.97</b>	<b>78.20</b>

30.3.16 Existing green belt has been developed in 4.45 Acres / 1.80 Ha. area which is about 4.20 % of the total project area of 42.80 ha. (Total area of the Company) with total sapling of 12,000 Trees including plantation in nearby villages and School. Green belt will also be developed within the battery limit of Proposed Rolling Mill area of 4.93 Ha about in 1.48 Ha which is 30% of the proposed Rolling Mill Project area of 4.93 Ha.

30.3.17 There is no litigation pending neither against the Project and/or Any direction/order passed by any Court of Law against the Project as on date. The details of Notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts, details thereof and compliance/ATR to the Notice(s) and Present Status of the Case are summarised in the below table.

Date of Issue	Letter No	Details	Present Status
04/12/2021	19295/IND-I-CON-5350	Direction of Closure for existing units	

31/12/2021	21064/IND-I-CON-5350	Permission for Operation of existing units	Resoled and Revoked
01/08/2022	13669/IND-I-CON-5350	Show Cause Notice due to non compliance of CTO conditions of existing units.	
17/08/2022	Nil dated 17/08/2022	Reply of PP w.r.t. Show Cause Notice dated 01/08/2022	
19/10/2022	19397/ IND-I-CON-5350	Proceedings of the Personal Hearing held no 14/10/2022	

### **Deliberations by the Committee**

30.3.18 The Committee noted the following:

1. The instant proposal is for regularization of the existing Rolling Mill with CCM having Installed Capacity of 3,00,000 TPA within the existing Integrated Steel Plant premises as per the provisions under EIA Notification No. S. O. 3250 (E) dated 20<sup>th</sup> July 2022. The PP has obtained separate CTE for the existing re-rolling mill project and also constructed the facilities based on the valid CTE from the SPCB.
2. The PP also reported that the existing Integrated Steel Plant project was initially accorded Environment Clearance vide letter dated 04.10.2007 from the Ministry. Thereafter, PP has also obtained CTE/CTO for the ISP. However, the complete EC has not been implemented.
3. Further, the PP has also obtained the Consent to Establish from State Pollution Control Board, Odisha vide Ir.no. 12966/IND-II-CTE-6355 dated 30/11/2019 for establishment of Rolling Mill to produce 0.3 MTPA of TMT Bars and rounds inside the plant premises which is also established.
4. The present proposal is for grant of Environmental Clearance for the already established rolling mill as per provision under EIA Notification No. S. O. 3250 (E) dated 20<sup>th</sup> July 2022. PP reported that they this part of the project is separate and has obtained separate CTE from SPCB and plant has been constructed and ready for operation. Therefore, PP has mentioned that the instant re-rolling mills having valid CTE comes under the provisions of Notification dated 20.07.2022.
5. The EAC noted that the CTE granted by OSPCB vide dated 30/11/2019 specifically states that CTE is granted for establishment of Rolling Mill to produce 0.3 MTPA of TMT bars and rounds with project cost of Rs. 54.07 Crores inside the existing plant premises. Since PP has obtained CTE for the re-rolling mills before the Hon'ble NGT Order of July 2020 and Ministry's Notification of 20<sup>th</sup> July 2022, the instant regularization project may be considered as per provisions of Notification dated 20.07.2022, as the Notification, inter-alia, mentioned CTE/CTO. However, the EAC is of the opinion that it is imperative that comments of the Policy Sector of IA Division may be obtained prior to appraisal of the instant proposal w.r.t. applicability of provision of MoEF&CC Notification vide S. O. 3250 (E) dated 20<sup>th</sup> July 2022 in the instant proposal.

6. The EAC also noted that the PP has not obtained Certified Compliance Report of existing project which is a pre-requisite for appraisal of the expansion / regularisation project to verify the violation, if any.
7. The PP/Consultant also agreed to the suggestions of EAC to obtain the comments of the Policy Division of MoEF&CC and PP may revise the application based on the Notification dated 20.07.2022.

**Recommendations of the Committee:**

- 30.3.19 In view of the aforementioned discrepancies, the Committee **recommended to return the proposal in its present form** due to shortcomings mentioned in para 30.3.18 above.

**\*\*\***

**Agenda No. 30.4**

- 30.4 Expansion in Sponge Iron Production from 49,500 TPA to 1, 22,100 TPA along with Captive Power Plant of 12 MW and Ferro Alloy Plant (16,000 TPA) with Installation of 9 MVA SAF by M/s Shreegopal Govind Sponge Private Limited, located at Plot No G-4, Mangalpur Industrial Estate, PO-Baktarnagar, PS - Raniganj, District - Paschim Bardhaman, West Bengal– Consideration of Environmental Clearance**

**[Proposal No. IA/WB/IND1/408553/2022; File No. IA-J-11011/194/2021-IA-II (IND-I)]  
[Consultant: Grass Roots Research and Creation India (P) Ltd.; Valid upto 15.02.2024]**

- 30.4.1 M/s Shreegopal Govind Sponge Private Limited has made an online application vide proposal No. IA/WB/IND1/408553/2022, dated 27.04.2023 along with copy of EIA report and Forms (Part A, B and C) 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 Plant under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.
- 30.4.2 Name of the EIA consultant: M/s. Grass Roots Research and Creation India (P) Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/21224/RA 0213; valid upto 15.02.2024, as on May 8, 2023].

**Details submitted by Project proponent**

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

Date of Application	Consideration	Details	Date of Accord	ToR Validity
08.05.2021	Standard Terms of Reference issued	Terms of Reference	11.05.2021	10.05.2025

30.4.4 The project of M/s Shreegopal Govind Sponge Private Limited, located at Plot No G-4, Mangalpur Industrial Estate, PO-Baktarnagar, PS - Raniganj, District - Paschim Bardhaman, West Bengal is for expansion in Sponge Iron Production from 49,500 TPA to 1, 22,100 TPA along with Captive Power Plant of 12 MW and Ferro Alloy Plant (16,000 TPA) with Installation of 9 MVA SAF.

30.4.5 Environmental Site Settings:

S.No	Particulars	Details submitted by the PP		
1	Total Land	Existing :- 2.02 ha Expansion:- 2.55 ha Total land area :- 4.57 ha Industrial Land		
2	Land acquisition details as per MoEF&CC O.M dated 7/10/2014	Land has been given on lease by Asansol Durgapur Development Authority and is completely under the possession of the company.		
3	Existence of habitation & involvement of R&R, if any.	Project is located in Industrial Area, hence R&R is not applicable.  <b>Nearest Habitation:</b> Mangalpur – 1.0 km(NNW)		
4	Latitude and Longitude of the project site	<b>Latitude</b>	<b>Longitude</b>	
		23°36'36.75"N	87° 9'1.19"E	
		23°36'34.49"N	87° 9'5.95"E	
		23°36'27.24"N	87° 8'59.99"E	
5	Elevation of the project site	127 Meter above the sea level		
6	Involvement of Forest land if any.	Nil		
7	Water body exists within the project site as well as study area	<b>Project Site – Nil</b> <b>Study Area</b> Damodar River – Approx. 4.3 km, SW Mejia Lake – Approx. 5.5 km, SW Suko Lake – Approx. 9.5 km, ENE		
8	Existence of ESZ / ESA/national park /wildlife sanctuary /biosphere reserve /tiger reserve /elephant reserve etc. if any within the study area	Nil  <b>List of PF/RF:</b> Gangajalghati PF – Approx. 5.5 km, SW		

