

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

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**Dated: 14.08.2023**

*Date of Zero Draft MoM sent to EAC: 11.08.2023*

*Approval by Chairman: 13.08.2023*

*Uploading on PARIVESH: 14.08.2023*

**MINUTES OF THE 41<sup>ST</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON 2<sup>ND</sup> & 4<sup>TH</sup> & 8<sup>TH</sup> AUGUST, 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-1: AUGUST 2, 2023 [WEDNESDAY]**

**(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 40<sup>th</sup> meeting of the EAC for Industry-I sector held during 19<sup>th</sup> - 21<sup>st</sup> July, 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 **40<sup>th</sup> meeting of the EAC for Industry-I sector held during 19<sup>th</sup> - 21<sup>st</sup> July, 2023** conducted through Hybrid Mode, and noted that there is no modifications/factual correction reported by the PP, in the minutes of the 40<sup>th</sup> EAC meeting for the project/activities.

(iv) **Modifications in the Minutes of the 39<sup>th</sup> meeting of the EAC for Industry-I sector held on 6-7<sup>th</sup> July, 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 **39<sup>th</sup> meeting of the EAC for Industry-I sector held on 6-7<sup>th</sup> July, 2023** conducted through Video Conferencing, and noted that minutes require following a modifications/factual correction: -

**Agenda No. 39.6: Installation of Ferro-Alloy Plant (SAF 2x9 MVA) and Chrome Ore Briquette Plant (10 TPH) by M/s. Satvik Enterprises Limited located at Mouza: Sahebdihi, PS: Barjora, District: Bankura, West Bengal – Consideration for Environmental Clearance.**

**[Proposal No. IA/WB/IND1/433174/2023, File No. IA-J-11011/154/2022-IA-II(IND-I)]**

**[Consultant: M/s Envirotech East Pvt. Ltd; Valid upto 12.09.2025]**

The aforementioned proposal was considered and recommended by EAC in its 39<sup>th</sup> meeting of the held on 6-7<sup>th</sup> July, 2023. The matter has been examined in the Ministry and it is observed that there is typographical error in the minutes of the meeting w.r.t. the above-mentioned proposal, as detailed below:

MoM ref point no.	Details given in MoM of 39 <sup>th</sup> EAC Meeting dated 6-7 <sup>th</sup> July, 2023 (Agenda No. 39.6)	Corrections suggested	Remarks/ Justification
Page No. 80 Para 39.6	Name of the EIA consultant: M/s. Vardan Environet	Name of the EIA consultant: M/s Envirotech East Pvt. Ltd	The EAC noted that this is Typo error and recommended for the correction in the minutes.
Page No. 80 Para 39.6.1	M/s Satvik Enterprises Ltd. has made an online application vide Proposal No. IA/WB/IND/286081/2022 dated 5 <sup>th</sup> August, 2022 along with copy of EIA report, 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.	M/s Satvik Enterprises Ltd. has made an online application vide Proposal No. IA/WB/IND1/433174/2023 dated 13/06/2023 along with copy of EIA report, 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.	The EAC noted that this is Typo error and recommended for the correction in the minutes.
Page No.	The fresh water requirement for	The fresh water requirement for the	The EAC noted

MoM ref point no.	Details given in MoM of 39 <sup>th</sup> EAC Meeting dated 6-7 <sup>th</sup> July, 2023 (Agenda No. 39.6)	Corrections suggested	Remarks/ Justification
83 Para 39.6.8	the proposed project is estimated as 70 m3 /day, which will be met from the water supply of Barjora Gram Panchayat Samity. The permission for drawl of groundwater is obtained from Barjora Gram Panchayat Samity Vide Memo No. 183/B PS/22 Dated 22nd December 2022.	proposed project is estimated as 70 m3 /day, which will be met from the water supply of Barjora Gram Panchayat Samity. The permission is obtained from Barjora Gram Panchayat Samity Vide Memo No. 183/B PS/22 Dated 22nd December 2022.	that this is Typo error and recommended for the correction in the minutes

### **Deliberations by the EAC:**

It was informed to the Committee members that PP has requested modifications in the MoM of 39<sup>th</sup> meeting of the EAC for Industry-I sector held on 6-7<sup>th</sup> July, 2023 pertaining to proposal agenda no. 39.6 as referred above. It was also mentioned by Project Proponent/consultant that all desired modifications were part of their EIA/EMP report.

The EAC deliberated and noted that the request of the PP may be accepted and recommended for the incorporation of the above-mentioned corrections/modifications in the minutes of the meeting. Accordingly, aforementioned para 39.6, 39.6.1 and 39.6.8 stands modified in the minutes of 39<sup>th</sup> EAC (Industry-1) meeting as detailed in table above.

**Agenda No. 39.10: Expansion & Modernization of Integrated Steel Plant-Blast Furnace - 0.75 MTPA to 2.00 MTPA (0.75 MTPA to 1 MTPA through modernization) Sinter Plant - 0.80 MTPA to 2.80 MTPA, Pellet Plant -1.5 MTPA to 3.0 MTPA, Coke Oven -0.20 MTPA to 1.10 MTPA, Air Separation unit (Oxygen Plant) - 510 TPD to 1500 TPD, Steel Melt Shop - 1.20 MTPA to 2.40 MTPA, Rolling Mill - 1.20 MTPA to 2.40 MTPA, Cement Grinding unit- 2.40 MTPA, Producer Gas Plant - 1,16,000 Nm3 /hr., Power Plant - 26 MW to 130 MW (Proposed 104 MW-BF GAS and COKE OVEN GAS) DRI Plant (350 TPD + 500 TPD) - 0.27 MTPA(0.12 +0.15) to 0.35 MTPA (Under CTE/CTO Now), Power plant - 30 MW (2x 15 MW Turbine - WHRB and AFBC, Operating Under CTE/CTO) by M/s Jayaswal Neco Industries Limited, located at Siltara Industrial Growth Center, Siltara, Sankra, Giroud, Dhaneli (V), Raipur (D & T), Chhattisgarh - Re-Consideration of Environmental Clearance.**

**[Proposal No. IA/CG/IND1/419709/2023; File No. J-11011/883/2008-IA.II(I)]**  
**[Consultant : Pioneer Enviro Consultants Pvt. Ltd.; Valid upto: 21.09.2025]**

The aforementioned proposal was considered and recommended by EAC in its 39<sup>th</sup> meeting of the held on 6-7<sup>th</sup> July, 2023. The PP vide letter No. JNIL/ENV/2023/102, Dated 26.07.2023 has requested for correction/modification of certain specific and General conditions mentioned in the MoM of 39<sup>th</sup> EAC meeting. The matter has been examined in the Ministry and it is observed that

there is typographical error in the minutes of the meeting w.r.t. the above-mentioned proposal, as detailed below:

S. No.	EC Conditions	Representation made by PP	Recommendation by EAC
<b>A</b>	<b>Specific Conditions</b>		
Page No. 189 Para <b>39.10.25</b> (A) Sp. Cond. (vi)	The Sahibi River and other water bodies exists nearby of the project site. Also, there are other water bodies within the study area of 10 km of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.	There is no such Sahibi river found in this region, it seems a misprint. Only Kharoon river is passing in the study area of project. Hence necessary correction to be made accordingly.	The Kharoon River is within the study area of 10 km of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
Page No. 190 Para <b>39.10.25</b> (A) Sp. Cond. (vii)	The total water requirement after the proposed expansion of 27,646 m <sup>3</sup> /day (equivalent to 6.30 MGD) shall be obtained from River Kharoon (wherein an anicut had been constructed by JNIL with CSIDC). Necessary permission shall be obtained from the Competent Authority.	JNIL holds a sanction of 8 MGD from Kharron river from water Resource department. Presently it is using 4 MGD and after proposed expansion it will draw 6.30 MGD, hence for the same no additional permission is required. Hence, please delete this condition.	The EAC deliberated and did not agree to this condition as the condition is valid keeping in consideration that PP shall always meets its water requirement from the proposed source after having necessary permission from the Competent Authority. In the instant case if PP is already having permission, then they can continue to meet their water requirement based on the said permission. However, PP shall ensure that they should always have valid permission during their operations.
<b>B</b>	<b>General Conditions</b>		
II.	<b>Air quality monitoring and preservation</b>		
Page No. 190 Para <b>39.10.25</b> (B) General Cond. (i)	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as <b>06 Nos.</b> Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with	PP has installed 04 nos. continuous emission monitoring system (CEMS) in all process stacks and 04 Nos Continuous Ambient Air Quality Station (CAAQMS) in all four direction of JNIL Plant premises. The real-time data	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as <b>04 Nos.</b> Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect

S. No.	EC Conditions	Representation made by PP	Recommendation by EAC
	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.	of CEMS and CAAQMS is being transmitted to CPCB and CECB. Hence PP requested to exempt from installation of additional of additional 6, as 4 is already installed and connected to CECB/CPCB servers.	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.
Page No. 191 Para <b>39.10.25</b> (B) General Cond. 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 <b>four locations one within and three outside the plant area</b> at an angle of 120° each), covering upwind and downwind directions.	04 Nos Continuous Ambient Air Quality Station (CAAQMS) had been installed in all four direction of JNIL Plant premises. Upwind and downwind ambient air quality is being monitored and the data of same is being transmitted to CPCB and CECB. However, the installation of CAAQMS outside of the plant area is bit cumbersome as CECB had already installed CAAQM station in the industrial are area where we are located. Please also note we are in Industrial Area surrounded by various other industries in the region of 5 Kms radius. Hence this clause needs to be released.	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 the plant area, covering upwind and downwind directions.

### Deliberations by the EAC:

It was informed to the Committee members that PP has requested modifications in the MoM of 39<sup>th</sup> meeting of the EAC for Industry-I sector held on 6-7<sup>th</sup> July, 2023 pertaining to proposal agenda no. 39.10 as referred above. It was also mentioned by Project Proponent/consultant that all desired modifications were part of their EIA report.

The EAC deliberated and noted that the request of the PP may be accepted for Para 39.10.25 (A) Sp. Cond. (vi), and Para 39.10.25 (B) General Cond. (i) & (ii) as per recommendations provided above for the incorporation of the same in the minutes of the meeting. Accordingly, aforementioned Para 39.10.25 (A) Sp. Cond. (vi), and Para 39.10.25 (B) General

Cond. (i) & (ii) stands modified in the minutes of 39<sup>th</sup> EAC (Industry-1) meeting as detailed in table above.

**(v) Modifications in the Minutes of the 33<sup>rd</sup> meeting of the EAC for Industry-I sector held on 30<sup>th</sup> May, 2023 at MoEF&CC through VC and the EC granted to M/s Meenakshi Udyog (India) Pvt. Ltd.**

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 33<sup>rd</sup> meeting of the EAC for Industry-I sector held on 30<sup>th</sup> May, 2023 conducted through Video Conferencing, and noted that minutes require following a modifications/factual correction:-

**Agenda No. 33.1: Proposed expansion of existing steel rolling mill by M/s Meenakshi Udyog (India) Pvt. Ltd., located at Kalugondapalli Village, Denkanikottai taluk, Krishnagiri district of Tamil Nadu-Consideration of EC proposal.**

**[Proposal No. IA/TN/IND/156666/2020; File No. IA-J-11011/199/2020-IA-II-(IND-I)]  
[Consultant: ABC Techno Labs India Pvt. Ltd.; Valid upto 05.12.2023]**

The aforementioned proposal was considered and recommended by EAC in its 33<sup>rd</sup> meeting held on 30<sup>th</sup> May, 2023. EC was granted on 19<sup>th</sup> July, 2023. M/s. Meenakshi Udyog (India) Pvt Ltd has made an online application vide proposal IA/TN/IND/302758/2023 dated 03.08.2023 for Corrigendum in Environmental Clearance. The matter has been examined in the Ministry and it is observed that there is typographical error in the minutes of the meeting w.r.t. the above-mentioned proposal, as detailed below:

<b>MoM ref point no.</b>	<b>Details given in MoM of 33<sup>rd</sup> EAC Meeting dated 30 May, 2023 (Agenda No. 33.1)</b>	<b>Corrections suggested</b>	<b>Remarks/ Justification</b>
Page No. 9 Para 33.1.8 (In the table )	<b>The unit configuration and capacity</b>  either to 1,91,000 TPA of MS Billets or 1,80,000 TPA of TMT rods	<b>The unit configuration and capacity</b>  1,91,000 TPA of MS Billets and 1,80,000 TPA of TMT rods	The EAC noted that this is Typo error and recommended for the correction in the minutes.
Page No. 9 Para 33.1.20 (1)	1. The instant proposal is for expansion of existing steel rolling mill [existing - 30000 Tons Per Annum (TPA) MS Billets and 60000 Tons Per Annum TMT rods] either to 1,91,000 TPA of MS Billets or 1, 80,000 TPA of TMT rods.	1. The instant proposal is for expansion of existing steel rolling mill [existing - 30000 Tons Per Annum (TPA) MS Billets and 60000 Tons Per Annum TMT rods] to 1,91,000 TPA of MS Billets and 1, 80,000 TPA of TMT rods.	The EAC noted that this is Typo error and recommended for the correction in the minutes
Page No. 9 Para	2. The proposed cement grinding unit is a category B	2. The proposed expansion of existing steel rolling mill is a	The EAC noted that this is Typo

33.1.20 (2)	project and appraised as Category A at Central level project due to Interstate Boundary falling within 5 km radial distance from the proposed project site.	category B project and appraised as Category A at Central level project due to Interstate Boundary falling within 5 km radial distance from the proposed project site.	error and recommended for the correction in the minutes
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### **Deliberations by the EAC:**

It was informed to the Committee members that PP has requested modifications in the 33<sup>rd</sup> meeting of the EAC for Industry-I sector held on 30<sup>th</sup> May, 2023 and the EC dated 19.07.2023 granted to M/s Meenakshi Udyog (India) Pvt. Ltd. pertaining to proposal agenda no. 33.1 as referred above. It was also mentioned by Project Proponent/ consultant that all desired modifications were part of their EIA report.

The EAC deliberated and noted that the request of the PP may be accepted and recommended for the incorporation of the above-mentioned corrections/modifications in the minutes of the meeting. Accordingly, aforementioned para 33.1.8 (Table column), 33.1.20 (1) and 33.1.20 (2) stands modified in the minutes of 33<sup>th</sup> EAC (Industry-1) meeting as detailed in table above. According Corrigendum to the EC dated 19.07.2023 granted to M/s Meenakshi Udyog (India) Pvt. Ltd., may be issued after approval of Competent Authority as these are typographical error and needs factual corrections.

Details of the proposals considered during the 41<sup>st</sup> meeting **conducted** through **Video Conferencing**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:

## **Consideration in Environmental Clearance Proposals**

### **Agenda No. 41.1**

**41.1 Enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and Installation of 1.2 MTPA Pellet Plant at Jamuria Industrial Estate, Mouza-Ikhra, P.O. Nandi, Dist-Burdwan, West Bengal by M/s Maan Steel and Power Ltd - Consideration of Environmental Clearance.**

**[Proposal No. IA/WB/IND1/435546/2023; File No. J-11011/695/2009-IA-II(IND-I)]**

**[Consultant: M/s. Vardan Environet; Valid up to 04.05.2026]**

41.1.1 M/s. Maan Steel and Power Ltd. has made online application vide proposal no. IA/WB/IND1/435546/2023 dated 13.07.2023 along with copy of EIA report, 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 Plants under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

41.1.2 Name of the EIA consultant: M/s. Vardan Environet [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2326/RA 0284; valid upto 04.05.2026, as on August 2, 2023].

**Details submitted by Project proponent**

41.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
22.02.2021	Standard ToR was issued by MoEF&CC	Standard Terms of Reference	25.02.2021	24.02.2024

41.1.4 The project of M/s. Maan Steel and Power Ltd. located at Jamuria Industrial Estate, Mouza-Ikhra, P.O. Nandi, Dist- Burdwan, West Bengal is for Enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and for Installation of 1.2 MTPA Pellet Plant.

41.1.5 Environmental site settings:

S. No.	Particulars	Details	Remarks															
1.	Total land	Total area of the plant - 30.76 Ha. (Existing – 16.18 ha & Additional – 14.58 Ha.)	Land use: Existing area– Industrial Proposed area - Agricultural (Conversion to industrial is under process)															
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Existing area of the plant is 16.18 Ha which is under the possession of project authorities. For proposed expansion, additional area of 14.58 ha. is required, out of which 13.4 ha. is acquired and acquisition of remaining 1.18 ha. is under process and shall be completed by the end of the year 2023.	The land details are provided in online application and in the EIA report.															
3.	Existence of habitation & involvement of R&R, if any.	<b>Project Site – Nil</b> <b>Study Area</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Habitation</th> <th>Dist. (km)</th> <th>Dir.</th> </tr> </thead> <tbody> <tr> <td>Ikhra village</td> <td>0.15</td> <td>S</td> </tr> <tr> <td>Jamuria Town</td> <td>3.2</td> <td>W</td> </tr> </tbody> </table>	Habitation	Dist. (km)	Dir.	Ikhra village	0.15	S	Jamuria Town	3.2	W	R&R is not applicable						
Habitation	Dist. (km)	Dir.																
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4.	Latitude and Longitude of all corners of the project site.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>23°41'41.5"N</td> <td>87°6'19.5"E</td> </tr> <tr> <td>B</td> <td>23°41'40.7"N</td> <td>87°6'24.9"E</td> </tr> <tr> <td>C</td> <td>23°41'42.3"N</td> <td>87°6'30.6"E</td> </tr> <tr> <td>D</td> <td>23°41'34.0"N</td> <td>87°6'28.6"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A	23°41'41.5"N	87°6'19.5"E	B	23°41'40.7"N	87°6'24.9"E	C	23°41'42.3"N	87°6'30.6"E	D	23°41'34.0"N	87°6'28.6"E	--
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5.	Elevation of the project site	109 m above mean sea level	--																											
6.	Involvement of Forest land, if any	No involvement of Forest Land	--																											
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p><b>Project Site:</b> No water bodies within the project site</p> <p><b>Study area</b></p> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Dist.</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Pond near Ikhra village</td> <td>85 m</td> <td>SE</td> </tr> <tr> <td>Ajay River</td> <td>7.2 km</td> <td>NNE</td> </tr> </tbody> </table>	Water Body	Dist.	Direction	Pond near Ikhra village	85 m	SE	Ajay River	7.2 km	NNE	--																		
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Ajay River	7.2 km	NNE																												
8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	<p><b>Existence of ESZ</b> - None within study area</p> <p><b>List of Reserve &amp; Protected Forests:</b> None within study area</p>																												

41.1.6 The company was set up in the year 2008 after obtaining CTE from West Bengal Pollution Control Board on 15.05.2008 for setting up of steel plant for production of 57,000 TPA Sponge Iron through 2x95 TPD DRI Kiln. The existing project was accorded environmental clearance vide F. No. J-11011/695/2009-IA-II (I) dated 31.12.2010 for expansion of Sponge Iron Plant from 57,000 to 177,000 TPA sponge iron production, installation of Steel Melting Shop with Billet Caster for production of 192,000 TPA Billets, installation of Rolling Mill for production of 180,000 TPA TMT Bars along with Captive Power Plant (24 MW) and Ferro Alloy Plant (2 x9 MVA Submerged Arc Furnaces) for production of 30,000 TPA Fe-Mn / Si-Mn. Validity of the Environmental Clearance was extended up to 30<sup>th</sup> December 2020, on 15.01.2018 with Ferro alloy plant dropped from the plant configuration. Consent to operate for DRI Kiln (2x95 & 1x200 TPD), Induction Furnace (4x15 MT) with Billet Castor (2x6/11m), Rolling Mill (550 TPD) and Captive Power Plant (1x12 MW), was accorded by West Bengal Pollution Control Board vide. Ltr. No. C0128909 dated 07.01.2020. The validity of CTO is up to 30.09.2023.

41.1.7 Implementation status of the existing EC:

Sl. No	Facilities	Units	As per EC dated 31.12.2010	Implementation Status as on 02.06.2023	Production as per CTO
1	Sponge Iron Plant	2x95 TPD DRI Kilns 4x100 TPD DRI Kilns	Sponge Iron – 177,000 TPA	The project authorities have implemented 2x95 TPD and 1x200 TPD DRI kiln (DRI Kiln Amended from 4x100 TPD to 2x200 TPD via amendment of CTE dated 08.07.2015) Remaining 1x200 TPD DRI kiln is not implemented	Sponge Iron – 5780 Ton / month and 5000 Ton /month
2	Steel Melting shop	IF – 4x15 Ton	MS Billets – 192,000 TPA	The project authorities have implemented 4x15 T IF and is operational	MS Billets – 19,950 Ton/month
		Billet Caster		The project authorities have implemented Billet caster and is operational	
		LRF/AOD – 2x30 Ton		The project authorities has not implemented LRF/AOD	
3	Rolling Mill	550 TPD	TMT Bars – 180,000 TPA	The project authorities have implemented 550 TPD rolling mill and is currently operational	TMT bars – 16,730 Ton/month
4	Captive Power Plant	WHRB -12 MW AFBC – 12 MW	24 MW	The project authorities have implemented 12 MW CPP and is currently operational Remaining 12 MW CPP is not implemented	Power – 12 MW
5	Ferro Alloy Plant	2x9 MVA Submerged Arc Furnace	Fe-Mn/Fe- Si - 30000 TPA	Ferro Alloy plant was not implemented and is dropped from project configuration	--

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

Plant Equipment/ Facility	Existing facilities as per EC dated 31.12.2010								Proposed Units		Final (Existing + Proposed)	
	Total (A+B)		Implemented (A)		Unimplemented (B)		As per CTO					
	Config.	Cap. TPA	Config.	Cap. TPA	Config.	Cap. TPA	Config.	Cap.	Config.	Cap. TPA	Config.	Cap. TPA
Sponge Iron Plant	2x95 TPD 4x100TP D DRI Kiln	57000 120000	2x95 TPD 1x200TP D DRI Kiln	117000	2x100 TPD DRI Kiln	60000	2x95 TPD 1x200TP D DRI Kiln	10780 MT/mo nth	1x200TP D DRI Kiln	60000	2x95 TPD 2x200 TPD DRI Kiln	177000
Induction Furnace	4x15 Ton	Billets: 192000	4x15 T	Billets: 192000	--	--	4x15 T	19,950 Ton/mo nth	2x20 Ton	Billets: 126000	4x15 T 2x20 T	Billets: 318000
Ladle Refining Furnace	2x30 Ton		--		2x30 Ton LRF /AOD	--	--		1x20 Ton		1x20 Ton	
Argon Oxygen Degassing			--		--	--	1x15 Ton		1x15 Ton			
Billet Caster			2 strand 6/11m		2 strand 6/11m	--	--		2 strand 6/11m		2 strand 6/11m	
Rolling Mill	550 TPD	180000	550 TPD	180000	--	--	550 TPD	16,730 Ton/mo nth	--	--	550 TPD	180000
WHRB	2x10 TPH 2x20 TPH	Power: 24 MW	2x10 TPH 1x20 TPH	Power: 12 MW	1x20 TPH	Power: 12 MW	2x10 TPH 1x20 TPH	Power: 12 MW	1x20 TPH	Power: 15 MW	2x10 TPH 2x20 TPH	Power: 27 MW (WHRB - 12 MW + AFBC-15 MW)
AFBC	1x50 TPH		1x30 TPH		1x20 TPH		1x30 TPH		1x20 TPH 1x40 TPH		1x30 TPH 1x20 TPH 1x40 TPH	
Pellet Plant	--	--	--	--	--	--	--	--	2x0.6 MTPA	Pellets: 1200000	2x0.6 MTPA	Pellets: 1200000
Ferro Alloy Plant	2x9 MVA	Fe-Mn/Si- Mn: 30000	--	--	2x9 MVA	Fe- Mn/Si- Mn: 30,000	--	--	--	--	--	--

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

S. No	Raw Material	Existing (TPA)	Proposed Expansion (TPA)	Total (TPA)	Source	Distance from Site (km)	Mode of Transport
1.	Iron Ore / Iron Ore Fines	189,540	10,10,460	12,00,000	The Odisha Mining Corporation Ltd, Bhubaneswar Rungta Sons Private Limited, Barbil, Odisha	300 km	Through Rail up to Topsis Railway Siding then by road (7 km) to plant site in covered trucks
2.	Coal for DRI	157,950	81,000	238,950	Eastern Coalfields Ltd, Raniganj Shri Shyam Enterprise, Asansol United Trading Co., Raniganj	20 km	By road in covered trucks
3.	Dolomite	5,850	3,000	8,850	Ganpati Trading Co. Ltd, Raniganj, Paschim Bardhaman	20 km	By road in covered trucks
4.	Sponge Iron	92,880	79,920	172,800	In-house & purchased locally	10 km	By road in covered trucks
5.	Pig iron	15,840	10,560	26,400	Jai Balaji Industries Ltd, Durgapur KIC Metallics Ltd, Durgapur Neo Metallics Ltd, Durgapur	40 km	By road in covered trucks
6.	MS Scrap	21,780	29,370	51,150	In-house, BST Infratech Ltd, Jamuria	10 km	Through Magnetic Crane for inhouse & By road in covered trucks for purchased
7.	Ferro Alloys for LRF & AOD	--	17,820	17,820	Giridhan Metal Private Limited, Jamuria, Asansol Shree Ambey Ispat Pvt Ltd, Bankura BDG Metal & Power Limited, Bankura	65 km	By road in covered trucks
8.	Calcined Lime for AOD	0	3,960	3,960	Local market	20 km	By road in covered trucks
9.	Calcined Dolomite	0	3,960	3,960			

S. No	Raw Material	Existing (TPA)	Proposed Expansion (TPA)	Total (TPA)	Source	Distance from Site (km)	Mode of Transport
	for AOD						
10.	Coal (For CPP)	21,500	43,000	64,500	Balaji Malts Pvt. Ltd., Singapore Saraogi Global Pte Ltd, Singapore TP commercial CR, Dhanbad	300 km	From Singapore through Ship till Haldia port then by Rail till Topsis Siding and then by road (7 km)
11.	Bentonite	-	12,000	12,000	local market	30 km	By road in covered trucks
12.	Limestone	-	30,000	30,000	local market	30 km	By road in covered trucks
13.	Coke breeze	-	18,000	18,000	local market	30 km	By road in covered trucks

41.1.10 Existing water requirement is 930 m<sup>3</sup>/day, water requirement is obtained from Asansol Durgapur Development Authority (ADDA) & Ground water and permission for the same has been obtained from ADDA vide letter 66/RCD-1 dated 25.01.2012 and Ground Water Resource Development Authority respectively. The water requirement after the proposed expansion is estimated as 2024 m<sup>3</sup>/day, out of which 1830 m<sup>3</sup>/day of fresh water requirement will be obtained from the ADDA and remaining will be recycled water. Water Assurance letter for 1400 m<sup>3</sup>/day is obtained from Asansol Municipal Corporation vide their letter dated 13.07.2021.

41.1.11 Existing power requirement of 24.5MW is obtained from CPP and DVC. The power requirement after the proposed expansion is estimated as 50.3 MW which will be sourced through captive power plant of 27 MW and balance power will be sourced from DVC.

#### 41.1.12 Baseline Environmental Studies

Period	1st Oct to 31st Dec, 2020
AAQ parameters at 8 Locations (min and max)	<ul style="list-style-type: none"> <li>• PM<sub>2.5</sub> - 18.0 to 49.8 µg/m<sup>3</sup></li> <li>• PM<sub>10</sub> - 40.8 to 82.1 µg/m<sup>3</sup></li> <li>• SO<sub>2</sub> - 8.1 to 26.9 µg/m<sup>3</sup></li> <li>• NO<sub>x</sub> - 11.6 to 39.4 µg/m<sup>3</sup></li> <li>• CO - 0.50 to 1.72 mg/m<sup>3</sup></li> </ul>
Incremental GLC level	<ul style="list-style-type: none"> <li>• PM<sub>10</sub> - 1.907 µg/m<sup>3</sup></li> <li>• PM<sub>2.5</sub> - 1.278 µg/m<sup>3</sup></li> <li>• SO<sub>2</sub> - 4.048 µg/m<sup>3</sup></li> <li>• NO<sub>x</sub> - 0.813 µg/m<sup>3</sup></li> <li>• CO - 0.00011 mg/m<sup>3</sup></li> </ul> <p>(All maximum incremental values are at Ikhra village which is at a distance of 0.3 km from Project site in SSE direction)</p>
Ground water quality at 8 locations	pH -7.28 to 7.49, Total Hardness -162 to 249 mg/l, Total Dissolved Solids - 260 to 385 mg/l, Chlorides - 28.31 to 44.06 mg/l, Fluoride- 0.24 to 0.38 mg/l.
Surface water	pH - 7.64 to 7.85, Dissolved Oxygen - 4.4 to 5.7 mg/l, BOD varies - 5.24 to

Period	1st Oct to 31st Dec, 2020				
quality at 8 locations	11.0 mg/l, COD -17 to 42 mg/l.				
Noise levels Leq (Day and Night)	41.4 to 74.4 dB(A) for day time and 30.7 to 67.4 dB(A) for night time				
Traffic assessment study findings	<ul style="list-style-type: none"> <li>Traffic study has been conducted at NH-60 &amp; NH-2 which is at 3.5km and 4.7km from the project site, respectively.</li> <li>Transportation of Raw material, Fuel and Finished product will be done 90% by Road</li> <li>Existing PCU is 120.63 PCU/hr on NH-2 and 137.93 PCU/Hr. on NH-60 and existing level of service (LOS) is B</li> </ul>				
	<b>Road</b>	<b>V (Volume in PCU/day)</b>	<b>C (Capacity in PCU/day)</b>	<b>Existing V/C Ratio</b>	<b>LOS</b>
	NH-2	2895	15000	0.20	B
	NH-60	3310.5	15000	0.22	B
	<ul style="list-style-type: none"> <li>PCU load after proposed project will be 3585 PCU/day (Existing 2895 + Addl. 690) for NH-2 and 4000.5 PCU/day (existing 3310.5+690) for NH-60 and level of service (LOS) will be;</li> </ul>				
<b>Road</b>	<b>V (Volume in PCU/day)</b>	<b>C (Capacity in PCU/day)</b>	<b>Existing V/C Ratio</b>	<b>LOS</b>	
NH-2	3585	15000	0.23	B	
NH-60	4000.5	15000	0.26	B	
<p><i>*Note: Capacity as per IRC 64: 1990, Guide line for capacity for roads in Rural Areas</i></p> <p>Level of Service will be "B" i.e. Very Good for NH-2 and NH-60 including additional traffic due to the proposed project.</p>					
Flora and fauna	There is no Schedule -1 Fauna and endangered Flora found in the study area.				

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

Sl. No.	Type of Waste	Source	Quantity generated (TPA)		Mode of Treatment	Disposal	Remarks
			Existing	Total after proposed expansion			
1	Dolochar	DRI Kilns	31,600	47,800	--	Will be used in AFBC Boiler	--
2	Iron ore fines	DRI Kilns	28,520	44,560	--	Will be reused in pellet plant	--
3	Kiln Accretion	DRI Kilns	2,300	3,490	--	Will be used in internal road construction / repair.	--
4	Wet Scrapper Sludge	DRI Kilns	3,500	5,350	--	It will be sent to Fly ash Brick/Block	--

Sl. No.	Type of Waste	Source	Quantity generated (TPA)		Mode of Treatment	Disposal	Remarks
			Existing	Total after proposed expansion			
						manufacturing unit	
5	IF Slag	Induction Furnace	27,700	46,200	Slag will be sent to Slag Crushing unit of 10 TPH for metal recovery	After metal recovery (approx. 10%), remaining slag shall be crushed and will be used as aggregates	The project Authorities have signed MoU with S.N. Bricks Manufacturers to sell 100% of their granulated Slag
6	IF Bag Filter Dust	Bag Filter	6,900	11,550	--	Will be reused in Pellet Plant	--
7	Scale	CCM	2,500	5,000	--	Will be given to nearby Ferro-plant / Sinter plant	--
8	End Cut / Reject	CCM	3,500	7,000	--	Will be reused as scrap in SMS	--
9	AOD Slag	AOD	--	9,900	Slag will be sent to Slag Crushing unit of 10 TPH for metal recovery	After TCLP test, slag shall be used in Cement making as a mixture of raw materials, replacing some amount of natural raw materials limestone and clay or shall be crushed and given to Paving blocks / Paving Tiles manufacturing Units or will be used as aggregates	The project Authorities have signed MoU with S.N. Bricks Manufacturers to sell 100% of their granulated Slag
10	AOD Bag Filter Dust	Bag filter	--	990	--	Will be reused in Pellet Plant	--
11	Mill Scale	Rolling Mill	2,400	2,400	--	Will be given to nearby Ferro-plant / Sinter plant	--

Sl. No.	Type of Waste	Source	Quantity generated (TPA)		Mode of Treatment	Disposal	Remarks
			Existing	Total after proposed expansion			
12	End Cut / Cobbles	Rolling mill	4,800	4,800	--	Will be reused as scrap in IF	--
13	Fly-ash from WHRB + AFBC	CPP	53,000	90,400	--	Will be sold to Cement Plant / Fly-ash Brick Plants	The project Authorities have signed MoU with S.N. Bricks
14	Bottom Ash from AFBC	CPP	6,750	12,800	--	Will be sold to the nearby Brick kiln owners, to be used as fuel in their Kilns	Manufacturers to sell 100% of their ash generated in plant after expansion
15	Return fines/Dust	Pellet Plant	--	60,000	--	Will be reused in pellet plant	--

#### 41.1.14 Public Consultation:

Details of advertisement given	07.06.2022
Date of public consultation	08.07.2022
Venue	Sampriti Sadan, Sarbari, Neturia, Dist: Purulia, West Bengal First Floor Guest House, Nandi Road, Jamuria, (Landmark LIC Building) Dist-Paschim Bardhaman, West Bengal
Presiding Officer	Additional District Magistrate, Paschim Bardhaman
Major issues raised	<ul style="list-style-type: none"> <li>• Medical facilities</li> <li>• Plantation in and around factory</li> <li>• Employment</li> <li>• Scarcity of drinking water</li> <li>• Development of Sport Activities</li> <li>• Welfare of local Tribals</li> <li>• Pollution from Plant</li> </ul>

#### Action plan as per MoEFCC O.M. dated 30/09/2020

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
1	Purchase of one Ambulance with Medical Instruments for providing Medical Facility	Purchase of Ambulance and necessary medical equipment (Defibrillator, Ventilation device, Nebulizer, Oxygen	15,00,000	--	--	30,00,000



S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
	for nearby villages	cylinder, Wheelchair, First aid kit, Stretcher)				
	Providing Medical facilities at Ikhra village	Free Eye operation camps, blood donation camps, free medical check-up camps, wheel chairs for people with disabilities and mobility issues. Beds for Health Care centre.	--	<b>15,00,000</b>	--	
2	Plantation along the boundary of Ikhra village	Plantation work (6250 trees) of 2500 m length and 10 m wide at boundary of Ikhra village	--	<b>25,00,000</b>	--	<b>25,00,000</b>
3	Providing Facilities to Old Age Home at Jamuria town	Providing 80 beds, two Solar water Heater (500 LPD), two Drinking water purifier, five Water Cooler (100 Liters), Twenty Summer Coolers, Development of meditation area	<b>30,00,000</b>	--	--	<b>30,00,000</b>
5	Renovation of Temples located in Ikhra village	Plastering, Painting, providing Havan mandap, Bhajan Hall & drinking water cooler at both Tilipara and Laxmi mata temple	--	<b>15,00,000</b>	--	<b>15,00,000</b>
6	Drinking Water facilities at Jamuria	Providing Handpumps with Water purification system at temples located in Jamuria town Water Purification and RO system in Ikhra Primary High School	<b>15,00,000</b>	--	--	<b>15,00,000</b>
7	Development of Sports Facility at Milan Samiti	Providing Tennis court (Clay Court, Area - 195 Sq.m), Basketball court	--	--	<b>80,00,000</b>	<b>80,00,000</b>

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
	Playground located in Jamuria	(Area – 441 sq.m, Concrete court), Volleyball Court (area – 162 Sq.m, Artificial grass court) at Milan Samiti playground in Jamuria				
8	Facilities for local Tribal in Ikhra village	Establishment of two nos. of Smart Class (65 Sq.m, Seating capacity - 50) in Ikhra Primary High School. Provision of 30 computers, UPS, WiFi, Projectors, 40 Tables & 150 chairs etc in smart class.	--	<b>50,00,000</b>	--	<b>50,00,000</b>
9	Solid Waste Management facilities in Ikhra village	Installation of two permanent waste containers (2.5 m <sup>3</sup> ) in each Ikhra and Balanpur villages Providing Garbage tipper truck (Load-3 ton) to Jamuria Municipality	--	--	<b>20,00,000</b>	<b>20,00,000</b>
11	Sanitation facilities at schools in Ikhra	Providing separate toilets for Girls and Boys along with Septic Tank (2KL) and soak pit system in Ikhra Primary High School in Ikhra village	--	<b>15,00,000</b>	--	<b>15,00,000</b>
12	Conservation of Pond, Ikhra village	Implementation of Brick lining with a Wharf platform at pond	<b>10,00,000</b>	--	--	<b>40,00,000</b>
		Levelling and smoothing of bank of pond	<b>500,000</b>	--	--	
		Stabilization of earthen embankments with	<b>8,00,000</b>	--	--	

S. No	Activities	Physical Targets	Year of Implementation (Budget in INR)			Total Expenditure (Rs.)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
		vegetative or rock riprap to avoid soil erosion and the inflow drainage channels with the stone revetment so as to avoid rapid seepage				
		Pond boundary will be provided with fence (temporary fencing)	--	<b>200,000</b>	--	
		Greenbelt development around the pond of 5 m width to preserve the pond	--	<b>10,00,000</b>	--	
		All the inflow drainage channel leading to pond will be provided with suitable silt barriers or sediment traps at suitable intervals for control of silt/waste	<b>5,00,000</b>	--	--	
13	Skill Development Class in Ikhra village	Providing Skill development & Industrial training class (80 sq.m, Seating capacity – 60) in Ikhra School.	--	<b>15,00,000</b>	--	<b>15,00,000</b>
14	Construction of Metalled Road for local commute for Ikhra village to Jamuria Road	Land Development and Construction work for laying of road of 6 km length and 6 m width connecting Ikhra village to Jamuria road	<b>1,50,00,000</b>	--	--	<b>150,00,000</b>
15	Installation of Solar Street light on road connecting Ikhra and Balanpur Villages	Providing 20 Solar Street lights (12 watt, 2000 lumens) with Pole along the 6 km road, connecting Ikhra and Balanpur villages	--	--	<b>15,00,000</b>	<b>15,00,000</b>
<b>Grand Total in Rs.</b>		--	<b>2,38,00,000</b>	<b>1,47,00,000</b>	<b>1,15,00,000</b>	<b>5,00,00,000</b>

41.1.15 The existing capital cost of the project was Rs. 201.64 Crs. The capital cost of the proposed project is Rs. 414 Crs. and the capital cost for the environmental protection measures is proposed as Rs.12.67 Crs (including the cost to address the issues raised in Public Hearing). The annual recurring cost towards the environment protection measures is proposed as Rs. 1.363 Crs. The employment generation from the proposed expansion is 500. The detail of the cost for the environmental protection measures is as follows:

Sl. No.	Environmental Protection Measures	Existing Cost		Proposed Cost	
		Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/ year
1.	Air and Noise Pollution Measures	90	4.25	902	86.0
2.	Water Pollution Control Measures and Rainwater Harvesting	10	0.5	75	8.5
3.	Solid Waste Management	-	-	20	2.5
4.	Environmental Monitoring and management	-	2.0	90	15.35
5.	Greenbelt Development and OH&S		1.5	84	24.0
6	Addressal of Public Consultation concerns	-	-	500	--
	<b>Total</b>	100	8.25	1671	136.35
	Details of adoption of villages, if any	After proposed expansion, the project authorities will adopt village Ikhra and will implement several activities as part of CSR and PH issues addressal, for uplifting the socio-economic status of the village. Details are provided in EIA report.			