30.4.6 The project was accorded Consent to establish from WBPCB vide Memo no. 126-2N-1646/2000, 2027-2N-68/2002 and 9264-2N-489/2003 dated 16.04.2001, 21.08.2002 and

14.09.2004 respectively. EC was not applicable as the project was established and brought to operation before 2006 and the project cost was also less than Rs 50 Cr. Consent to Operate for the existing unit was accorded by WBSPCB vide Memo No. 892-WPBA/Red (BWN) Cont (325)/02 , 930-WPBA/Red (BWN)Cont (325)/02 and 2096-WPBA/Red (BWN)Cont (325)/02 dated 31.10.2002, 01.09.2003 and 31.01.2005 respectively. Latest CTO is obtained vide Memo No. 2235-WPBA/Red (BWN) Cont (325)/2002 dated 03.12.2018 for production of 54,000 TPA Sponge Iron which is valid upto 31.12.2023.

30.4.7 Implementation of the existing CTE:

S.No.	Facilities	Units	Implementation status on date	Production as on date
1.	DRI Plant	3 x 50 TPD	Operational & Implemented	49,500 TPA

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

S. No	Plant Equipment / Facilities	Existing facilities as per CTE dated 16.04.2001, 21.08.2002 and 14.09.2004		Proposed		Final	
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Sponge Iron Plant	3 x 50 TPD	54,000 TPA	220 TPD	72,600 TPA	3 x 50 TPD + 220 TPD	1,22,100 TPA
2.	Ferro Alloy Plant			9 MVA SAF	16000 TPA (Fe-Mn or Si-Mn or Fe-Si)	9 MVA SAF	16000 TPA (Fe-Mn or Si-Mn or Fe-Si)
3.	Captive Power Plant			WHRB (3 x 6 TPH + 1 x 22 TPH)#8MW AFBC (1 x 22 TPH)#4MW	12 MW	WHRB (3 x 6 TPH + 1 x 22 TPH)#8MW AFBC (1 x 22 TPH)#4MW	12 MW

30.4.9 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	Distance (w.r.t. Plant)	Mode of transport
		Existing	Expansion	Total			
<b>A. Sponge Iron</b>							
1.	Iron Ore	84,080	1,23,320	2,07,400	purchase from NMDC/OMDC /other mines	300-350 km	By Rail & Road through covered trucks
2.	Non Coking Coal	49,450	72,550	1,22,000	CCL	20-30 km	By Rail & Road through covered trucks



Sl. No	Raw Material	Quantity (TPA)			Source	Distance (w.r.t. Plant)	Mode of transport
		Existing	Expansion	Total			
3.	Dolomite	2,430	3,570	6,000	Open Market	20-30 km	By Road through covered trucks
<b>B. Ferro Alloy Plant</b>							
<b>Ferro Manganese</b>							
1.	Manganese Ore	-	38400	38400	Mines in MF	300 km	Road through covered trucks
2.	Coke	-	12800	12800	Outsource	20-30 km	Road through covered trucks
3..	Dolomite	-	4000	4000	Local Purchase	20-30 km	Road through covered trucks
4.	Quartz	-	480	480	Local Purchase	20-30 km	Road through covered trucks
5.	Carbon Paste	-	1600	1600	Local Purchase	20-30 km	Road through covered trucks
<b>Silico Manganese</b>							
1.	Manganese Ore	-	25600	25600	Mines in MF	300 km	Road through covered trucks
2.	Coke	-	12800	12800	Outsource	20-30 km	Road through covered trucks
3.	Dolomite	-	4000	4000	Local Purchase	20-30 km	Road through covered trucks
4.	Carbon Paste	-	480	480	Local Purchase	20-30 km	Road through covered trucks
5.	Ferro Slag	-	11200	11200	From Fe-Mn Production	--	Conveyer
<b>Ferro Silicon</b>							
1.	Quartzite	-	38400	38400	Outsource	300 km	Road/ Rail
2.	Mill Scale	-	3200	3200	Local Purchase	20-30 km	Road through covered trucks
3.	Coal	-	9600	9600	Local Purchase	20-30 km	Road through covered trucks
4.	Coke Breeze	-	8000	8000	Local Purchase	20-30 km	Road through covered trucks
5.	Scrap	-	3200	3200	Local Purchase	20-30 km	Road through covered trucks
<b>F. Captive Power Plant (AFBC)</b>							
1.	Dolochar	-	24000	24000	DRI Plant	--	Conveyer Belt
2.	Indian Coal	-	3200	3200	Local Market	20-30 km	Road through covered trucks
3.	Limestone	-	9600	9600	Local Market	20-30 km	Road through covered trucks

30.4.10 Existing water requirement is 154 m<sup>3</sup>/day and is being sourced from Jamuria Municipality water supply and permission for the existing water supply has been obtained vide Ref no.

ADDA/DGP/ED/CN-65/03-04/612 dated 06.04.2004. The water requirement for the proposed expansion project is estimated 634 m<sup>3</sup>/day. Total Water requirement will be 788 KLD and will be sourced from Asansol Durgapur Development Authority. Application for obtaining permission for additional water is submitted to ADDA.

30.4.11 Existing power requirement of 0.6 MW is obtained from India Power Corporation Limited. The power requirement for the proposed expansion project is estimated as 11.4 MW making the total power requirement 12 MW which will be sourced from in house captive power plant.

30.4.12 Baseline Environmental Studies:

Period	Winter Season: 1 <sup>st</sup> December 2020 to 28 <sup>th</sup> February 2021																			
AAQ parameters at 08 Locations	<ul style="list-style-type: none"> <li>• PM<sub>2.5</sub> : 49.1 – 52.6 µg/m<sup>3</sup></li> <li>• PM<sub>10</sub> : 87.9 – 93.3 µg/m<sup>3</sup></li> <li>• SO<sub>2</sub> : 9.8 to 12.0 µg/m<sup>3</sup></li> <li>• NO<sub>x</sub> : 23.8 – 31.1 µg/m<sup>3</sup></li> <li>• CO : 520.8 – 866.2 µg/m<sup>3</sup></li> </ul>																			
AAQ modelling	<ul style="list-style-type: none"> <li>• Incremental GLCs due to the proposed proposal:</li> <li>• PM<sub>10</sub> :- 5.25 µg/m<sup>3</sup></li> <li>• PM<sub>2.5</sub> :- 1.58 µg/m<sup>3</sup></li> <li>• SO<sub>2</sub> :- 6.89µg/m<sup>3</sup></li> <li>• NO<sub>2</sub>:- 3.28 µg/m<sup>3</sup></li> <li>• CO :- 1.55 µg/m<sup>3</sup></li> </ul>																			
Ground water quality at 08 locations	<ul style="list-style-type: none"> <li>• pH: 6.83-7.14</li> <li>• Total Hardness: 243-278 mg/l.</li> <li>• Chlorides: 119-143 mg/l,</li> <li>• Fluoride: 0.3-0.5mg/l</li> </ul>																			
Surface water quality at 8 locations	<ul style="list-style-type: none"> <li>• pH: 7.15-7.91</li> <li>• DO: 1.2-5.2 mg/l.</li> <li>• BOD: 7.1-9.6 mg/l</li> <li>• COD : 37-235 mg/l</li> </ul>																			
Noise levels	47.6 to 72.9 dBA - day time 36.9 to 68.1 dBA- Night time.																			
Traffic assessment study findings	<p>Traffic study has been conducted at NH#2 and NH-60</p> <p>Transportation of raw material, fuel &amp; furnished product will be done maximum by road.</p> <p>Existing PCU is 1108 PCU/hr on NH#2 and 1099 on NH#60 and existing level of services (LOS) is:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity In PCU/hr.)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH#2</td> <td>1108</td> <td>5400</td> <td>0.21</td> <td>B</td> </tr> <tr> <td>NH#60</td> <td>1099</td> <td>5400</td> <td>0.20</td> <td>B</td> </tr> </tbody> </table>					Road	V (Volume in PCU/hr.)	C (Capacity In PCU/hr.)	Existing V/C Ratio	LOS	NH#2	1108	5400	0.21	B	NH#60	1099	5400	0.20	B
Road	V (Volume in PCU/hr.)	C (Capacity In PCU/hr.)	Existing V/C Ratio	LOS																
NH#2	1108	5400	0.21	B																
NH#60	1099	5400	0.20	B																