41.1.16 The Project authorities initially procured 40 Acres (16.18 Ha.) of land out of which only 24 acres (9.71 Ha.) of land was single block and balance 16 acres (6.46 Ha) of land was scattered and inaccessible. Therefore, the plant was installed on 24 acres (9.71 Ha.) of land and Greenbelt was developed in 33% of 24 acres (9.71 Ha.) i.e. in 3.15 Hectares with total plantation of 4500 no. of trees. After proposed expansion the scattered and inaccessible land will be merged with additional land procured and will form a solid block. Now after proposed expansion total of 10.15 Ha. (33% of the total project area i.e. 30.76 ha.) will be developed as greenbelt. A total 8 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 25,375 saplings will be planted and nurtured in 10.15 hectares in 4 years.

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

#### **Certified Compliance Report from Regional Office, MoEF&CC**

41.1.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Kolkata vide letter no. 102-390/20/EPE/04 dated 06.01.2023 in the name of M/s. Maan Steel and Power Ltd. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer, MoEF&CC, Kolkata dated 29.12.2022. MoEF&CC (IRO), Kolkata evaluated the same and has issued letter dated 06.01.2023. The details of the

observations made by IRO in the report dated 06.01.2023 along with its re-assessment / present status as furnished by the PP is given as below.

Sl. No	Non Compliances Details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
1	Non- Compliance regarding high values of SO2 and NOx within the permissible limit	In GSR 593 (E) dated 28th June, 2018 it is stated that "all values for S02, NOx and Particulate matter shall be corrected to 6% oxygen on dry basis". It is observed from the reports submitted for CPP, conc. of S02 and Nox has been corrected to 6% O2 but PM conc. is reported at 10.8% O2 and 12% C02. PAs need to submit monitoring data PM corrected at 6% O2. Further the values of S02 and NOx at 6% O2 is reported to be 560.10 mg/Nm3 respectively which are much higher than the permissible limit. PAs need to take corrective action to bring the values of S02 and Nox within the permissible limit.	31.12.2010	(iv)	(iii)	<p><b>Response by PP:</b> Reference is made to the Notification No.23/22/2018 by Government of India, Ministry of Power dated 31.07.2021. Accordingly, We are in process of installation of controlling devices to bring down the values of SO2 and NOx within the permissible limit before designated time frame i.e. 31.12.2024</p> <p><b>Reassessment by RO:</b> <b>Condition is Complied</b></p>

Sl. No	Non Compliances Details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
2	Non-Compliance for Greenbelt Development	PAs need to develop more green belt within the project premises.	31.12.2010	(xiii)	--	<p><b>Response by PP:</b></p> <p>Plantation has been done along almost all internal roads, Black Topping of some remaining internal roads are also being done. In order to protect &amp; ensure that the seedlings do not damaged and grow fast, we first plant the same in a drum and take special care. When the seedlings grow to a certain level, we cut out the Drum and transplant plant along with earth to designated location in 3-tier avenue. This procedure helps us to increase the plantation quantity and also survival rate of plants. PP submitted photographs which is self-explanatory</p> <p><b>Reassessment by RO:</b></p> <p>From Submitted photographs by PAs, it is observed that black topping of some internal roads has been recently completed and one row plantation has been done by the PAs along these internal roads</p>
	Non Compliance regarding no details of recurring funds for Environmental Pollution control measures of last three years	PAs have not provided details of recurring funds for the last three years used for environmental pollution control measures. The same need to be submitted to the Regional Office	31.12.2010	--	(x)	<p><b>Response by PP:</b></p> <p>We are submitting detailed report defining the utilization of recurring funds used for environmental pollution control measures for the period 2019-20 &amp; 2020-21.</p> <p><b>Reassessment by RO:</b></p> <p>PAs has submitted that</p>

Sl. No	Non Compliances Details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						Rs.7,06,873/- & Rs.43,85,484/- of recurring funds are utilized for environmental pollution control measures for the period 2019-20 & 2020-21 respectively.  <b>Condition is Complied</b>
	Non-compliance regarding submission of survey report for greenbelt from DFO	A survey report of the green belt needs to be conducted from the DFO and report submitted to the Regional Office	31.12.2010	(xvii)	--	<b>Response by PP:</b>  Following facts shall be noted  During the year 2010, 40 acres of land was purchased and Accordingly EC was applied Out of the procured 40 Acres of land only 24 acres of land was single block and balance 16 acres of land scattered and inaccessible. The plant was installed on 24 acres of land after conversion of land to industrial Greenbelt was therefore developed in solid block land of 24 acres PA have further procured 36 Acres of land due to which 16 Acres scattered land and 36 acres land formed a solid block. In the proposed Expansion project greenbelt will be developed in 33% of entire land MoEFCC was also informed of the same through email dated 28.12.2022.  <b>Reassessment by RO:</b>  PAs has informed that out

Sl. No	Non Compliances Details	Observation of RO	Condition No.			Re-assessment by RO / Response by PP
			EC date	Specific	General	
						of total procured 40.94 acre land (as proposed in EC), only 24 acre of land is of a single solid block and rest land was in scattered form. The Factory was installed over 24 acre land and Green Belt was developed over 33% of that land. The DFO, Durgapur had certified that green coverage completed by the PA over 7.732 acre (32.21 % of 24 acre). Further, PAs has informed that remaining 16 acre scattered land along with newly procured 36 acre of land, which constitute of solid block of approx. 50 acre, is proposed for expansion of existing factory and PAs submitted that 33% of the approx. 50 acre land will be dedicated to Green Belt.

**Written representations:**

41.1.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 03.08.2023 through email dated 03.08.2023 submitted the following information:

SL. No.	Issues Raised	Reply by PP
1.	Updated Action plan and Budget of activities to address Public Hearing Issues	The updated Action plan along with revised budget of activities to address Public Hearing issues is submitted and updated at para 41.1.14 above. The budget has been enhanced from Rs. 96.00 lakhs to Rs. 5.00 crores.
2.	Point wise reply to the complaint raised against Maan Steel &. Power Ltd. vide letter dated 01.08.2023	The Pointwise reply with relevant documents are submitted as described below:
S. No.	Observation Raised	Reply by the PP



SL. No.	Issues Raised	Reply by PP
1	<p>That, it appears from the EC dated 31.12.2010, the concerned appraisal committee had granted expansion project in favour of the project proponent and thereafter on the basis of the application submitted by the project proponent, the validity period of the said granted EC was accorded by a letter dated 15.01.2018. In the said EC the project proponent was allowed to produce Sponge Iron from 1,20,000 TPA in addition to 57,000 TPA and M.S.Billet 1,92,000 TPA</p>	<p>Agreed. The EC was granted for enhancement in production of Sponge Iron Plant from 57000 TPA to 177000 TPA, production of MS Billets 192000 TPA, Rolled products 180000 TPA, 24 MW Power and 30000 TPA Ferro alloys vide F.No.J-11011/695/2009-IA.II(I) dated 31.12.2010. The validity of the EC was extended till 30.12.2020 vide letter dated 15.01.2018 from MoEFCC. Both letters are submitted.</p>
2	<p>That, the project proponent has made it clear in the PFR of the present expansion proposal that they want to enhance the production capacity of Sponge Iron from 1,17,000 TPA to 1,77,000 TPA and the present 1,117,000 TPA capacity of sponge iron is being produced from as 57,000 TPA from 2x95 TPD &amp; 60,000 TPA from 1x200 TPD plant and M.S.Billet from 1,92,000 TPA to 3,18,000 TPA</p>	<p>Agreed The proposed enhancement in the present proposal is for Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and Installation of 1.2 MTPA Pellet Plant. And the proposal under consideration is for same capacity enhancement</p>
3	<p>Whereas the State Pollution Control Board has granted permission for production of Sponge Iron to the tune of 1,29,360 TPA (5,780 TPM +5,000 TPM) and M.S. Billet for 2,39,400 TPA which is clearly evident from the CTO dated 04/09/2018 &amp; 07/01/2020 respectively. However, be it noted here that the production of sponge iron to the tune of 1,20,000 TPA which was granted in the EC was granted thereby installation of 4x100 TPD sponge iron plant, but ultimately the project proponent has installed only one no. 200 TPD sponge iron plant instead of 4x100 TPD sponge iron plant yet now and the CTO Dated 07/01/2020 for production of 5,000 TPM sponge iron has been granted for operation of that 200 TPM sponge iron plant &amp; CTO dated 04/09/2018 is for production of 5,780 TPM capacity of sponge iron</p>	<p>As per the environmental clearance dated 31.12.2010, 4x100 TPD DRI Kilns were proposed for production of 120,000 TPA Sponge Iron. However, during detailed engineering of the project, engineering consultant suggested for establishment of 2x200 TPD DRI Kilns in place of 4x100 TPD DRI Kilns for the same production under the EC due to various environmental and other benefits as listed below:</p> <p>Environment Friendly: Less number of kilns result in less transfer points, conveyors and less number of chimneys thereby reducing the fugitive as well as flue gas emissions Less space required for establishing 2 kilns over 4 kilns Power saving: By installing 2 kilns over 4 kilns, a smaller number of equipment and auxiliaries will be required and the overall power requirement would reduce Letter dated 20.04.2015 from engineering consultant M/s Popuri Engineering Technologies Pvt Ltd regarding</p>

SL. No.	Issues Raised	Reply by PP
	<p>from 2x95 TPD sponge iron plant which is an existing plant prior to the EC dated 31/12/2010. Therefore, the State Pollution Control Board has unlawfully granted CTO for production of 5,780 TPA sponge iron from 2x95 TPD plants in violation of the condition as envisaged in the EC dated 31/12/2010</p>	<p>the above is submitted.</p> <p>Such changes are also permissible by MoEF&amp;CC. As per MoEF&amp;CC notification dated 23.11.2016:  “Any change in configuration of the plant from the environmental clearance conditions during execution of the project after detailed engineering shall be exempt from the requirement of environmental clearance, if there is no change in production and pollution load. The project proponent shall inform the Ministry of Environment, Forest and Climate Change / State Level Environment Impact Assessment Authority and the concerned State Pollution Control Board.”</p> <p>The Project Authorities have obtained CTE Amendment vide Memo No. 670-2N-115/2007 (E) dated 08.07.2015 for Amendment in configuration of DRI Kilns from 4x100 TPD to 2x200 TPD prior to installation of 200 TPD DRI Kilns. (CTE amendment provided)</p> <p>MoEFCC was also informed for the same during EC validity extension application. MoEF&amp;CC acknowledged the change in configuration of DRI kilns in the EC validity extension letter dated 15.01.2018. (EC validity extension Letter submitted)</p> <p>Further, we would also like to inform that no over production of any product beyond the capacity specified in the environmental clearance has been carried out. Attested production figures are submitted.</p>
4	<p>That, it is clearly mentioned in the PFR of the present expansion proposal that the project proponent is presently consuming 2000 KL water per day, but the EC dated 31/12/2010 clearly indicates that the Ministry had allowed the project proponent to consume total 1632 m3 water per day. So, there is no single room of doubt that the project proponent is consuming water in excess of permissible limit as envisaged in the EC</p>	<p>As per the environmental clearance dated 31.12.2010, the water requirement was 1632 KLD. However, the water requirement for the existing plant has been reduced to 930 KLD by using various water conservation measures like installation of air-cooled condensers in Captive Power Plant.</p> <p>The present water requirement of 930 m3/day is fulfilled through two sources:  Surface water from Asansol Municipal Corporation – 600 KLD  Ground Water from Ground Water Resource Development Authority, Burdwan – 330 KLD (ground water is used only in case of emergency)</p> <p>Bills for last three years for water usage from AMC are</p>

SL. No.	Issues Raised	Reply by PP
		submitted. A consolidated statement of water used is submitted. Permissions for ground water withdrawal and from AMC/ADDA are submitted.
5	That, the project proponent has uploaded copies of permission letters obtained from various authorities regarding supply of water in their factory, but not disclosed any copy of water bill raised by the concerned authorities in favour of them. Water bills are very much needed because actual consumption of water can only be accessed from the water bills and the committee should have been asked for submission of month wise water bills for the last one year either from the concerned authorities or from the project as an Essential Documents	Bills of last one year is provided and an attested statement of water usage is submitted. A letter from Asansol Municipal Corporation in this regard is also submitted.
6	That, the State Pollution Control Board has ever carried out any inspection in the factory of the project proponent to verify the status of compliance of conditions stipulated in the CTO.	The State Pollution Control Board has visited the plant site of Maan Steel and Power Ltd at regular intervals for inspection of statutory compliances. The summary indicating various inspection carried out from 2019 to 2023 by WBPCB is submitted. No Show cause notice or closure notice is provided to us till date by WBPCB. The latest site visit of Regional Officer from MoEFCC, IRO, Kolkata was also conducted on 26.11.2022 and accordingly, the IRO, Kolkata provided Closure report with full compliances of EC conditions to the Project Authorities vide letter dated 06.01.2023.
3.	Letter from Forest Department regarding greenbelt development	A letter from DFO, Durgapur vide memo no. 319212-50(A) dated 09.09.2022 is submitted wherein the DFO has confirmed that greenbelt has been developed on 33% (3.13 ha.) of the plant area.
4.	Ground level concentration of Carbon Monoxide (CO) in the brief writeup	Updated brief writeup containing GLC values of CO is provided.
5.	Clarification regarding status of land with reference to the previous environmental clearance granted and the expansion sought.	During the grant of previous environmental clearance dated 3 1.12.2010, 16.1 8 ha. of land was proposed. However, out of the total proposed land only 9.712 ha. of land was available as a single homogenous block, rest 6.468 ha. of land was scattered in nature due to which the plant could only be established in 9.712 ha. of land. Now, as per the present proposal, 14.58 ha. of additional

SL. No.	Issues Raised	Reply by PP
		<p>land is proposed and the total land available will be 30.76 ha. With this the scattered and in accessible land under the earlier EC will also come in one block, This entire patch of land is not scattered and it is homogeneous.</p> <p>A khasra map is submitted wherein the total land is shown in three colors, i.e. yellow depicts the 9.712 ha. of land on which the existing plant has been established, orange depicts 6.468 ha. of land that was scattered and blue depicts 14.58 ha. of land which has now been acquired for expansion.</p> <p>Out of the total 30.76 land area after the expansion, 29.58 ha. of land has been acquired and acquisition of remaining 1,18 ha. of land is under process and an agreement in this regard from the land owners is submitted.</p>
6.	Housekeeping of the plant premises shall be maintained	The housekeeping will be maintained at regular intervals inside the plant premises. The undertaking in this regard by project proponent is submitted.

### **Deliberations by the Committee**

41.1.20 The Committee noted the following:

3. The instant proposal is for enhancement of Sponge Iron Production from 117,000 to 177,000 TPA, Billet Production from 192,000 to 318,000 TPA, Power generation from 12 to 27 MW and for Installation of 1.2 MTPA Pellet Plant.
4. 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.
5. 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.
6. 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.

7. The company was set up in the year 2008 after obtaining CTE from West Bengal Pollution Control Board on 15.05.2008 for setting up of steel plant for production of 57,000 TPA Sponge Iron through 2x95 TPD DRI Kiln. The existing project was accorded environmental clearance vide F. No. J-11011/695/2009-IA-II (I) dated 31.12.2010 for expansion of Sponge Iron Plant from 57,000 to 177,000 TPA sponge iron production, installation of Steel Melting Shop with Billet Caster for production of 192,000 TPA Billets, installation of Rolling Mill for production of 180,000 TPA TMT Bars along with Captive Power Plant (24 MW) and Ferro Alloy Plant (2 x9 MVA Submerged Arc Furnaces) for production of 30,000 TPA Fe-Mn / Si-Mn. Validity of the Environmental Clearance was extended up to 30<sup>th</sup> December 2020, on 15.01.2018 with Ferro alloy plant dropped from the plant configuration. Consent to operate for DRI Kiln (2x95 & 1x200 TPD), Induction Furnace (4x15 MT) with Billet Castor (2x6/11m), Rolling Mill (550 TPD) and Captive Power Plant (1x12 MW), was accorded by West Bengal Pollution Control Board vide. Ltr. No. C0128909 dated 07.01.2020. The validity of CTO is up to 30.09.2023.
8. The total project area is 30.76 Ha. Existing area of the plant is 16.18 Ha which is under the possession of project authorities. For proposed expansion, additional area of 14.58 ha. is required, out of which 13.4 ha. is acquired and acquisition of remaining 1.18 ha. is under process and shall be completed by the end of the year 2023.
9. The nearest habitation is Ikhra village which is at a distance of 0.15 km in South 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.
10. There is a Pond near Ikhra village at a distance of 0.085 km in SE of the project site. Also, there are other water bodies such as river within the study area of 10 km of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
11. Existing water requirement is 930 m<sup>3</sup>/day which is obtained from Asansol Durgapur Development Authority (ADDA) & Ground water. The water requirement after the proposed expansion is estimated as 2024 m<sup>3</sup>/day, out of which 1830 m<sup>3</sup>/day of fresh water requirement will be obtained from the ADDA and remaining will be recycled water. The EAC deliberated on the water requirement and is of the opinion that necessary permissions shall be obtained from the Competent Authority prior to commencement of project.
12. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
13. The PP has submitted that they initially procured 40 Acres (16.18 Ha.) of land out of which only 24 acres (9.71 Ha.) of land was single block and balance 16 acres (6.46 Ha) of land was scattered and inaccessible. Therefore, the plant was installed on 24 acres (9.71 Ha.) of land and Greenbelt was developed in 33% of 24 acres (9.71 Ha.) i.e. in 3.15 Hectares with total plantation of 4500 no. of trees. PP has also submitted a letter from DFO, Durgapur vide memo no. 319212-50(A) dated 09.09.2022 wherein the DFO has confirmed that greenbelt has been developed on 33% (3.13 ha.) of the plant area. After

proposed expansion the scattered and inaccessible land will be merged with additional land procured and will form a solid block. Now after proposed expansion total of 10.15 Ha. (33% of the total project area i.e. 30.76 ha.) will be developed as greenbelt. Total no. of 25,375 saplings will be planted and nurtured in 10.15 hectares in 4 years.. The EAC deliberated on the greenbelt action plan and found it satisfactory.

14. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
15. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
16. The Committee also deliberated the certified compliance report of existing EC and its Action plan and is of the opinion that PP shall strictly implement the action plan and submit the status to IRO.
17. The EAC deliberated on point wise reply of PP to the complaint raised against Maan Steel & Power Ltd. vide letter dated 01.08.2023 and found it satisfactory.
18. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
19. 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.
20. 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.
21. 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.

**Recommendations of the Committee:**

41.1.21 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the written submission on portal** under the provisions of EIA Notification, 2006 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. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. PP shall complete acquisition of balance project area and conversion for industrial purpose prior to commencement of project.
- iv. The nearest habitation is Ikhra village which is at a distance of 0.15 km in South 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. There is a Pond near Ikhra village at a distance of 0.085 km in SE of the project site. Also, there are other water bodies such as river within the study area of 10 km of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented. The PP shall ensure that there shall not be any discharge to the pond and in the adjacent area.
- vi. The water requirement of 2024 m<sup>3</sup>/day shall be sourced from the ADDA (1830 m<sup>3</sup>/day) and recycled water (194 m<sup>3</sup>/day) after obtaining necessary permission from the Competent Authority.
- vii. Three tier Green Belt shall be developed and maintained in at least 33% of the project area 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 Ikhra 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 Rs. 5.0 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

- ix. As committed, PP shall adopt Village Ikhra and undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- x. The PP shall improve the housekeeping at the project site as committed.

## **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. 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. 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 04 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. 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.
- xx. 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.
- xxi. Online stack monitoring system for IF and RHF shall be installed and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.

- xxii. Low NO<sub>x</sub> Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.

### **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. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- x. 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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- iv. Practice hot charging of slabs and billets/blooms as far as possible.
- v. Ensure installation of regenerative type burners on all reheating furnaces.
- vi. The project proponent shall provide waste heat recovery system on the DRI Kilns.
- vii. The dolochar generated shall be used for power generation.
- viii. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- ix. 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 install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. 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.

**\*\*\***

## **Agenda No. 41.2**

### **41.2 Green field Screening cum Beneficiation Plant-II (10 MTPA capacity), Tailing dam-1, slime disposal pipeline, water pipeline for Donimalai and Kumaraswamy Iron Ore Mines by M/s. NMDC Limited, located at Donimalai, village Narsingapura, Sandur Taluk, Ballari District, Karnataka.- Re-Consideration of Environmental Clearance**

**[Proposal No. IA/KA/IND1/436348/2023; File No. IA-J-11011/264/2023-IA-II(I)]**

**[Consultant: MECON Ltd.]**

- 41.2.1 M/s. NMDC Limited has made an online application vide proposal no. IA/KA/IND1/436348/2023 dated 15.07.2023 along with copy of EIA report, 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. 2(b) Beneficiation Plants under Category “B” of the schedule of the EIA Notification, 2006 and and appraised at Central Level due to Ministry’s O.M IA3-22/10/2022-IA.III (E177258) dated 27/09/2022.
- 41.2.2 Name of the EIA consultant: M/s. MECON Limited [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0195(REV.02); valid upto 02.09.2024, as on August 2, 2023].
- 41.2.3 M/s. NMDC Limited had initially made online application vide proposal no. IA/KA/IND/61156/2014, dated 21<sup>st</sup> December 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal was considered by the EAC (Industry-1) in its 13<sup>th</sup> meeting held on 24/11/2016 and 19<sup>th</sup> EAC meeting (Industry-I) held during 8<sup>th</sup> – 9<sup>th</sup> June 2017 wherein after detailed deliberations, the committee recommended for grant of environmental

clearance after receipt of Stage-I clearance of Forestland involved in the project subject to specific conditions along with other conditions.

41.2.4 M/s. NMDC Limited vide instant application (Proposal no. IA/KA/IND1/436348/2023 dated 15.07.2023) has reported the following:

- The project has received Stage-1 Forest Clearance on 06.03.2023 and Stage-II Forest Clearance on 10.07.2023 for diversion of 53.67 Ha Forest land (dropping the originally proposed Tailing Dam-II in 22.25 ha from the original proposal of 75.92 Ha) of Forest land in Donimalai forest block for construction of screening cum beneficiation plant, Tailing Dam-I and water & slurry pipeline.
- As per MoEFCC Gazette notification SO 1886 dated 20/4/2022, all Mineral beneficiation projects have now been categorized as category B requiring EC from SEIAA. However, as per Ministry's O.M vide IA3-22/10/2022-IA.III (E177258) dated 27/09/2022, the proposal shall continue to be appraised at Central level only.
- The earlier EIA/EMP report prepared in the year 2016 and appraised by EAC (Industry-1) was based on the baseline data generated during Winter season 2014-15 and has now become more than 3 years old. In view of the above, NMDC has generated fresh baseline environmental data during March to May 2023 as per O.M J-11013/12/2013-IA-II(I)(Part) dated 19/6/2014.
- The updated EIA/EMP Report (July 2023) with baseline environmental data of summer season 2023 has been uploaded in PARIVESH Portal 2.0 on 15.07.2023. Therefore, PP has applied for re-consideration of proposal for Environmental Clearance.

41.2.5 Based on the above submission of M/s. NMDC Limited and the stated facts, the instant proposal has been reconsidered in the 41<sup>st</sup> meeting of the EAC for Industry-I sector held on 2<sup>nd</sup> & 4<sup>th</sup> August, 2023. Details are as follows:

**Details submitted by Project proponent**

41.2.6 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>
06/09/2014	23 <sup>rd</sup> meeting of EAC held on September; 25-26,2014	Terms of Reference	30/10/2014	29/10/2017
18/08/2015	37 <sup>th</sup> meeting of EAC held on August 25-27, 2015	Amendment in ToR	28/09/2015	
M/s. NMDC Limited had initially made online application vide proposal no. IA/KA/IND/61156/2014, dated 21 <sup>st</sup> December 2016 along with copies of EIA/EMP report seeking environmental clearance and was recommended during 19 <sup>th</sup> EAC meeting (Industry-I) held during 8 <sup>th</sup> – 9 <sup>th</sup> June 2017 for grant of environmental clearance subject to receipt of stage-I clearance of Forestland involved in the project.				

41.2.7 The project of M/s. NMDC located in Narasingapura Village, Sandur Tehsil, Ballari District, Karnataka is for setting up of a new greenfield Iron Ore Screening cum Beneficiation plant for production of 10 million Tons per Annum (MTPA).

41.2.8 Environmental site settings:

Sl. No	Particulars	Details	Remarks																		
1	Total land	53.67 ha (Originally proposed 75.92 Ha)	Land use: <b>Forest land</b>																		
2	Land acquisition details as per MoEF&CC's O.M. dated 07/10/2014	<ul style="list-style-type: none"> <li>• Stage-I Forest Clearance obtained on 6/3/2023 from MOEFCC, GoI.</li> <li>• Stage-II Forest Clearance obtained on 10/7/2023 from MOEFCC, GoI.</li> </ul>																			
3	Existence of habitation & involvement of R&R, if any.	<p><b>Project Site:</b> Nil</p> <p><b>Study Area:</b></p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (Km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Ranjithpura</td> <td>1.2</td> <td>S</td> </tr> <tr> <td>Donimalai Township</td> <td>1.7</td> <td>W</td> </tr> <tr> <td>Ubbalgundi</td> <td>5.0</td> <td>SE</td> </tr> <tr> <td>Bhujanganagar</td> <td>5.2</td> <td>NW</td> </tr> <tr> <td>Sandur</td> <td>7.6</td> <td>NW</td> </tr> </tbody> </table>	Habitation	Distance (Km)	Direction	Ranjithpura	1.2	S	Donimalai Township	1.7	W	Ubbalgundi	5.0	SE	Bhujanganagar	5.2	NW	Sandur	7.6	NW	R&R is not involved.
Habitation	Distance (Km)	Direction																			
Ranjithpura	1.2	S																			
Donimalai Township	1.7	W																			
Ubbalgundi	5.0	SE																			
Bhujanganagar	5.2	NW																			
Sandur	7.6	NW																			
4	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>15<sup>0</sup> 03' 20.74"</td> <td>76<sup>0</sup> 36' 38.35"</td> </tr> <tr> <td>T3</td> <td>15<sup>0</sup> 04' 07.10"</td> <td>76<sup>0</sup> 36' 27.09"</td> </tr> </tbody> </table>	Point	Latitude	Longitude	A1	15 <sup>0</sup> 03' 20.74"	76 <sup>0</sup> 36' 38.35"	T3	15 <sup>0</sup> 04' 07.10"	76 <sup>0</sup> 36' 27.09"										
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T3	15 <sup>0</sup> 04' 07.10"	76 <sup>0</sup> 36' 27.09"																			
5	Elevation of the project site	684 to 726 M above mean sea level																			
6	Involvement of Forest land if any.	<p><b>Area of the forest land involve: 53.67 Ha</b></p> <ul style="list-style-type: none"> <li>• Stage-I Forest Clearance obtained on 6/3/2023 from MOEFCC, GoI.</li> <li>• Stage-II Forest Clearance obtained on 10/7/2023 from MOEFCC, GoI.</li> <li>• Government of Karnataka, FEE Dept, Bangalore issued Government Order on 18/7/2023.</li> </ul>	53.67 Ha identified for proposed plant is a Forest land falling in Donimalai RF, Ballari District. Forest diversion approval obtained under section 2(ii) of F.C. Act, 1980																		
7	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.)exists within the project site as well as study area	<p>Project site: Nil</p> <p><b>Study area</b></p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance in KM</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Hulikunta Kere</td> <td>5.8</td> <td>W</td> </tr> <tr> <td>Narihalla dam</td> <td>6.6</td> <td>N</td> </tr> </tbody> </table>	Water body	Distance in KM	Direction	Hulikunta Kere	5.8	W	Narihalla dam	6.6	N	542.315 mtrs.									
Water body	Distance in KM	Direction																			
Hulikunta Kere	5.8	W																			
Narihalla dam	6.6	N																			
8	Existence of ESZ/ ESA/ National Park/ wildlife sanctuary / biosphere reserve/ tiger reserve/ elephant reserve et. If any	<p>Nil</p> <p><b>List of Reserves and protected forests:</b></p> <p>Donimalai RF, Kumaraswamy betta RF, Ubbalagandi Extension RF, S.M. Block RF.</p>																			



Sl. No	Particulars	Details	Remarks
	within the study area.		

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

Sl. No.	Plant Equipment/ Facility	Proposed Units	
		Configuration	Capacity
1	Screening Plant	<ul style="list-style-type: none"> <li>Silos-4 nos. (3w+1s)</li> <li>Apron feeder-4 nos. (3w+1s)</li> <li>Primary Screen-4 nos. (3w+1s)</li> <li>Secondary Scree-4 nos. (3w+1s)</li> <li>Tertiary crusher-2 nos. (1 W+1 s)</li> </ul>	<ul style="list-style-type: none"> <li>4000 tons each no.</li> <li>800 TPH, each line</li> <li>750 TPH, each line</li> <li>550 TPH, each line</li> <li>750TPH, each no</li> </ul>
2	Beneficiation unit	<ul style="list-style-type: none"> <li>Classifier-4 nos. (3w+1s)</li> <li>Dewatering screens-4 nos. (3w+1s)</li> <li>Desliming cyclone</li> <li>Densifying cyclone</li> <li>Horizontal belt feeder-3 nos.</li> <li>Tailing Thickner-1 nos.</li> </ul>	<ul style="list-style-type: none"> <li>350 TPH, each</li> <li>2400 mm X 6100 mm</li> <li>1 lot ; 2400 m<sup>3</sup>/hr.</li> <li>1 lot;</li> <li>210 TPH</li> <li>60 TPH</li> </ul>

41.2.10 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 required per annum	Source	Distance from Site (Kms)	Mode of Transportation
1	Iron ore of less than 100 mm size	10.00 million tons per annum	Donimalai Iron Ore Mines Kumaraswamy Iron Ore Mines	1.0 5.8	Conveyor Conveyor

41.2.11 The water requirement for the proposed project is estimated as 60,984 m<sup>3</sup>/day, out of which 8,787 m<sup>3</sup>/day for fresh water requirement will be obtained from Narihalla dam and the remaining requirement of 52,197 m<sup>3</sup>/day will be met from the recycled water coming from Tailing thickener, Horizontal belt feeder and de-sliming cyclones. The permission for drawl of surface water is obtained from Water Resources Department, Government of Karnataka Vide Lr. No. WRD/154/MTP/2022, Bengaluru Dated 28/03/2023. (Renewal of Water agreement of drawl of 13.45 cusecs of water for NMDC from back water of Narihalla dam for further period of 5 years from 16/2/2022 to 15/2/2027).

41.2.12 The power requirement for the proposed project is estimated as 1.0425 MW, out of which 1.425 MW will be obtained from the existing valley substation at Donimalai to proposed 3.3 kv substation at proposed plant area.

41.2.13 Baseline Environmental Studies

Parameters	March to May 2023	December 2014 to February 2015
AAQ parameters at 10 Locations	PM2.5 = 26 To 59 µg/m <sup>3</sup> PM10 = 68 To 100 µg/m <sup>3</sup>	PM10 = 84 To 97 µg/m <sup>3</sup> SO2 = <4 To 9.4 µg/m <sup>3</sup>

Parameters	March to May 2023	December 2014 to February 2015
	SO <sub>2</sub> = <4 To 9.7 µg/m <sup>3</sup> NO <sub>x</sub> = <10 To 13.4 µg/m <sup>3</sup>	NO <sub>x</sub> = <10 To 24.5 µg/m <sup>3</sup>
AAQ Modelling (Incremental GLCs)	PM <sub>10</sub> = 4.06 µg/m <sup>3</sup> (at 1.2 km W) [AERMOD]	PM <sub>10</sub> = 7.0 µg/m <sup>3</sup> (at 1 km SW) [ISCST 3]
Ground water quality at 4 locations	pH: 7.4 to 8.2 Total Hardness: 392-440 mg/l, Chlorides: 240 to 280 mg/l, Fluoride: 1.0 to 1.1 mg/l. Heavy metals (Iron): 0.4 to 0.6 mg/l	pH: 7.6 to 8.0 Total Hardness: 660-980 mg/l, Chlorides: 146 to 327 mg/l, Fluoride: 0.8 to 0.9 mg/l. Heavy metals (Iron): <0.1 to 0.76 mg/l
Surface water quality at 4 locations	pH 7.8 to 8.5; Chlorides : 90 to 195 mg/l Total Hardness: 168 to 336 mg/l TDS: 392 to 809 mg/l	pH 8.0 to 8.5; Chlorides : 60 to 160 mg/l Total Hardness: 130-420 mg/l TDS: 315 to 742 mg/l
Noise levels at 9 Locations	41.8 to 63.9 dB(A) day-time 39.1 to 44.6 dB(A) night-time	38.3 to 59.6 dB(A) day-time 37.5 to 51.6 dB(A) night-time
Traffic assessment study findings	All raw materials will be received at plant site exclusively by conveyors. The final iron ore products will be despatched only by rail wagons through existing Railway siding at Ranjitpura. The proposed plant will employ only 81 persons most of whom will be residing in NMDC's adjoining Donimalai Township. Thus there will hardly be any additional road traffic on public roads due to the project.	
Flora and fauna	Sloth bear, Panther, Indian Wolf, Black Buck, Python, Bengal Monitor Lizard, Common Peafowl. Wildlife conservation plan for the company's nearby Kumaraswamy iron ore mine was submitted to Wildlife Department, Bangalore which is under approval stage. Rs.17.98 Cr has been proposed for conservation plan. Hence, this plan is also applicable to the proposed project site also as the flora and fauna are essentially the same for both projects.	

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

Sl. No	Type of Waste	Source	Quantity generated	Mode of Treatment	Disposal	Remarks
1	Iron Ore Tailings	Beneficiation plant	1,66,600 (phase-I) 2,38,000 (phase-II)	Physical settlement	Tailing Dam	Tailings will be pumped to Tailing dam through slurry pipeline.

#### 41.2.15 Public Consultation:

Details of advertisement given	8/2/2016 in Prajavani (Kannada) and Times of India (English)
Date of public consultation	10/3/2016
Venue	Donimalai Recreation club, Donimalai Township

Presiding Officer	Addl. District Magistrate
Major issues raised	Medical facilities for local villagers, development works, R&R plan implementation, repair of roads to check dust pollution, etc.

**Action plan as per MoEFCC O.M. dated 30/09/2020**

Sr. No.	Description of Activities	Unit	Year I	Year II	Year III	Total
			(in Rs. Lakhs)			
1	<b>Providing additional bus service</b> for school children of villagers around Donimalai at an estimated cost of Rs. 50 lakhs / annum by hiring state owned KKSRTC buses.	3 (Three) additional buses	50	50	50	150
2	<b>Desilting of water bodies</b> in the study area 7 water bodies identified in nearby villages such as <ul style="list-style-type: none"> <li>• Hulikunti</li> <li>• Kengunte</li> <li>• Mavinamaradakolla</li> <li>• Bhujanganagara</li> <li>• Narasingapura</li> <li>• Shantinagara</li> </ul> Devdari	7 (Seven) waterbodies	100	200	200	500
3	Construction of RO water plant in 4 locations <ul style="list-style-type: none"> <li>• Ward 12- Sandur</li> <li>• Kudalu village</li> <li>• D.Mallapura village</li> <li>• Narasingpura village</li> </ul>	4 (four) locations	12	24	12	48
4	Construction of bus shelters at following locations in Sandur taluk <ul style="list-style-type: none"> <li>• At Vaddu village</li> <li>• Near Giranchalli village (NH-13)</li> <li>• At Shileyappana Halli</li> <li>• At Devarabudanna Halli</li> <li>• At Talur village</li> <li>• At Tumparaguddi village</li> <li>• At Shriramshetti village</li> <li>• At Bandri primary school</li> <li>• Near Donimalai camp</li> <li>• C.K. Halli</li> </ul>	10 (ten) locations	25	40	40	105
5	Infrastructure facilities like library at Ward 12, Sandur	1 location	30	-	-	30
6	Infrastructure facilities in Chornur in Sandur taluk	1 PHC	-	10	-	10

Sr. No.	Description of Activities	Unit	Year I	Year II	Year III	Total
			(in Rs. Lakhs)			
7	Construction of public toilets in Ward no. 6, Sandur town	1 number	-	20	20	40
8	Construction of kitchen at Govt. town hall, Sandur	1 location	-	20	20	40
9	Tree Plantation – distribution of fruit bearing trees to the local villagers	5000 saplings per year	10	10	10	30
10	Infrastructure development such as Laying of CC roads 250 m at Vittal Nagar and 300m at Narsingapura.	2 roads	07	30	-	37
11	Installation of Solar streetlights from Ranjitpura to Narsingapura.	1 road	05	05	-	10
<b>Total</b>						<b>1000</b>

41.2.16 The capital cost of the proposed project is Rs.957.52 Crores and the capital cost for environmental protection measures is Rs. 180.40 crores which is 18.84% of the Project Cost (Rs. 957.52 crores). The annual recurring cost towards the environmental protection measures is proposed as Rs.1.70 Crores. The environmental protection measures are as follows:

Sl. No.	Environment / Social Control Measure	Capital cost (Rs. In Lakhs)	Recurring cost (Per Annum) Rs. In Lakhs
1	<b>Air Pollution Control</b> a) Dry Fog Dust Suppression System (DSDF)	a) 180	60
	<b>Water Pollution Control</b> b) Desliming and densifying cyclones c) Horizontal belt filter d) Tailing Thickener	a) 380 b) 3670 c) 250	20
	<b>Noise Pollution Control</b> a) Rubberized screens	a) 250	25
2	<b>Pollution Monitoring</b> a) 2 nos. Continuous Ambient air Quality Monitoring Station (CAAQMS) b) Regular environmental monitoring studies will be outsourced. c) Procurement of Precession Noise Level Meter	a) 125 b) --- c) 10	10 20 --
	<b>Green Belt</b>	50	20
	<b>Tailing Dam</b>	13125	15
<b>Total</b>		<b>18040</b>	<b>170</b>

- 41.2.17 Proposed green belt will be developed in 11.457 ha which is about 21% of the total project area. A 7.5 m wide green belt, consisting of at least 3 tiers around plant boundary will be developed as green belt and green cover as per CPCB/MoEFCC, New Delhi guidelines. Local and native species will be planted with a density of 500 trees per hectare (area being forest land, gap plantation to increase density of vegetation is proposed @500 trees/ha). Total no. of 5700 saplings will be planted and nurtured in 11.457 hectares in 5 years.
- 41.2.18 It is reported that there is no violation under EIA, 2006/court case/show cause/direction related to the project under consideration.

**Written representations:**

- 41.2.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 02.08.2023 through email dated 02.08.2023 submitted the following information:
- Revised EMP cost showing capital expenditure as updated at para 41.2.16 above.
  - Revised PH action plan as updated at para 41.2.15 above.
  - Revised Brief summary of the proposal
  - Proposal presentation

**Deliberations by the Committee**

- 41.2.20 The Committee noted the following:
1. The instant proposal is for setting up of a new greenfield Iron Ore Screening cum Beneficiation plant for production of 10 million Tons per Annum (MTPA).
  2. M/s. NMDC Limited had initially made online application vide proposal no. IA/KA/IND/61156/2014, dated 21<sup>st</sup> December 2016 along with copies of EIA/EMP report seeking environmental clearance under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposal was considered by the EAC (Industry-1) in its 13<sup>th</sup> meeting held on 24/11/2016 and 19<sup>th</sup> EAC meeting (Industry-I) held during 8<sup>th</sup> – 9<sup>th</sup> June 2017 wherein after detailed deliberations, the committee recommended for grant of environmental clearance after receipt of stage-I clearance of Forestland involved in the project subject to specific conditions along with other conditions.
  3. The EAC noted the following facts reported by M/s. NMDC Limited vide instant application (Proposal no. IA/KA/IND1/436348/2023 dated 15.07.2023):
    - The project has received Stage-1 Forest Clearance on 06.03.2023 and Stage-II Forest Clearance on 10.07.2023 for diversion of 53.67 Ha Forest land (dropping the originally proposed Tailing Dam-II in 22.25 ha from the original proposal of 75.92 Ha) of Forest land in Donimalai forest block for construction of screening cum beneficiation plant, Tailing Dam-I and water & slurry pipeline.
    - As per MOEFCC Gazette notification SO 1886 dated 20/4/2022, all Mineral beneficiation projects have now been categorized as category B requiring EC from

SEIAA. However, as per Ministry's O.M vide IA3-22/10/2022-IA.III (E177258) dated 27/09/2022, the proposal shall continue to be appraised at Central level only.

- The earlier EIA/EMP report prepared in the year 2016 and appraised by EAC (Industry-1) was based on the baseline data generated during Winter season 2014-15 and has now become more than 3 years old. In view of the above, NMDC has generated fresh baseline environmental data during March to May 2023 as per O.M J-11013/12/2013-IA-II(I)(Part) dated 19/6/2014.
  - The updated EIA/EMP Report (July 2023) with baseline environmental data of summer season 2023 has been uploaded in PARIVESH Portal 2.0 on 15.07.2023. Therefore, PP has applied for re-consideration of proposal for Environmental Clearance.
4. Taking the cognizance of the deliberations and recommendations made by the previous Committee, 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.
  5. 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.
  6. 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.
  7. The total revised project area is 53.67 ha which is a forest land for which Stage-I Forest Clearance has been obtained on 06.03.2023 and Stage-II Forest Clearance has been obtained on 10.07.2023 from MOEFCC.
  8. The nearest habitations are Ranjithpura (1.2 km, S) and Donimalai Township (1.7 km, W) from 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.
  9. The water requirement for the project is estimated as 60,984 m<sup>3</sup>/day, out of which 8,787 m<sup>3</sup>/day for fresh water requirement will be obtained from Narihalla dam and the remaining requirement of 52,197 m<sup>3</sup>/day will be met from the recycled water coming from Tailing thickener, Horizontal belt feeder and de-sliming cyclones. The EAC deliberated on the water requirement and found is satisfactory.

10. The Committee has deliberated on the comparison provided for the baseline data collected previously from December 2014 to February 2015 and new baseline data collected from March to May 2023 along with incremental GLC due to the proposed project and observe that there is marginal difference during this period. The EAC is also of the opinion that PP shall strictly implement the mitigation measures as per the submitted action plans to minimise the pollution.
11. The PP has submitted that green belt will be developed in 11.457 ha which is about 21% of the total project area. Total no. of 5700 saplings will be planted and nurtured in 11.457 hectares in 5 years. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that atleast 33% of the project area shall be covered under greenbelt.
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 revised action plan submitted by the proponent to address the issues as per socio economic survey for development of nearby area and found it satisfactory.
14. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
15. 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.
16. 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.
17. 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.

**Recommendations of the Committee:**

41.2.21 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. **The project proponent shall comply all the conditions stipulated in the Stage I and Stage II Forest Clearance obtained under the provision of the Forest (Conservation) Act.**
- 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. The tailings generated by the present plant shall be used by existing beneficiation plant established nearby not later than 10 years of commencement of proposed plant. The PP shall ensure that the tailings are disposed off/stored in such a manner that it does not affect the environment and the population living in the vicinity of the industry. The Project Proponent is advised to go for Paste thickener or similar type of technology as an environmentally friendly approach to ensure higher water recovery percentage.
- v. The PP shall obtain necessary permission pertaining to release of forest land prior to commencement of project.
- vi. The nearest habitations are Ranjithpura (1.2 km, S) and Donimalai Township (1.7 km, W) from 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.
- vii. The water requirement of 60,984 m<sup>3</sup>/day shall be obtained from the recycled water coming from Tailing thickener, Horizontal belt feeder and de-sliming cyclones (52,197 m<sup>3</sup>/day) and Narihalla dam (8,787 m<sup>3</sup>/day) only after obtaining necessary permission from the Competent Authority.
- viii. Three tier Green Belt shall be developed in at least 33% of the project area is a period of 1 year all along 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 Ranjithpura and Donimalai Township. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.



- ix. The PP shall prepare map showing the plantation area along with density. The PP shall carryout the gap plantation to increase the density and shall submit the report to Regional office of the Ministry.
- x. 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 Rs. 10 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xi. The PP shall adopt undertake village adoption programme, prepare and implement the action plan to develop them into model villages.

## **B. General Conditions**

### **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. 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. 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. 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.
- ix. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- x. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xi. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- xii. 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.
- xiii. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
- xiv. 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.
- xv. 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.

### **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. Tailing management plan shall be implemented as included in EIA 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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

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

- i. 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. 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.
- iv. 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.

**\*\*\***

### **Agenda No. 41.3**

#### **41.3 Greenfield Project of Iron Ore Pelletization Plant (9,00,000 TPA), Sponge Iron (2,31,000 TPA), MS Billets (2,04,000 MTPA), Rolling Mill (I , 98,000 TPA) with Captive Power Plant (24 MW), located at Village Kunkuni (Near ROB Railway Station), Tehsil-Kharsia, District- Raigarh, Chhattisgarh by M/s. Saar Steel & Power Private Limited - Consideration of Environmental Clearance.**

**[Proposal No.: IA/CG/IND1/432484/2023; F. No. IA-J-11011/257/2021-IA-II (IND-I)]**

**[Consultant: Grass Roots Research and Creation India (P) Ltd.; Valid upto 02.03.2025]**

- 41.3.1 M/s. Saar Steel & Power Pvt. Ltd has made an online application vide proposal No-IA/CG/IND1/432484/2023, dated 15.07.2023 along with copy of EIA report, 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) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.
- 41.3.2 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/2124/RA 0213; valid upto 02.03.2025, as on August 2, 2023].

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

41.3.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
19.06.2021	39 <sup>th</sup> meeting of the EAC (Industry-I) held during 30 <sup>th</sup> June - 1 <sup>st</sup> July, 2021.	Terms of Reference	15.07.2021	14.07.2025

41.3.4 The project of M/s Saar Steel & Power Pvt. Ltd., located at Village Kunkuni, Tehsil Kharsia, District Raigarh, Chhattisgarh is for setting up of a green field project of Iron Ore Pelletization Plant (9,00,000 TPA), Sponge Iron Plant (2,31,000 TPA), MS billets (2,04,000 TPA), Rolling Mill (1,98,000 TPA) with Captive Power Plant (24 MW) and PGP of 2 x 7000 Nm<sup>3</sup>/hr.

41.3.5 Environmental site settings:

S. No	Particulars	Details	Remarks																					
1	Total Land	Total land acquired for proposed project is 20.28 ha. Details as given below:-	Land use: diverted for Industrial Use.																					
2	Land acquisition details as per MoEF&CC O.M dated 7/10/2014	<ul style="list-style-type: none"> <li>14.119 have been allotted by Chhattisgarh State Industrial Development Corporation Ltd on lease basis for industrial use.</li> <li>3.026 ha land is taken on lease basis from M/s Vedanta Washery &amp; Logistic Solution Pvt Ltd for industrial use.</li> <li>Remaining 3.135 ha land is Government land and its allotment is under process.</li> </ul>	-																					
3	Existence of habitation & involvement of R&R, if any.	R&R is not involved.  <b>Nearest Habitation:</b> Village Kunkuni – 0.25 km	-																					
4	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>S.No</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>21°59'27.21"N</td> <td>83°10'25.16"E</td> </tr> <tr> <td>2</td> <td>21°59'18.22"N</td> <td>83°10'44.37"E</td> </tr> <tr> <td>3</td> <td>21°59'12.50"N</td> <td>83°10'43.63"E</td> </tr> <tr> <td>4</td> <td>21°59'11.13"N</td> <td>83°10'40.88"E</td> </tr> <tr> <td>5</td> <td>21°59'12.36"N</td> <td>83°10'35.46"E</td> </tr> <tr> <td>6</td> <td>21°59'12.65"N</td> <td>83°10'20.32"E</td> </tr> </tbody> </table>	S.No	Latitude	Longitude	1	21°59'27.21"N	83°10'25.16"E	2	21°59'18.22"N	83°10'44.37"E	3	21°59'12.50"N	83°10'43.63"E	4	21°59'11.13"N	83°10'40.88"E	5	21°59'12.36"N	83°10'35.46"E	6	21°59'12.65"N	83°10'20.32"E	-
S.No	Latitude	Longitude																						
1	21°59'27.21"N	83°10'25.16"E																						
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3	21°59'12.50"N	83°10'43.63"E																						
4	21°59'11.13"N	83°10'40.88"E																						
5	21°59'12.36"N	83°10'35.46"E																						
6	21°59'12.65"N	83°10'20.32"E																						
5	Elevation of the project site	253 meter above the mean 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> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Dantur Nala</td> <td colspan="2">Adjacent to project site</td> </tr> <tr> <td>Reservoir</td> <td>2.3 km</td> <td>SW</td> </tr> <tr> <td>Mand River</td> <td>2.8 km</td> <td>NE</td> </tr> <tr> <td>Kurket River</td> <td>8.5 km</td> <td>NE</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Dantur Nala	Adjacent to project site		Reservoir	2.3 km	SW	Mand River	2.8 km	NE	Kurket River	8.5 km	NE	-						
Water Body	Distance	Direction																						
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8	Existence of ESZ /	Nil	-																					

S. No	Particulars	Details	Remarks
	ESA/national park /wildlife sanctuary /biosphere reserve /tiger reserve /elephant reserve etc. if any within the study area	<b>Study Area:</b> Rabo RF: Approx. 5.5 km, N Endu RF: Approx. 8.5 km, NNW Bargarh RF: Approx. 4.5 km, NW Burha Pahar RF : Approx. 1.5 km WSW Basnajhar RF: Approx. 3.5 km, West Rabo RF: Approx. 5.5 km, N	

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

SNo	Facility	Configuration	Total Capacity
1	<b>Iron Ore Pellet Plant</b>	2,727 TPD x 330 Days	<b>9,00,000 TPA</b>
2	<b>Sponge Iron Production</b>		<b>2,31,000 TPA</b>
	No of Rotary Kiln	02 No's	
	Capacity of Rotary Kiln	350 TPD	
	Production capacity per day	700 Ton	
	No. of days operation per day	330	
3	<b>Billets Production</b>		<b>2,04,000 TPA</b>
	No of Induction Furnace	3 No.	
	Melting Capacity of IF	20 Ton Each	
	No of Heat per Day	10	
	Production capacity per day	618 Ton	
	No. of days operation per day	330	
4	<b>Rolling Mill</b>		
	Production capacity per day	600 TPD	<b>1,98,000 TPA</b>
	No. of days operation per day	330	
5	<b>Captive Power Plant</b>		<b>24 MW</b>
	WHRB Boiler ( 2 x 36 TPH) CFBC Boiler (35 TPH)	16 MW 8 MW	
6	<b>Producer Gas Plant</b>	2x7000 Nm <sup>3</sup> /hr	<b>14000 Nm<sup>3</sup>/hr</b>

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

S. No	Raw Material	Quantity (TPA)	Sources	Distance (w.r.t. Plant)	Mode of Transport
<b>A.</b>	<b>Pellet Plant (0.90 MTPA)</b>				
1	Iron ore Concentrate	9,56,250	Barbil, Odisha	300 km	By Rail & Road (through covered trucks)
2	Bentonite	11,813	From local traders, Bhuj, Gujarat	600 km	By Rail & Road (through covered trucks)
3	Lime Powder	5907	Local Market	100-600 km	By Road (through covered trucks)



S. No	Raw Material	Quantity (TPA)	Sources	Distance (w.r.t. Plant)	Mode of Transport
4	Coal for Gasifier	55,556	CG	200-300 km	By Rail & Road (through covered trucks)
5	LDO	1534 KL/A	IOCL	20-30 km	By Road through tanker
6	Anthracite Coal for Pulverized coal injection	14,881	Paradeep.	400-500 km	By Rail & Road (through covered trucks)
<b>B. DRI Plant (0.231 MTPA)</b>					
1	Iron Pellet (100%)	3,34,950	In house	--	Internal Movement
2	Coal Indian	3,00,300	CG	50 km	Road through covered trucks
3	Dolomite	10,395	Local Purchase	20-30 km	Road through covered trucks
<b>C. SMS Unit (0.204 MTPA)</b>					
1	Sponge Iron	1,95,840	In-house	--	Internal Movement
2	Pig Iron	24,480	In-house	100 km	Road through covered trucks
3	MS Scrap	24,480	Local Purchase	100 km	Road through covered trucks
4	Ferro Alloys	271	Local Purchase	50-100 km	By road (through covered trucks)
<b>D. Rolling Mill (0.198 MTPA)</b>					
1.	MS Billets/ Hot Billets	2,01,960	In-house Production	--	Internal Movement
<b>E. Captive Power Plant (24 MW)</b>					
1	Dolochar + Indian Coal	Dolochar- 41,580 Indian Coal - 29,610	Inhouse & Near-by Mines-	50 km	Road through covered conveyor and trucks

41.3.8 The water requirement for the project is estimated as 1776.5 m<sup>3</sup>/day, which will be sourced from ground water. Application for the same has been submitted to competent Authority.

41.3.9 The power requirement for the proposed project is estimated as 38 MW which will be obtained from in house CPP and remaining will be sourced from State Electricity Board.

41.3.10 Baseline Environmental Studies

Period	Pre-Monsoon Season: 1 <sup>st</sup> October 2021 to 31st December 2021
AAQ parameters at 8 Locations	PM <sub>2.5</sub> = 37.3-49.9 µg/m <sup>3</sup> PM <sub>10</sub> = 64.1 – 86.8 µg/m <sup>3</sup> SO <sub>2</sub> = 6.0 -10.8 µg/m <sup>3</sup> NO <sub>2</sub> = 10.3 – 20.7 µg/m <sup>3</sup>

	CO = 350 – 660 µg/m <sup>3</sup>																											
AAQ modelling	Incremental GLCs due to the proposed proposal: PM <sub>10</sub> = 4.5 µg/m <sup>3</sup> PM <sub>2.5</sub> = 2.16 µg/m <sup>3</sup> SO <sub>2</sub> = 8.76 µg/m <sup>3</sup> NO <sub>2</sub> = 7.47 µg/m <sup>3</sup>																											
Ground water quality at 8 locations	pH: 7.43-7.72 Total Hardness: 236-281 mg/l. TDS-670-770mg/l Alkalinity-224-281 mg/l Iron-0.46-0.58 mg/l																											
Surface water quality at 2 locations	pH: 7.22-7.82, DO: 1.1 – 6.7 mg/l. BOD: 3.1 – 10.1 mg/l COD : 19 – 45 mg/l TDS-326-880 mg/l																											
Noise levels	43.2 to 69.5 dBA - day time 35.5 To 58.7 dBA - Night time.																											
Traffic assessment study findings	<p>Traffic study has been conducted at Kharsia -Raigarh Road.</p> <p>Transportation of raw material, fuel &amp; furnished product will be done maximum by road.</p> <p>Existing PCU at Kharsia -Raigarh Road is 158 PCU/hr and existing level of services (LOS) is:</p> <table border="1" data-bbox="438 1120 1428 1272"> <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>Kharsia –Raigarh Road</td> <td>157.4</td> <td>2000</td> <td>0.06</td> <td>A</td> </tr> </tbody> </table> <p>PCU load after proposed Project on Kharsia -Raigarh Road will be 157.4 (Existing)+62(Proposed) = 219.4 say 219 PCU/hr and level of Services (LOS) will be:</p> <table border="1" data-bbox="438 1417 1412 1680"> <thead> <tr> <th rowspan="2">Road</th> <th colspan="3">V (Volume in PCU/hr.)</th> <th rowspan="2">C (Capacity In PCU/hr.)</th> <th rowspan="2">Proposed V/C Ratio</th> <th rowspan="2">LOS</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Kharsia– Raigarh Road</td> <td>157.4</td> <td>62</td> <td>219.4</td> <td>2400</td> <td>0.09</td> <td>A</td> </tr> </tbody> </table> <p>Note: Capacity as per IRC 106:1990 guidelines for capacity for roads.</p> <p><b>Conclusion:</b></p> <p>The modified LOS on Kharsia –Raigarh Road will be remained “A”, i.e. Excellent. Therefore, there will be no change in LOS after completion of the project.</p>	Road	V (Volume in PCU/hr.)	C (Capacity In PCU/hr.)	Existing V/C Ratio	LOS	Kharsia –Raigarh Road	157.4	2000	0.06	A	Road	V (Volume in PCU/hr.)			C (Capacity In PCU/hr.)	Proposed V/C Ratio	LOS	Existing	Proposed	Total	Kharsia– Raigarh Road	157.4	62	219.4	2400	0.09	A
Road	V (Volume in PCU/hr.)	C (Capacity In PCU/hr.)	Existing V/C Ratio	LOS																								
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	Existing	Proposed	Total																									
Kharsia– Raigarh Road	157.4	62	219.4	2400	0.09	A																						
Flora and fauna	No schedule I fauna and endangered Flora reported in study area.																											

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

S. No.	Unit	Waste	Quantity, TPA	Disposal and Management
1	Sponge Iron Plant	DRI Char	50820	100% In power generation
		Ash/Dust from DRI	41580	In civil construction purpose and will be given to Brick manufacturers.
		Kiln Accretion Slag	4,158	Will be utilized in road construction
		Wet scrapper sludge	18,810	Will be used in brick manufacturing unit
2	SMS Unit	Slag	38,760	Slag from SMS will be crushed and metal will be recovered & remaining non-magnetic material will be inert nature and will be used as sub base material in road construction/ used for brick manufacturing/ civil construction works like PCC and wall construction.
3	Rolling Mill	Mill scales	2178	Will be given to Ferro alloy manufacturing units and used in IF.
		End Cutting	1782	Will be recycled to SMS unit
4	Power Plant	Fly Ash	114817	Will be given to cement plants/Brick manufacturers.
5	Pellet Plant	Ash/Dust from	17550	Will be used in brick manufacturing unit
6	Tar from Gasifier	--	1,556 KL/Annum	Sold to oil process manufacturer and bitumen sellers
7	Cinders (Ash)	--	3200	Will be given to cement plants/Brick manufacturers.
8	Phenolic water From PGP	--	40 KLD	Will be burnt in incinerator unit in PGP.

41.3.12 Public Consultation:

Details of advertisement given	04.01.2023
Date of public consultation	20.01.2023
Venue	Project site, Village: Kunkuni, Tehsil: Khasaria, District: Raigarh, Chhattisgarh.
Presiding Officer	Additional Collector
Major issues raised	<ul style="list-style-type: none"> <li>• Development of Nearby Areas</li> <li>• Air Pollution Control Measures</li> <li>• Water Pollution Control Measures</li> <li>• Employment for the locals</li> <li>• Road Safety Measures</li> <li>• Concern about health of local people</li> <li>• Depletion of Ground Water Level &amp; conservation of</li> </ul>

	Ground water • Women Empowerment
--	-------------------------------------

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

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1 <sup>st</sup> Year (2023-24)	2 <sup>nd</sup> Year (2025-26)
1.	Development of Nearby Areas	PP will Formulate village development program for development in village <b>Kunkuni and Chaple</b> under consultation with local panchayat and district administration for need-based community development activities which would be in addition to the development plans being undertaken by state and central government.	A budget of <b>200 lakhs</b> has been proposed.	<b>120 Lakhs</b> i. A budget of <b>50 lakhs</b> has been proposed for construction and maintainance of village roads.  ii. A budget of Rs 30 <b>Lakhs</b> has been proposed for providing Drinking water facility.  iii. A budget of Rs. <b>20 lakhs</b> has been proposed for installation of Solar Lights.  iv. A community hall will be constructed in village Kunkuni in consultation with local authorities. Budget of <b>Rs. 30 lakhs</b> has been proposed.	<b>80 Lakhs</b> i. A budget of <b>50 lakhs</b> has been proposed for construction and maintainance of village roads.  ii. A budget of Rs 30 <b>Lakhs</b> has been proposed for providing Drinking water facility.  iii. A budget of Rs. <b>20 lakhs</b> has been proposed for installation of Solar Lights.
2.	Air Pollution Control Measures	PP has proposed to install two Continuous Air Quality Monitoring system in Village Kunkuni and Chaple.  Tree plantation (6000 trees) will be done in nearby	<b>160 Lakhs</b>  CAQMS :- 2 x 40 Lakhs = <b>80 Lakhs</b>  <b>60 Lakhs</b> (1000 per Tree)  <b>20 Lakhs</b>	<b>90 Lakhs</b>  <b>40 Lakhs</b> for CAQMS in Kunkuni Village.  <b>40 Lakhs</b> (For 4000 Trees in Village Kunkuni and Chaple)	<b>70 Lakhs</b>  <b>40 Lakhs</b> for CAQMS in Kunkuni Village.  <b>20 Lakhs</b> (For 2000 Trees in Village Nawagaon)

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1 <sup>st</sup> Year (2023-24)	2 <sup>nd</sup> Year (2025-26)
		villages Kunkuni, Chaple and Nawagaon.  Water sprinkling on road for air dust dispersion control in near by villages in consultation with the authority.	(Installation of water sprinklers)	<b>10 Lakhs</b>	<b>10 Lakhs</b>
3.	Water Pollution Control Measures	Community toilets (separate for male and female) will be constructed in village Kunkuni, Chaple and Bade Dumarpali.  Two ponds (in village kunkuni and Chaple) will be adopted and developed by the proponent. Company will take care of the maintenance.	<b>210 Lakhs</b>  <b>50 Lakhs</b> (Construction of 20 Toilets)  <b>160 Lakhs</b> (Development and beautification cost of one pond :- 80 Lakhs)	<b>110 Lakhs</b>  <b>30 Lakhs</b> (Construction of 12 Toilets)  <b>80 Lakhs</b> (Development and Beautification of pond near Chaple Mela Ground)	<b>100 Lakhs</b>  <b>20 Lakhs</b> (Construction of 8 Toilets)  <b>80 Lakhs</b> (Development and Beautification of pond near Overhead water tank, Kunkuni)
4.	Employment for the locals	Willing and employable youths will be identified in consultation with gram panchayat of Kunkuni, Chaple, Bade Dumarpali and Nawagaon. They will be provided training for trades namely electrician, fitters, welders, painters, and civil construction work, etc.. After successful completion of	<b>50 Lakhs</b>  Stipend – 20Lakh (Rs. 50000/- stipend per year to 40 persons for 1 year)  ITI Fee – 30 Lakhs (Rs. 60000/- yearly fee for 50 persons for 1 year)	<b>30 Lakhs</b>	<b>20 Lakhs</b>

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1 <sup>st</sup> Year (2023-24)	2 <sup>nd</sup> Year (2025-26)
		training, the youths will be offered employment in company in suitable grade.			
5.	Road Safety Measures	<p>PP will install two traffic signal lights at Bayang Chowk, and New Raigarh Chowk.</p> <p>Traffic Awareness programme will be conducted in villages Kunkuni, Chaple and Nawagaon.</p> <p>Helmets and first aid kit will be distributed to villagers.</p>	<p><b>40 Lakhs</b></p> <p><b>20 Lakhs (10 lakhs per signal lights)</b></p> <p><b>15 Lakhs</b></p> <p><b>5 Lakhs (Distribution of helmets and First aid kits to 500 people)</b></p>	<p><b>23 lakhs</b></p> <p><b>10 lakhs</b></p> <p><b>10 Lakhs</b></p> <p><b>3 Lakhs (Distribution of helmets and First aid kits to 300 people)</b></p>	<p><b>17 Lakhs-</b></p> <p><b>10 lakhs</b></p> <p><b>5 Lakhs</b></p> <p><b>2 Lakhs (Distribution of helmets and First aid kits to 200 people)</b></p>
6.	Concern about health of local people	<p>Health checkup and distribution of medicines in Villages Kunkuni, Chaple, Nawagaon and Bade Dumarपाली.</p> <p>Arrangement of 2 Modern Ambulance with Life Support system with necessary Medical Staff in Government Hospital, Jabalpur and providing two super speciality beds at Community health centre, Chaple.</p>	<p><b>52 Lakhs</b></p> <p><b>7 Lakhs</b> Conducting Health checkup:- <b>Rs. 5 Lakhs</b></p> <p>Providing Medicines and other health facilities :-<b>Rs. 2 Lakhs</b></p> <p><b>45 Lakhs</b> Arrangement of Ambulance in GH, Jabalpur :- <b>40 Lakhs</b></p> <p>Providing Super Speciality beds in Community Health Centre, Chaple :- <b>5 Lakhs</b></p>	<p><b>43.5 Lakhs</b></p> <p><b>3.5 Lakhs</b> Health checkup and distribution of medicines in Villages Kunkuni and Chaple,</p> <p><b>40 Lakhs</b> Arrangement of Ambulance in GH, Jabalpur</p>	<p><b>8.5 lakhs</b></p> <p><b>3.5 Lakhs</b> Health checkup and distribution of medicines in Villages Bade Dumarपाली and Nawagaon,</p> <p><b>5 Lakhs</b> Providing Super Speciality beds in Community Health Centre, Chaple</p>

S. No.	Issue Raised during PH	Physical activity and action plan	Budget	1 <sup>st</sup> Year (2023-24)	2 <sup>nd</sup> Year (2025-26)
7.	Depletion of Ground Water Level	Rainwater Harvesting structures will be constructed in Village Kunkuni and Chaple.  Awareness programme for conservation of water will be conducted.	<b>30 Lakhs</b>  <b>24 Lakhs</b> has been proposed for construction of RWH structure <b>6 Lakhs</b> has been proposed for awareness programme for conservation of water.	<b>15 Lakhs</b>	<b>15 Lakhs</b>
8.	Women Empowerment	Training for Self-Income Generation will be provided to women of local area.	<b>20 Lakhs</b>  Training Fee – 16 Lakhs (20000/- yearly fee for 80 women)  Equipments – 4 Lakhs	<b>10 Lakhs</b>	<b>10 Lakhs</b>
<b>Total</b>			<b>762 Lakhs</b>	<b>441.5 Lakhs</b>	<b>320.5 Lakhs</b>

41.3.13 The capital cost of the project is INR 385 Cr and the capital cost for environmental protection measures is proposed as INR 24.42 Cr. The annual recurring cost towards the environmental protection measures is proposed as Rs 3.593Cr says 3.6 Cr. The total employment generation from the proposed project is 400. The details of cost for environmental protection measures is as follows:

S. No.	Activity	Capital Cost (In Cr)	Recurring expenses proposed/ annum (In Rs. Cr )
<b>1</b>	<b>Air Emission Management</b>		
	➤ Electrostatic Precipitators (ESP)	7	2
	➤ Fume Extraction system with bag filters	2	
	➤ Stacks	1	
	➤ Water Sprinklers	0.5	
<b>2</b>	<b>Wastewater Management</b>		
	➤ for ETP & STP	1	0.25
	➤ for Garland drains	0.15	
<b>3</b>	<b>Solid waste Management</b>		
	➤ Fly Ash Handling & disposal	1.0	0.50
	➤ Slag Handling & Disposal	0.5	
	➤ Hazardous waste storage &	0.20	

S. No.	Activity	Capital Cost (In Cr)	Recurring expenses proposed/ annum (In Rs. Cr )
	disposal		
	➤ Municipal solid waste storage & disposal	0.15	
4	Greenbelt development, Land scaping, Noise Management, RWH etc.	0.50	0.10
5	Fire Safety Systems	0.50	0.10
6	Environmental Monitoring		
	➤ AAQMS	1.0	0.20
	➤ CEMS	1.0	0.25
	➤ Third party Monitoring	--	0.093
7	Occupational Health & Safety		
	➤ PHC	0.10	
	➤ PPEs	0.10	0.10
	➤ Ambulance (additional)	0.10	
8	<b>Public hearing Budget</b>	7.62	--
	<b>Total</b>	<b>24.42</b>	<b>3.593</b>

41.3.14 Proposed greenbelt will be developed in 6.68 ha which is about 33% of the total project area. 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 20938 nos. of saplings will be planted and nurtured in 6.68 ha.