	PCU load after proposed Project on NH#2 will be 1108(Existing)+24 (Proposed) = 1132 PCU/hr whereas on NH#60, it will be 1099(Existing)+24 (Proposed) = 1123 PCU/hr. The level of Services (LOS) will be:						
	<b>V (Volume in PCU/hr.)</b>			<b>C (Capacity InPCU/hr.)</b>	<b>Proposed V/C Ratio</b>	<b>LOS</b>	
	<b>Road</b>	<b>Existing</b>	<b>Proposed</b>				<b>Total</b>
	NH#2	1108	24	1132	5400	0.21	B
	NH#60	1099	24	1123	5400	0.21	B
	Note: Capacity as per IRC 106:1990 guidelines for capacity for roads.						
	<b>Conclusion:</b>						
	The modified LOS on NH#2 and NH#60 will be remained “B”, i.e. Good.						
	Therefore there will be no change in LOS after completion of the project.						
Flora and fauna	No schedule I fauna and endangered Flora reported in study area.						

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

S. No	Name	Quantity, TPA	Utilization
1	DRI Char	24,000	100% In power generation
2	Dust from ESP & BF	8,500	In civil construction purpose
3	Ash from CPP	27,926	Will be given to cement plants/Brick manufacturers.
4	Kiln Accretion Slag	1,500	Will be utilized in road construction
5	<b>Slag From SAF- Ferro Plant</b>		
	Slag from production of Fe-Si	17,160	Ferro Silicon Slag is not hazardous and used in road making and other civil construction purposes
	Slag from production of Fe-Mn	22,896	Ferro Manganese Slag is used as Raw Material for manufacturing of Silico Manganese. It will be stored in open yard.
	Slag from production of Si-Mn	10,880	Silico Manganese Slag is not hazardous and used in road making and other civil construction purposes

#### **Hazardous waste generation, storage & disposal**

**Waste Oil : 2.5 KL/Year**

This will be stored in covered HDPE drums in a designated area and will be given to WBPCB approved vendors.

30.4.14 Public Consultation:

Details of advertisement given	15/01/2022
Date of public consultation	17/02/2022
Venue	Hotel Midway No. 1, Punjabi More, G.T Road, PO – Searsole Rajbari – 713358, Ranjganj, District – Paschim Bardhaman, West Bengal

Presiding Officer	Additional District Magistrate Paschim Bardhaman District WB
Major issues raised	Employment, Environment pollution, Education, Medical /Health facilities, etc.

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

S. No.	Issue	Action plan	Budget	2022-2023	2023-2024
1.	Adoption of Village Mangalpur	PP will formulate village development program under consultation with local panchayat and district administration for need-based community development activities like developing infrastructure of village, providing drinking water facilities and providing solar lights. which would be in addition to the development plans being undertaken by state and central government	<b>50 Lakhs</b>	<b>30 Lakhs</b>	<b>20 Lakhs</b>
2.	Water Pollution and Control Measures	Community toilets separate for men and women will be constructed in Village Mangalpur and Bahadurpur.	<b>20 Lakhs</b> Constructi on of 10 toilets :- 20 lakhs	<b>10 Lakhs</b>	<b>10 Lakhs</b>
3.	Employment Opportunity for locals	Willing and employable youths will be identified in consultation with Raniganj Panchayat Samiti (50 Nos). They will be trained in Best ITI College, Raniganj for trades namely electrician, fitters, welders, painters, and civil construction work, etc. Fees will be paid by us. Stipend of Rs. 3000/-per month will be given to the trainees for the entire duration. After successful completion of training, the youths will be offered employment in company.	<b>50 Lakhs</b> Stipend – 30.0 Lakh (3000/- month stipend to 50 persons for 1 year) ITI Fee – 20.0 Lakhs (50000/- yearly fee for 28 persons)	<b>25 Lakhs</b> Training of 25 persons will be completed in 1 <sup>st</sup> year	<b>25 Lakhs</b> Training of 25 persons will be completed in 2 <sup>nd</sup> year
4.	Health of locals	Donate medical equipment like Beds, Stretcher, Portable Oxygen Cylinder (330 Litre), Oxygen Concentrator (0.5 to 5 Ltr ), Air	<b>30 Lakhs</b> Twenty Bed-4.0 Lakhs,	<b>30 Lakhs</b> PP will donate to Bahadurpur	-

S. No.	Issue	Action plan	Budget	2022-2023	2023-2024
		Purifier (Honeywell Air Purifier with Capacity of 300 m <sup>3</sup> /hr), AC (Window AC of 1.5 Ton ), in Bahadurpur Rural Hospital and Ravindra Nagar Dispensary	Ten Oxygen Cylinder-6.0 Lakh, Four-Oxygen Concentrat or –10.0 Lakh, Four Air Purifier–6.0 Lakh, Four AC-4.0 Lakh	Rural Hospital and Ravindra Nagar Dispensary in consultation with concerned CMO officer.	
5.	Infrastructure development of nearby areas	<p>Construction of 500 mtr road in Mangalpur village and maintenance work for 1 year.</p> <p>Separate toilets for boys and girls (in 2 local schools around the project, in Village-Mangalpur, Harishpur and Village-Chak Ramvati (1 schools), kitchen in 3 local schools supplying mid-day meals, providing furniture, computers and colour printers</p>	<p><b>30 Lakhs</b></p> <p><b>16.0 Lakhs</b> Road developme nt work in Mangalpur village in consultatio n with local authority.</p> <p><b>14 Lakhs</b> 6 Toilets–1.0 Lakh, 3 Kitchen – 1.5 Lakh, 400 - Tables &amp; Chairs–4.0 Lakh, 12 Computer –6.0 Lakh, 3 Colour printer-1.5 Lakh.</p>	<p><b>24 Lakhs</b></p> <p><b>16.0 Lakhs</b> Work will complete in Mangalpur village.</p> <p><b>8Lakhs</b> PP will complete work in Village-Mangalpur, Harishpur (2 schools)</p>	<p><b>6 Lakhs</b></p> <p>-</p> <p><b>6 Lakhs</b> PP will complete work in school Village-Chak Ramvati (1 School)</p>