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

**Written representations:**

41.3.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 02.08.2023 through email dated 02.08.2023 submitted the following information:

Sl. No.	Issues Raised	Reply by PP
1.	PP shall submit revised Contour Plan.	Updated Contour plan is submitted.
2.	PP shall submit raw material details for steel plant.	Raw material details are submitted.
3.	PP shall submit details of water requirement per tons of steel production.	About 2.8 KL water will be required per ton of steel Production.
4.	PP shall submit undertaking regarding the following points- 1. Provide of 2 Nos. of Mobile Water sprinklers to control fugitive dust emission in Plant and nearby villages.	An undertaking regarding all the point is submitted.



Sl. No.	Issues Raised	Reply by PP
	2. Installation of CO <sub>2</sub> sensors within the plant. 3. Provide double layer Acoustic barrier towards school and nearby village. 4. Development 15 m greenbelt towards village.	

### **Deliberations by the Committee**

41.3.17 The Committee noted the following:

1. The instant proposal is for setting up of a green field project of Iron Ore Pelletization Plant (9,00,000 TPA), Sponge Iron Plant (2,31,000 TPA), MS billets (2,04,000 TPA), Rolling Mill (1,98,000 TPA) with Captive Power Plant (24 MW) and PGP of 2 x 7000 Nm<sup>3</sup>/hr.
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 20.28 ha. 14.119 have been allotted by Chhattisgarh State Industrial Development Corporation Ltd on lease basis for industrial use. 3.026 ha land is taken on lease basis from M/s Vedanta Washery & Logistic Solution Pvt Ltd for industrial use. Remaining 3.135 ha land is Government land and its allotment is under process.
6. The nearest habitation is Village Kunkuni which is at a distance of 0.25 km from 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. Dantur Nala is adjacent to the project site. Also, there are other water bodies such as reservoir and rivers within the study area of 10 km of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
8. The water requirement for the project is estimated as 1776.5 m<sup>3</sup>/day, which will be sourced from ground water. The EAC deliberated on the water requirement and is of the opinion that necessary permissions shall be obtained from the Competent Authority prior

to commencement of project. PP shall explore the possibility to shift to alternate source of water to reduce dependency on ground water.

9. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
10. The PP has submitted that proposed greenbelt will be developed in 6.68 ha which is about 33% of the total project area. Total 20938 nos. of saplings will be planted and nurtured in 6.68 ha. The EAC deliberated on the greenbelt action plan and found it satisfactory.
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 (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

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

- 41.3.18 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. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. PP shall complete acquisition of balance project area and conversion for industrial purpose prior to commencement of project.
- iv. The nearest habitation is Village Kunkuni which is at a distance of 0.25 km from 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. Dantur Nala is adjacent to the project site. Also, there are other water bodies such as reservoir and rivers within the study area of 10 km of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- vi. The water requirement of 1776.5 m<sup>3</sup>/day proposed to be obtained from ground water after obtaining necessary permission from the Competent Authority. PP shall explore the possibility to shift to alternate source of water to reduce dependency on ground water.
- vii. Three tier Green Belt shall be developed and maintained in at least 33% of the project area in a period of 1 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 Kunkuni 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 Rs. 7.62 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- ix. PP shall undertake village adoption programme, prepare and implement the action plan to develop them into model villages.

## **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. 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. 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 04 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. 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.
- xx. 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.
- xxi. Online stack monitoring system for IF and RHF shall be installed and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.
- xxii. Low NOx Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.

### **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. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- x. 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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- iv. Practice hot charging of slabs and billets/blooms as far as possible.
- v. Ensure installation of regenerative type burners on all reheating furnaces.
- vi. The project proponent shall provide waste heat recovery system on the DRI Kilns.
- vii. The dolochar generated shall be used for power generation.

- viii. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- ix. 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 install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. 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 approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. 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.

**\*\*\***

#### Agenda No. 41.4

#### **41.4 Establishment of Ferro Alloys Plant (Greenfield Project) for production of 32,400 TPA Ferro Alloys (Silico Manganese) through installation of 2x9 MVA Submerged Arc Furnaces by M/s Om Shivay Steel & Power Pvt. Ltd., located at Plot No. IVD-6 (P), Bokaro Industrial Area Balidih, Village: Gorabali, District: Bokaro, Jharkhand- Consideration of Environmental Clearance.**

**[Proposal No.: IA/JH/IND1/435689/2023; F. No. IA-J-11011/484/2021-IA-II (IND-I)]**  
**[Consultant: Vardan Environet; Valid upto 04.05.2026]**

41.4.1 M/s Om Shivay Steel & Power Pvt. Ltd. has made online application vide proposal no. IA/JH/IND1/435689/2023 dated 13.07.2023 along with copy of EIA report, 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.

41.4.2 Name of the EIA consultant: M/s. Vardan Environet [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2326/RA 0284; valid upto 04.05.2026, as on August 2, 2023].

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

41.4.3 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>
20.11.2021	52 <sup>nd</sup> meeting of the REAC (Industry-I) held on 27 <sup>th</sup> and 28 <sup>th</sup> January, 2022	Terms of Reference	14.02.2022	13.02.2026

41.4.4 The project of M/s Om Shivay Steel & Power Pvt. Ltd. (OSSPPL) located in Plot No-IVD-6 (P), Bokaro Industrial Area Balidih, Village: Gorabali, District: Bokaro, Jharkhand is for setting up of new project for production of 0.0324 Million Tons Per Annum (MTPA) Silico Manganese (Si-Mn) by installing 2x9MVA Submerged Arc Furnaces.

41.4.5 Environmental site settings:

S. No.	Particulars	Details	Remarks																																	
1.	Total land	1.618Ha (4.0Acres) [Private: 1.618 Ha]	Landuse: Industrial																																	
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Land Area of 1.618Ha. has been allocated by JIADA, Bokaro Region to M/s OSSPPL on lease for a period of 30 years vide allotment order No. LA/BO/SW/00664/2020 dated 10.07.2020 and physical possession of allotted land has been taken on 31.07.2020.	--																																	
3.	Existence of habitation & involvement of R&R, if any.	R&R is 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>Gorabali</td> <td>50 m</td> <td>SE</td> </tr> </tbody> </table>	Habitation	Distance	Direction	Gorabali	50 m	SE	--																											
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4.	Latitude and Longitude of all corners of the project site.	<table border="1"> <thead> <tr> <th>Point</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>23°41'24.10"N</td> <td>86°3'34.21"E</td> </tr> <tr> <td>2</td> <td>23°41'21.88"N</td> <td>86°3'27.45"E</td> </tr> <tr> <td>3</td> <td>23°41'20.40"N</td> <td>86°3'26.90"E</td> </tr> <tr> <td>4</td> <td>23°41'19.94"N</td> <td>86°3'29.79"E</td> </tr> <tr> <td>5</td> <td>23°41'20.47"N</td> <td>86°3'30.38"E</td> </tr> <tr> <td>6</td> <td>23°41'20.91"N</td> <td>86°3'31.87"E</td> </tr> <tr> <td>7</td> <td>23°41'20.73"N</td> <td>86°3'33.42"E</td> </tr> <tr> <td>8</td> <td>23°41'21.13"N</td> <td>86°3'33.71"E</td> </tr> <tr> <td>9</td> <td>23°41'20.81"N</td> <td>86°3'34.82"E</td> </tr> <tr> <td>10</td> <td>23°41'21.70"N</td> <td>86°3'35.14"E</td> </tr> </tbody> </table>	Point	Latitude	Longitude	1	23°41'24.10"N	86°3'34.21"E	2	23°41'21.88"N	86°3'27.45"E	3	23°41'20.40"N	86°3'26.90"E	4	23°41'19.94"N	86°3'29.79"E	5	23°41'20.47"N	86°3'30.38"E	6	23°41'20.91"N	86°3'31.87"E	7	23°41'20.73"N	86°3'33.42"E	8	23°41'21.13"N	86°3'33.71"E	9	23°41'20.81"N	86°3'34.82"E	10	23°41'21.70"N	86°3'35.14"E	--
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5.	Elevation of the project site	252 m above mean sea level	--																																	
6.	Involvement of Forest land, if any	No involvement of Forest Land	--																																	
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<b>Project Site:</b> No water bodies within the project site <b>Study area:</b> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Garga Dam</td> <td>4.74km</td> <td>South</td> </tr> <tr> <td>Khanjo River</td> <td>4.92km</td> <td>West</td> </tr> <tr> <td>Damodar River</td> <td>6.0km</td> <td>NE</td> </tr> <tr> <td>Garga River</td> <td>7.45km</td> <td>SSW</td> </tr> </tbody> </table>	Water Body	Distance	Direction	Garga Dam	4.74km	South	Khanjo River	4.92km	West	Damodar River	6.0km	NE	Garga River	7.45km	SSW	--																		
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8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere	As per DFO, Bokaro Forest Division, Bokaro Ir no. 2069 dated 28.07.2021 stating there is no Biosphere Reserve / National Park / Wildlife	--																																	

S. No.	Particulars	Details	Remarks
	reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Sanctuary/Ecological sensitive area within 10 km radius. Few Protect Forests are present in the study area.	

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

S No	Proposed Units	Configuration	Final Production Capacity	Product
1	Submerged Arc Furnaces	2x9 MVA	32,400 TPA	Ferro Alloys (Si-Mn)

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

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (km)	Mode of Transport
1.	Mn Ore	64,800	MOIL, Nagpur, Maharashtra	870	<b>Rail</b> And 4.2 kms by Road (Bokaro Steel City Railway Station)
2.	Coke	25,920	Dhanbad /Ramgarh, Jharkhand	59/71	Road
3.	Dolomite	9,720	Bhutan	Approx. 950kms	
4.	Quartz	6,480	Raigarh, Chattisgarh	460 kms	
5.	High Fe-Mn Slag	12,960	Mijhim, Jharkhand or Durgapur, West Bengal	168 kms	
6.	Electrode Paste	650	Giridih, Jharkhand / Durgapur, West Bengal	88 kms /168kms	
<b>Total</b>		<b>1,20,530</b>			
7.	HSD	0.3 KLD Emergency Power	Local Market, Bokaro	-	-

41.4.8 The makeup water requirement for the proposed project is estimated as 48.0 m<sup>3</sup>/day and will be met from the Garga Dam. The permission of drawl of 50 m<sup>3</sup>/day surface water is obtained from Drinking and Sanitation Sub-Division, Bokaro vide Ir.no. 10 dated 12.01.2022.

41.4.9 The power requirement for the project is estimated as 18.5 MW which will be sourced from power utility company Damodar Valley Corporation (DVC).

41.4.10 Baseline Environmental Studies

Period	1 <sup>st</sup> October 2021 to 31 <sup>st</sup> December 2021
AAQ parameters	PM <sub>2.5</sub> : 19.9 µg/m <sup>3</sup> to 41.9µg/m <sup>3</sup> PM <sub>10</sub> : 55.9µg/m <sup>3</sup> to 80.9µg/m <sup>3</sup>

Period	1 <sup>st</sup> October 2021 to 31 <sup>st</sup> December 2021																								
at 8 Locations (min and max)	SO <sub>2</sub> : 7.8µg/m <sup>3</sup> to 19.8µg/m <sup>3</sup> NO <sub>2</sub> : 14.1µg/m <sup>3</sup> to 31.4µg/m <sup>3</sup> CO: 0.52mg/m <sup>3</sup> to 1.12mg/m <sup>3</sup>																								
Incremental level	PM <sub>10</sub> – 0.011 µg/m <sup>3</sup> PM <sub>2.5</sub> – 0.004 µg/m <sup>3</sup> SO <sub>2</sub> – 0.059 µg/m <sup>3</sup> NO <sub>x</sub> – 0.005 µg/m <sup>3</sup> CO – 0.0000093 mg/m <sup>3</sup> (All maximum incremental values are at Village Gorabali at a distance of 0.43 km)																								
Ground water quality at 8 locations	pH -7.59 to 7.75, Total Hardness -204.16 to 287.0mg/l, Total Dissolved Solids – 409.0 to 498.0 mg/l, Chlorides – 60.47 to 88.23 mg/l, Fluoride- 0.39 to 0.64 mg/l, Zinc – 1.21 to 1.42 mg/l, Fe – 0.17 to 0.3 mg/l																								
Surface water quality at 8 locations	pH – 7.61 to 7.80, Dissolved Oxygen – 6.5 to 6.8 mg/l, BOD – 10.00 to 15.00 mg/l, COD – 38.0 to 58.0 mg/l, TSS- 51.0 to 70.0 mg/l																								
Noise levels Leq (Day and Night)	49.7 to 53.7dB(A) for day time and 39.5 to 43.9 dB(A) for night time																								
Traffic assessment study findings	<ul style="list-style-type: none"> <li>Traffic study has been conducted at NH-320 which is approximately at 2.32km from the project site.</li> <li>Transportation of Raw material, Fuel and Finished product will be done 46.23% by Road</li> <li>Existing PCU is 3260 PCU/day on NH-320 and existing level of service (LOS) is B</li> </ul> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-320</td> <td>3260</td> <td>15000</td> <td>0.22</td> <td>B</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>PCU load after proposed project will be 3320 PCU/day (Existing 3260 + Addl. 60) for NH-320 and level of service (LOS) will be;</li> </ul> <table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-320</td> <td>3320</td> <td>15000</td> <td>0.22</td> <td>B</td> </tr> </tbody> </table> <p><i>*Note: Capacity as per IRC 64: 1990, Guide line for capacity for roads in Rural Areas</i> Level of Service will be “B” i.e. Very Good for NH-320 including additional traffic due to proposed project.</p>					Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS	NH-320	3260	15000	0.22	B	Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS	NH-320	3320	15000	0.22	B
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NH-320	3320	15000	0.22	B																					
Flora and fauna	There is no Schedule-1 Species of Fauna in the Study area																								

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

Sl. No	Type of Waste	Source	Quantity Generated	Mode of Treatment	Disposal Practice
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			<b>(TPA)</b>		
1.	Si Mn Slag	Submerged Arc Furnace	25,920	--	Shall be given to nearby building contractor to be used as filling material for construction
2.	Si-Mn Bag Filter Dust	Submerged Arc Furnace	650	--	Will be recycled in the process in form of cakes

41.4.12 Public Consultation:

Details of advertisement given	21.07.2022
Date of public consultation	25.08.2022
Venue	BIADA Bhawan, Balidih, Bokaro Industrial Area, Dist: Bokaro, Jharkhand
Presiding Officer	Additional Municipal Commissioner, Chas, Bokaro
Major issues raised	<ul style="list-style-type: none"> <li>• Employment for the local people,</li> <li>• Prevention of Pollution,</li> <li>• development of schools,</li> <li>• Health care facility,</li> <li>• Drinking water facility,</li> <li>• Electricity and road development</li> </ul>

**Action plan as per MoEFCC O.M. dated 30/09/2020**

S.No.	Action Plan Proposed to Address the issues raised during the Public Hearing	Target of Implementation of Action Plan (Timeline) with year wise expenditure		Total Expenditure Rs.
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
1.	2 No of Ambulance with life supporting facilities i.e. Oxygen supply unit with necessary accessories and Nebulizer along with stretchers for the patient will be provided for villagers of Gorabali and Suiadih	Rs. 12.0 Lakhs (1 No. of Ambulance equipped with necessary accessories in Gorabali)	Rs. 12.0 Lakhs (1 No. of Ambulance equipped with necessary accessories in Suiadih)	Rs. 24.0 Lakhs
2.	Installation of 1 no. of Hand Pump in the Shiva temple courtyard	Rs. 0.30 Lakhs	--	Rs. 0.30 Lakhs
3.	Maintenance of existing 1.40km BIADA road of Balidih village.	--	8.40 Lakhs	8.40 Lakhs
4.	Renovation of school in Gorabali village will done which will involve activities like providing necessary furniture, Computers & accessories, development of playground, and Painting/Coloring of building, etc	Rs. 14.0 Lakhs	--	14.0Lakhs

S.No.	Action Plan Proposed to Address the issues raised during the Public Hearing	Target of Implementation of Action Plan (Timeline) with year wise expenditure		Total Expenditure Rs.
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	
5.	Adoption of Chirkoniya Pond in the West side of Project site	Rs. 0.75 Lakhs (Cleaning of Pond)	Rs. 0.75 Lakhs (Cleaning of Pond)	Rs. 1.5 Lakhs
<b>Total Cost to address the issues raised during public hearing</b>		<b>Rs. 27.05 Lakhs</b>	<b>Rs. 21.15Lakhs</b>	<b>Rs. 48.20Lakhs</b>

41.4.13 The capital cost of the proposed project is Rs. 46.19 Crs. and the capital cost for the environmental protection measures is proposed as Rs. 2.82Crs (including the cost to address the issues raised in Public Hearing). The annual recurring cost towards the environment protection measures is proposed as Rs. 0.269Crs. The employment generation form the proposed expansion is 150. The detail of the cost of the environmental protection measures is as follows:

Sl. No.	Environmental Protection Measures	Capital Cost Rs. In lakhs	Recurring Cost Rs. In lakhs/year
<b>1</b>	<b><i>Air Pollution Control Measures</i></b>		
	2 no. of Cyclone cum Spark arrestor with Pulsejet type Bag Filter with proposed 2x9MVA Submerged Arc Furnaces	50.0	6.2
	Water Sprinkling System for dust control	10.0	1.0
	Fixed type Rain gun / Water Sprinklers along the plant boundary (in East Side) (Rain Gun / Sprinklers=15 nos. Rs. 368,570 + GI Pipelines & Fittings Rs. 131,250)	5.0	1.0
	<b>Sub Total (A)</b>	<b>65.0</b>	<b>8.2</b>
<b>2</b>	<b><i>Water Pollution Control Measures</i></b>		
	Rainwater Harvesting System	5.0	0.20
	Neutralization pit (1 Nos.)	3.0	0.50
	Water Treatment Plant	2.0	0.50
	Sewage Treatment Plant (STP)	5.0	0.50
	<b>Sub Total (B)</b>	<b>15.0</b>	<b>1.70</b>
<b>3.</b>	<b><i>Noise Pollution Control Measures</i></b>		
	Acoustic Enclosure or Separate housing for DG Set and Compressor	10.0	1.5
	<b>Sub Total (C)</b>	<b>10.0</b>	<b>1.5</b>
<b>4.</b>	<b><i>Storage and Solid Waste Management</i></b>		
	RCC flooring for storage raw materials and storage of Bag filter Dust, to avoid leaching	5.0	0.5
	Concrete platform with bund wall and oil collection system for storage of HSD, and other Oil Drums and Used Oil	2.0	0.5
	<b>Sub Total (D)</b>	<b>7.0</b>	<b>1.0</b>
<b>5.</b>	<b><i>Environment Monitoring Program</i></b>		
	Installation of 1 no. of CAAQMS & 1 no. of CEMS and PTZ Camera	120.0	4.20

<b>Sl. No.</b>	<b>Environmental Protection Measures</b>	<b>Capital Cost Rs. In lakhs</b>	<b>Recurring Cost Rs. In lakhs/year</b>
	Cost of monitoring of environmental parameters for Ambient Air, Fugitive Emission, Work-Zone Emission, Stack emission, Effluent, Ground water Ambient & work Zone Noise Levels monitoring including efficiency monitoring of pollution control	-	3.84
	Monitoring of Health of Workers	-	1.0
	Monitoring of Performance of Pollution Control Equipment	-	0.75
	<b>Sub Total (E)</b>	<b>120.0</b>	<b>9.79</b>
<b>6.</b>	<b>Occupational Health &amp; Safety</b>	<b>10.0</b>	<b>3.50</b>
<b>7.</b>	<b>Greenbelt Development and Landscaping</b>	<b>6.408</b>	<b>1.2</b>
	<b>Total EMP Cost</b>	<b>233.408</b>	<b>26.89</b>
<b>8.</b>	<b>Activities to address PH issues</b>		
<i>a.</i>	Renovation of school in Gorabali Village which includes activities like providing necessary furniture, computers & accessories, development of playground and painting/coloring of building, etc.	14.0	-
<i>b.</i>	Providing 2 No of Ambulance with life supporting facilities i.e. Oxygen supply unit with necessary accessories and Nebulizer along with stretchers for the patient will be provided for villagers of Gorabali and Suiadih.	24.0	-
<i>c.</i>	Installation of 1 no. of Hand Pump in the Shiva temple courtyard.	0.30	-
<i>d.</i>	Maintenance of existing 1.40km biada road of Balidih village.	8.40	-
<i>e.</i>	Adoption of Chirkoniya Pond in present in West side of project site.	1.5	-
	<b>Total</b>	<b>48.20</b>	<b>-</b>
	<b>Total EMP Budget ( including budget for Activities to address PH issues)</b>	<b>281.608</b>	<b>26.89</b>

41.4.14 Proposed greenbelt will be developed in 0.534 Ha which is about 33% of the total project area. Thus total of 0.534Ha area (33% of total project area) will be developed as greenbelt. A 9m 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 tree density of 2500 trees per hectare. Total number of 1602 saplings will be planted and nurtured in 0.534Ha. area in 2 years. Budget of Rs. 6.408 Lakhs and Yearly budget for maintenance of Rs 1.2 Lakhs has been allocated for greenbelt development.

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

**Written representations:**



41.4.16 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 04.08.2023 submitted the Revised CO modelling considering the worst case scenario.

### **Deliberations by the Committee**

41.4.17 The Committee noted the following:

1. The instant proposal is for setting up of new project for production of 0.0324 Million Tons Per Annum (MTPA) Silico Manganese (Si-Mn) by installing 2x9MVA Submerged Arc Furnaces.
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 1.618 ha. Land has been allocated by JIADA, Bokaro Region to M/s OSSPPL on lease for a period of 30 years vide allotment order No. LA/BO/SW/00664/2020 dated 10.07.2020 and physical possession of allotted land has been taken on 31.07.2020.
6. The nearest habitation is Gorabali village which is at a distance of 0.05 km in South-East direction of the project site and Balidih Village. 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 water requirement for the proposed project is estimated as 48 m<sup>3</sup>/day, which will be met from Garga Dam. The EAC deliberated on the water requirement and is of the opinion that necessary permissions shall be obtained from the Competent Authority prior to commencement of project.
8. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.

9. The PP has submitted that proposed greenbelt will be developed in 0.534 Ha which is about 33% of the total project area. Thus total of 0.534Ha area (33% of total project area) will be developed as greenbelt. Total number of 1602 saplings will be planted and nurtured in 0.534 Ha. area in 2 years. Budget of Rs. 6.408 Lakhs and Yearly budget for maintenance of Rs 1.2 Lakhs has been allocated for greenbelt development. The EAC deliberated on the greenbelt action plan and found it satisfactory.
10. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
11. 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.
12. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
13. 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.
14. 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.
15. 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.

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

- 41.4.18 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. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. The nearest habitation is Gorabali village which is at a distance of 0.05 km in South-East direction of the project site and Balidih Village. 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.
- iv. The water requirement of 48 m<sup>3</sup>/day shall be sourced from Garga Dam after obtaining necessary permission from the Competent Authority. No ground water abstraction is permitted.
- v. Three tier Green Belt shall be developed and maintained in at least 33% of the project area in a period of 1 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 30-meter-wide 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 Balidih & Gorabali village. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- vi. 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 Rs. 48.20 Lakhs shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- vii. PP shall undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- viii. Submerged Arc Furnace shall be of closed type and with fourth hole extraction system.

## **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. 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. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (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. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- 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. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.
  - xix. The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.
  - xx. The 4<sup>th</sup> hole extraction system shall be provided in the Sub Merged Arc Furnaces.
  - xxi. 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.
  - xxii. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

### **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.

#### **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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

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

- i. 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 install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. 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, SO<sub>2</sub>, NO<sub>x</sub> (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. 41.5**

#### **41.5 Establishment of Ferro Alloys Plant for production of 62,700 TPA Ferro Alloys (Si-Mn 44550 TPA or Fe-Mn 62700 TPA or Fe-Si 21600 TPA) through 3x9 MVA submerged arc furnace and installation of 25 TPH Jigging plant for recovery of Ferro Alloys by M/s Digvijay Ferromet Pvt. Ltd., located at Bokaro Industrial Estate, Balidih, Bokaro, Jharkhand-Consideration of Environmental Clearance**

**[Proposal No.: IA/JH/IND1/435555/2023; F. No. IA-J-11011/99/2022-IA-II (IND-I)]**  
**[Consultant: M/s. Vardan Environet; Valid up to 04.05.2026]**

- 41.5.1 M/s Digvijay Ferromet Private Limited has made online application vide proposal no. IA/JH/IND1/435555/2023 dated 15.07.2023 along with copy of EIA report, 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.

41.5.2 Name of the EIA consultant: M/s. Vardan Environet [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2326/RA 0284; valid upto 04.05.2026, as on August 2, 2023].

**Details submitted by Project proponent**

41.5.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord	ToR Validity
12.03.2022	Standard ToR was issued by MoEF&CC	Standard Terms of Reference	12.04.2022	11.04.2026

41.5.4 The project of M/s Digvijay Ferromet Private Limited located in Plot No. IV/A-4(P)2, Bokaro Industrial Estate, District Bokaro, Jharkhand is for setting up of 3x9MVA Submerged Arc Furnaces for production of 62,700 TPA (max.) Ferro Alloys (Si-Mn 44,550 TPA (or) Fe-Mn 62,700TPA (or) Fe-Si 21,600 TPA or in combination of any) with 25 TPH Jigging Plant.

41.5.5 Environmental site settings:

Sl. No	Particulars	Details			Remarks
1.	Total land	3.24 Ha (8.0 Acres)			Land use: Industrial
2.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	The land is leased from Jharkhand Industrial Area Development Authority (JIADA) and the land is in Industrial Estate.			--
3.	Existence of habitation & involvement of R&R, if any.	<b>Existence of Habitation</b>			R&R is not applicable
		<b>Project Site – Nil</b>			
		<b>Study Area</b>			
		<b>Nearest Habitation</b>	<b>Distance</b>	<b>Direction</b>	
		Balidih	0.72 Km	South	
		Gorabali	1.5 Km	-	
4.	Latitude and Longitude of all corners of the project site.	<b>Point</b>	<b>Latitude</b>	<b>Longitude</b>	--
		1	23°42'8.950"N	86°3'30.569"E	
		2	23°42'8.992"N	86°3'36.060"E	
		3	23°42'2.666"N	86°3'38.553"E	
		4	23°42'2.212"N	86°3'32.991"E	
5.	Elevation of the project site	252 m above mean sea level			--
6.	Involvement of Forest land, if any	No involvement of Forest Land			--
7.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the	<b>Project Site:</b> No water bodies within the project site			--
		<b>Study area</b>			
		<b>Water Body</b>	<b>Distance</b>	<b>Direction</b>	

Sl. No	Particulars	Details			Remarks
	project site as well as study area	Garga Reservoir	6.15Km	South	
		Khanjo River	5.3Km	West	
		Damodar River	5.2Km	North	
8.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil  <b>RF/PF within 10Km:</b> <ul style="list-style-type: none"> <li>• Tarmi Protected Forest is at a distance of 6.5km in NNW</li> <li>• Chirudih Forest is at a distance of 8.6km in NNE</li> </ul>			--

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

Sl. No	Plant Equipment/ Facility	Total		Remarks
		Configuration	Capacity	
1.	Submerged Arc Furnace	3x9MVA	62,700 TPA Ferro-alloys (Max)	Si-Mn 44,550TPA OR Fe-Mn 62,700TPA OR Fe-Si 21,600TPA OR Combination of any
2.	Jigging Unit	1x25TPH	1200TPA	Recovery of Ferro Alloy – 1200TPA

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

Sl. No.	Raw Material	Quantity (TPA)	Source	Distance (km)	Mode of Transportation
1.	Manganese Ore	144,210	MIOL, OMC, Madhya Pradesh, Odisha	700	Approx. 700 km by Rail and 3 km by road from railway siding (Tupkadih)
2.	Fe-Mn Slag	22,275	In-House	--	Conveyor Belts
3.	Quartz	38,880	Open Market	200	Road
4.	Steam coal	17,820	Local Market	50	Road
5.	Pearl Coke	17,820	Local Market	50	Road
6.	Dolomite	25,080	Local Market	50	Road
7.	Electrode Paste	1,296	Bihar, Chhattisgarh, Jharkhand	200	Road
8.	Charcoal	30,240	Local Market	50	Road
9.	Mill Scale	8,640	Local Market	50	Road

41.5.8 The water requirement for the proposed project is estimated as 86 m<sup>3</sup>/day, out of which 62 m<sup>3</sup>/day is fresh water requirement will be obtained from the Drinking Water and Sanitation Sub-Division, Bokaro. The permission for drawl of water is obtained from Drinking Water and Sanitation Sub-Division, Bokaro Vide Lr. No. 15 Dated 25.01.2021.

41.5.9 The power requirement for the proposed plant is 30MVA which will be sourced from Damodar Valley Corporation (DVC).

41.5.10 Baseline Environmental Studies

Period	1st March, 2022 to 31st May, 2022														
AAQ parameters at 8 Locations (min and max)	<ul style="list-style-type: none"> <li>PM<sub>2.5</sub>: 20.2 µg/m<sup>3</sup> to 45.9µg/m<sup>3</sup></li> <li>PM<sub>10</sub>: 48.7µg/m<sup>3</sup> to 80.9µg/m<sup>3</sup></li> <li>SO<sub>2</sub>: 7.0µg/m<sup>3</sup> to 30.8µg/m<sup>3</sup></li> <li>NO<sub>2</sub>: 10.3µg/m<sup>3</sup> to 44.6µg/m<sup>3</sup></li> <li>CO: 0.2mg/m<sup>3</sup> to 2.3mg/m<sup>3</sup></li> </ul>														
Incremental GLC level	<ul style="list-style-type: none"> <li>PM<sub>10</sub> – 0.046 µg/m<sup>3</sup></li> <li>PM<sub>2.5</sub> – 0.021 µg/m<sup>3</sup></li> <li>SO<sub>2</sub> – 0.051 µg/m<sup>3</sup></li> <li>NO<sub>x</sub> – 0.003 µg/m<sup>3</sup></li> <li>CO – 0.0006 mg/m<sup>3</sup></li> <li>(All maximum incremental values are at Village Gorabali at a distance of 1.5 km)</li> </ul>														
Ground water quality at 8 locations	pH -7.46 to 7.75, Total Hardness -204 to 287mg/l, Total Dissolved Solids – 409 to 498 mg/l, Chlorides – 60.47 to 88.23 mg/l, Fluoride- 0.39 to 0.64 mg/l, Heavy metals - Fe- 0.09 to 0.22 mg/L, Zn – 1.23 to 1.42 mg/L														
Surface water quality at 8 locations	pH – 7.61 to 7.8, Dissolved Oxygen – 5.9 to 6.7 mg/l, BOD – 8.24 to 13.00 mg/l, COD – 32 to 48 mg/l, TSS 50 to 66 mg/l														
Noise levels Leq (Day and Night)	72 to 45 dB(A) for day time and 67 to 35 dB(A) for night time														
Traffic assessment study findings	<ul style="list-style-type: none"> <li>Traffic study has been conducted at NH-320 which is at 3.84Km from the project site.</li> <li>Transportation of Raw material, Fuel and Finished product will be done by 62% by Road</li> <li>Existing PCU is 3260 PCU/day on NH-320 and existing level of service (LOS) is B</li> </ul>														
	<table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-320</td> <td>3260</td> <td>15000</td> <td>0.22</td> <td>B</td> </tr> </tbody> </table>					Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS	NH-320	3260	15000	0.22	B
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	NH-320	3260	15000	0.22	B										
<ul style="list-style-type: none"> <li>PCU load after proposed project will be 3500 PCU/day (Existing 3260 + Addl. 240) for NH-320 and level of service (LOS) will be;</li> </ul>															
<table border="1"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/day)</th> <th>C (Capacity in PCU/day)</th> <th>Existing V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>NH-320</td> <td>3500</td> <td>15000</td> <td>0.23</td> <td>B</td> </tr> </tbody> </table>					Road	V (Volume in PCU/day)	C (Capacity in PCU/day)	Existing V/C Ratio	LOS	NH-320	3500	15000	0.23	B	
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NH-320	3500	15000	0.23	B											
<p><i>*Note: Capacity as per IRC 64: 1990, Guide line for capacity for roads in Rural Areas</i></p> <p>Level of Service will be “B” i.e. Very Good including additional traffic due to proposed project.</p>															
Flora and fauna	<p>Floral Diversity</p> <p>There is no Schedule-1 Species of Flora and Fauna in the Study area</p>														

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

Type of Waste	Source	Quantity Generated (TPA)	Mode of Treatment	Disposal
Si Mn Slag	Submerged Arc Furnace	37,870	--	Slag is non-hazardous and will be used for construction of roads or filling of low-lying areas.
Si-Mn Bag Filter Dust	Bag Filter	890	--	Recycled back to the process in the form of Cake
Fe Mn Slag	Submerged Arc Furnace	62,700	--	Shall be used for production of Silico Manganese as captive consumption and balance shall be sold to other Ferro Alloys plant as raw material in manufacturing process of Si-Mn
Fe-Mn BF Dust	Bag Fiter	1,250	--	Recycled back to the process in the form of Cake
Fe-Si Slag	Submerged Arc Furnace	1,080	--	Ferro Silicon Slag will be used for cement manufacturing/ industries as a raw material & used for medium carbon silico manganese production purpose

41.5.12 Public Consultation:

Details of advertisement given	15.09.2022, 16.09.2022
Date of public consultation	17.10.2022
Venue	BIADA Bhawan, Bokaro Industrial Area, Balidih, P.O-Balidih, Dist.- Bokaro, State- Jharkhand
Presiding Officer	Deputy Commissioner, Bokaro Jharkhand
Major issues raised	<ul style="list-style-type: none"> <li>• Dust Generation.</li> <li>• Employment.</li> <li>• Minimum Wage</li> <li>• Protection of Environment</li> <li>• Comply with the norms of government.</li> <li>• Plantation of Trees</li> </ul>

**Action plan as per MoEFCC O.M. dated 30/09/2020**

Sl. No.	Action Plan Proposed to Address the issues raised during the Public Hearing	Target of Implementation of Action Plan (Timeline) with year wise expenditure Rs.			Total Expenditure Rs.
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
1.	1 No. of tractor mounted Water	--	12,50,000	--	<b>22,50,000</b>

Sl. No.	Action Plan Proposed to Address the issues raised during the Public Hearing	Target of Implementation of Action Plan (Timeline) with year wise expenditure Rs.			Total Expenditure Rs.
		1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
	Tanker for water sprinkling on the road connecting Aganwadi Centre to Balidih and Gorabali Village				
2.	Providing 10 nos. of Solar Lights on the road connecting Aganwadi Centre to Balidih and Gorabali Village	--	--	10,00,000	
3.	Plantation along 800m length of Thakurtanr Village road on 10m width of each side along with Fencing and Gap Plantation in place of Non-Surviving trees	8,00,000	--	--	<b>8,00,000</b>
4.	Providing Ambulance to MS Hospital for providing medical aid to nearby villages and Medical Camps will be organized twice a year at gram panchayat level under CSR	--	--	10,00,000	<b>10,00,000</b>
5.	Apprenticeship will be provided to 10 youth every year for three year.	6,00,000	6,00,000	6,00,000	<b>18,00,000</b>
<b>Grand Total in Rs.</b>		<b>Rs. 14,00,000</b>	<b>Rs. 18,50,000</b>	<b>Rs. 26,00,000</b>	<b>Rs. 58,50,000</b>

41.5.13 The capital cost of the proposed project is Rs 63.20 Crores and the capital cost for environmental protection measures is proposed as Rs 2.433 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.4383 Crores. The employment generation from the proposed project / expansion is 286. The details of cost for environmental protection measures are as follows:

Sl. No.	Description of Item	Existing Rs. in Lakhs		Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost / year	Capital Cost	Recurring Cost /Year
1.	Air Pollution Control Measures	--	--	85.0	10.5
2.	Water Pollution Control Measures	--	--	25.0	3.0
3.	Noise Pollution Control Measures	--	--	10.0	1.5
4.	Storage and Solid Waste Management	--	--	7.0	2.0
5.	Environmental Monitoring Program	--	--	78.0	10.63
6.	Occupational Health & Safety	--	--	26.0	15.0
7.	Greenbelt Development and landscaping	--	--	12.308	1.2
<b>Sub Total</b>		--	--	<b>243.308</b>	<b>43.83</b>
<b>Addressal of Public Consultation Concerns</b>		--	--	<b>58.50</b>	

Sl. No.	Description of Item	Existing Rs. in Lakhs		Proposed Rs. in Lakhs	
		Capital Cost	Recurring Cost / year	Capital Cost	Recurring Cost /Year
<b>Total EMP Budget</b>		--	--	<b>301.808</b>	<b>43.83</b>

41.5.14 Proposed greenbelt will be developed in 1.07 ha which is about 33 % of the total project area. A 6 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 2675 saplings will be planted and nurtured in 1.07 hectares in 4 years.