S. No.	Issue	Action plan	Budget	2022-2023	2023-2024
6.	Air Pollution and Control Measures	Continuous Air Quality Monitoring system will be installed at village chauraha in village Mangalpur and Bahadurpur.  Tree plantation will be done in Village Mangalpur (2000 trees) and Harishpur (2000 trees).	70 Lakhs  2 CAAQMS :- 2 x 25 lakhs = 50 lakhs  20 Lakhs INR 1000/- per tree (1000*4000)	35 Lakhs  25 lakhs  10 Lakhs Green belt in Mangalpur village (2000 trees)	35 Lakhs  25 lakhs  -  10 Lakhs Green belt in Harishpur village (2000 trees)
<b>Total Budget</b>			<b>250 Lakhs</b>	<b>144 Lakhs</b>	<b>106 Lakhs</b>

30.4.15 Total project cost after expansion is INR 121.85 cr. Existing capital cost of the project is INR 9.2 cr. The capital cost of the expansion project is INR 112.65 Cr. The capital cost for environmental protection measures is proposed as INR 5.92 Cr after expansion. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.94 Cr after expansion. The total employment generation from the proposed project is 260 after expansion. The details of cost for environmental protection measures is as follows:

S. No	Activity	Capital Cost (Crores)	Recurring expenses proposed/ annum (Crores)
1	Pollution control during construction phase	0.05	--
2	Air Emission Management (ESPs, Fume/Dust extraction system with Bagfilters, Chimneys, and Industrial Vacuum cleaner)	1.01	0.25
3	Green Belt development	0.08	0.02
4	Water Pollution Control Measures (STP, ETP, Garland Drains around stock pile with runoff treatment system,, separate storm water drains along plant boundary with sedimentation tanks, etc)	0.30	0.08
5	Occupational Health (OHC with doctor and paramedical staff, medicines, first aid, ambulance with basic equipment,)	0.30	0.04
6	Post Project Environmental Monitoring (CEMS (2 stacks), CAAQMS (1 inside plant), Manual	0.30	0.07

S. No	Activity	Capital Cost (Crores)	Recurring expenses proposed/ annum (Crores)
	Monitoring stations (3 outside plant), water and wastewater, Noise Meter		
7	Raw materials storage yard (scientific make), Solid wastes storage facilities, utilization and disposal	0.06	0.01
8	Noise Mitigation measures.	0.05	0.02
9	Plant Safety and Risk mitigation measures	0.25	0.06
10	Rainwater Harvesting structures	0.08	0.03
11	Energy conservation Measures (Solar lights, water heating systems, LED lights, etc)	0.10	0.02
12	Development of EMD and Laboratory for routine environmental monitoring	1.00	0.25
13	Mobile Water Sprinklers	0.50	0.10
<b>Total</b>		<b>4.08</b>	<b>0.95</b>

30.4.16 Existing greenbelt is developed in 0.6 ha which is about 30 percent of total existing project area i.e. 2.02 ha with total 1500 No's trees. Proposed greenbelt will be developed in 0.9 ha which is about 35.29 % of the expansion project area i.e. 2.55 ha. Thus total of 1.5 ha area (33% of total project area) will be developed as greenbelt after expansion. 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 2270 trees will be planted for expansion project.

30.4.17 It is submitted that there there is no violation under EIA Notification, 2006/court case/show cause/direction related to the project under consideration.

#### **Certified Compliance Report of CTO by SPCB**

30.4.18 The status of compliance of earlier CTO was obtained from West Bengal State Pollution Control Board vide letter no. 4A/18/2008 (Pt-V) dated 24.06.2022. As per the report, the conditions are complied with.

#### **Written representations:**

30.4.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.05.2023 through email dated 15.05.2023 submitted the following information:

S. No.	Observations of EAC	Reply by PP
1	Adoption of Village	PP will adopt Mangalpur village, under action plan for addressing PH issues. An amount of INR 60 Lakhs from budget for addressing PH issues will be allotted for this purpose.

		Revised action plan is updated at para 30.4.14 above.
2	Provision of mobile water sprinklers for dust suppression within plant premises.	PP will provide two mobile water sprinklers for dust suppression within plant premises under Environment Management Plan. Detailed EMP budget is submitted and updated at para 30.4.15 above.

### **Deliberations by the Committee**

30.4.20 The Committee noted the following:

1. The instant proposal is for expansion in Sponge Iron Production from 49,500 TPA to 1, 22,100 TPA along with Captive Power Plant of 12 MW and Ferro Alloy Plant (16,000 TPA) with Installation of 9 MVA SAF.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. The project was accorded Consent to establish from WBPCB vide Memo no. 126-2N-1646/2000, 2027-2N-68/2002 and 9264-2N-489/2003 dated 16.04.2001, 21.08.2002 and 14.09.2004 respectively. EC was not applicable as the project was established and brought to operation before 2006. Consent to Operate for the existing unit was accorded by WBSPCB vide Memo No. 892-WPBA/Red (BWN) Cont (325)/02 , 930-WPBA/Red (BWN)Cont (325)/02 and 2096-WPBA/Red (BWN)Cont (325)/02 dated 31.10.2002, 01.09.2003 and 31.01.2005 respectively. Latest CTO is obtained vide Memo No. 2235-WPBA/Red (BWN) Cont (325)/2002 dated 03.12.2018 for production of 54,000 TPA Sponge Iron which is valid upto 31.12.2023.
6. The total project area is 4.57 ha [Existing – 2.02 ha, Additional – 2.55 ha]. As reported, Land has been given on lease by Asansol Durgapur Development Authority and is completely under the possession of the company.



7. Magalpur Village is a distance of 1 km in NNW direction of the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.
8. Total Water requirement will be 788 KLD and will be sourced from Asansol Durgapur Development Authority. The EAC is of the opinion that water permission shall be obtained from the Competent Authority prior to commencement of project.
9. The Committee has found that the baseline data and incremental GLC due to the proposed project and found it satisfactory.
10. The PP has submitted that existing greenbelt is developed in 0.6 ha which is about 30 percent of total existing project area i.e. 2.02 ha with total 1500 No's trees. Proposed greenbelt will be developed in 0.9 ha which is about 35.29 % of the expansion project area i.e. 2.55 ha. Thus total of 1.5 ha area (33% of total project area) will be developed as greenbelt after expansion. Total no. of 2270 trees will be planted for expansion project. The EAC is of the opinion that maximum greenbelt shall be completed within 1<sup>st</sup> year of grant of EC.
11. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
12. The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
13. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
14. 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.
15. 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.
16. The EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions. Accordingly, the instant project is also being stipulated with the modified General conditions.