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

### **Deliberations by the Committee**

41.5.16 The Committee noted the following:

1. The instant proposal is for setting up of 3x9MVA Submerged Arc Furnaces for production of 62,700 TPA (max.) Ferro Alloys (Si-Mn 44,550 TPA (or) Fe-Mn 62,700TPA (or) Fe-Si 21,600 TPA or in combination of any) with 25 TPH Jigging Plant.
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 3.24 Ha. The land is leased from Jharkhand Industrial Area Development Authority (JIADA) and the land is in Industrial Estate.
6. The nearest habitation is Balidih village at a distance of 0.72 km in South direction and Gorabali at a distance of 1.5 km from 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 water requirement is 86 m<sup>3</sup>/day, out of which 62 m<sup>3</sup>/day is fresh water requirement which will be obtained from the Drinking Water and Sanitation Sub-Division, Bokaro. The EAC deliberated on the water requirement and is of the opinion that necessary permissions shall be obtained from the Competent Authority prior to commencement of project.
8. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
9. The PP has submitted that greenbelt will be developed in 1.07 ha which is about 33 % of the total project area. Total no. of 2675 saplings will be planted and nurtured in 1.07 hectares in 4 years. The EAC deliberated on the greenbelt action plan and found it satisfactory.
10. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
11. 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.
12. 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.
13. 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.
14. 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.

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

- 41.5.17 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification,



2006 subject to the stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements:

**A. Specific Condition:**

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. The nearest habitation is Balidih village at a distance of 0.72 km in South direction and Gorabali at a distance of 1.5 km from 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.
- iv. The water requirement of 86 m<sup>3</sup>/day shall be sourced from the Drinking Water and Sanitation Sub-Division, Bokaro after obtaining necessary permission from the Competent Authority. No ground water abstraction is permitted.
- v. Three tier Green Belt shall be developed and maintained in at least 33% of the project area in a period of 1 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 Balidih & Gorabali village. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- vi. 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 Rs. 58.50 Lakhs shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- vii. PP shall undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- viii. Submerged Arc Furnace shall be of closed type and with fourth hole extraction system.

**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. 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. Air quality monitoring and preservation**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (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. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- 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. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.
- xix. The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.
- xx. The 4<sup>th</sup> hole extraction system shall be provided in the Sub Merged Arc Furnaces.
- xxi. 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.
- xxii. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

### **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.

#### **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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

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

- i. 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 install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. 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 approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. 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 environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO<sub>2</sub>, NO<sub>x</sub> (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 in Modification/Amendment in Environmental Clearance Proposal**

#### **Agenda No. 41.6**

#### **41.6 Expansion of Aluminium Smelter Production Capacity from 16 LTPA to 18 LTPA, CPP 1215 MW by M/s. Vedanta Limited, located at Village – Bhurkamunda, PO Sripura, District Jharsuguda, Odisha – Amendment in Environmental Clearance.**

**[Proposal No.: IA/OR/IND1/436507/2023; File No.: IA-J-11011/29/2007-IA-II(IND-I)]**

41.6.1 M/s. Vedanta Limited has made an online application vide proposal no. IA/OR/IND1/436507/2023 dated 13.07.2023 along with Form 4 and addendum EIA report

sought for amendment in Environment Clearance accorded by the Ministry vide letter no. J-11011/29/2007-IA.II(I) dated 05.05.2022 w.r.t. amendment in EC condition Specific Condition No. V for total Fluoride consumption from 8 kg/MT to 10 Kg/ MT of Aluminium.

**Details submitted by Project proponent**

41.6.2 M/s. Vedanta Limited was accorded Environment Clearance by the Ministry vide letter no. J-11011/29/2007-IA.II(I) dated 05.05.2022 for Expansion of Aluminium Smelter Production Capacity from 16 LTPA to 18 LTPA without increasing the CPP capacity of 1215 MW.

41.6.3 The instant proposal is for seeking amendment in EC dated 05.05.2022 w.r.t. Specific Condition No. V for total Fluoride consumption from 8 kg/MT to 10 Kg/ MT of Aluminium. The details are furnished as below:

Sl. No.	As per EC dated 05.05.2022	Proposed Amendment by the PP	Justification given by the PP
1.	<b>Specific Condition No. V</b> Project proponent shall maintain the Fluoride consumption less than 10 kg/tonne of Aluminium production by April, 2022 and reduce further at 8.0 kg/t by April, 2023 as committed by PP.	<b>Specific Condition No. V</b> Project proponent shall maintain the Fluoride consumption at 10 kg/MT Aluminium production	<ul style="list-style-type: none"> <li>• Ministry of Environment Forest &amp; Climate Change (MoEF&amp;CC) launched the Charter on "Corporate Responsibility for Environmental Protection (CREP)" in March 2003. The CREP sets targets to limit fluoride consumption (as F)10 kg/T of aluminum produced.</li> <li>• Since inception, the Total fluoride consumption could not be achieved as per target of &lt;10 Kg/MT of Aluminium produced (due to presence of Sodium Oxide). PP's technology provider M/s GAMI (Guiyang Aluminium and Magnesium Research Institute) has specified specific consumption of raw materials where AlF<sub>3</sub> is given as typically 20 kg/T which is equal to 13.5 kg of Fluorine / Ton.</li> <li>• With the Different initiative at Plant Level like FTP revamping, Process Improvement and other initiative PP could bring down the AlF<sub>3</sub> consumption in the range of 16-17 kg/MT which account of 10-11Kg of the total fluoride consumption.</li> <li>• The existing Refining technology which is installed at our Lanjigarh unit cannot be upgraded to supply Alumina less then 0.22 % of Na<sub>2</sub>O that is why PP is not able to meet the standard of total fluoride consumption 8 Kg/MT and same is with the International Alumina Suppliers.</li> </ul>

41.6.4 There is no change in configuration & capacity of units in granted EC.

**Written representations:**

41.6.5 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 03.08.2023 through email dated 03.08.2023 submitted the following information:

1. Request letter for amendment in Specific Fluoride consumption 10 Kg/MT.
2. Photographs of Laser based analyser.



3. Action Plan for reduction in Specific Fluoride consumption.
4. Six monthly EC compliance report.
5. Occupation health records.
6. Status of Court case as per EC specific condition no. i.

### **Detailed reply of PP:**

**(i) Request letter for amendment in Specific Fluoride consumption 10 Kg/MT:** PP has submitted a request letter for amendment in total fluoride consumption 10 kg/MT (as per CREP guideline) of Aluminium at Vedanta Limited Jharsuguda, Odisha. PP has reported that since inception the Total fluoride consumption could not be achieved as per target of <10 Kg/MT of Aluminium produced (due to presence of Sodium Oxide). Our technology provider M/s GAMI (Guiyang Aluminium and Magnesium Research Institute) has specified specific consumption of raw materials where AlF<sub>3</sub> is given as typically 20 kg/T (document Attached). which is equal to 13.5 kg of Fluorine / Ton. Therefore, PP has request to review the existing norms of total fluoride consumption and enhance the limit up to 10 kg/ MT (as per CREP guideline) of Aluminium produced based on facts and figures presented.

**(ii) Photographs of Laser based analyser:** PP has submitted Laser based fugitive Fluoride Monitoring System and Laser based fugitive fluoride analysers connected to OSPCCB Server.

**(iii) Action Plan for reduction in Specific Fluoride consumption:** Various operational and process optimization initiatives have been taken up at Vedanta Aluminium Smelters Jharsuguda for reduction in the specific fluoride consumption during the Electrolysis Process. As, Na<sub>2</sub>O level in Alumina is directly proportional to the AlF<sub>3</sub> consumption, so we have also taken up various initiatives in our Lanjigarh Alumina Refinery to reduce the Na<sub>2</sub>O in the alumina.

**(iv) Initiatives taken in Vedanta Jharsuguda Aluminium Smelters for reducing the specific fluoride consumption-**

- Reduction in Bath Temperature from (957 0C to 958 0C) with Process Parameters Optimisation have been maintained and continuously monitored, this has reduced our specific fluoride consumption ~0.2 Kg/MT of Al produced.
- Fume Treatment Plant (FTP -1) revamping has been completed and this has reduced our specific fluoride consumption ~0.1 Kg/MT of Al produced. Based on the performance of FTP1, PP will give further order for FTP 2/3/4 revamping within FY 24, and this might reduce our specific fluoride consumption ~0.3 Kg/MT of Al produced.
- Complete repairing of the Pot Web Plates for better suction study has been completed and this has reduced our specific fluoride consumption ~0.01 Kg/MT of Al produced.
- PPP has made various efforts to procure Low % Soda Alumina and in FY 23, we have purchased 2.2 Lakh Tons Low Soda (Na<sub>2</sub>O) Alumina against total procurement of 17 Lakhs Tons alumina from different alumina refineries based on the availability in the market.

- Trial for Digital Alf3 Feeding Strategy Modelling and Implementation in Model Section is under progress and will be completed in FY 24. This might reduce our specific fluoride consumption ~0.05 Kg/MT of Al produced.
- PP are in testing phase for implementation of Indigenous Pot Controller in 1 potline and same will be completed in FY 24. This might reduce our specific fluoride consumption ~0.1 Kg/MT of Al produced.

**(v) Initiatives taken in Vedanta Lanjigarh Refinery for reducing the Na<sub>2</sub>O level in Alumina.**

Vedanta Lanjigarh refinery operates on low temperature, low pressure digestion process to extract alumina from bauxite. In this process of alumina extraction caustic soda is used as a part of the digestion liquor. In the final product i.e. alumina hydrate soda is present in two forms, bound and leachable soda. Efforts were made at Lanjigarh refinery to reduce both forms of soda from the GAMI design levels. Details are as below-

1. Leachable soda reduction from the GAMI design value of 0.03% to 0.022% by upgradation of water dispensing system in the pan filters, which helped in improving the overall efficiency of hydrate washing system.
2. Bound soda have been reduced from GAMI design value of 0.19% to 0.17- 0.18% by process optimization of precipitation circuit which primarily involved first growth temperature optimization. Further reduction in the bound soda, the % fines in alumina will increase by 4 to 5% and will go to the level of 15%, which cannot be used in aluminium refining process.
3. Due to technology constraints at our Alumina refinery, we cannot achieve desired levels of Na<sub>2</sub>O, and further improvement requires complete change in alumina refinery technology.

**(vi) Six monthly EC compliance report:** PP has submitted copy of Half Yearly Compliance Report dated 31.05.2023 and Environment Quality data of Smelter & CPP of Vedanta Limited, Jharsuguda for the period from October 2022 to March 2023 submitted to MoEF&CC.

**(vii) Occupation health records:** PP has submitted the occupational health records of the manpower engaged in the project.

**(viii) Status of Court case as per EC specific condition no. i:** Summary of court cases area as:

Sr. No.	Case Title	Forum	Status
1.	WP (C) 24789 of 2020 Subrat Bhoi & Anr. v. State of Odisha & Ors.	Orissa High Court	Closed. Disposed of vide order dated 09.10.2020 referring the matter to Collector, Jharsuguda.
2.	WP (C) 24669 of 2020 Anchalik Paribesh Surakhya Sangh v State of Odisha & Ors.	Orissa High Court	Closed. Dismissed vide order dated 28.09.2020

Sr. No.	Case Title	Forum	Status
3.	SLP (C) No. 5140 of 2021 Subrat Bhoi & Anr. v. State of Odisha & Ors.	Supreme Court	Closed. Dismissed vide order dated 26.07.2021.
4.	WA No. 711 of 2021 Subrat Bhoi & Anr. v. State of Odisha & Ors.	Orissa High Court	Closed. Dismissed vide order dated 10.01.2022.
5.	WP (C) 24790 of 2020 P Ram Mohan Rao v Union of India & Ors.	Orissa High Court	Closed. Dismissed vide order dated 10.01.2022.
6.	WP (C) 25087 of 2020 Ajay Kumar Patel v State of Odisha & Ors.	Orissa High Court	Closed. Dismissed vide order dated 20.01.2022.
7.	Appeal No. 24 of 2022 (EZ) Satyanarayan Rao v Union of India & Ors.	NGT, Kolkata Bench	Closed. Dismissed vide order dated 27.09.2022.
8.	C.A. No. 9216 of 2022 Satyanarayan Rao v Union of India & Ors.	Supreme Court of India	Appeal has been filed against order of NGT dated 27.09.2022 wherein the appeal filed by Satyanarayan Rao challenging the EC granted for expansion was challenged.  The Supreme Court has issued notice in the matter on 03.01.2023. The opposite parties have been directed to file their counter affidavit/reply. The matter is at 'Admission' Stage.

### **Deliberation by the Committee**

41.6.6 The Committee noted the following:

- i. M/s. Vedanta Limited was accorded Environment Clearance by the Ministry vide letter no. J-11011/29/2007-IA.II(I) dated 05.05.2022 for Expansion of Aluminium Smelter Production Capacity from 16 LTPA to 18 LTPA without increasing the CPP capacity of 1215 MW.
- ii. The EAC noted that the Ministry has launched the Charter on "Corporate Responsibility for Environmental Protection (CREP)" in March 2003. The CREP sets targets to limit fluoride consumption (as F)10 kg/T of aluminum produced.
- iii. The instant proposal is for seeking amendment in EC dated 05.05.2022 w.r.t. Specific Condition No. V for total Fluoride consumption from 8 kg/MT to 10 Kg/ MT of Aluminium as detailed in para 41.6.3 above.

- iv. It was informed to the EAC that an Appeal has been filed in the Hon'ble Supreme Court against order of Hon'ble NGT dated 27.09.2022 wherein Shri Satyanarayan Rao has challenged the EC granted for this expansion project. In this context, the Ministry is also in process of filing its reply before the Hon'ble Supreme Court. In this regard, the EAC is of the view a specific condition may be included, as "This Environmental clearance dated 05.05.2022 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."
- v. The EAC deliberated on the justification provided by the project proponent and found it satisfactory in the instant case.
- vi. The EAC noted that there is no change in configuration & capacity of units in granted EC.
- vii. The EAC deliberated on the written submission of project proponent and found it satisfactory.

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

41.6.7 After deliberations, the Committee **recommended** the proposal **subject to uploading the written submission on portal** for amendment in EC granted vide letter no. J-11011/29/2007-IA.II(I) dated 05.05.2022 w.r.t. Specific Condition No. V as following along with following additional conditions:

- a) **Specific Condition No. V** shall be read as "*Project proponent shall maintain the Fluoride consumption less than 10 kg/tonne of Aluminium production. Project proponent shall also limit the Fluoride emission per unit of aluminum produced as per prescribed standards.*"
- b) Action Plan for reduction in Specific Fluoride consumption as submitted shall be strictly implemented. The PP shall conduct Health check every six-monthly on the surrounding people in the study area due to fluoride emissions/fluoride leachates in the water sources, use of Sodium Aluminium Flouride / Fluorosis. Similar check shall be done for impact on the soil and flora-fauna in the study area. If the any negative impacts are detected then suitable and adequate mitigation measures need to be done by the PP and the same should be reported to IRO, MoEFCC.
- c) This Environmental clearance dated 05.05.2022 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.
- d) The other terms and conditions of EC letter no. J-11011/29/2007-IA.II(I) dated 05.05.2022 shall remain the same.

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#### **Consideration in Amendment of TOR Proposal**

#### **Agenda No. 41.7**

**41.7 Modernization Cum Expansion of MS Billets Production from 1,58,400 TPA to 4,98,960 TPA, TMT Bars production from 1,58,400 TPA to 4,98,960 TPA by M/s. Metarolls Ispat**

**Pvt. Ltd., located at Village Gunta no 48, Village Daregaon, Adjacent to MIDC Phase II, Tehsil Jalna, District Jalna, Maharashtra – Consideration of Amendment in TOR. As per SOP dated 07.07.2021 [Violation case]**

**[Proposal No. IA/MH/IND1/431206/2023; File No. IA-J-11011/292/2018-IA-II(IND-I)]**

- 41.7.1 M/s. Metarolls Ispat Pvt. Ltd, has made an application online vide proposal no. IA/MH/IND1/431206/2023 dated 13.07.2023 along with the application in prescribed format - Form 3 (CAF, Form – I Part A & B) and revised PFR and sought for amendment in Terms of Reference accorded by the Ministry vide F. No. IA- J-11011/292/2018-IA.II(I) dated 13<sup>th</sup> December 2018 w.r.t. change in configuration/capacities of the permitted facilities along with appraisal of proposal under Violation Category as per Ministry’s SOP dated 07.07.2021 [SOP for identification and handling for the projects under Violation].
- 41.7.2 Name of the EIA consultant: M/s Pollution and Ecology Control Services [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2776; valid upto 09.08.2023, as on August 2, 2023].

**Details submitted by Project proponent**

- 41.7.3 M/s. Metarolls Ispat Pvt. Ltd, had initially applied for Terms of Reference vide Proposal No. IA/MH/IND/79013/2018, dated 15.09.2018 for Modernization cum expansion of MS Billets / Alloys billets production (1,58,400 TPA to 7,28,400 TPA) and TMT Bar production (1,58,400 TPA to 7,28,400 TPA) and Additional Unit of production of Ferro Manganese 21500 TPA /Silico Manganese 18000 TPA. Accordingly, ToR was granted by the Ministry vide no. F. No. IA- J-11011/292/2018-IA.II(I) dated 13<sup>th</sup> December 2018.
- 41.7.4 The instant proposal is for amendment in Terms of Reference accorded by the Ministry vide no. F. No. IA- J-11011/292/2018-IA.II(I) dated 13<sup>th</sup> December 2018 w.r.t. change in configuration/capacities of the permitted facilities along with appraisal of proposal under Violation Category as per Ministry’s SOP dated 07.07.2021 [SOP for identification and handling for the projects under Violation. The details are as follows:
- It is proposed to reduce the no. of Induction Furnace and to reduce the production quantity of MS Billets and TMT Bars.
  - It is also proposed to drop the project of Submerged Arc Furnace to manufacture Ferro Alloys.
  - The company has initiated the installation of 1 x 28 T Induction Furnace of the proposed project without obtaining Environmental Clearance. Now the construction has been stopped. MIPL is ready to comply all the points of TOR for Violation Project and will follow SOP dated 07.07.2021 for identification & handling of Violation cases under EIA notification 2006 .

Sr No	Product	Existing Quantity	Proposed additional	Total Proposed Quantity (TPA)	Request for Amendment	Total Quantity
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		(TPA) as per EC letter dated 30 <sup>th</sup> September 2014 and CTO dated 07-07/2023 (IF: 1X25T and 1X28T)	Quantity (TPA) as per TOR dated 13.12.2018 (IF: 2 x 40 TPH, and 1 x 50 TPH)	after expansion as per TOR No IA- J-11011/292/2018-IA.II(I) dated 13 <sup>th</sup> December, 2018 (IF 1 x 25 T, 1X28 T and 2 x 40 T, 1X50T)	in Quantity (TPA) (IF 1X30T*, 2X28T and 1X40T) * Existing 25T IF is proposed to replace with 30 T at same location	After amendme nt (TPA) (IF 1X30T, 2X28T and 1X40T)
1	M.S Billets	1,58,400	5,70,000	7,28,400	3,40,560	4,98,960
2	TMT Bars	1,58,400	5,70,000	7,28,400	3,40,560	4,98,960
3	Ferro Manganese OR	-	14,260	14,260	Dropped	Dropped
4	Silico Manganese	-	10,190	10,190	Dropped	Dropped

41.7.5 **Details of other changes in the instant proposal are as follows:**

a) **Raw Materials**

Sl. No.	Raw Material	Requirement in TPA	Source	Distance (km)	Mode of Transportation
<b>M.S. Billets</b>					
1.	M.S. Scrap	204336	Open Market	100-500	By road
2.	Sponge Iron	146441	Open Market	100-500	By road
3.	Silico Manganese as additives	6811	Open Market	100-500	By road
<b>Hot Rolled long products/TMT Bars</b>					
4.	Molten M.S. Billets for hot charging	340560	In-house	-	Direct charging

b) **Other parameters**

Sl. No.	Attributes	As per Previous TOR dated 13.12.2018	As per proposed amendment	Final after amendment	Remarks (In comparison with the TOR dated 13.12.2018)
1.	Water Requirement	415 KLD	365 KLD	365 KLD	Decrease
2.	Power Requirement	55 MW	52 MW	52 MW	Decrease
3.	Project Cost	Rs. 200 Crores	Rs. 200 Crores	Rs. 200 Crores	No change
4.	Manpower	450 Nos.	400 Nos.	400 Nos.	Decrease
5.	Land Area	7.63 ha	7.63 ha	7.63 ha	No change
6.	Greenbelt	2.51 ha	2.51 ha	2.51 ha	No change

#### 41.7.6 **Reasons for Amendment / Violation Details:**

The company has decided to reduce the production of M.S. Billet and TMT bar. In addition to this the company has dropped the proposed project of submerged Arc Furnace for manufacturing of Ferro Alloys. Therefore, PP has proposed to downsize the proposed facilities permitted in the ToR dated 13.12.2018. Further PP has informed that they initiated the installation of 1 x 28 T Induction Furnace of the proposed project without obtaining Environmental Clearance. Now the construction has been stopped. PP has now requested for appraisal of instant proposal under Violation Category as per Ministry's SOP dated 07.07.2021 [SOP for identification and handling for the projects under Violation]. MIPL is ready to comply all the points of TOR for Violation Project and will follow SOP dated 07.07.2021 for identification & handling of Violation cases under EIA notification 2006.

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

#### **Deliberation by the Committee**

41.7.8 The Committee noted the following:

- i. M/s. Metarolls Ispat Pvt. Ltd, had initially applied for Terms of Reference vide Proposal No. IA/MH/IND/79013/2018, dated 15.09.2018 for Modernization cum expansion of MS Billets / Alloys billets production (1,58,400 TPA to 7,28,400 TPA) and TMT Bar production (1,58,400 TPA to 7,28,400 TPA) and Additional Unit of production of Ferro Manganese 21500 TPA /Silico Manganese 18000 TPA. Accordingly, ToR was granted by the Ministry vide no. F. No. IA- J-11011/292/2018-IA.II(I) dated 13<sup>th</sup> December 2018.
- ii. The instant proposal is for amendment in Terms of Reference accorded by the Ministry vide no. F. No. IA- J-11011/292/2018-IA.II(I) dated 13<sup>th</sup> December 2018 w.r.t. change in configuration/capacities of the permitted facilities along with appraisal of proposal under Violation Category as per Ministry's SOP dated 07.07.2021 [SOP for identification and handling for the projects under Violation]. The change in the

configuration and capacity of project along with the amendments / modifications are detailed in para 41.7.4 and 41.7.5 above.

- iii. The PP reported that they have decided to reduce the production of M.S. Billet and TMT bar. In addition to this the company has dropped the proposed project of submerged Arc Furnace for manufacturing of Ferro Alloys. Therefore, PP has proposed to downsize the proposed facilities permitted in the ToR dated 13.12.2018. Further PP has informed that they initiated the installation of 1 x 28 T Induction Furnace of the proposed project without obtaining Environmental Clearance. Now the construction has been stopped. PP has now requested for appraisal of instant proposal under Violation Category as per Ministry's SOP dated 07.07.2021 [SOP for identification and handling for the projects under Violation]. MIPL is ready to comply all the points of TOR for Violation Project and will follow SOP dated 07.07.2021 for identification & handling of Violation cases under EIA notification 2006.
- iv. The EAC also deliberated on the Violation reported by the project proponent and is agreed that project proponent has committed a violation by undertaking project implementation of its expansion proposal for which the company obtained ToR i.e. the plant activities were started without having any prior EC. Therefore, the proposal shall be appraised under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedure dated 07.07.2021.
- v. The EAC further deliberated on the modifications proposed by the project proponent in the existing TOR and agreed to the changes requested. The EAC also deliberated the compliances of the SOP dated 07.07.2021 and EAC is of the view that the modification in TOR w.r.t. SOP dated 07.07.2021 may be considered.
- vi. The EAC directed the PP to submit the EC application immediately after the compliance of SOP dated 07.07.2021.

### **Recommendations of the Committee**

41.7.9 After deliberations, the Committee recommended the proposal for amendment in ToR granted vide no. IA- J-11011/292/2018-IA.II(I) dated 13<sup>th</sup> December 2018 as detailed in para 41.7.4 and 41.7.5 above subject to stipulation of following additional conditions. The other terms and conditions of ToR dated 13.12.2018 shall remain the same, if applicable to the modified project facilities:

- i. The PP needs to comply all the points of TOR for Violation Project and follow SOP dated 07.07.2021 issued by the Ministry of Environment, Forest & Climate Change, for identification & handling of Violation cases under EIA notification 2006.
- ii. The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC for the Unit which violated under the provision of the EIA Notification 2006.
- iii. Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or



- an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).
- iv. Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
  - v. The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.
  - vi. Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.
  - vii. The project proponent shall require to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the CPCB prior to the grant of EC as per SOP dated 07.07.2021. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
  - viii. Project proponent shall implement penalty provisions i.e., 1% of project cost attributable to the expansion, incurred up to the date of filing of application along with the EIA/EMP report as contained in the paragraph 12 of the Standard Operating Procedure dated 7/07/2021 shall be complied with.

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## DAY-2: AUGUST 4, 2023 [FRIDAY]

### Consideration of Environmental Clearance Proposals

#### Agenda No. 41.8

**41.8 Proposed Cement Plant With Clinker Production Capacity of 12.0 MTPA, Calcined Clay Production Capacity-1.5 MTPA, Cement Production Capacity 5.0 MTPA (OPC/PPC/PSC/Composite Cement/LC3/PLC), WHRB based Power Plant - 54 MW, DG Sets of 6000 KVA, Oxygen Plant of capacity 160 m<sup>3</sup>/hr, AFR Pre-Processing/Co-processing Facility and Railway siding with wagon tippler by M/s JSW Cement Limited, located at Village-Bhadana & Jindas, Teh-Nagaur , Dist-Nagaur, Rajasthan- Consideration of EC**

**[Proposal No. IA/RJ/IND1/432291/2023, File No. J-11011/355/2022-IA.II(Ind1)]**

**[Consultant: J. M. Environet Pvt. Ltd. ; Valid upto 07.08.2023]**

41.8.1 M/s JSW Cement Limited has made an online application vide proposal no. IA/RJ/IND1/432291/2023 dated 20<sup>th</sup> July, 2023 along with copy of EIA report, 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(b) Cement Plants under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

41.8.2 Name of the EIA consultant: M/s. J. M. Environet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2809; Valid up to 31.10.2023, as on August 2, 2023].

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

41.8.3 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>
09.11.2022	17 <sup>th</sup> Meeting of EAC (Industry -I) held on 14-16th November, 2022	Terms of Reference	15.12.2022	14.12.2026

41.8.4 The project of M/s. JSW Cement Ltd. located at Villages- Bhadana & Jindas Tehsil- Nagaur, District- Nagaur, Rajasthan is for setting up of an Integrated Cement Plant with Clinker Production Capacity of 12.0 Million TPA, Calcined Clay Production Capacity - 1.5 Million TPA, Cement Production Capacity 5.0 Million TPA (OPC/PPC/PSC/Composite Cement/LC3/PLC), WHRB based Power Plant - 54 MW, DG Sets of 6000 KVA, Oxygen Plant of capacity 160 m<sup>3</sup>/hr, AFR Pre- Processing/Co- processing Facility and Railway siding with wagon tippler.

41.8.5 Environmental site settings:

S. No.	Particulars	Details	Remarks															
i.	Total land	The total area of project is 194.5560 ha. [Private Agriculture: (192.4838) & Government: (2.0722)]	Land use: Present land use of the proposed plant site is private agriculture land (192.4838) and government waste land (2.0722).															
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	<ul style="list-style-type: none"> <li>• Out of 194.5560 ha; So far 132.3558 Ha (68%) of the land has been purchased, mutation done and the land is under the possession of JSW Cement. Purchase of remaining land as well as allotment of government land is under progress and same is expected to be completed by Oct'23. Land registration documents have been submitted alongwith the EIA report.</li> <li>• Online applications for Conversion of Land Use were submitted to State Revenue deptt. on 15-06-2023, 17-06-2023 and 24-07-2023. Subsequently, the district collector forwarded the applications to various deptts for verification and NOC.</li> <li>• So far, NOCs have been received from State Forest deptt and the Executive Engineer, Deptt. of Public Works. Grant of NOC from other departments is in progress and expected to be received by Sept' 23.</li> <li>• PP has reported that they have received consents of the land owners for sale of their land to JSW Cement. Copy of the consent letter is submitted.</li> </ul>	Copies of the Land Use Conversion application as well as Letter from ADM to SDM, NOCs from DFO and Executive Engineer, PWD and stamp duty exemption certificate are submitted.															
iii.	Existence of habitation & involvement of R&R, if any.	<p><b>Plant Site:</b> 8 Families (1 family from Bhadana village &amp; 7 families from Jindas village).</p> <p><b>Study Area:</b> Villages falling near to the project site are as given below:</p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Hamlet with 4 families</td> <td>50 m</td> <td>NW</td> </tr> <tr> <td>Hamlet - Jindas ki Dhani</td> <td>~ 0.6 km</td> <td>NW</td> </tr> <tr> <td>Village Jindas</td> <td>~1.5 km</td> <td>NE</td> </tr> <tr> <td>Village Manjhwas</td> <td>~2.6 km</td> <td>North</td> </tr> </tbody> </table>	Habitation	Distance (km)	Direction	Hamlet with 4 families	50 m	NW	Hamlet - Jindas ki Dhani	~ 0.6 km	NW	Village Jindas	~1.5 km	NE	Village Manjhwas	~2.6 km	North	R & R is applicable. Rs. 132.90 Crores budget has been allocated for R & R of project affected families.
Habitation	Distance (km)	Direction																
Hamlet with 4 families	50 m	NW																
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S. No.	Particulars	Details			Remarks																														
		Village	Distance	Direction																															
		Village Bhadana	~2.0 km	SW																															
		Village Kishanpura	~ 3.0 km	East																															
		There are approx. 16 other villages in 10 km radius study area.																																	
iv.	Latitude and Longitude of all corners of the project site	<b>Point No.</b>	<b>Latitude</b>	<b>Longitude</b>	-																														
		1.	27°17'3.73"N	73°49'42.94"E																															
		2.	27°17'16.49"N	73°49'53.73"E																															
		3.	27°17'26.85"N	73°50'6.51"E																															
		4.	27°17'33.44"N	73°50'15.38"E																															
		5.	27°17'43.90"N	73°50'32.43"E																															
		6.	27°17'44.37"N	73°50'37.76"E																															
		7.	27°17'39.77"N	73°50'40.63"E																															
		8.	27°17'42.74"N	73°50'47.37"E																															
		9.	27°17'40.57"N	73°50'54.71"E																															
		10.	27°17'39.37"N	73°50'57.47"E																															
		11.	27°17'29.22"N	73°51'3.74"E																															
		12.	27°17'19.59"N	73°51'7.16"E																															
		13.	27°16'50.14"N	73°50'5.72"E																															
		14.	27°16'57.32"N	73°50'3.16"E																															
		15.	27°16'51.51"N	73°49'54.23"E																															
		16.	27°16'57.33"N	73°49'49.76"E																															
		17.	27°16'58.78"N	73°49'51.13"E																															
v.	Elevation of the project site	297 m to 304 m above mean sea level.			-																														
vi.	Involvement of Forest land if any.	No Forest Land is involved in the Project site.			-																														
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p><b>Project site:</b> No water body exists within the Project site.</p> <p><b>Study area:</b> 9 water bodies are present within 10 km radius of Project site and all are seasonal.</p> <table border="1"> <thead> <tr> <th>Water bodies</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Jindas talab/Kuradi Naddi</td> <td>~0.4 km</td> <td>NNE</td> </tr> <tr> <td>Badi Naddi (Rajlai Naddi)/ Bhadana Talab</td> <td>~1.0 km</td> <td>SW</td> </tr> <tr> <td>Jakhli Nadi</td> <td>~1.5 km</td> <td>NW</td> </tr> <tr> <td>Bhora Bada</td> <td>~5.5 km</td> <td>WSW</td> </tr> <tr> <td>Janjolai Nadi</td> <td>~5.5 km</td> <td>NE</td> </tr> <tr> <td>Kharkahi Nadi</td> <td>~8.0 km</td> <td>NNW</td> </tr> <tr> <td>Chapar Nadi</td> <td>~9.5 km</td> <td>ESE</td> </tr> <tr> <td>Nosar Talab – Deh</td> <td>~5.4 km</td> <td>ENE</td> </tr> <tr> <td>Jathera Talab</td> <td>~6.2 km</td> <td>North</td> </tr> </tbody> </table>			Water bodies	Distance	Direction	Jindas talab/Kuradi Naddi	~0.4 km	NNE	Badi Naddi (Rajlai Naddi)/ Bhadana Talab	~1.0 km	SW	Jakhli Nadi	~1.5 km	NW	Bhora Bada	~5.5 km	WSW	Janjolai Nadi	~5.5 km	NE	Kharkahi Nadi	~8.0 km	NNW	Chapar Nadi	~9.5 km	ESE	Nosar Talab – Deh	~5.4 km	ENE	Jathera Talab	~6.2 km	North	-
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S. No.	Particulars	Details	Remarks
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area.	Nil	-

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

S. No.	Plant Equipment / Facility	Proposed Unit	
		Configuration	Capacity
1.	Clinker*	Kiln - 3 X 12000 TPD	12.0 Million TPA
2.	Calcined Clay	Clay Calciner System 2 x 2300 TPD	1.5 Million TPA
3.	Cement (OPC/PPC/PSC/Composite Cement/LC3/PLC)	Cement Mill - 2 X 350TPH	5.0 Million TPA
4.	WHRB	3 PH boilers & 3 AQC boilers comprising of HP steam capacity of 3 x 72 TPH and LP 3 x 30.84 TPH. Turbine – 3 x 18 MW	54 MW
5.	DG Sets	-	6000 KVA (3 x 2000 KVA)
6.	Oxygen Plant	-	160 m <sup>3</sup> /hr
7.	AFR Pre - processing & Co - processing Facility	-	Part of the Project
8.	Railway Siding with Wagon Tippler	-	Part of the Project

\*Surplus Clinker will be dispatched to other grinding unit and market sale

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

S. No.	Raw Material	Quantity required (Million TPA)	Source	Distance from site (Km)	Mode of Transportation
		Total			
1.	Limestone	17.64 MTPA (for Clinker) and 0.75 MTPA (for LC3) Cement Production	Company owned auctioned mine blocks, i.e., 3B2, 3C1, 3C2 and 3D1, which are adjacent to each other.	~ 4 km	by Road/ Conveyor Belts (OLBC)
2.	Additive-1, Silica Sand	0.985	Local Market	~ 50 km	Road
3.	Additive-2, Clay	2.43 (0.73 for Clinker and 1.70 for Calcined Clay)	Local Market	~ 50 km	Road
4.	Additive-3, Red Ochre/ I.O.	0.73	Chittorgarh (Rajasthan), other sources near to plant area	~ 350 km	Road
5.	Gypsum	0.35	Mineral Gypsum from Hanumangarh, Rajasthan, Jaisalmer Rajasthan/Gujarat/ Nagaur (Rajasthan)- Kms as per	~750 km	Road / Rail

S. No.	Raw Material	Quantity required (Million TPA)	Source	Distance from site (Km)	Mode of Transportation
		Total			
			availability.		
6.	Fly ash & Pond Ash	1.75	Suratgarh, Barmer and other power plants in nearby areas	~380 km	Road & Rail
7.	Slag	1.3	JSW Steel Plant at Mundra Gujarat.	~700	Road & Rail

Fuel Requirement is as below:

S. No.	Type of Fuel	Quantity (Million TPA)	Calorific Value (Kcal./kg)	Ash (In %)	Sulphur (In %)	Source	Distance (km)	Mode of Transportation
1	Indian & Imported Coal (50 to 100%)	0.78 to 1.56	For Indian Coal: 4200 - 4800 For Imported Coal: 5000 - 5800	For Indian Coal: 30 - 35 For Imported Coal: 12 - 15	For Indian Coal: 0.4 - 0.5 For Imported Coal: 0.5 - 0.6	1. JSW Cement's own coal blocks at Umariya (M.P.) 2. Imported through Kandla Port (780 Kms). Mudra Port (800 Kms)	(780 Kms) (800 Kms)	Rail / Road
2	Lignite (50% to 100%)	1.08 to 2.16				Matasukh lignite mines (50KMS)	(50Kms)	Road
3	Indian & imported Petcoke (50 to 100%)	0.60 to 1.2	7800 - 8300	0.5-2.0	6-9	From RIL / Nayra /IOCL Panipat and Mathura refineries and Imported form Kandla port	(850 kms) (450 Kms) (780 Kms)	Rail / Road
4	Alternative Fuel to replace the fossil fuel	As per availability from nearby sources	-	-	-	RDF/MSW, Industrial solid and liquid waste, plastic waste and Biomass (Agro waste)	-	Road

S. No.	Type of Fuel	Quantity (Million TPA)	Calorific Value (Kcal./kg)	Ash (In %)	Sulphur (In %)	Source	Distance (km)	Mode of Transportation
						etc. from nearby sourced and as per the availability.		
5	Bio-Mass Fuel Requirement (for Calcined clay Production )	0.267	-	-	-	Sourced from nearby/Local area	-	Road

41.8.8 The total water requirement for the proposed project is estimated as 4180 m<sup>3</sup>/day; out of which 3960 m<sup>3</sup>/day will be met from saline ground water after prior approval from competent authorities and 220 m<sup>3</sup>/day requirement will be met through treated waste water. Application for ground water withdrawal of 4280 m<sup>3</sup>/day has been submitted to CGWA vide application no. 21-4/17976/RJ/IND/2023 dated 16.01.2023.