## **Recommendations of the Committee:**

30.4.21 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 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

### **A. Specific Condition:**

- i. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- ii. 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.
- iii. 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.
- iv. Magalpur Village is a distance of 1 km in NNW direction of the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include this location in its environmental monitoring programme.
- v. Total Water requirement will be 788 KLD shall be sourced from Asansol Durgapur Development Authority. Necessary permission shall be obtained from the Competent Authority prior to commencement of project. No ground water shall be abstracted.
- vi. SiMn slag shall be used for road construction. Maximum 90 days storage shall be permitted inside the plant for slag.
- vii. Three tier Green Belt shall be developed in at least 33% of the project area in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall also 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 along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Mangalpur Village. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- viii. All the commitments made towards socio-economic development of the nearby villages 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 amounting to 2.50 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

- ix. The PP shall adopt Mangalpur Village as committed and prepare and implement a robust plan to develop them into model villages in next 10 years.
- x. The PP shall provide mobile water sprinklers for dust suppression within plant premises under Environment Management Plan.

## **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 02 Nos. Continuous Ambient Air Quality Station (CAAQMS) 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 carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iii. 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.
- iv. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

- x. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xiii. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- xiv. 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.
- xv. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
- xvi. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
- xvii. The particulate matter emissions from the process stacks shall be less than 30 mg/Nm<sup>3</sup> and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
- xviii. Following additional arrangements to control fugitive dust shall be provided:
  - a. Fog / Mist Sprinklers at all 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.
- xix. The 4<sup>th</sup> hole extraction system shall be provided in the Sub Merged Arc Furnaces.
- xx. Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m<sup>3</sup> for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.
- xxi. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.
- xxii. During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948 shall be implemented.
- xxiii. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m<sup>3</sup>, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

### **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 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 recognized 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 recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. 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. Water meters shall be provided at the inlet to all unit processes in the plants.
- v. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.
- vi. 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. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.
- vii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
- viii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
- ix. Air Cooled condensers shall be used in the captive power plant.

#### **IV. Noise monitoring and prevention**

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

#### **V. Energy Conservation measures**

- i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. The project proponent shall provide waste heat recovery system on the DRI Kilns.

- vi. The dolochar generated shall be used for power generation.
- vii. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.

#### **VI. Waste management**

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
- ii. Kitchen waste shall be composted or converted to biogas for further use.
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The 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.
- v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- vi. Solid waste utilization
  - a. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - b. Used refractories shall be recycled as far as possible.

#### **VII. Green Belt**

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
- 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 capture, use and storage and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.
- iii. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

#### **VIII. Public hearing and Human health issues**

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

- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

#### **IX. Environment Management**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
- ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

#### **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. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
  - vi. 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.
  - vii. 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.
  - viii. 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.
  - ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
  - x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) 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.
  - xi. 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.
  - xii. 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).
  - xiii. 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.
  - xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
  - xvi. 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.
  - xvii. 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.

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## **Consideration of Amendment in ToR Proposal**

### **Agenda No. 30.5**

#### **30.5 Expansion of production for induction furnace and rolling mill of M/s Shyam Ferrous Limited, located at Sy. No. 67/2, 68/2, Village Devarapalli, Mandal Hindupur, District Satya Sai, Andhra Pradesh – Consideration of Modification in TOR.**

**[Proposal No. IA/AP/IND/298337/2023; File No. J-11011/634/2009-IA II (I)]**

30.5.1 M/s. Shyam Ferrous Limited has made an application online vide proposal no. IA/AP/IND/298337/2023 dated 27.04.2023 along with Form-3 and revised PFR and sought for amendment in Standard Terms of Reference accorded by the Ministry vide no. J-11011/634/2009-IA II(I) dated 26.02.2022 w.r.t. change in the project area from 9.9 acres to 12.69 acres due to additional land acquired for greenbelt and other utilities and change in name of district from Anantapur District to Sathya Sai District. The proposed project activity is listed at S. No.3(a) Metallurgical Industries (Ferrous & Non Ferrous) Under Category “B” of the schedule of the EIA Notification, 2006 and attracts general condition due to Interstate Boundary of Andhra Pradesh and Karnataka is at a distance of 1.7 KM (S) being appraised at Central Level.

#### **Details submitted by Project proponent**

30.5.2 M/s. Shyam Ferrous Limited had earlier applied for Terms of Reference vide proposal no. IA/AP/IND/244611/2023 dated 24.02.2022 for capacity expansion of existing Induction Furnace and Rolling Mill for increase in production of MS Billets / Steel Billets from 45885 TPA to 2,41,500 TPA and TMT Bars from 60000 TPA to 2,27,000 TPA located at Sy. No. 67/2 & 68/2, Devarapalli Village, Hindupur Mandal, Anantapur District, Andhra Pradesh. Accordingly, Standard ToR was granted by the Ministry vide no. J-11011/634/2009-IA II(I) dated 26.02.2022. The unit applied for ToR Amendment which was considered in the 12<sup>th</sup> EAC Meeting held on 30.8.2022 and the proposal was returned by the Hon’ble EAC Committee stating that the project proponent has to explore alternative ways or green belt development preferably inside the plant area and if not available then the site of the green belt development shall be identified adjacent to the project site.

30.5.3 The instant proposal is for seeking amendment in ToR dated 26.02.2022 w.r.t. change in the project area from 9.9 acres to 13.17 acres due to additional land acquired for greenbelt and other utilities and change in name of district from Anantapur District to Sathya Sai District as detailed below.

<b>S No</b>	<b>Description of change</b>	<b>Current TOR dated 26.02.2022</b>	<b>Proposed amendment</b>	<b>Remarks by the PP</b>
1	Site Sy. Nos and Address	Sy. No. 67/2 & 68/2, Devarapalli Village, Hindupur	Sy. No. 67/2 & 68/2, Devarapalli Village, Hindupur	No change in survey Numbers, only district is changed.

S No	Description of change	Current TOR dated 26.02.2022	Proposed amendment	Remarks by the PP
		Mandal, Anantapur District	Mandal, Sri Sathya Sai District	
2	Land area at plant site	9.9 Acres	Current - 9.9 Acres Additional Land acquired – 3.27 Acres  Total Land Area after expansion- 13.17 Acres	In Sy.No. 68/2 Additional land of 3.27 acres is acquired to develop green belt and to construct STP and ETP copy of letter from issued by Anantapur Hindupur Urban Development Authority Ananthapuramu.
3	Green belt area	1.55 acres at plant site	4.34 Acres	The unit developed Green belt in an area of 1.55 Acres. The unit acquired Additional land in which 2.79 acres will be developed into green belt. The Total green belt after expansion will be 4.34 Acres which is 33% of the total land 13.17 acres.
4	District Name	Anantapur District	Sri Sathya Sai District	The Site area now comes under new District as per the re-organization of Districts in Andhra Pradesh vide Order no. 472 dated 03.04.2022.
5	Project Cost	Rs. 55 Crores [Existing – Rs. 38 Crores, Expansion – Rs. 17 Crores]	Rs. 58 Crores [Existing – Rs. 38 Crores, Expansion – Rs. 20 Crores]	Due to the acquisition of additional land the project cost for expansion will be increased to Rs.20 crores.

30.5.4 It is reported that there is no change in the configuration and capacity of the proposed project.

**30.5.5 Reason for Amendment in TOR:**

Currently, the unit developed Green belt in an area of 1.55 Acres. Additional land of 3.27 acres is acquired to develop green belt and to construct STP and ETP. The Total green belt after expansion will be 4.34 Acres which is 33% approx.. of the total land 13.17 acres. Hence this revised application for TOR is made for approval of MOEF&CC for required green belt proposal in Adjacent Sy. No. 68/2. Also, as per the Approved ToR, the District is Anantapur and as per instant proposal District is proposed as Sri Satya Sai District. The District change is proposed due to new District Formation in the Andhra Pradesh and the instant project is falling under Sri

Satya Sai District. Also, due to the acquisition of additional land the project cost for expansion will be increased to Rs.20 crores.

30.5.6 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.

**Written representations:**

30.5.7 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 15.05.2023 through email dated 15.05.2023 submitted the following information:

1. **Land Details:** At the time of filling for TOR amendment on 06.03.2023 the additional land acquired was given as 2.79 acres (1.129 Ha) so the total plot area is given as 12.69 acres (5.135 Ha). We further acquired another 0.48 acres (0.194 Ha) during the intervening period as on date. Thus the total land acquires is now stands at 13.17 acres (5.329 Ha). PP is in process of acquiring additional land of 4.96 acres (2.0 Ha) which may be completed in 2-3 months. PP will be submitting the final land statement during the final EIA.
2. **Project Cost:** Existing cost of the project is 38 cores, additional cost for proposed expansion of project is 17 Crores so the total cost of the project after expansion will be 55 Crores. Due to the acquisition of additional land the project cost for expansion will be increased to Rs.20 crores.

**Deliberation by the Committee**

30.5.8 The Committee noted the following:

- i. M/s. Shyam Ferrous Limited had earlier applied for Terms of Reference vide proposal no. IA/AP/IND/244611/2023 dated 24.02.2022 for capacity expansion of existing Induction Furnace and Rolling Mill for increase in production of MS Billets / Steel Billets from 45885 TPA to 2,41,500 TPA and TMT Bars from 60000 TPA to 2,27,000 TPA located at Sy. No. 67/2 & 68/2, Devarapalli Village, Hindupur Mandal, Anantapur District, Andhra Pradesh. Accordingly, Standard ToR was granted by the Ministry vide no. J-11011/634/2009-IA II(I) dated 26.02.2022.
- ii. The unit applied for ToR Amendment which was considered in the 12<sup>th</sup> EAC Meeting held on 30.8.2022 and the proposal was returned by the EAC Committee stating that the project proponent has to explore alternative ways or green belt development preferably inside the plant area and if not available then the site of the green belt development shall be identified adjacent to the project site.
- iii. The instant proposal is for seeking amendment in ToR dated 26.02.2022 w.r.t. change in the project area from 9.9 acres to 13.17 acres due to additional land acquired for greenbelt and other utilities and change in name of district from Anantapur District to Sathya Sai District as detailed in para 30.5.3 above.
- iv. PP has reported that currently, the unit developed Green belt in an area of 1.55 Acres. Additional land of 3.27 acres is acquired to develop green belt and to construct STP and

ETP. The Total green belt after expansion will be 4.344 Acres which is about 33% of the total land 13.17 acres. Hence this revised application for TOR is made for approval of MOEF&CC for required green belt proposal in Adjacent Sy. No. 68/2. Also, as per the Approved ToR, the District is Anantapur and as per instant proposal District is proposed as Sri Satya Sai District. The District change is proposed due to new District Formation in the Andhra Pradesh and the instant project is falling under Sri Satya Sai District.

- v. It is reported that there is no change in the configuration and capacity of the proposed project.
- vi. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
- vii. The EAC also noted that Existing cost of the project is 38 cores, additional cost for proposed expansion of project is 17 Crores so the total cost of the project after expansion will be 55 Crores. Due to the acquisition of additional land the project cost for expansion will be increased to Rs.20 crores.

#### **Recommendations of the Committee**

30.5.9 After deliberations, the Committee **recommended** the proposal for amendment in ToR granted vide no. J-11011/634/2009-IA II(I) dated 26.02.2022 w.r.t. change in the project area from 9.9 acres to 13.17 acres **subject to uploading the submission on Portal** due to additional land acquired for greenbelt and other utilities and change in name of district from “Anantapur District” to “Sathya Sai District” along with change in project cost as detailed in para 30.5.3 above. The other terms and conditions of ToR dated 26.02.2022 shall remain the same. The additional TOR condition may be added:

- 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 and offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.

**\*\*\***

#### **Agenda No. 30.6**

**30.6 Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125 KVA}], Oxygen Plant (2 x 80 m3/hr) in phased manner along with installation of Railway Siding with Wagon Tippler by M/s. JK Cement Ltd., located at Village: Parewar, Tehsil & District: Jaisalmer, Rajasthan– Consideration of Modification in TOR.**

**[Proposal No. IA/RJ/IND/299608/2023; File No. IA-J-11011/498/2021-IA-II(IND-I)]**

30.6.1 M/s. JK Cement Limited has made an online application vide proposal no. IA/RJ/IND/299608/2023, dated 24<sup>th</sup> April, 2023 along with Form-9, Copy of Updated Pre-feasibility report and Updated Form - I for seeking corrigendum in Terms of Reference accorded by the Ministry vide no. IA-J-11011/498/2021-IA.II (IND-I) dated 15.12.2022 w.r.t. change in project address (Tehsil name from Shri Mohangarh to Jaisalmer).

**Details submitted by Project proponent**

30.6.2 M/s. JK Cement Limited had earlier applied for Terms of Reference vide proposal no. IA/RJ/IND402352/2022, dated 03.11.2022 for Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125 KVA}], Oxygen Plant (2 x 80 m<sup>3</sup>/hr) in phased manner along with installation of Railway Siding with Wagon Tippler by M/s. JK Cement Ltd., located at Village: Parewar, Tehsil: Shri Mohangarh, District: Jaisalmer, Rajasthan. Accordingly, ToR was granted by the Ministry vide no. IA-J-11011/498/2021-IA.II (IND-I) dated 15.12.2022.

30.6.3 The instant proposal is for seeking amendment in ToR dated 15.12.2022 w.r.t. change in project address (Tehsil name from Shri Mohangarh to Jaisalmer) as detailed below.

<b>Reference of Approved ToR</b>	<b>Description as per Approved ToR</b>	<b>Description as per Proposal</b>	<b>Justification by the PP</b>
Subject Matter	Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125 KVA}], Oxygen Plant (2 x 80 m <sup>3</sup> /hr) in phased manner along with installation of Railway Siding with Wagon Tippler at Village: Parewar, Tehsil: Shri Mohangarh, District: Jaisalmer, Rajasthan by M/s JK Cement Ltd.	Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125 KVA}], Oxygen Plant (2 x 80 m <sup>3</sup> /hr) in phased manner along with installation of Railway Siding with Wagon Tippler at Village: Parewar, Tehsil & District Jaisalmer, Rajasthan by M/s JK Cement Ltd.	Tehsil to be corrected as Jaisalmer in place of Shri Mohangarh
S. No. 3	The project of M/s. JK Cement Limited located in Parewar Village, Shri Mohangarh Tehsil, Jaisalmer District and Rajasthan State is for setting up of Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125	The project of M/s. JK Cement Limited located in Parewar Village, Tehsil & District - Jaisalmer, Rajasthan State is for setting up of Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125	Tehsil to be corrected as Jaisalmer in place of Shri Mohangarh

Reference of Approved ToR	Description as per Approved ToR	Description as per Proposal	Justification by the PP
	KVA}], Oxygen Plant (2 x 80 m <sup>3</sup> /hr) in phased manner along with installation of Railway Siding with Wagon Tippler.	Oxygen Plant (2 x 80 m <sup>3</sup> /hr) in phased manner along with installation of Railway Siding with Wagon Tippler.	