41.8.9 Power requirement for the proposed project is estimated as 120 MW; out of which 54 MW will be sourced proposed WHRS and remaining from Rajasthan State Electricity Board and D.G. Sets (in case of emergency).

#### 41.8.10 Baseline Environmental Studies

Period	Post Monsoon Season (Oct., 2021 to Dec., 2021) <i>Note:- Baseline study was conducted during Post-Monsoon Season (Oct. to Dec., 2021) and additional one month baseline study (Dec., 2022) as per ToR by earlier consultant. Thereafter, revalidation of baseline (one month study in April, 2023) was also done by present consultant of the Project i.e., JMEPL</i>
AAQ parameters at 10 locations (min and max)	<ul style="list-style-type: none"> <li>PM<sub>10</sub> – 39.8 to 53.2 µg/m<sup>3</sup></li> <li>PM<sub>2.5</sub> - 20.1 to 32.9 µg/m<sup>3</sup></li> <li>SO<sub>2</sub> – 10.1 to 18.1 µg/m<sup>3</sup></li> <li>NO<sub>2</sub> – 11.1 to 20.9 µg/m<sup>3</sup></li> <li>CO – 0.15 to 0.28 mg/m<sup>3</sup></li> </ul>
Incremental GLC level	<ul style="list-style-type: none"> <li>PM - 3.23 µg/m<sup>3</sup> (Level at 260 m in NW Direction)</li> <li>SO<sub>2</sub> – 3.82 µg/m<sup>3</sup> (Level at 630 m in NW Direction)</li> <li>NO<sub>x</sub> – 4.71 µg/m<sup>3</sup> (Level at 300 m in NW Direction)</li> <li>CO – 0.000648 mg/m<sup>3</sup> (Level at 220 m in NW Direction)</li> </ul>
Ground water quality	<ul style="list-style-type: none"> <li>At 08 locations</li> <li>pH - 7.24 to 7.86; Total Hardness – 161 to 645 mg/l; Chlorides -198.5 to 1312.5 mg/l; Fluoride - 0.3 to 0.98 mg/l; Iron - 0.045 to 0.11 mg/l</li> </ul>
Surface water quality	At 02 location pH – 7.58 to 7.82; DO – 5.4 to 5.8 mg/l; BOD -<3 to <3 mg/l; COD - <5to <5 mg/l
Noise levels	41.6 to 55.2 Leq dB (A) for the day time and 37.3 to 50.8 Leq dB (A) for the night time.

Leq (day and Night)																																			
Traffic assessment study findings	<ul style="list-style-type: none"> <li>▪ Traffic study has been conducted at NH-58 which is approximately 2.5 km in East direction from the project site.</li> <li>▪ Transportation of raw material, fuel &amp; finished product will be done as per details given below: <ul style="list-style-type: none"> <li>▪ Limestone - via OLBC from Captive Limestone Mines</li> <li>▪ Additive -1 (Silica sand and Clay)– 100% Road</li> <li>▪ Additive -3 (Red Ochre) – 100% Road.</li> <li>▪ Gypsum - 50% by Road and 50% by Rail.</li> <li>▪ Fly ash &amp; Pond ash - 50% by Road and 50% by Rail.</li> <li>▪ Slag - 50% by Road and 50% by Rail</li> <li>▪ Indian &amp; Imported Coal (50 to 100%) - 50% by Road and 50% by Rail</li> <li>▪ Indian &amp; Imported Petcoke (50 to 100%) - 50% by Road and 50% by Rail</li> <li>▪ Clinker – 50% by Road and 50% by Rail</li> <li>▪ Cement – 50% by Road and 50% by Rail</li> </ul> </li> <li>▪ Existing PCU is 288.86 PCU/hr On NH-58 and existing level of service (LOS) is:</li> </ul> <table border="1" data-bbox="320 792 997 1021" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Road</th> <th style="width: 20%;">V (Volume in PCU/hr.)</th> <th style="width: 20%;">C (Capacity in PCU/hr.)</th> <th style="width: 10%;">Existing V/C Ratio</th> <th style="width: 10%;">LOS</th> </tr> </thead> <tbody> <tr> <td>NH-58</td> <td>288.86</td> <td>3600</td> <td>0.08</td> <td>A</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>▪ PCU load after Proposed project (Before installation of Railway siding) will be 288.86 (Existing) + 346.3 (Additional) PCU/hr on NH-58 and level of service (LOS) will be:</li> </ul> <table border="1" data-bbox="320 1128 1554 1357" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Road</th> <th style="width: 30%;">V (Volume in PCU/hr.)</th> <th style="width: 15%;">C (Capacity in PCU/hr.)</th> <th style="width: 15%;">Proposed V/C Ratio</th> <th style="width: 15%;">LOS</th> </tr> </thead> <tbody> <tr> <td>NH-58</td> <td>346.3 (Additional) + 288.86 (Existing) = 635.11</td> <td>3600</td> <td>0.18</td> <td>A</td> </tr> </tbody> </table> <p style="margin-left: 20px;">* Capacity as per IRC- 64-1990 Guidelines.</p> <ul style="list-style-type: none"> <li>▪ PCU load after Proposed project (After installation of Railway Siding) will be 288.86 (Existing) + 202.11 (Additional) PCU/hr. on NH-58 and level of service (LOS) will be:</li> </ul> <table border="1" data-bbox="320 1464 1554 1693" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Road</th> <th style="width: 30%;">V (Volume in PCU/hr.)</th> <th style="width: 15%;">C (Capacity in PCU/hr.)</th> <th style="width: 15%;">Existing V/C Ratio</th> <th style="width: 15%;">LOS</th> </tr> </thead> <tbody> <tr> <td>NH-58</td> <td>288.86 (Existing) + 202.11 (Proposed) = 490.97</td> <td>3600</td> <td>0.14</td> <td>A</td> </tr> </tbody> </table> <p style="margin-left: 20px;">* Capacity as per IRC- 64-1990 Guidelines.</p> <p><b>Conclusion:</b> The LOS value is “A” for <b>NH-58</b>. Thus, it can be concluded that the present road network will be in excellent condition after installation of railway siding to bear the increased traffic load.</p>					Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	NH-58	288.86	3600	0.08	A	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS	NH-58	346.3 (Additional) + 288.86 (Existing) = 635.11	3600	0.18	A	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	NH-58	288.86 (Existing) + 202.11 (Proposed) = 490.97	3600	0.14	A
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Flora and fauna	Two {Indian Gazelle/ Chinkara ( <i>Gazella bennettii</i> *) & Indian pea fowl ( <i>Pavo cristatus</i> )} Schedule – I species were recorded in the study area during field survey; according to (IWPA) Indian Wildlife Protection Act, 1972 and its amendment Wildlife Conservation Plan for all the above-mentioned Schedule - I species has been prepared and submitted to DFO, Nagaur vide letter no F()TK/CCF/2022-23/1969 dated: 29 <sup>th</sup> March, 2023 after which has now been forwarded to letter PCCF Jaipur for approval of wildlife conservation plan vide letter no.																																		



F16(29)wildlife/CCF/2022-23/1266 dated: 6<sup>th</sup> April, 2023. Final approval from PCCF is awaited.

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

S.NO	Type of Waste	Source	Quantity Generated (Approx.)	Mode of Treatment / Disposal
1.	Dust	Cement Plant	0.36 Million TPA	Dust collected from various APCEs will be totally recycled into the process.
	Steel scrap		100 TPA	To be sold to scrap vendors/ recyclers
	Wooden scrap		50 TPA	To be sold to scrap vendors/ recyclers
2.	STP Sludge	STP	20 kg/ day	Will be used as manure in horticulture and greenbelt development.
3.	Salt generated from WTP (Desalination Plant)	WTP	500 TPA	Salt generated from Desalination plant will be sold in the market
4	Concentrated calcined chorine dust generated from chorine bypass system	WTP	210 TPD	100 % dust will be collected in bin and will be utilized in the cement manufacturing process through closed circuit system.
5	Used Oil (Cat 5.1)	Plant Maintenance	150 KLA	Will be generated as per Schedule- I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; which will be sold to CPCB/ SPCB authorized recycler. Used Oil/ Spent oil will be filled in Empty barrels and further sold to CPCB/ SPCB authorized recycler. Used oil may also be used for co-processing in Kiln subject to authorization from SPCB.
	Grease & Waste Residue (contaminated cotton rags) containing oil (Cat 5.2)		50 TPA	
	Empty barrels		1000 Nos/Annum	
	E-Waste		~0.5 TPA	Will be sold to registered vendors as per E-Waste Management Rules, 2016.
	Used refractories		1000 TPA	To be sold to scrap vendors/ recyclers
	Plastic wrappers		20 TPA	To be sold to authorized vendors
	Bursteds bags		50 TPA	To be sold to authorized vendors
	Scrap rubber belts		40 TPA	To be sold to scrap vendors/ recyclers
Used Lead acid batteries	6 TPA	Will be stored in the designated storage area and will be disposed-off/ sold to registered vendors as per Battery Waste Management Rules 2020.		
6	Bottles, paper, cans, textile, etc.	MSW	10 TPA	Waste will be collected & segregated and Bio-degradable waste will be converted into organic manure and manure will be used for greenbelt development/plantation and non-degradable waste scientifically in compliance of Solid Waste Management Rules, 2016.
	Kitchen and canteen/ Green waste			

#### 41.8.12 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers “Times of India” & “Dainik Bhaskar” on 16 <sup>th</sup> Feb., 2023.
Date of Public Consultation	20 <sup>th</sup> March, 2023 (Tuesday) at 11:00 AM
Venue	At Govt. Primary School, Jindas No. 2, Panchayat Samiti Nagaur, Tehsil & District Nagaur, Rajasthan. The venue is approx. 200 M from the project site.
Presiding Officer	Additional District Magistrate, Nagaur
Major issues raised	Employment, Environment & Pollution, Water, Land, Health, Socio Economic Development, Plantation, etc.

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

Total Cost proposed for Socio-economic development activities is Rs. 70 Crores to be spent in 3 Phase

Socio- economic Development Plan for Phase - I								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
<i>Livelihood related</i>	Establishing “Center of Excellence” having Skill Development School, Training Center of Women, Library for youths, Open Gym, Classrooms for extra studies, wellness center etc with 6 AC rooms near plant premises or nearest villages in separate land. Installation of 50 nos. of sewing machines, 20 nos. of computer systems, 30 nos. of machines for making hand craft items along with necessary raw materials, organizing training program, vocational program etc.	Near Plant Site village	200	Near Plant Site village	200	Near Plant Site village	200	600
	Establishment of Organic manure production and demonstration centre	2nos. (Village Bhadana & Malgaon)	6	2nos. (Village Harima & Jindas)	6	2nos. (Village Sarasani & Deh)	6	18
<i>Education Related</i>	Development of Mahatma Gandhi Vidhyalya and Tulchiram Gilda Government Secondary School, Bhadana to model school with comprehensive infrastructure support, innovative aids including activity-based materials for Math, Science & English as well as ICT facilities for improved teaching &	-	0	Bhadana	150	-	0	150

Socio- economic Development Plan for Phase - I								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
	learning							
	Construction of indoor stadium for indoor games such as badminton, chess, tennis etc.	-	0	-	0	Harima	140	140
	Construction of Classrooms in Govt. Schools of nearby area (Total 25 Classrooms)	3 Schools / Bhadana & Sarasani, Harima Villages	75	4 Schools/ Jindas, Bhadana & Manjhwas Villages	100	4 Schools / Sadokan, Amarpura, Somna, Deh Villages	100	275
	construction of sub- Health centre with infrastructure support, if the govt. sanctions a sub-health centre at village Harima.	-	0	-	0	Village Harima	80	80
<b>Health Related</b>	Primary Medical Facilities through Mobile Van	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	100	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	100	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	100	300
<b>Environment Related</b>	Plantation drives with Tree guards along with plantation in temples and cremation grounds	7 Villages / Bhadana, Sarasani,	35	7 Villages / Bhadana, Sarasani,	42	7 Villages / Bhadana, Sarasani,	49	126

Socio- economic Development Plan for Phase - I								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Harima, Jindas, Deh, Manjhwas, Malgoan		Harima, Jindas, Deh, Manjhwas, Malgoan		Harima, Jindas, Deh, Manjhwas, Malgoan		
	Plantation in forest area	In study area in consultation with DFO	30	In study area in consultation with DFO	30	In study area in consultation with DFO	30	90
<i>Water related</i>	Repairing and Renovation of existing water harvesting structures/ ponds/naadis etc. in the nearby villages	3 Ponds at Bhadana, Harima villages	45	5 Ponds of Deh, Khelotao, Somna ad Bhadana Villages	75	5 Ponds at Bhadana, Sarasani, Jindas, Sadokan villages	75	195
	Drinking water arrangements for Cattle & Bird by developing troughs	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	7	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	7	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	7	21
	Developing/repairing of water infrastructures in the villages	2 Villages / Bhadana,	10	2 Village / Sarasani,	10	-	-	20

Socio- economic Development Plan for Phase - I								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		Jindas		Harima				
<i>Infrastructure Related</i>	Installation of Solar Street Lights for better illumination in the villages	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	70	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	50	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	50	170
	1 Km CC Road from Aam guwad to vijya vatika in village Surjaniyawas, Gram Panchayat Gagwana	-	0	-	0	Gagwana	40	40
	Sewage Treatment Plant	-	0	Bhadana Village	50	Bhadana Village	50	100
<i>Sports related</i>	Development of Playgrounds along with construction of boundary wall in the village & School grounds and their maintenance up to 3 years	Bhadana village	50	Sarasani, Somna Villages	100	Amarpura village	50	200
<i>Total</i>			<b>628</b>	<b>0</b>	<b>920</b>	<b>0</b>	<b>977</b>	<b>2525</b>

Socio- economic Development Plan for Phase - II			
Concerns raised	Physical activity to	Unit of Measurement	Tentative

during the Public Hearing	be done	1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		Budget (Rs. in lacs)
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
<i>Livelihood related</i>	Development of Livestock Development Centre	-	0	Village Jindas	20	-	0	20
<i>Education Related</i>	Renovation, Repairing & Painting of Govt. School Buildings	Bhadana & Sarasani, Harima Villages (2 school in each village)	60	Jindas, Bhadana & Manjhwas Villages (2 school in each village)	60	Sadokan, Amarpura, Somna, Deh Villages (2 school in each village)	80	200
	Providing basic amenities like Furniture, Boards, coolers etc. Green water	All Govt. schools of village Bhadana & Sarasani, Harima	150	All Govt. Schools of village Jindas, Pithasiya & Manjhwas	150	All Govt. Schools of Sadokan, Amarpura, Somna, Deh	200	500
	Plantation Works in Govt. School Premises	All Schools of Project area	10	All Schools of Project area	10	All Schools of Project area	10	30
<i>Health Related</i>	Organising Medical camps for specialised diseases	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	100	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	100	7 Villages / Bhadana, Sarasani, Harima, Jindas, Deh, Manjhwas, Malgoan	100	300
<i>Environment</i>	Construction of 10	In study	15	In study	15	In study area	15	45

Socio- economic Development Plan for Phase - II								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
<i>Related</i>	nos. of check dams along nallahs	area in consultation with DFO		area in consultation with DFO		in consultation with DFO		
	Construction of 10 nos. of artificial water bodies (100x100x2) inside the adjacent forest patches	3 nos in study area in consultation with DFO	120	3 nos in study area in consultation with DFO	120	4 nos in study area in consultation with DFO	160	400
<i>Water related</i>	Providing support for Construction of Individual Tanka (Rain Water Harvesting Structures)	Village Bhadana & Jindas	10	Village Sarasani & Harima	10	Village Deh & Malgaon	10	30
	Construction of Drainage system in the villages	Bhadana Village	50	Bhadana and Sarasani village	50	Bhadana village	50	150
<i>Infrastructure related</i>	Construction of 5 Km CC Road with asphaltting connecting Nimbi Jodhan- Nagaur Road	-	0	Village Harima	200	-	0	200
	Construction of Community Centers	3 Community	180	3 Community	180	4 Community Halls at	240	600



Socio- economic Development Plan for Phase - II								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
	for Local community event, SHG meeting, organising functions etc.	Halls at Bhadana, Jindas, Harima villages		Halls at Sarasani, Bhadana, Malgaon villages		Sadokan, Bhadana, Surjaniyawas, Jindas villages		
<i>Sports related</i>	Basketball Ground Development at Bhadana village/School	-	0	Bhadana Village	24	-	0	24
<b>Total</b>			<b>695</b>	<b>0</b>	<b>939</b>	<b>0</b>	<b>865</b>	<b>2499</b>

Socio- economic Development Plan for Phase - III								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
<i>Livelihood related</i>	Establishment of Farmer Training cum demonstration Centre	Bhadana Village	20	-	-	-	0	20

Socio- economic Development Plan for Phase - III								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
	at Bhadana							
<b>Education Related</b>	Ensuring proper Sanitation Facilities at School by building Toilet units separate for boys & girls	Sadokan, Amarpura, Somna, Deh Villages (2 schools in each village)	32	Bhadana & Sarasani, Harima Villages (2 schools in each village)	24	Jindas, Bhadana & Manjhwas Villages (2 schools in each village)	24	80
	Developing Smart Classrooms in the Govt. Schools to promote digital learning	Bhadana & Sarasani, Harima Villages (2 schools in each village)	60	Jindas, Bhadana & Manjhwas Villages (2 schools in each village)	60	Sadokan, Amarpura, Somna, Deh Villages (2 schools in each village)	80	200
	Boundary wall construction of Govt. Schools	2 Villages of nearby plant site	20	1 Village / Kripa ki Dhani	10	1 Village / Amarpura	10	40
<b>Health Related</b>	Infrastructure Improvement in Health Sub-Centers	2 Villages / Bhadana, Sarasani	10	2 Villages / Bhadana, Sarasani	10	1 Village / Sadokan	5	25
	Development of facilities at Deh PHC	1 Village / Deh	30	1 Village / Deh	30	1 Village / Deh	30	90
<b>Environment Related</b>	3 nos. of Anti-poaching barracks for forest surveillance	In study area in consultatio	0	In study area in consultation	15	In study area in consultation	30	45

Socio- economic Development Plan for Phase - III								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		n with DFO		with DFO		with DFO		
	Development of Garden/Parks in the villages	2 Villages	5	2 Villages	7	2 Villages	9	21
<i>Water related</i>	Construction of Drinking Water Facility (Pyau)	Hariram Baba Temple, Bhadana	5	-	0	-	0	5
	Laying of water pipeline in the village in joint collaboration with gram panchayat.	-	0	Odho ki Dhaniya	20	-	0	20
<i>Infrastructure Related</i>	Construction/repairing of village Roads	Village Sarasani	500	Village Sadokan	500	-	0	1000
	Providing busses along with Construction of Bus Stop	Village Bhadana & Malgaon	90	Deh, Jindas	90	Village Harima & Sarasani	90	270
	Development at Cremation Ground along with construction of boundary wall	Sarasani village	20	Surjaniyawas village	20	-	0	40
	Installation of Speed Breakers to ensure road safety	5 Villages of nearby area	1	5 Villages of nearby area	1	-	0	2
	Construction of	Village	6	Village	6	Village Deh,	6	18

Socio- economic Development Plan for Phase - III								
Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
		1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
		Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
	Public Toilets at community places	Bhadana, Malgaon & Amarpura		Pithasiya, Sadokan & Sarasani		Jindas & Manjwas		
	Development of Gaushala of nearby villages with construction of tin shed for storage of fodder, covered shed for cows, drinking water arrangements & electricity facilities and their maintenance up to 3 years	Bhadana village	50	Sarasani Village	50	-	0	100
<b>Total</b>			<b>849</b>	<b>0</b>	<b>843</b>	<b>0</b>	<b>284</b>	<b>1976</b>

41.8.13 The capital cost of the proposed project is Rs. 4998.048 Crores and the capital cost for Environmental Protection Measures is proposed as Rs. 547.39 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 29.93 Crores/ annum. The employment generation from the project is 4110 persons. The details of cost for environmental protection measures are as follows:

S. No.	Description	Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost per Annum
1.	Air Pollution Control/ Noise Management	416	24.96
2.	Water Pollution Control	2	0.06
3.	Energy Conservation Measures	30.35	1.82
4.	Solid Waste Management	35.2	2.112
5.	Greenbelt development	4.53	0.3
6.	Rainwater Harvesting Structures	0.5	0.05
7.	Environmental monitoring	3.65	0.631
8.	Addressal of Public Consultation Concern	70	
9.	Cost for measures for adoption of villages	15	

41.8.14 Proposed greenbelt will be developed in 64.6466 ha are which is about 33.23% of the total project area. A 10 m wide greenbelt, consisting of at-least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines and consultant with Central Arid Zone Research Institute (CAZRI) Jodhpur. However, the width of greenbelt at the plant periphery towards the village hamlet Jindas (western side) will be kept > 30 M. Local and native species will be planted with a density of 2500 trees per hectare. Approximately Total no. of 1,61,620 trees is proposed to be planted in 64.6466 ha in 3 years.

41.8.15 It is reported that there is no violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration.

#### **Written representations:**

41.8.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 04.08.2023 through email dated 04.08.2023 submitted the following information:

S. No.	Observation	Reply by PP
1.	Status of land acquisition and land conversion	The details are submitted and updated at para 41.8.3 above.
2.	PP shall submit an undertaking in respect of transportation of limestone from mines to cement plant for captive utilization	PP has submitted an undertaking dated 04.08.2023 stating the following: 1. That the transportation of limestone from mines shall be done only through overland belt conveyor (OLBC) for captive consumption in the cement plant. However, the limestone, if sold to external users, shall be transported by road. 2. That the Company shall plant 75,000 nos of trees in this monsoon season, i.e. upto Oct, 23 and the
3.	PP shall submit an undertaking in respect of plantation of 75000 nos of tree plantation in this monsoon, i.e. by Oct'23 and the maximum plantation to be done by the end of	

S. No.	Observation	Reply by PP
	2024	
4.	PP shall submit an undertaking in respect of not using any groundwater except for drinking. Also, the Company shall not take drinking water from the Indira Gandhi Canal.	maximum nos of tree plantation shall be done by the end of 2024. 3. That the Company shall not use any groundwater in its premises except for drinking. Also, the Company shall not take drinking water from the Indira Gandhi Canal.
5.	PP shall submit an undertaking in respect of spending of CER budget, i.e. Rs. 70 Crore within 4 years	4. That the Company shall spend the proposed CER budget, i.e. Rs. 70 Crore within 4 years from the date of start of construction activities of the proposed cement plant. 5. The Company will provide 2 nos of buses for the village people and out of these two buses, one standard diesel bus will be provided within 6 months whereas the another one will be an EV bus which will be provided within 2 years or earlier depending on the delivery period of the EV bus.
6.	PP shall submit an undertaking for providing two nos of buses for the village people	6. The Company will engage an external agency/ consultant for carrying out a detailed baseline survey in Nagaur and nearby districts in order to evaluate the need for a cancer hospital in this region. Based on the outcome of the survey/ baseline study, the Company will contribute for the cancer hospital in due course of time.
7.	PP shall explore possibilities for providing cancer hospital in the region as part of CER	The Company will engage an external agency/ consultant for carrying out a detailed baseline survey in Nagaur and nearby districts in order to evaluate the need for a cancer hospital in this region. Based on the outcome of the survey/ baseline study, the Company will contribute for the cancer hospital in due course of time.
8.	PP shall submit assurance letter from the Municipality, Nagaur for supply of treated sewage water to JSW Cement Plant	Letter from Municipality, Nagaur dated 06.07.2023 is submitted.
9.	PP shall submit the plan for sourcing treated sewage water from the STP of Nagaur Municipality.	Action plan for Sourcing of Treated Sewage Water in place of groundwater for industrial purposes is submitted.
10.	Comparison of baseline wind rose data for Dec'21, Dec'22 and April '23 shall be submitted.	Comparative wind rose data has been submitted.

### **Deliberations by the Committee**

41.8.17 The Committee noted the following:

1. The instant proposal is for setting up of an Integrated Cement Plant with Clinker Production Capacity of 12.0 Million TPA, Calcined Clay Production Capacity - 1.5 Million TPA, Cement Production Capacity 5.0 Million TPA (OPC/PPC/PSC/Composite Cement/LC3/PLC), WHRB based Power Plant - 54 MW, DG Sets of 6000 KVA, Oxygen

Plant of capacity 160 m<sup>3</sup>/hr, AFR Pre- Processing/Co- processing Facility and Railway siding with wagon tippler.

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 194.5560 ha. [Private Agriculture: (192.4838) & Government: (2.0722)]. The PP has reported that So far 132.3558 Ha (68%) of the land has been purchased, mutation done and the land is under the possession of JSW Cement. Purchase of remaining land as well as allotment of government land is under progress and same is expected to be completed by Oct'23. Online applications for Conversion of Land Use were submitted to State Revenue deptt. on 15.06.2023, 17.06.2023 and 24.07.2023. So far, NOCs have been received from State Forest deptt and the Executive Engineer, Deptt. of Public Works. Grant of NOC from other departments is in progress and expected to be received by Sept' 23. PP has further reported that they have received consents of the land owners for sale of their land to JSW Cement.
6. Eight Families (1 family from Bhadana village & 7 families from Jindas village) reside inside the project area. Also there is a hamlet with 4 families (50 m, NW), Hamlet (Jindas ki Dhani) (0.60 km, NW), Jindas Village (1.5 km, NE), Village Manjhwass (2.6 km, N), Village Bhadana (2.0 km, SW) and Village Kishanpura (3.0 km, E) within the study area. There are approx. 16 other villages in 10 km radius study area. 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. There are many water bodies which exists within the study area of 10 km of the project site. The EAC is of the opinion that the water bodies shall not be disturbed. Action plan comprising of mitigation measures for conservation of the water bodies shall be implemented.
8. The total water requirement for the proposed project is estimated as 4180 m<sup>3</sup>/day; out of which 3960 m<sup>3</sup>/day will be met from saline ground water after prior approval from competent authorities and 220 m<sup>3</sup>/day requirement will be met through treated waste water.

The EAC is of the opinion that necessary permission shall be obtained from competent authority prior to commencement of project. As committed, the Company shall not use any groundwater in its premises except for drinking. Also, the Company shall not take drinking water from the Indira Gandhi Canal. PP shall implement the plan for sourcing treated sewage water from the STP of Nagaur Municipality in place of groundwater for industrial purposes.

9. Two {Indian Gazelle/ Chinkara (*Gazella bennettii*\*) & Indian pea fowl (*Pavo cristatus*)} Schedule – I species were recorded in the study area during field survey; according to (IWPA) Indian Wildlife Protection Act, 1972 and its amendment Wildlife Conservation Plan for all the above-mentioned Schedule - I species has been prepared and submitted to DFO, Nagaur *vide* letter no F()TK/CCF/2022-23/1969 dated: 29<sup>th</sup> March, 2023 after which has now been forwarded to letter PCCF Jaipur for approval of wildlife conservation plan *vide* letter no. F16(29)wildlife/CCF/2022-23/1266 dated: 6<sup>th</sup> April, 2023. Final approval from PCCF is awaited.
10. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
11. PP reported that greenbelt will be developed in 64.6466 ha are which is about 33.23% of the total project area in consultation with Central Arid Zone Research Institute (CAZRI) Jodhpur. However, the width of greenbelt at the plant periphery towards the village hamlet Jindas (western side) will be kept > 30 M. Approximately Total no. of 1,61,620 trees is proposed to be planted in 64.6466 ha in 3 years. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that as committed, the Company shall plant 75,000 nos of trees in this monsoon season, i.e. upto Oct, 23 and the maximum nos. of tree plantation shall be done by the end of 2024.
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. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
15. 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.
16. 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.

17. 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.

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

41.8.18 In view of the foregoing and after detailed deliberations, the committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the 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. The PP shall complete the acquisition of the proposed project land and conversion for industrial purpose prior to commencement of proposed project.
- v. Eight Families (1 family from Bhadana village & 7 families from Jindas village) reside inside the project area. Also there is a hamlet with 4 families (50 m, NW), Hamlet (Jindas ki Dhani) (0.60 km, NW), Jindas Village (1.5 km, NE), Village Manjhwas (2.6 km, N), Village Bhadana (2.0 km, SW) and Village Kishanpura (3.0 km, E) within the study area. There are approx. 16 other villages in 10 km radius study area. 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 some of these locations in its environmental monitoring programme.
- vi. PP shall implement the R&R plan for the habitations involved within the project area and also for purchase of private land.

- vii. The water requirement of 4180 m<sup>3</sup>/day be met from saline ground water (3960 m<sup>3</sup>/day) after prior approval from competent authorities and through treated waste water (220 m<sup>3</sup>/day). As committed, the Company shall not use any groundwater in its premises except for drinking. Also, the Company shall not take drinking water from the Indira Gandhi Canal. PP shall implement the plan for sourcing treated sewage water from the STP of Nagaur Municipality in place of groundwater for industrial purposes.
- viii. Three tier Green Belt shall be developed in at least 33% of the project area with native species all along the periphery of the project site of adequate width in consultation with Central Arid Zone Research Institute (CAZRI) Jodhpur 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 habitations. As committed, the Company shall plant 75,000 nos of trees in this monsoon season, i.e. upto Oct, 23 and the maximum nos. of tree plantation shall be done by the end of 2024. Compliance status in this regard, shall be submitted to 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 Rs. 70 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- x. PP shall undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- xi. Transportation of limestone from mines shall be done only through overland belt conveyor (OLBC) for captive consumption in the cement plant. However, the limestone, if sold to external users, shall be transported by road.
- xii. As committed, Company shall provide 2 nos of buses for the village people and out of these two buses, one standard diesel bus shall be provided within 6 months whereas the another one will be an EV bus which will be provided within 2 years or earlier depending on the delivery period of the EV bus.
- xiii. The Company shall engage an external agency/ consultant for carrying out a detailed baseline survey in Nagaur and nearby districts in order to evaluate the need for a cancer hospital in this region. Based on the outcome of the survey/ baseline study, the Company will contribute for the cancer hospital in due course of time.
- xiv. 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 06 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. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- 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. Provide Low NO<sub>x</sub> burners as primary measures and SCR /NSCR technologies as secondary measure to control NO<sub>x</sub> emissions.
- xix. The emission norms applicable for the cement plant shall be adhered to.
- xx. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.
- xxi. DeSO<sub>x</sub> system shall be provided dry type. NO<sub>x</sub> level shall be maintained below 600 mg/Nm<sup>3</sup> by using best available technology.
- xxii. Petcoke dosing shall be controlled automatically to control SO<sub>2</sub> emission from chimney within the prescribed limits.
- xxiii. PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.
- xxiv. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.

### **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.

#### **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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- iv. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.
- v. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
- vi. Waste heat recovery system shall be provided for kiln and cooler.

#### **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. PP shall recycle/reuse solid waste generated in the plant 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, SO<sub>2</sub>, NO<sub>x</sub> (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. 41.9**

- 41.9 Greenfield project comprising of Establishment of DRI Kilns (2,31,000 TPA), Induction Furnace with LRF & CCM (Hot Billets / MS Billets / Ingots) (2,64,000 TPA), Rolling Mill TMT Bars / Structural Steel) (2,64,000 TPA), WHRB based Power Plant – 2 x 8.0 MW, CFBC based Power Plant – 1 x 9.0 MW, Ferro Alloys Unit (FeSi – 7,000 TPA or SiMn – 14,400 TPA or FeMn – 25,200 TPA or FeCr – 15,000 TPA), Brick Manufacturing unit (32,000 Bricks / Day), Briquetting Plant (100 Kg/Hr.) by M/s. Lala Pipes Private Limited, located at Paunsari Village, Simga Tehsil, Balodabazar Bhatapara District, Chhattisgarh EC**



**[Proposal No. IA/CG/IND1/427901/2023, File No. J-11011/35/2022-IA.II(Ind1)]**  
**[Consultant: Pioneer Enviro Consultants Pvt. Ltd. ; Valid upto 21.09.2025]**

- 41.9.1 M/s. Lala Pipes Private Limited has made an online application vide proposal no. IA/CG/IND1/427901/2023 dated 17.07.2023 along with copy of EIA report, 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 and Non/ferrous) and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 41.9.2 Name of the EIA consultant: M/s. Pioneer Enviro Consultants Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2225/RA 0282; valid upto 21.09.2025, as on August 2, 2023].

**Details submitted by Project proponent**

- 41.9.3 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>
29 <sup>th</sup> January 2022	53 <sup>rd</sup> EAC 10 <sup>th</sup> February, 2021 To 11 <sup>th</sup> February, 2021	Terms of Reference	02 <sup>th</sup> March 2022	01 <sup>st</sup> March 2026

- 41.9.4 The project of M/s. Lala Pipes Private Limited is located at Khasra nos. 380, 384, 386, 387, 389, 390, 391, 392/1, 392/2, 394, 398, 647/1, 647/2, 648, 649, 650/2, 650/3. of Paunsari Village, Simga Tehsil, Balodabazar Bhatapara District, Chhattisgarh is for setting up of a new steel plant for production of 0.264 Million Tons Per Annum (MTPA) of TMT bars / Structural Steel.

- 41.9.5 Environmental site settings:

<b>S.No.</b>	<b>Particulars</b>	<b>Details</b>	<b>Remarks</b>
1.	Total land	Total land 14.88 Ha. (36.77 Acres)-[Private land]	---
2.	Land acquisition details as per MoEF&CC O.M. dated October 2014	Total land 14.38 Ha. is in possession of management and agreement has been entered for remaining 0.5 Ha. The land earmarked for the proposed project is Private Land (Agricultural Land).	<p><b><u>Status of land acquisition</u></b> 14.38 Ha. of land is registered in the company name and for the remaining 0.50 Ha. agreement of sale has been executed. <b>Registered / Consent available for entire 14.88 Ha. of land</b></p> <p><b><u>Status of land diversion</u></b> Application submitted for 14.38 Ha. and for remaining 0.50 Ha. land diversion</p>

S.No.	Particulars	Details	Remarks																											
			request will be submitted immediately upon registration of 0.50 Ha. of land.																											
3.	Existence of habitation & involvement of R&R, if any.	<b>Project site:</b> No habitation exists in the plant site. Nearest habitation : Paunsari Village (0.75 Kms.) Hence R&R not applicable.	--																											
4.	Latitude and Longitude of the project site	The Coordinates of the project site are following <table border="1"> <thead> <tr> <th>S.No.</th> <th>Point</th> <th>Coordinates</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Point # 1</td> <td>21°37'42.43"N 81°44'27.01"E</td> </tr> <tr> <td>2.</td> <td>Point # 2</td> <td>21°37'42.33"N 81°44'34.85"E</td> </tr> <tr> <td>3.</td> <td>Point # 3</td> <td>21°37'40.47"N 81°44'38.21"E</td> </tr> <tr> <td>4.</td> <td>Point # 4</td> <td>21°37'32.98"N 81°44'39.34"E</td> </tr> <tr> <td>5.</td> <td>Point # 5</td> <td>21°37'24.52"N 81°44'35.69"E</td> </tr> <tr> <td>6.</td> <td>Point # 6</td> <td>21°37'22.00"N 81°44'30.37"E</td> </tr> <tr> <td>7.</td> <td>Point # 7</td> <td>21°37'31.24"N 81°44'26.73"E</td> </tr> <tr> <td>8.</td> <td>Point # 8</td> <td>21°37'37.39"N 81°44'26.45"E</td> </tr> </tbody> </table>	S.No.	Point	Coordinates	1.	Point # 1	21°37'42.43"N 81°44'27.01"E	2.	Point # 2	21°37'42.33"N 81°44'34.85"E	3.	Point # 3	21°37'40.47"N 81°44'38.21"E	4.	Point # 4	21°37'32.98"N 81°44'39.34"E	5.	Point # 5	21°37'24.52"N 81°44'35.69"E	6.	Point # 6	21°37'22.00"N 81°44'30.37"E	7.	Point # 7	21°37'31.24"N 81°44'26.73"E	8.	Point # 8	21°37'37.39"N 81°44'26.45"E	--
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5.	Elevation of the project site	98.4 to 101.1 m above MSL	--																											
6.	Involvement of Forest Land, if any	Not applicable as no Forest land is involved in the project site.	--																											
7.	Water body exists within the project site as well as study area	<b>Project Site :</b> Nil <b>Study area:</b> <table border="1"> <thead> <tr> <th>Water Body</th> <th>Distance (Kms.)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Kotri Nallah</td> <td>0.6</td> <td>S</td> </tr> <tr> <td>Gadaria Nallah</td> <td>3.0</td> <td>S</td> </tr> <tr> <td>Shivnath River</td> <td>5.0</td> <td>W</td> </tr> <tr> <td>Bahatapara Branch Mahanadi Canal</td> <td>4.5</td> <td>SE</td> </tr> <tr> <td>Ghughua Water Reservoir</td> <td>2.8</td> <td>--</td> </tr> </tbody> </table>	Water Body	Distance (Kms.)	Direction	Kotri Nallah	0.6	S	Gadaria Nallah	3.0	S	Shivnath River	5.0	W	Bahatapara Branch Mahanadi Canal	4.5	SE	Ghughua Water Reservoir	2.8	--	--									
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Ghughua Water Reservoir	2.8	--																												
8.	Existence of ESZ / ESA / National Park / Wildlife Sanctuary	Nil List of Reserved and protected forests:	---																											

S.No.	Particulars	Details			Remarks
		Name	Distance (Kms.)	Direction	
	/ Biosphere Reserve / Tiger Reserve / Elephant Reserve etc. if any within the study area	Bilari Ghughua RF	3.0	SE	
		Bilari RF	4.5	S	

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

S.No.	Units (Products)	Plant Configuration	Production Capacity
1.	DRI Kilns (Sponge Iron)	2 x 350 TPD	2,31,000 TPA
2.	Induction Furnaces (Hot Billets / MS Billets / Ingots)	4 x 20 T	2,64,000 TPA
3.	Rolling Mills (TMT bars / Structural Steel) (85 % Hot charging + 15% through RHF with LDO /LSHS as fuel)	1 x 800 TPD	2,64,000 TPA
4.	Ferro Alloys Unit (FeSi / FeMn / SiMn / FeCr)	1 x 9 MVA	FeSi-7,000 TPA / FeMn-25,200 TPA / SiMn-14,400 TPA / FeCr-15,000 TPA
5.	Power Plant (Electricity)	25.0 MW (16.0 MW WHRB + 9.0 MW of FBC)	25.0 MW (16.0 MW WHRB + 9.0 MW of FBC)
6.	Briquetting plant	100 Kg/Hr	100 Kg/Hr
7.	Brick Manufacturing Unit	32,000 Bricks / Day	32,000 Bricks / Day

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

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
1.	<b>For DRI Kilns (Sponge Iron) – 2,31,000 TPA</b>				
a)	Iron ore	3,69,600	Barbil, Orissa NMDC, Chhattisgarh	~ 500 Kms.	By rail & road (through covered trucks)
b)	Coal	Indian	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
		Imported	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
c)	Dolomite	11,550	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)
2.	<b>For Steel Melting Shop (Hot Billets / Billets / Ingots) – 2,64,000 TPA</b>				
a)	Sponge Iron	2,67,000	Own generation & Purchased from outside	--- ~ 100 Kms.	Through covered conveyers By road

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport	
					(through covered trucks)	
b)	MS Scrap / Pig Iron	40,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
c)	Ferro alloys	13,000	Chhattisgarh	~ 100 Kms.	By road (through covered trucks)	
3.	<b>For Rolling Mill through Hot charging (Rolled Products) – 2,64,000 TPA</b>					
a)	Hot Billets (85% - Hot Charging)	2,33,376	Own generation	---	----	
b)	MS Billets / MS Ingots (15% - Reheating)	43,560	Own generation & external purchase	---	----	
c)	LDO / LSHS (for 15% Reheating)	1200 Kl/annum	Nearby IOCL Depot	~ 100 Kms.	By road (through Tankers)	
4.	<b>For FBC Boiler [Power Generation - 1 x 9.0 MW]</b>					
a)	Indian Coal (100 %)	53,460	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)	
<b>OR</b>						
b)	Imported Coal (100 %)	34,214	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)	
<b>OR</b>						
c)	Dolochar + Indian Coal	Dolochar	46,200	In plant generation	---	through covered conveyors
		Indian Coal	30,360	SECL Chhattisgarh / MCL Odisha	~ 500 Kms.	By rail & road (through covered trucks)
<b>OR</b>						
d)	Dolochar + Imported Coal	Dolochar	46,200	In plant generation	---	through covered conveyors
		Imported coal	19,430	Indonesia / South Africa / Australia	~ 600 Kms. (from Vizag Port)	Through sea route, rail route & by road (through covered trucks)
5.	<b>For Ferro Alloys (1 x 9 MVA)</b>					
5 (i)	<i>For Ferro Silicon – 7,000 TPA</i>					
a)	Quartz	10,640	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)	
b)	Mill Scale	1,645	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)	
c)	M.S. Scrap	245	Inhouse Generation	---	By road (through covered trucks)	

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
					trucks)
d)	LAM Coke	3,920	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
e)	Electrode paste	140	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Briquetted Bag filter dust	266	Own generation	---	---
5 (ii)	<i>For Ferro Manganese – 25,200 TPA</i>				
a)	Manganese Ore	57,330	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	LAM Coke	9,198	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Dolomite	4,284	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS scrap / Mill scales	3,780	Inhouse Generation	---	By road (through covered trucks)
e)	Electrode paste	328	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Briquetted Bag filter dust	1,260	Own generation	---	---
5 (iii)	<i>For Silico Manganese – 14,400 TPA</i>				
a)	Manganese Ore	23,472	MOIL / OMC	~ 500 Kms.	By Rail & Road (through covered trucks)
b)	FeMn Slag	15,236	In house generation	---	----
c)	LAM Coke	5,400	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	Dolomite	3,240	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
e)	Electrode paste	288	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
f)	Quartz	3,456	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
g)	Briquetted Bag filter dust	216	Own generation	---	---
5 (iv)	<i>For Ferro Chrome – 15,000 TPA</i>				

S.No.	Raw Material	Quantity (TPA)	Sources	Distance from site (in Kms.)	Mode of Transport
a)	Chrome Ore	30,000	Sukinda, Odisha Import, South Africa	~ 500 Kms. ~ 600 Kms. (from Vizag Port)	By road (through covered trucks) From Port By Road (through covered Trucks)
b)	LAM Coke	4,950	Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
c)	Quartz	2,625	Chhattisgarh / Andhra Pradesh	~ 500 Kms.	By road (through covered trucks)
d)	MS Scrap / Mill Scale	2,250	Inhouse Generation	---	By road (through covered trucks)
e)	Magnetite / Bauxite	2,535	Chhattisgarh / Maharashtra	~ 500 Kms.	By road (through covered trucks)
f)	Electrode Paste	450	Maharashtra / West Bengal	~ 300 Kms.	By road (through covered trucks)
g)	Briquetted Bag filter dust	960	Own generation	---	---

41.9.8 Water requirement for proposed project is estimated as 1200 KLD and will be sourced from Tulasi – Pausari anicut on Shivanth River (which is at a distance of 5.0 Kms. from the project site). MOU has been signed by Lala Pipes Pvt. Ltd. with State Govt. of Chhattisgarh. Accordingly, State Investment promotion Board (SIPB) has recommended for water allocation.

41.9.9 The total power requirement for the proposed project will be about 43.0 MW, this will be partly met from the Captive power plant of 25 MW & Remaining 18 MW will be sourced from the state grid.

#### 41.9.10 Baseline Environmental Studies

Period	1st March 2022 to 31st May 2022
AAQ parameters at 8 locations	<ul style="list-style-type: none"> <li>PM<sub>2.5</sub> = 22.1 to 43.3 µg/m<sup>3</sup></li> <li>PM<sub>10</sub> = 38.6 to 72.3 µg/m<sup>3</sup></li> <li>SO<sub>2</sub> = 7.9 to 16.3 µg/m<sup>3</sup></li> <li>NO<sub>x</sub> = 8.9 to 30.2 µg/m<sup>3</sup></li> <li>CO = 490 to 1365 µg/m<sup>3</sup></li> </ul>
AAQ modelling	<ul style="list-style-type: none"> <li>Incremental GLCs due to the proposed project:</li> <li>PM<sub>2.5</sub> = 0.61 (1000 m in NE)</li> <li>PM<sub>10</sub> = 1.69 µg/m<sup>3</sup> (1000 m NE) ; PM<sub>10</sub> = 0.2 µg/m<sup>3</sup> (Vehicular)</li> <li>SO<sub>2</sub> = 5.97 µg/m<sup>3</sup> (1200 m in NE)</li> <li>NO<sub>2</sub> = 6.7 µg/m<sup>3</sup> (1100 m in NE) NO<sub>2</sub> (vehicular) = 2.1 µg/m<sup>3</sup></li> </ul>

	<ul style="list-style-type: none"> <li>• CO (vehicular) = 1.2 µg/m<sup>3</sup></li> </ul>																																				
Ground water quality at 8 locations	<ul style="list-style-type: none"> <li>• pH : 7.2 to 8.1</li> <li>• TSS : 0.3 to 0.6 mg/l</li> <li>• TDS : 334 to 542 mg/l</li> <li>• Total Hardness: 190 to 296 mg/l</li> <li>• Chlorides : 164 to 251 mg/l</li> <li>• Fluoride : 0.4 to 0.59 mg/l</li> <li>• Heavy metals (Iron -Fe): 0.014 to 0.024 mg/l</li> </ul>																																				
Surface water quality	pH : 7.4 to 7.8, DO (in mg/l) : 4.2 to 6.6, TDS (in mg/l) : 232 to 629, BOD (in mg/l) : 2.4 to 2.9 , COD (in mg/l) : 5.9 to 12.5.																																				
Noise levels	The equivalent day-night noise levels in the study zone are ranging from 45.9 dBA to 54.3 dBA.																																				
Traffic assessment study Findings	<ul style="list-style-type: none"> <li>• Project site is well connected to NH # 130 (earlier NH # 200) at 2.7 Kms. from project site and same is capable of absorbing additional truck movement due to transportation. Major raw materials will be transported through railway rakes up to the nearest railway station (i.e. Hathband RS – 9.7 Kms.) and then to the site through road by covered trucks.</li> <li>• Total no. of trucks required for transportation of raw materials, products &amp; Solid wastes during the operation of the proposed project will be 65 trucks/day.</li> </ul> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Road</th> <th>V (Volume in PCU/hr.)</th> <th>C (Capacity in PCU/hr.)</th> <th>Proposed V/C Ratio</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td>Baseline</td> <td>1099</td> <td>2900</td> <td>0.38</td> <td>B</td> </tr> <tr> <td>During operation of the proposed project</td> <td>1164 (1099 + 65)</td> <td>2900</td> <td>0.40</td> <td>B</td> </tr> </tbody> </table> <p style="text-align: center;"><b>Level of Service (LOS) of the Road as per IRC 73: 1980</b></p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>V/C</th> <th>LOS</th> <th>Performance</th> </tr> </thead> <tbody> <tr> <td>0.0 – 0.2</td> <td>A</td> <td>Excellent</td> </tr> <tr> <td><b>0.2 – 0.4</b></td> <td><b>B</b></td> <td><b>Very Good</b></td> </tr> <tr> <td>0.4 – 0.6</td> <td>C</td> <td>Good</td> </tr> <tr> <td>0.6 – 0.8</td> <td>D</td> <td>Fair/ Average</td> </tr> <tr> <td>0.8 – 1.0</td> <td>E</td> <td>Poor</td> </tr> <tr> <td>1.0 &amp; Above</td> <td>F</td> <td>Very Poor</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• The Level of Service (LOS) of the Road during operation of the project = <b>1164 / 2900 = 0.40</b></li> <li>• <b>As per the above the LOS of the ROAD is categorised under ‘B’, which implies “VERY GOOD”.</b></li> <li>• Hence the existing road is capable of taking the additional vehicular traffic due to the proposed project</li> </ul>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Proposed V/C Ratio	LOS	Baseline	1099	2900	0.38	B	During operation of the proposed project	1164 (1099 + 65)	2900	0.40	B	V/C	LOS	Performance	0.0 – 0.2	A	Excellent	<b>0.2 – 0.4</b>	<b>B</b>	<b>Very Good</b>	0.4 – 0.6	C	Good	0.6 – 0.8	D	Fair/ Average	0.8 – 1.0	E	Poor	1.0 & Above	F	Very Poor
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Flora and fauna	No schedule-1 fauna within the study area																																				

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

S.No.	Waste / By product	Quantity (TPA)	Proposed method of disposal
1.	Ash from DRI	41,580	Will be utilized in the proposed Brick Manufacturing Unit within the premises.
2.	Dolochar	46,200	Will be used as fuel in proposed FBC boiler .
3.	Kiln Accretion Slag	2,079	Will be used in road construction & utilized in the proposed brick manufacturing unit within the premises.
4.	Wet scrapper sludge	9,240	Will be used in road construction & utilized in the proposed brick manufacturing unit
5.	SMS Slag	26,400	Slag from SMS will be crushed and iron will be recovered & then remaining non -magnetic material being inert by nature will be used as sub base material in road construction / will be utilized in the proposed brick manufacturing unit.
6.	End Cuttings from Rolling Mill	7,920	Will be reused in the SMS
7.	Mill scales from Rolling Mill	792	Mill scales will be utilized in proposed Submerged electric Arc Furnace unit within the premises.
8.	Ash from Power Plant (with Indian Coal + dolochar)	76,560	Will be utilized in the proposed Brick Manufacturing Unit within the premises.
9.	Slag from FeMn	15,236	Will be reused in manufacture of SiMn as it contains high SiO <sub>2</sub> and Silicon.
10.	Slag from FeSi	1,686	Will be given to Cast iron foundries
11.	Slag from SiMn	12,827	will be used for Road construction / will be given to slag cement manufacturing.
12.	Slag from FeCr	8,712	Will be processed in Zigging plant for Chrome recovery. After Chrome recovery, the left-over slag will be analysed for Chrome content through TCLP test, if the Chrome content in the slag is within the permissible limits, then it will be utilized for Road laying /brick manufacturing. If Chrome content exceeds the permissible limits, it will be sent to nearest TSDF.
13.	Dust from Bagfilters of SEAF & during tapping	4,000	will be used in Briquetting Plant.

**Hazardous waste Generation:**

- 1) Used Oil & Waste Oil : 1 KL/Annum

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

- 2) Used batteries will be given back to the supplier under buy back agreement with supplier.

41.9.12 **Public Consultation:**

Details of advertisement given	Local newspaper (Hindi) "Haribhoomi", Raipur dt.
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	01.12.2022 and in National newspaper (English) “Loksatya” New Delhi dt. 01.12.2022.
Date of Public Consultation	05.01.2023 at 10:00 AM
Venue	Project site Khasra nos. 380, 384, 386, 387, 389, 390, 391, 392/1, 392/2, 394, 398, 647/1, 647/2, 648, 649, 650/2, 650/3. of Paunsari Village, Simga Tehsil, Balodabazar Bhatapara District, Chhattisgarh.
Presiding Officer	Additional District Magistrate
Major issues raised	The issues raised during Public Hearing are: <ul style="list-style-type: none"> <li>• Social Infrastructure Development</li> <li>• Environment Pollution</li> <li>• Impact on crops</li> <li>• Employment</li> <li>• Providing speed breakers</li> <li>• Repair of Paunsari to Kamta Village road</li> <li>• Drinking water facility</li> <li>• Ground water depletion</li> <li>• Class rooms in schools</li> <li>• Ambulance facility</li> <li>• Plantation in villages</li> </ul>

**Action plan as per MoEFCC O.M. dated 30/09/2020**

S. NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)	
		1 <sup>st</sup> Year (Rs. in Lakhs)	2 <sup>nd</sup> Year (Rs. in Lakhs)	3 <sup>rd</sup> Year (Rs. in Lakhs)		
<b>A) Based on SIA Study</b>						
1	<b>Community &amp; Infrastructure Development Programmes</b>					
	i) Providing LED Street lighting with solar panels	Physical Nos. & village	10 nos. in Paunsari (v)	10 nos. in Kamta (v)	10 nos. in Otgaon(v)	4.5
		Budget Rs. in Lakhs	1.5	1.5	1.5	
	<b>Total</b>					<b>4.5</b>
2	<b>Education</b>					
	i) Providing Sport kits for schools	Physical Nos. & village	10 nos. in Paunsari (v)	5 nos. in Kamta (v)	5 nos. in Otgaon(v)	2.0
		Budget Rs. in Lakhs	1.0	0.5	0.5	
	ii) Providing support to Model Anganwadi Centre in consultation with State Women and Child Development	Physical Nos. & village	1 no. in Paunsari (v)	1 no. in Bilari (v)	1 no. in Ringni (v)	31.5

S. NO.	MAJOR ACTIVITY HEADS	YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)	
		1 <sup>st</sup> Year (Rs. in Lakhs)	2 <sup>nd</sup> Year (Rs. in Lakhs)	3 <sup>rd</sup> Year (Rs. in Lakhs)		
	Department					
	Budget Rs. in Lakhs	10.5	10.5	10.5		
	<b>Total</b>	11.17	11.17	11.16	<b>33.5</b>	
				<b>TOTAL (A)</b>	<b>38.0</b>	
<b>B) Based on Public Consultation/Hearing</b>						
1	Impart training to the local villagers for skill development. a) "DISHA Centre" along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	DISHA centre in Paunsari Village			197
	Budget Rs. in Lakhs	70	70	57		
2	Providing basic drainage facilities and roads in the panchayat	Physical Nos. & village	Paunsari (v)	Kamta (v)	Otgaon (v)	45
	Budget Rs. in Lakhs	15	15	15		
3	Repair of existing road from Paunsari to Kamta Village (stretch of 2.2 Kms)	Physical Nos. & village	Paunsari to Kamta Village	---	---	30
	Budget Rs. in Lakhs	30	---	---		
4	Providing drinking water facility in Paunsari, Kamta, Otgaon villages	Physical Nos. & village	Paunsari (v)	Kamta (v)	Otgaon (v)	15
	Budget Rs. in Lakhs	5	5	5		
5	Speed Breakers will be provided in front of main gate Paunsari, Kamta, Otgaon villages	Physical Nos. & village	Paunsari (v), Kamta (v), Otgaon (v)	---	---	10
	Budget Rs. in Lakhs	10	---	---		
6	<i>Construction of Primary Health center with Ambulance in Paunsari village to take care of health requirements of the surrounding villages.</i>	<i>Physical Nos. &amp; village</i>	<i>Paunsari (v)</i>	---	---	<b>100</b>
	<i>Budget Rs. in Lakhs</i>	<i>100</i>	---	---		

S. NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1 <sup>st</sup> Year (Rs. in Lakhs)	2 <sup>nd</sup> Year (Rs. in Lakhs)	3 <sup>rd</sup> Year (Rs. in Lakhs)	
7	Construction of class rooms in schools of size 8m x 6m x 4m	Physical Nos. & village	2 rooms in Paunsari(v)	2 rooms in Kamta (v)	2 room in Otgaon (v)	60
		Budget Rs. in Lakhs	20	20	20	
8	Plantation in <b>nearby</b> villages & along the Roads	Physical Nos. & village	2000 nos. in Paunsari (v)	2000 nos. in Kamta (v)	2000 nos. in Otgaon (v)	30
		Budget Rs. in Lakhs	10	10	10	
		<b>Total B</b>	<b>260</b>	<b>120</b>	<b>107</b>	<b>487</b>
		<b>TOTAL</b>				
	<b>Grand Total(A+B)</b>					<b>525</b>
Recurring expenditures under CSR as per companies Act 2014 ( <b>This is not part of SID</b> )						
<ul style="list-style-type: none"> <li>Health checkup will be carried out periodically in surrounding villages i.e. Paunsari, Kamta, Otgaon villages @ Rs 10.0 Lakhs every year.</li> <li>Rs. 10 Lakhs for regular maintenance of Road</li> </ul>						

41.9.13 The capital cost of the project is Rs. 350.0 Crores and the capital cost for environmental protection measures is proposed as Rs. 35.92 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 6.747 Crores. The employment generation from the proposed project is 850 nos. The details of cost for environmental protection measures is as follows:

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
1	<b>Air Emission Management</b>		
	• Electro Static Precipitators (ESP) - DRI	12.00	2.4
	• Fume Extraction system with bag filters	6.00	1.0
	• other APCS & Conveyor systems	2.00	0.45
	• Stacks	3.40	0.125
	• Mechanical Dust sweepers	0.50	0.03
	• Water Sprinklers	0.40	0.005
2	<b>Wastewater Management</b>		
	• ETP	0.72	0.13
	• STP	0.50	0.1
	• Garland drains	0.50	0.02
	• Settling ponds	0.05	0.003
3	<b>Solid waste Management</b>		
	• Fly Ash Handling & disposal	2.50	0.6
	• Slag Handling & Disposal	0.30	0.05
	• Hazardous waste storage & disposal	0.10	0.05

S.No.	Particulars	Capital Cost (Rs.in Crores)	Recurring Cost / Annum (Rs.in Crores)
	• Municipal solid waste storage & disposal	0.05	0.025
4	Greenbelt development, Land scaping etc.	0.60	0.18
5	Noise Management	0.20	0.1
6	RWH in Plant	0.70	0.004
7	Fire Safety Systems	2.50	0.15
8	<b>Environmental Monitoring</b>		
	• CEMS	0.70	0.025
	• CAAQMS	1.60	0.4
	• Environment Monitoring	---	0.11
	• Performance monitoring of APCS	---	0.01
9	<b>Occupational Health &amp; Safety</b>		
	• Occupational Health Centre	0.40	0.075
	• Personal Protective Equipment's (PPEs)	0.20	0.10
		<b>35.92</b>	<b>6.747</b>

41.9.14 Greenbelt will be developed in 4.91 Ha. (12.13 Acres) out of 14.88 Ha. (36.77 Acres) of land. 2500 nos. of plants will be planted per Hectare as per CPCB norms. Total no. of plants will be 12,275 nos. which is about 33.0% of the total project area and will be nurtured in the first year.

41.9.15 It is reported that there is no violation under EIA, 2006/court case/show cause/direction if any, related to the project under consideration.

**Written representations:**

41.9.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 04.08.2023 through email dated 04.08.2023 submitted the following information:

S.No.	Information sought	Reply by the PP
1.	Elevation of the project site	PP confirms that Elevation at the project site is ranging from 98.4 m to 101.1 m AMSL
2.	Status of land acquisition and diversion status	<p><b><u>Status of land acquisition</u></b></p> <ul style="list-style-type: none"> <li>• Total land identified for the proposed project is 14.88 Ha. Out of this, 14.38 Ha. is registered in the name of company and for remaining 0.50 Ha. agreement of sale has been executed.</li> <li>• Copy of Agreement for 0.5 Ha. of land is submitted.</li> </ul> <p><b><u>Diversion Status</u></b></p> <ul style="list-style-type: none"> <li>• PP has applied for Land Diversion of 14.38 Ha. of land (registered in the name of company) vide dt. 17.06.2022 to Sub Divisional Officer (Revenue), Simga.</li> <li>• Subsequently, the following department has submitted NOC to Sub Divisional Officer (Revenue), Simga for the purpose of</li> </ul>

S.No.	Information sought	Reply by the PP
		land diversion: ➤ Block Development Officer, Bhatapara ➤ Gram Panchayat, Paunsari ➤ Chhattisgarh State Power Distribution Company Ltd., Simga ➤ Public Work Department, Bhatapara ➤ Revenue Inspector, Simga ➤ Public Health Engineering Sub Division, Bhatapara Copy of NOCs from above departments is submitted.
3.	Status of Water approval	<ul style="list-style-type: none"> <li>• Project has signed MoU with Govt. of Chhattisgarh for implementation of project. Copy of MoU is submitted.</li> <li>• Water drawl application has been submitted to Water Resource Department, Govt. of Chhattisgarh 11.03.2022.</li> <li>• Subsequently, request for water allocation has been discussed 54<sup>th</sup> meeting State Water Resources Utilization Committee, Chhattisgarh held on 26.06.2023.</li> <li>• Accordingly, water allocation has been recommended Tulsī – Paunsari Anicut (Off take point) on Shivnath river for 0.438 MCM per annum. Kindly refer to page no. 4 of MoM of 54<sup>th</sup> meeting State Water Resources Utilization Committee, Chhattisgarh held on 26.06.2023, submitted.</li> </ul>
4.	Revised SID	As per the discussion during meeting, PP confirms they they will increase the budget for Primary Health Centre with ambulance facility from Rs. 40 Lakhs to Rs. 100 Lakhs. The same is updated at para 41.9.12 above.
5.	HT Line corridor	PP confirms that they will maintain 50 m width corridor below the HT line as no activity zone.
6.	Material Balance for Ferro Alloys	Revised Material Balance for Ferro Alloys is submitted.

### **Deliberations by the Committee**

41.9.17 The Committee noted the following:

1. The instant proposal is for setting up of a new steel plant for production of 0.264 Million Tons Per Annum (MTPA) of TMT bars / Structural Steel.
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 14.88 Ha. (36.77 Acres) which is a private land, out of which 14.38 Ha. is in possession of management and agreement has been entered for remaining 0.5 Ha. Copy of Agreement for 0.5 Ha. of land is submitted. PP has applied for Land Diversion of 14.38 Ha. of land (registered in the name of company) vide dt. 17.06.2022 to Sub Divisional Officer (Revenue), Simga.
6. The nearest habitation are Paunsari Village at a distance of 0.75 km from 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. Kotri Nallah (0.6 km, S) and other water bodies exists within the study area of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
8. Water requirement for proposed project is estimated as 1200 KLD and will be sourced from Tulasi – Pausari anicut on Shivnath River (which is at a distance of 5.0 Kms. from the project site). The EAC deliberated on the water requirement for the project and is of the opinion that necessary permission shall be obtained from the Competent Authority prior to commencement of project.
9. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
10. The PP has submitted that Greenbelt will be developed in 4.91 Ha. (12.13 Acres) out of 14.88 Ha. (36.77 Acres) of land. Total no. of plants will be 12,275 nos. which is about 33.0% of the total project area and will be nurtured in the first year. The EAC deliberated on the greenbelt action plan along with the budget earmarked and found it satisfactory.
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 revised 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 (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

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

41.9.18 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. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. The PP shall complete the acquisition of the proposed project land and conversion for industrial purpose prior to commencement of proposed project.
- iv. The nearest habitation are Paunsari Village at a distance of 0.75 km from 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 locations in its environmental monitoring programme.
- v. Kotri Nallah (0.6 km, S) and other water bodies exists within the study area of the project site. A robust and full proof Drainage Conservation scheme to protect the natural

drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

- vi. The water requirement of 1200 m<sup>3</sup>/day shall be obtained from Tulasi – Pausari anicut on Shivnath River after obtaining necessary permission from the Competent Authority. No ground water abstraction is permitted.
- vii. Three tier Green Belt shall be developed in at least 33% of the project area in a time period of 1 year all along 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 Paunsari 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 Rs. 5.25 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- ix. The PP shall adopt undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- x. PP shall maintain 50 m width corridor below the HT line as no activity zone.

## **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. 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. 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 04 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. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.
- xx. The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.
- xxi. The 4<sup>th</sup> hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.
- xxii. 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.
- xxiii. 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.
- xxiv. 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.
- xxv. Online stack monitoring system for IF and RHF shall be installed and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.
- xxvi. Low NO<sub>x</sub> Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.

### **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. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- x. 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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- iv. Practice hot charging of slabs and billets/blooms as far as possible.
- v. Ensure installation of regenerative type burners on all reheating furnaces.
- vi. The project proponent shall provide waste heat recovery system on the DRI Kilns.
- vii. The dolochar generated shall be used for power generation.
- viii. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- ix. 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 install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. 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 approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. 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 environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, 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. 41.10**

**41.10 Proposed Greenfield Cement Plant of 2.50 MTPA Clinker & 3.50 MTPA Cement (OPC/PPC), 50 MW Thermal Power Plant, and 15 MW Waste Heat Recovery Plant of M/s Saraswati Power & Industries Private Limited, located at Villages Tangeda, Vemavaram, Chennayapalem, Tehsil Dachepalli & Machavaram, District Palnadu in Andhra Pradesh– Consideration of EC**

**[Proposal No. IA/AP/IND1/431311/2022; J-11011/543/2009 –IA II (I)]**

**[Consultant: B. S. Envi-Tech Pvt Ltd.; Valid upto 07.08.2023]**

41.10.1 M/s Saraswati Power & Industries Private Limited has made an online application vide proposal no. IA/AP/IND1/431311/2023 dated 15.07.2023 along with copy of EIA report, 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(b) Cement Plants and 1 (d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

41.10.2 Name of the EIA consultant: M/s. B. S. Envi-Tech Pvt Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2759; Valid up to 07.08.2023, as on August 2, 2023].