30.6.4 It is reported that there is no change in the configuration and capacity of the proposed project.

30.6.5 **Reason for Amendment in TOR:**

The Tehsil of the Project site in the TOR proposal is inadvertently mentioned as Shri Mohangarh by the project proponent, whereas, Tehsil of the Project site is "Jaisalmer". Now, PP has applied for Corrigendum in ToR letter with respect to Subject Matter and Sl. No. 3 of the approved ToR as detailed in para 30.6.3 above.

30.6.6 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.

**Deliberation by the Committee**

30.6.7 The Committee noted the following:

- i. M/s. JK Cement Limited had earlier applied for Terms of Reference vide proposal no. IA/RJ/IND402352/2022, dated 03.11.2022 for Proposed Integrated Cement Plant - Clinker (2 x 4.0 Million TPA), Cement (2 x 3.0 Million TPA), WHRS (2 x 25 MW), DG Set [2 x 1250 KVA {1000 KVA or 500 KVA, 250 KVA & 125 KVA}], Oxygen Plant (2 x 80 m<sup>3</sup>/hr) in phased manner along with installation of Railway Siding with Wagon Tippler by M/s. JK Cement Ltd., located at Village: Parewar, Tehsil: Shri Mohangarh, District: Jaisalmer, Rajasthan. Accordingly, ToR was granted by the Ministry vide no. IA-J-11011/498/2021-IA.II (IND-I) dated 15.12.2022.
- ii. The instant proposal is for seeking amendment in ToR dated 15.12.2022 w.r.t. change in project address (Tehsil name from Shri Mohangarh to Jaisalmer).
- iii. PP has reported that the Tehsil of the Project site in the TOR proposal is inadvertently mentioned as Shri Mohangarh by the project proponent, whereas, Tehsil of the Project site is "Jaisalmer". Now, PP has applied for Corrigendum in ToR letter with respect to Subject Matter and Sl. No. 3 of the approved ToR as detailed in para 30.6.3 above.
- iv. It is reported that there is no change in the configuration and capacity of the proposed project.

**Recommendations of the Committee**

30.6.8 After deliberations, the Committee **recommended** the proposal for corrigendum in ToR granted vide no. IA-J-11011/498/2021-IA.II (IND-I) dated 15.12.2022 w.r.t. change in project address

(Tehsil name from Shri Mohangarh to Jaisalmer) as detailed in para 30.6.3 above. The other terms and conditions of ToR dated 15.12.2022 shall remain the same.

The meeting ended with thanks to the Chair.

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**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 consist 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 8<sup>th</sup> 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 8<sup>th</sup> 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	
<b>A. Air Environment</b>			
<b>Micro-Meteorological</b> <ul style="list-style-type: none"> <li>• Wind speed (Hourly)</li> <li>• Wind direction</li> <li>• Dry bulb temperature</li> <li>• Wet bulb temperature</li> <li>• Relative humidity</li> <li>• Rainfall</li> <li>• Solar radiation</li> <li>• Cloud cover</li> <li>• Environmental Lapse Rate</li> </ul>	Minimum 1 site in the project impact area	1 hourly continuous	<ul style="list-style-type: none"> <li>• IS 5182 Part 1-20</li> <li>• Site specific primary data is essential</li> <li>• Secondary data from IMD, New Delhi</li> <li>• CPCB guidelines to be considered.</li> </ul>
<b>Pollutants</b> <ul style="list-style-type: none"> <li>• PM<sub>2.5</sub></li> <li>• PM<sub>10</sub></li> <li>• SO<sub>2</sub></li> <li>• NO<sub>x</sub></li> <li>• CO</li> <li>• HC</li> </ul>	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	<ul style="list-style-type: none"> <li>• Sampling as per CPCB guidelines</li> <li>• Collection of AAQ data (except in monsoon season)</li> <li>• Locations of various stations for different</li> </ul>

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> <li>Other parameters relevant to the project and topography of the area</li> </ul>			<p>parameters should be related to the characteristic properties of the parameters.</p> <ul style="list-style-type: none"> <li>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,</li> <li>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.</li> </ul>
<b>B. Noise</b>			
<ul style="list-style-type: none"> <li>Hourly equivalent noise levels</li> </ul>	At least 8-12 locations	As per CPCB norms	-
<b>C. Water</b>			

Attributes	Sampling		Remarks
	Network	Frequency	
<p><b>Parameters for water quality</b></p> <ul style="list-style-type: none"> <li>pH, temp, turbidity, magnesium hardness, total alkalinity, chloride, sulphate, nitrate, fluoride, sodium, potassium, salinity</li> <li>Total nitrogen, total phosphorus, DO, BOD, COD, Phenol</li> <li>Heavy metals</li> <li>Total coliforms, faecal coliforms</li> <li>Phyto-plankton</li> <li>Zoo-plankton</li> <li>Microalgae/microalgal bloom</li> </ul>	<p>Samples for water quality should be collected and analyzed as per:</p> <ul style="list-style-type: none"> <li>IS: 2488 (Part 1-5) methods for sampling and testing of Industrial effluents</li> <li>Standard methods for examination of water and wastewater analysis published by American Public Health Association.</li> </ul>		
<p><b>For River Bodies</b></p> <ul style="list-style-type: none"> <li>Total Carbon</li> <li>pH</li> <li>Dissolved Oxygen</li> <li>Biological Oxygen Demand</li> <li>Free NH4</li> <li>Boron</li> <li>Sodium Absorption Ratio</li> <li>Electrical Conductivity</li> <li>TDS</li> </ul>	<ul style="list-style-type: none"> <li>Surface water quality of the nearest River (60m upstream and downstream) and other surface water bodies</li> </ul>	<ul style="list-style-type: none"> <li>Yield of water sources to be measured during critical season</li> <li>Standard methodology for collection of surface water (BIS standards)</li> </ul>	
<p><b>For Ground Water</b></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>		
<p><b>D. Traffic Study</b></p>			
<ul style="list-style-type: none"> <li>Type of vehicles</li> <li>Frequency of vehicles for transportation of materials</li> </ul>	-		

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> <li>• Additional traffic due to proposed project</li> <li>• Parking arrangement</li> </ul>			
<b>E. Land Environment</b>			
<b>Soil</b> <ul style="list-style-type: none"> <li>• Particle size distribution</li> <li>• Texture</li> <li>• pH</li> <li>• Electrical conductivity</li> <li>• Cation exchange capacity</li> <li>• Alkali metals</li> <li>• Sodium Absorption Ratio (SAR)</li> <li>• Permeability</li> <li>• Water holding capacity</li> <li>• Porosity</li> </ul>			Soil samples be collected as per BIS specifications
<b>Land use/Landscape</b> <ul style="list-style-type: none"> <li>• Location code</li> <li>• Total project area</li> <li>• Topography</li> <li>• Drainage (natural)</li> <li>• Cultivated, forest, plantations, water bodies, roads and settlements</li> </ul>			-
<b>E. Biological Environment</b>			
<b>Aquatic</b> <ul style="list-style-type: none"> <li>• Primary productivity</li> <li>• Aquatic weeds</li> <li>• Enumeration of phyto plankton, zoo plankton and benthos</li> <li>• Fisheries</li> <li>• Diversity indices</li> <li>• Trophic levels</li> <li>• Rare and endangered species</li> <li>• Marine Parks/ Sanctuaries/ closed</li> </ul>			<ul style="list-style-type: none"> <li>• 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.</li> <li>• Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site.</li> <li>• For forest studies, direction of wind should be considered while selecting forests.</li> </ul>

Attributes	Sampling		Remarks
	Network	Frequency	
areas /coastal regulation zone (CRZ) <b>Terrestrial</b> <ul style="list-style-type: none"> <li>• Vegetation-species list, economic importance, forest produce, medicinal value</li> <li>• Importance value index (IVI) of trees</li> <li>• Fauna</li> <li>• Avi fauna</li> <li>• Rare and endangered species</li> <li>• Sanctuaries / National park / Biosphere reserve</li> <li>• Migratory routes</li> </ul>			<ul style="list-style-type: none"> <li>• Secondary data to collect from Government offices, NGOs, published literature.</li> </ul>
<b>F. Socio-economic</b>			
<ul style="list-style-type: none"> <li>• Demographic structure</li> <li>• Infrastructure resource base</li> <li>• Economic resource base</li> <li>• Health status: Morbidity pattern</li> <li>• Cultural and aesthetic attributes</li> <li>• Education</li> </ul>			<ul style="list-style-type: none"> <li>• Socio-economic survey is based on proportionate, stratified and random sampling method.</li> <li>• Primary data collection through questionnaire</li> <li>• Secondary data from census records, statistical hard books, topo sheets, health records and relevant official records available with Govt. agencies</li> </ul>

iii. Interpretation of each environment attribute shall be enumerated and summarized as given below:

- Ambient air quality
- Ambient Noise quality
- Surface water quality
- Ground water quality
- Soil quality
- Biological Environment
- Land use
- Socio-economic environment



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

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

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

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

- b. Operation phase
- ix. Impact on terrestrial and aquatic habitat (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- x. Impact on socio-economic environment (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase
- xi. Impact on occupational health and safety (Sources; Embedded control measures; Assessment; Mitigation measures; Residual impact)
  - a. Construction phase
  - b. Operation phase

**5. Analysis of Alternatives (Technology & Site)**

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

**6. Environmental Monitoring Program**

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

Activity	Aspect	Monitoring Parameter	Location	Frequency	Responsibility
Construction phase					
Operation phase					

## 7. Additional Studies

- i. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage after offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.
- ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.
- iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.
- iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.
- v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).
- vi. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration. In this regard, time bound action plan as per the MoEF&CC Office Memorandum dated 30/09/2020 shall be submitted.
- vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

S 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 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	

### viii. Risk assessment

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

### ix. Emergency response and preparedness plan

## 8. Project Benefits

- i. Environment benefits
- ii. Social infrastructure

- iii. Employment and business opportunity
- iv. Other tangible benefits

#### **9. Environment Cost Benefit Analysis**

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

#### **10. Environment Management Plan (Construction and Operation phase)**

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

#### **11. Conclusion of the EIA study**

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

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**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/Nm<sup>3</sup> shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM (PM<sub>10</sub> and P<sub>2.5</sub>) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM<sub>10</sub> to be carried over.

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

1. Iron ore/coal linkage documents along with the status of environment clearance of iron ore and coal mines.
2. Quantum of production of coal and iron ore from coal & iron ore mines and the projects they cater to. Mode of transportation to the plant and its impact.
3. For Large ISPs, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.

5. PM (PM<sub>10</sub> and PM<sub>2.5</sub>) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM<sub>10</sub> 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/Nm<sup>3</sup> 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/Nm<sup>3</sup> shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM (PM<sub>10</sub> and P<sub>2.5</sub>) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of PM<sub>10</sub> to be carried over.

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

1. A note on pulp washing system capable of handling wood pulp shall be included.
2. Manufacturing process details for the existing and proposed plant shall be included. Chapter on Pulping & Bleaching shall include: no black liquor spillage in the area of pulp mill; no use of elemental chlorine for bleaching in mill; installation of hypo preparation plant; no use of potcher washing and use of counter current or horizontal belt washers. Chapter on Chemical Recovery shall include: no spillage of foam in chemical recovery plant, no discharge of foul condensate generated from MEE directly to ETP; control of suspended particulate matter emissions from the stack of fluidized bed recovery boiler and ESP in lime kiln
3. Studies shall be conducted and a chapter shall be included to show that Soda pulping process can be employed for Eucalyptus/Casuarina to produce low kappa (bleachable) grade of pulp.

4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm<sup>3</sup> 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/Nm<sup>3</sup> 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/Nm<sup>3</sup> 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/Nm<sup>3</sup> shall be furnished.
9. Action plan for 100 % solid waste utilization shall be submitted.
10. PM (PM<sub>10</sub> and P<sub>2.5</sub>) 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 PM<sub>10</sub> to be carried over.
11. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.

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

1. Details regarding pollution control measures to be adopted in the mineral handling area, loading and unloading areas including all transfer points shall be submitted.

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

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### **Executive Summary**

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

- i. Project name and location (Village, Dist, State, Industrial Estate (if applicable))
- ii. Products and capacities. If expansion proposal, then existing products with capacities and reference to earlier EC.
- iii. Requirement of land, raw material, water, power, fuel, with source of supply (Quantitative)
- iv. Process description in brief, specifically indicating the gaseous emission, liquid effluent and solid and hazardous wastes. Materials balance shall be presented.
- v. Measures for mitigating the impact on the environment and mode of discharge or disposal.
- vi. Capital cost of the project, estimated time of completion
- vii. Site selected for the project – Nature of land – Agricultural (single/double crop), barren, Govt/private land, status of 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

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

<b>S. No.</b>	<b>Name</b>	<b>Position</b>	<b>15.05.2023</b>
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>Absent</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. S K Chaturvedi, Actg. 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, MoEFCC	Member Secretary	<i>Present</i>
<b>MoEFCC</b>			
15.	Dr R P Rastogi	Scientist C	<i>Present</i>
16.	Dr Sandeepan BS	Scientist B	<i>Present</i>

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**Approval of EAC Chairman**

Email

Director MoEFCC Dr R B LAL

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**Re: Compiled Draft minutes of the 30th EAC Meeting held on 15th May, 2023 for approval of the Chairman-Regarding**

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**From :** chairman eac ind 1  
<chairman.eac.ind.1@gmail.com> Mon, May 22, 2023 09:20 PM

**Subject :** Re: Compiled Draft minutes of the 30th EAC Meeting held on 15th May, 2023 for approval of the Chairman-Regarding

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

**Cc :** rajivekumar1983@gmail.com,  
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Dear Dr.Lal,

The draft minutes of 30 th EAC meeting are approved. Kindly do the needful.  
Best wishes

'Rajive Kumar  
Chairman-EAC-Industry-1

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