**Details submitted by Project proponent**

41.10.3 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>
14.12.2022	22 <sup>nd</sup> meeting of the EAC held on 30-31st January, 2023	Terms of Reference	21.02.2023	20.02.2027

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

41.10.5 Environmental site settings:

<b>S. No</b>	<b>Particulars</b>	<b>Details</b>	<b>Remarks</b>		
i.	Total land	121.4 Ha [Private Agricultural land]	Land use:		
			<b>S. No</b>	<b>Descriptions</b>	<b>Area (Ha)</b>
			1	Cement Plant – Process area including cement mill and packing area	10.30
			2	Captive Power Plant with switch yard	10.00
			3	Storages	12.00

S. No	Particulars	Details	Remarks		
			(Limestone, Coal & Additives)		
			4	Water reservoir	2.70
			5	Railway siding	12.00
			6	Truck parking	2.50
			7	Roads	12.00
			8	Area inbetween structures	9.40
			9	Greenbelt	42.50
			10	Colony	8.00
				<b>Total</b>	<b>121.4</b>
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	SPIPL has purchased about 107 Ha. of land directly and balance is under process.			-
iii.	Existence of habitation & involvement of R&R, if any.	None, No R&R is involved			-
		<b>Study Area:</b>	<b>Habitation</b>	<b>Distance (Km)</b>	<b>Direction</b>
		Chennayyapalem	0.40	N	
		Vemavaram	0.88	ESE	
iv.	Latitude and Longitude of all corners of the project site.	<b>S. No</b>	<b>LATITUDE N"</b>	<b>LONGITUDE E"</b>	-
		A	16°38'48.75" N	79°50'35.17" E,	
		B	16°38'48.03" N	79°51'12.52" E,	
		C	16°38'7.09" N	79°51'10.31" E,	
		D	16°38'16.77" N	79°50'35.67" E,	
v.	Elevation of the project site	83 m above MSL.			-
vi.	Involvement of Forest land if any.	No Forest Land Involved as reported by the PP.			-
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<b>Project site:</b> 1. Canal inside the Plant Site - S <b>Study area</b> 2. Krishna River – 3.96 km - E 3. Stream Adjacent to the Plant Site - N. 4. Elaga Vagu – 5.36 km – NE 5. Chinriyal Major – 5.31 km – ENE 6. Ganneru Vagu – 4.07 km – SE 7. Ralla Vagu – 1.59 km – E 8. Tadutla Minor – 3.56 km – SSE 9. Barimeda Vagu – 2.71 km – W 10. Nearest Canal – 1.25 km - W 11. Tangeda Major Canal – 3.36 km – W 12. Nendra Vagu – 5.32 km – W	Krishna River is at 3.96 km HFL of Krishna River is 51 m AMSL Plant site is 83 m AMSL		
viii	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc.	Nil. List of Reserved and protected forests: 1. Regulagadda RF – 1.27 km - NE 2. Pittalsarikota RF – 6.06 km – NE 3. Chintalapalem RF – 6.20 km – NE			



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

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

**Implementation of the existing EC:**

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

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

Sl. No.	Units	Proposed Capacity
1	Clinker (MTPA)	2.5
2	Cement (OPC/PPC) (MTPA)	3.5
3	Coal Based Captive Power Plant (CPP) (MW)	50
4	Waste Heat Recovery Power Plant (MW)	15
5	Colony	150 Houses

Sl. No.	Units	Proposed Capacity
		(<20000 m <sup>2</sup> – built-up area)

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

41.10.10 The water requirement for Cement plant, captive power plant, colony and mines is estimated to be 2300 m<sup>3</sup>/day, of which 350 m<sup>3</sup>/day is treated recycled wastewater from Power Plants. The net fresh water requirement of the plant and mine will be 1950 m<sup>3</sup>/day. The source of the water is Krishna River & Borewells. The permission for drawl of Krishna water was obtained from Govt. of A.P. vide G.O.MS. No. 16 Dt. 15.05.2020 for 19 Cusecs or 0.0689 TMC or 5345 m<sup>3</sup>/day and Permission for drawl of Ground water was obtained from Ground Water Department, Govt. of A.P. Ground water will be tapped only on non-availability of surface water.

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

41.10.12 Baseline Environmental Studies

Period	Post monsoon Season, 2022										
AAQ parameters at 09 Locations (min and max)	<ul style="list-style-type: none"> <li>• PM<sub>10</sub> = 43.6 to 69.8 µg/m<sup>3</sup></li> <li>• PM<sub>2.5</sub> = 17.6 to 34.6 µg/m<sup>3</sup></li> <li>• SO<sub>2</sub> = 8.3 to 15.8 µg/m<sup>3</sup></li> <li>• NO<sub>x</sub> = 9.2 to 17.2 µg/m<sup>3</sup></li> <li>• CO: less than 1 ppm</li> </ul>										
AAQ modelling (Incremental GLC Level)	<ul style="list-style-type: none"> <li>• PM<sub>10</sub> = 4.81 µg/m<sup>3</sup> - 2.0km - N direction</li> <li>• PM<sub>2.5</sub> = 2.89 µg/m<sup>3</sup> - 2.0.0km - N direction</li> <li>• SO<sub>2</sub> = 3.94 µg/m<sup>3</sup> - 0.18.0km - W direction</li> <li>• NO<sub>x</sub> = 7.74 µg/m<sup>3</sup> - 4.40km - WNW direction</li> <li>• CO = 126.35µg/m<sup>3</sup> - 7.70km - SSE</li> <li>• Model used : AERMOD – Version 10.1</li> </ul>										
Ground water quality at 09 locations	<ul style="list-style-type: none"> <li>• pH = 7.05 – 7.50</li> <li>• Total Hardness = 170 - 570 mg/l</li> <li>• Chlorides = 70 - 490 mg/l</li> <li>• Fluoride = 0.6– 1.26 mg/l</li> <li>• Heavy Metals (Zinc) = &lt;0.02 – 0.05mg/l</li> </ul>										
Surface water quality at 08 Locations	<ul style="list-style-type: none"> <li>• pH: 7.28 - 7.69</li> <li>• DO: 4.7 – 5.90 mg/l;</li> <li>• BOD: 2 – 3 mg/l ;</li> <li>• COD: 8 – 19 mg/l</li> </ul>										
Noise Levels At 09 Locations	51.3 to 54.8 dB (A) for the day time 41.8 to 44.7 dB (A) for the Night time.										
<b>Traffic assessment study Findings</b>											
<input type="checkbox"/> Traffic study has been carried out on road connecting Machavaram - Plant site which connects to National Highway 167A which is 0.3 km from the plant site <ul style="list-style-type: none"> <li>○ Type of Road: Arterial - 2-lane (one way)</li> <li>○ PCU limit : 2400 PCU per hour</li> </ul>											
<input type="checkbox"/> SPIPL will provide railway siding for transportation of raw material and finished product. Taking that 70% transportation is through Rail and Balance 30% quantity takes to roads.											
<input type="checkbox"/> Existing PCU is 227 PCU/hr and existing level of service (LOS) is A (Excellent)											
<table border="1"> <thead> <tr> <th>Road</th> <th>Existing V</th> <th>C</th> <th>Existing V/C</th> <th>LOS</th> </tr> </thead> <tbody> <tr> <td><b>Road connecting Machavaram - Plant site which connects to National Highway 167A</b></td> <td>277</td> <td>2400</td> <td>0.11</td> <td>A (Excellent)</td> </tr> </tbody> </table>		Road	Existing V	C	Existing V/C	LOS	<b>Road connecting Machavaram - Plant site which connects to National Highway 167A</b>	277	2400	0.11	A (Excellent)
Road	Existing V	C	Existing V/C	LOS							
<b>Road connecting Machavaram - Plant site which connects to National Highway 167A</b>	277	2400	0.11	A (Excellent)							
<input type="checkbox"/> PCU load after proposed project will be 277 (Existing) + 70 (Additional) PCU/hr and											

level of service (LOS) will be:

Road	Existing V	Additional	C	Total	V/C	LOS
Road connecting Machavaram - Plant site which connects to National Highway 167A	217(277)	32(70)	2400	249(347)	0.15	A (Excellent)

\* Note: Capacity as per IRC-106:1990.

The Level of Service which is at present in A Category (Excellent) will not change after Operation as per IRC-106:1990.

**❑ EMP MEASURES**

SPIPL will take up the following measures to avoid traffic congestion.

1. Strengthening of shoulders of the road from Plant site to NH167A
2. Providing a median wherever feasible
3. SPIPL will depute traffic stewards at Plant site – Machavaram road junction for better traffic control
4. Installation of CCTV cameras for traffic surveillance
5. Parking facility in plant premises to accommodate 300 vehicles.
6. Planning of material movement – movement of inbound and outbound material will be restricted to minimum level during peak hours, i.e. 8 am to 10 am.
7. SPIPL will ensure proper and timely maintenance of the road
8. Provision of construction of 150 housing units in residential colony which will also contribute to minimize traffic congestion due to bikes/ light vehicles

**❑ PARKING FACILITIES:**

SPIPL has earmarked an area of 2.5 Ha for parking facility with following

- a. 1.25 Ha Area for roads and free movement of trucks
- b. 0.90 Ha area for 300 vehicles (@30 m<sup>2</sup> /truck)
- c. 0.20 Ha for greenbelt around the parking area
- d. 0.15 Ha for facilities to truck drivers

All facilities, such as canteen, toilets, rest rooms, etc. will be provided for truck drivers. Separate office building equipped with all communication and other infrastructure will be provided to the transporters.

Flora and fauna

- There are no National Parks/Wild life Sanctuaries/Eco Sensitive Zones/Reserved Forests/ Biosphere Reserves, Migratory Corridors of Wild Animals within 10 km radius of the study area.
- There are no Schedule-I species presented in study area.

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

S. No	Type of Solid waste	Specific quantity	Nature	Quantity (TPA)	Handling/storage	Mitigation measure Recycle/reuse/utilisation
<b>Cement Plant</b>						
1	Fine dust collected in air pollution control equipment	0.12 t/t of clinker (max)	Calcium oxide	300000	Recycled within Cement plant circuit	Recycled back to process
2	Spent Oil (Hazardous waste)	2 lit/tonne of cement	Impurities viz dirt, metals, chemicals, etc	5600	Isolated area within plant	Disposed to Authorised Recyclers
3	Plastic requirement (Bags)	1.5 kg/t of cement				
	Plastic waste generation (0.2% of Plastic requirement)	0.003 kg/t of cement	Polymer	10.5	Isolated area within plant	Brand Registration with CPCB and agreement with authorised plastic waste management agencies for collection and co-processing
4	E-waste generation	0.15 gm/t of cement	Heavy metals	0.525	Admin Office Premises	Buyback/disposal to Producers
<b>Captive Power Plant</b>						
1	Ash	45% of coal consumption	Minerals and elements such as silica, alumina, iron, etc	146000	Given below	
a	Flyash	80 % of ash		116800	Silo	Reuse for Portland Pozzolana cement production
b	Bottom Ash	20 % of ash		29200	Closed Shed	Mixing with Raw meal for clinker production
<b>Greenbelt</b>						
1	Litter from 42.5 Ha	1.2 kg/Ha	Fallen leaves, twigs, and other organic matter	19	Open pit at colony	Composting within plant area
<b>Colony</b>						
1	150 Houses 600 persons	0.5 kg/person/day	Given below	110	Given below	
a	Organic waste	40 % of waste	Vegetable and food waste	44	Pit at colony	Composting within plant area and use for greenbelt as manure
b	In organic waste	60 % of waste	Paper, Glass bottles, Plastic containers, Metal cans etc	66	Shed at colony	Segregation and disposal to nearby Municipality
2	STP – Sludge	120 gm/head	Organic Solid	26	STP area in closed	Use for greenbelt as manure

S. No	Type of Solid waste	Specific quantity	Nature	Quantity (TPA)	Handling/storage	Mitigation measure Recycle/reuse/utilisation
					shed	
<b>Canteen waste</b>						
1	500 persons	0.3 kg/person/day	Given below	55	Given below	Given below
a	Organic waste	40 % of waste	Vegetable and food waste	22	Pit at colony	Composting within plant area and use for greenbelt as manure
b	In organic waste	60 % of waste	Glass bottles,Plastic containers, Metal cans.	33	Shed at colony	Segregation and disposal to nearby Municipality

41.10.14 Public Consultation:

Details of advertisement given	Public hearing advertisement for the Proposed Greenfield Cement Plant was published on 26.04.2023 in “The New Indian Express” (English News Paper) and “Sakshi” (Telugu News Paper).
Date of public consultation	27.05.2023
Venue	Proposed Project site, Tangeda, Vemavram & Chennayyapalem Villages, Dachehalli&Machavaram Tehsils, Palnadu District, Andhra Pradesh.
Presiding Officer	Joint Collector & Additional District Magistrate, Palnadu District, A.P.
Major issues raised	<ul style="list-style-type: none"> <li>❖ Preference to be given for locals for Employment</li> <li>❖ Provide drinking water facilities</li> <li>❖ Education Facilities nearby Villages</li> <li>❖ Development of Roads</li> <li>❖ Providing of medical camps</li> <li>❖ Renovate temples in the village</li> <li>❖ Rainwater Harvesting Structures are proposed inside the plant</li> <li>❖ Providing employment to the villagers who has given their land to the industry. The local people will educate their children according to the desired requirement of the cement plant.</li> <li>❖ Install latest pollution control equipment to reduce dust pollution.</li> <li>❖ Develop Greenbelt within the premises of the project.</li> </ul>

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

Activity	Budget/Physical Target	First year	Second Year	Third Year	Total
		Rs In Lakhs			
<b>1. WOMEN WELFARE</b>					
Establishment of Training centres for sewing	Budget Rs Lakhs /training center	5	5	5	<b>15</b>
Mother and child programme	Rs. Lakhs/3	10	10	10	<b>30</b>

Activity	Budget/Physical Target	First year	Second Year	Third Year	Total
		Rs In Lakhs			
	Villages				
Hygiene Promotion (Sanitary Napkins)	Rs. Lakhs/3 Villages	8	8	8	24
Nutrition- Anaemia control	Rs. Lakhs/3 Villages	25	25	25	75
<b>2. HEALTH CARE</b>					
Awareness Programmes on health & disease control	Rs. Lakhs/3 Villages	5	5	5	15
Health Camps	Rs. Lakhs/3 Villages	20	25	30	75
Health infrastructure Development- Providing Health Equipment to local PHCs and ambulance service	Rs. Lakhs/3 Villages	25	25	50	100
Providing Veterinary health care services	Rs. Lakhs/3 Villages	20	22	24	66
<b>3. DRINKING WATER &amp; SANITATION</b>					
Creating Infrastructure like laying of pipelines etc for supply of water	Rs. Lakhs/3 Villages	100	100	100	300
Development of Village Roads/Storm Water Drains	Rs. Lakhs/3 Villages	200	200	200	600
Providing RO plants for supply of drinking water in villages & schools	Rs. Lakhs/3 Villages	20	24	28	72
<b>4. EDUCATION &amp; TRAINING</b>					
Providing Digital Classroom, Note books and other stationary item to school children, Development of playground with necessary facilities every year	Rs. Lakhs/3 Villages	30	30	30	90
Youth empowerment like heavy vehicle driving, training for employability	Rs. Lakhs/3 Villages	20	20	20	60
Skill development	Rs. Lakhs/3 Villages	50	50	50	150
Sponsoring Higher education Scholarships	Rs. Lakhs/3 Villages	10	10	10	30
Developing Anganwadi Infrastructure	Rs. Lakhs/3 Villages	25	25	25	75
Development of school infrastructure	Rs. Lakhs/3 Villages	20	20	20	60
<b>5. ENVIROMENT</b>					
Excavation/ deepening of	Rs. Lakhs/3	50	50	50	150

Activity	Budget/Physical Target	First year	Second Year	Third Year	Total
		Rs In Lakhs			
water bodies	Villages				
RWH Structures in villages	Rs. Lakhs/3 Villages	25	25	25	75
Avenue Plantation along roads and fruit plantation in villages	Rs. Lakhs/3 Villages	25	25	25	75
Development of Religious Institutions	Rs. Lakhs/3 Villages	10	10	10	30
Street lights (Solar)	Rs. Lakhs/3 Villages	25	25	25	75
<b>6. SOCIAL INFRASTRUCTURE</b>					
Providing community halls and other social infrastructure facilities	Rs. Lakhs/3 Villages	100	100	100	300
<b>Total</b>					<b>2542</b>

41.10.15 The capital cost of the project is Rs.1800 Crores and the capital cost for environmental protection measures is proposed as Rs 171.61 crores and recurring cost is about Rs. 18.06 Crores per annum. The employment generation from the proposed project is 350. The details of cost for environmental protection measures are as follows:

Particulars	Environment Control Measures	Capital Cost (Rs. Crores)	Recurring Cost per annum (Rs. Crores)
Air Pollution Cement Plant & Thermal Power Plant	<ul style="list-style-type: none"> <li>• Bag house System - 2 No. of raw mill/kiln flue gas</li> <li>• Bag houses – 4 nos (2 no's for coal mills and 2 no's for Cement Mills)</li> <li>• 2 No. of ESP for coolers.</li> <li>• 80 Bag filter systems along with ventilation systems</li> <li>• Low NOx burner with multichannel burner for kiln and for Boiler</li> <li>• 2 Nos. of ESP for CFBC Boiler</li> <li>• Lime injection system for SO2 control</li> <li>• Covered Sheds &amp; Silos for raw material storage</li> <li>• Two mobile water tankers to control fugitive emissions</li> </ul>	150	15
Wastewater Management	<ul style="list-style-type: none"> <li>• Installation of 200 KLD STP</li> </ul>	2.0	0.50



Particulars	Environment Control Measures	Capital Cost (Rs. Crores)	Recurring Cost per annum (Rs. Crores)
	<ul style="list-style-type: none"> <li>• Neutralization pit for CPPs (WHRB and TPP)</li> <li>• Central Monitoring Basin</li> </ul>		
Energy Conservation Measures	<ul style="list-style-type: none"> <li>• Solar Lights (20 nos) and LED Lights (12 W -500 nos)</li> <li>• Variable Frequency Drives, High Tension motors (SPRS System) and Compressors</li> </ul>	2.0	0.25
Solid Waste Management	<ul style="list-style-type: none"> <li>• Alternate fuels - Waste processing facility</li> <li>• Pneumatic ash system for TPP</li> <li>• Colony waste handling system</li> </ul>	8.0	0.50
Greenbelt development	<ul style="list-style-type: none"> <li>• 42.50 Ha Greenbelt Development</li> </ul>	3.18	0.85
Rainwater Harvesting Structures	<ul style="list-style-type: none"> <li>• 15 Rainwater Harvesting system</li> <li>• Pipeline for excess storage water at Mines</li> </ul>	1.00	0.20
Environmental monitoring	<b>Meteorology</b> (Met Station)	0.03	0.01
	Ambient Air Quality Monitoring (CAAQMS-3 no's)	1.30 (CAAQMS-3 no's)	0.07
	Stack Emissions - (CEMS- 10 no's)	3.0 (CEMS- 10 no's)	0.1
	Performance Monitoring of pollution control equipment	-	0.2
	Waste Water (CEMS for STP and ETP)	0.50	0.02
	Soil Quality	-	0.05
	Surface water quality	-	0.008
	Ground Water Quality	-	0.04
	Noise	-	0.002
	Occupational Health - (PPE and Checkups)	0.50	0.20
Others	Livelihood and Skill Development Program on Animal Husbandry	-	0.04
	Conservation Plan and Eco-development plan of Ponds	0.1	0.02
<b>Total</b>		<b>171.61</b>	<b>18.06</b>

41.10.16 Proposed greenbelt will be developed an area of 42.5 ha (35% of total project area). 3 tiers of plantations plan are designed covering a minimum width of 20 m and maximum width of 175 m based on the outline of the project area. The local species recommended by CPCB as per Programme Objective series: PROBES/75/1999-2000 will be planted. SPIPL will be install drip irrigation system, tree guard and monitored on periodic basis will be deployed for ensuring the survival rate of not less than 80%. An amount of Rs. 3.18 Crores under capital cost and recurring cost of Rs. 0.85 Crore/annum under recurring cost is allotted.

41.10.17 PP has reported that no litigation is pending against the Cement Unit. However, a Writ Appeal has been filed in WA 340/2021 in Hon'ble High Court of Andhra Pradesh w.r.t. mining project.

- 1) Saraswati Power & Industries Private Limited ("Saraswati") was granted mining lease for Limestone over an extent of 613.476 Ha. i.e. 266.014 Ha in Tangeda Village, Dachepalli Mandal; 145.208 Ha in Vemavaram Village, Machavaram Mandal; and 202.254 Ha in Chennaiyapalem Village, Machavaram Mandal in Guntur District, Andhra Pradesh. Pursuant to the grant of Mining Lease (ML) by the Government of Andhra Pradesh (GoAP) on May 18, 2009, the lease deed was executed with the Department of Mines and Geology, AP on August 20, 2009 for a period of 20 years
- 2) Government of Andhra Pradesh ("GoAP") issued G.O.Ms.No.98, Industries & Commerce M-II Department dated 09.10.2014, declaring the mining leasing held by Saraswati as lapsed under Rule 28(1) of Mineral Concession Rules, 1960.
- 3) Saraswati filed a Writ Petition in W.P.No.33420 of 2014 challenging before the Hon'ble High Court of Andhra Pradesh on the action of the State Government.
- 4) After examining the material and hearing the elaborate arguments advanced by all the parties, the Hon'ble High Court allowed the writ petition and consequently directed the State Government to restore the mining lease of Saraswati vide the Hon'ble Court's orders dated 15.10.2019.
- 5) Pursuant to orders of the Hon'ble High Court, the GoAP passed orders restoring the Mining Lease through G.O.Ms.No. 109, dated 12.12.2019. By operation of law, the GoAP passed further orders extending the lease period for 50 years, through the G.O.Ms.No.30, Industries & Commerce M-III Department dated 08.06.2020. Thus, the mining lease is subsisting till 10.08.2059
- 6) After a lapse of 19 months of the orders of the Hon'ble High Court, one Mr. Kanumuru Raghu Ramakrishna Raju, **WHO HAS NO LOCUS STANDI IN THE MATTER**, filed a writ appeal in **WA No. 340 of 2021 on 19.06.2021** challenging the order dated 15.10.2019 passed by the Hon'ble High Court in W.P No.33420 of 2019. He sought leave of the court to appeal.
- 7) The proposed appellant in WA 340/2021 is a stranger to the original writ petition. **A stranger cannot pursue an Appeal without leave of the Appellate court and without the original parties being heard on the eligibility of the stranger to file and pursue the Appeal.**
- 8) Saraswati filed counter affidavit on 16.07.2021 and the State also filed its counter on 15.07.2021. The matter came up on multiple occasions (24) ever since 23.06.2021. The

counsel for the proposed appellant has been seeking time without arguing for the reasons best known to them. Of late, it has been posted for hearing on 28<sup>th</sup> June 2023 and again the Appellant sought postponement.

### **Certified compliance report from Regional Office**

41.10.18 Certified Compliance Statement of earlier EC issued by Integrated Regional Office, MoEFCC, Vijayawada vide Lr. No. IRO/VIJ/EPA/EC-A/101/04-27/2023 dated 21.06.2023. As the project was not yet implemented. IRO Vijayawada MoEFCC certified that there are no non-compliances.

### **Written representations:**

41.10.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 04.08.2023 through email dated 04.08.2023 submitted the following information:

- Revised PH action plan as updated at para 41.10.14 above.
- Revise Plant Layout
- Detailed Canal mitigation Plan
- Reduction of CO<sub>2</sub> emission
- Clarification for CO Emission

### **The PP has submitted the detailed reply which was deliberated by the EAC:**

1. **Revised PH action plan.** PP has submitted revised PH action plan as updated at para 41.10.14 above.
2. **Plant Layout:** The Layout Plan along with Road Network and Greenbelt Plan is submitted.
3. **Detailed Canal mitigation Plan:** The irrigation canal located in the southern direction is being terminated within the project site. SPIPL will terminate the same at the boundary of the project site, since there are no downstream users and the land occupied by the canal will be converted for industrial purpose. There are no other water bodies situated within the project site. The slope of the project site is towards NE direction. The project site will be provided with drainage and boundary wall to prevent draining of runoff water into the stream. A water reservoir is proposed at the NE corner. Storm water network will be provided in the project area to collect and drain water to rainwater harvesting pits. The runoff estimated considering maximum rainfall of 30 mm/hour from the entire plant area based on paved and unpaved uses is about 21,837 m<sup>3</sup>. The annual rainfall runoff expected from entire plant of 121.4 Ha. will be about 6,98,784 m<sup>3</sup>. The rainwater collected from the Paved and Unpaved are will be routed to rainwater harvesting pits which are designed considering maximum rainfall of 966 mm. Total 15 no's of Rain water harvesting pits (4.0 m x 3.0m x 2.0 m). Excess flow will be routed to mine pit.
4. **Reduction of CO<sub>2</sub> emission:** Emissions from the plant are estimated considering following:
  - a. Clinker – 2.5 MTPA

- b. Cement – 3.5 MTPA
- c. Captive Power Generation – 50 MW
- d. WHRB power Plant – 15 MW

The major CO<sub>2</sub> emission from the plant is from the Kilns and boiler of power plant due to burning of coal and calcination of limestone in kiln. CO<sub>2</sub> emission estimated are 2.43 MTPA. The activities proposed for decarbonization with time bound action plan is given below:

#### YEARWISE MEASURES FOR CO<sub>2</sub> SEQUESTRATION

Proposed initiatives	Emission factor (kg CO <sub>2</sub> /GJ)	Annual CO <sub>2</sub> saving (Tonnes)				
		2025-26	2026-27	2027-28	2028-29	29-30
Increasing use of alternate fuels	83	11832 (2% replacement of coal)	11832 (2% replacement of coal)	23665 (4% replacement of coal)	23665 (4% replacement of coal)	29581 (5% replacement of coal)
Operation of WHRB power plant at full capacity of 15 MW	83 (Considered in terms of fuel)	-	161711	239006	239006	239006
Installing a Solar power plant with a capacity of 10 MW.	83 (Considered in terms of fuel)	-	-	107807	107807	107807
Plantation developed (106250)	0.022 t/tree/year	-	-	2337.5	2337.5	2337.5
<b>TOTAL, TONNES</b>		11832	173543	360982.5	360982.5	360982.5
<b>PERCENTAGE OF REDUCTION</b>		0.5	7.1	14.9	14.9 About 15 %	About 15.5 %
Note: With the above proposed action plan, it is estimated that 15.5% reduction of net CO <sub>2</sub> emission is feasible 2029-30. SPIPL is further planning to reduce the net CO <sub>2</sub> emission and the action plan for next 10 years (2030 to 2040) will be submitted in the year 2028-29 based on the newer technologies available for CO <sub>2</sub> . The Affidavit is submitted.						

**5. Clarification for CO Emission:** The cumulative incremental ground-level concentration for carbon monoxide (CO) (SPIPL Cement Plant and other industries, mines within 10 km radius) was reported as 126.35 µg/m<sup>3</sup>, which is equivalent to 0.126 mg/m<sup>3</sup>. The maximum baseline concentration was found to be less than 1 ppm (i.e., 1144 µg/m<sup>3</sup> or 1.14 mg/m<sup>3</sup>). The overall scenario results in a concentration of 1270.35

$\mu\text{g}/\text{m}^3$ , which is equal to  $1.27 \text{ mg}/\text{m}^3$ . According to the National Ambient Air Quality (NAAQ) standards specified for industrial, residential, rural, and other areas, the 8-hourly standard for carbon monoxide is  $2 \text{ mg}/\text{m}^3$ , whereas

### **Deliberations by the Committee**

41.10.20 The Committee noted the following:

1. The instant proposal is for setting up of a greenfield Cement Plant – 2.5 MTPA Clinker & 3.5 MTPA Cement (OPC/PPC), 50 MW Thermal Power Plant, 15 MW Waste Heat Recovery Plant.
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 subject project of Saraswathi Power & Industries Limited Cement Plant was granted Environmental Clearance vide letter No. F.NO. J-11011/543/2009 –IA II (I) dated 29.03.2012 for Integrated Cement Plant (Clinker-2.5 MTPA; Cement-3.5 MTPA) along with Captive Power Plant (50 MW) and captive Limestone mine (3.75 MTPA). The EC validity was extended vide letter dated 03.07.2019 for a period of 3 years i.e. up to 28.03.2022. Due to economic down turn and sluggish market conditions, and delay in land acquisition and issues involved in mining lease, the project on ground could not be initiated.
6. The instant project is a part of Interlinked project. The limestone requirement of the plant will be 3.75 MTPA which will be met from the Captive Limestone Mining Leases located at 500 m from the plant site over an extent of 613.476 Ha in Tangeda Village, Dachepalli Tehsil, Palnadu District of Andhra Pradesh. The Captive Limestone mine spreads over an area of 613.476 Ha with about 592.6 Million Tonnes of mineable reserves feeding for more than 178 years. The mine was accorded integrated Environmental Clearance (EC) by MoEF&CC along with the cement plant vide letter No. F.NO. J-11011/543/2009 –IA II (I) dated 29.03.2012. As per SO 1533, EIA Notification, 2006, the EC is valid for the mine for 30 Years.

7. Total project area is 121.4 ha which is private agricultural land. M/s SPIPL has purchased about 107 Ha (88%) of land directly and balance is under process. PP has reported that obtaining intent of the land owners for the balance land is under process.
8. The nearest habitation to the proposed project site are Chennayyapalem (0.40 km, N) and Vemavaram (0.88 km, ESE). PP has submitted an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals.
9. There is a Canal inside the Plant Site in the South direction. Also, Krishna River (3.96 km – E), Stream (Adjacent to the Plant Site – N), Elaga Vagu (5.36 km – NE), Chintriyal Major (5.31 km – ENE), Ganneru Vagu (4.07 km – SE), Ralla Vagu (1.59 km – E), Tadutla Minor (3.56 km – SSE), Barimeda Vagu (2.71 km – W), Nearest Canal (1.25 km – W), Tangeda Major Canal (3.36 km – W) and Nendra Vagu (5.32 km – W) exists within the study area of 10 km of the project site. The EAC is of the opinion that the water bodies shall not be disturbed. The EAC deliberated on the action plan prepared by PP for conservation of the water bodies and found it satisfactory.
10. The water requirement for Cement plant, captive power plant, colony and mines is estimated to be 2300 m<sup>3</sup>/day, of which 350 m<sup>3</sup>/day is treated recycled wastewater from Power Plants. The net fresh water requirement of the plant and mine will be 1950 m<sup>3</sup>/day. The source of the water is Krishna River & Borewells. PP has further reported Ground water will be tapped only on non-availability of surface water.
11. The Committee noted that a Writ Appeal has been filed in WA 340/2021 in Hon'ble High Court of Andhra Pradesh and is of the view that a specific EC conditions may be imposed, as "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".
12. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
13. PP reported that greenbelt will be developed an area of 42.5 ha (35% of total project area). SPIPL will be install drip irrigation system, tree guard and monitored on periodic basis will be deployed for ensuring the survival rate of not less than 80%. An amount of Rs. 3.18 Crores under capital cost and recurring cost of Rs. 0.85 Crore/annum under recurring cost is allotted. The EAC deliberated on the greenbelt action plan along with the budget earmarked and found it satisfactory.
14. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
15. The Committee also deliberated on the public hearing issues along with revised action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
16. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
17. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and

accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

18. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.
19. 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.

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

41.10.21 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. The grant of EC is subject to outcome of writ appeal [WA No. 340 of 2021] in Hon'ble High Court challenging the order dated 15.10.2019 passed by the Hon'ble High Court in W.P No.33420 of 2019 in the matter.
- v. The PP shall complete the acquisition of the proposed project land and conversion for industrial purpose prior to commencement of proposed project.

- vi. The nearest habitation to the proposed project site are Chennayyapalem (0.40 km, N) and Vemavaram (0.88 km, ESE). 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 some of these locations in its environmental monitoring programme.
- vii. There is a Canal inside the Plant Site in the South direction. Also, Krishna River (3.96 km – E), Stream (Adjacent to the Plant Site – N), Elaga Vagu (5.36 km – NE), Chintriyal Major (5.31 km – ENE), Ganneru Vagu (4.07 km – SE), Ralla Vagu (1.59 km – E), Tadutla Minor (3.56 km – SSE), Barimeda Vagu (2.71 km – W), Nearest Canal (1.25 km – W), Tangeda Major Canal (3.36 km – W) and Nendra Vagu (5.32 km – W) exists within the study area of 10 km of the project site. PP shall strictly implement the plan for conservation of the water bodies.
- viii. The water requirement of 2300 m<sup>3</sup>/day, shall be obtained from treated recycled wastewater from Power Plants (350 m<sup>3</sup>/day) and Krishna River & Borewells (1950 m<sup>3</sup>/day) after obtaining prior approval from competent authorities. As committed, Ground water shall be tapped only on non-availability of surface water.
- ix. Three tier Green Belt shall be developed in at least 33% of the project area in a time period of 1 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 Chennayyapalem and Vemavaram Village. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- x. 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 Rs. 25.42 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- xi. PP shall undertake village adoption programme, prepare and implement the action plan to develop them into model villages. PP shall formulate Training modules on livelihood and skill development programs to make villagers employable, with special emphasis on Animal husbandry.

## **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 06 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. Provide Low NO<sub>x</sub> burners as primary measures and SCR /NSCR technologies as secondary measure to control NO<sub>x</sub> emissions.
- xx. The emission norms applicable for the cement plant shall be adhered to.
- xxi. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.
- xxii. DeSO<sub>x</sub> system shall be provided dry type. NO<sub>x</sub> level shall be maintained below 600 mg/Nm<sup>3</sup> by using best available technology.
- xxiii. Petcoke dosing shall be controlled automatically to control SO<sub>2</sub> emission from chimney within the prescribed limits.
- xxiv. PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.
- xxv. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- xxvi. 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.
- xxvii. 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. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent make efforts to achieve power consumption less than 65 units/tonne for Portland Pozzolona Cement (PPC) and 85 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
- iv. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.
- v. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
- vi. Waste heat recovery system shall be provided for kiln and cooler.

#### **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 approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. 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 environmental clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO<sub>2</sub>, NO<sub>x</sub> (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 in Terms of Reference Proposal**

#### **Agenda No. 41.11**

**41.11 Expansion in Proposed Integrated Cement Plant - Clinker (4.0 Million TPA), Cement (5.0 Million TPA), WHRS (20 MW) along with installation of Railway Siding by M/s UltraTech Cement Ltd., located at Villages: K Chittapur, K Nagaon, & P Chittapur, Taluka: Chittapur, District: Kalaburagi, Karnataka – Consideration of TOR**

**[Proposal No. IA/KA/IND1/412980/2023; File No. J IA-J-11011/10/2023-IA-II(IND-I)]**

41.11.1 M/s. UltraTech Cement Ltd. has made an online application vide proposal no. IA/KA/IND1/412980/2023 dated 13th July., 2023 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category ‘A’ of the schedule of the EIA Notification, 2006 and being appraised at the Central Level.

41.11.2 Name of the EIA consultant: M/s. J.M EnviroNet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2809; Valid up to 31.10.2023, as on August 2, 2023].

**Details submitted by Project proponent**

41.11.3 The project of M/s. UltraTech Cement Ltd. located in villages- K Chittapur, K Nagaon & P Chittapur, Chittapur Taluka, Kalaburagi District of Karnataka State is for setting up of a new Integrated Cement Plant for production of Clinker- 4.0 Million TPA, Cement- 5.0 Million TPA, and WHRS-20 MW along with installation of railway siding.

**Deliberation by the Committee**

41.11.4 The Committee noted the following:

1. The EAC noted that total land envisaged for the proposed project is 325.95 ha area which is Private Agricultural Land. PP has reported that the land acquisition is under process. However, the land acquisition has been considered by the Govt. of Karnataka in the Land Audit Committee (LAC) and the State High Level Clearance Committee (SHLCC). Taking into consideration Ministry’s O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as *“While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal.....”* EAC is of the opinion that, credible document showing the status of land acquisition shall be required at the time of appraisal in pursuance to the said O.M.
2. The EAC expressed its concern to take up the project on a fully agricultural land. Afresh opinion may be obtained from the State Government about the project site. The PP shall also submit consent of the land owners ready to give their land for the said project.
3. The EAC further noted that project proponent has not undertaken alternate site analysis with proper spirit. Although the PP came with three alternate site analysis but proper study has not been carried out by PP. The EAC opined that the alternative site analysis is aimed to select the best site in terms of having least adverse social & environmental impacts due to the project apart from other parameters such as technical feasibility and economic & financially viability. Thus, the EAC advised PP/Consultant to undertake alternate site analysis Properly and submit the revised application fulfilling all the criteria of the application in pursuance to the provisions of EIA Notification, 2006.

4. The EAC further advised Ministry to seek clarification from the State Government regarding establishment of the proposed project on the fully agricultural land.
5. The nearest habitation is Chittapur Town which is at a distance of 1.5 km in NE direction of the project site. Also there are approx. 24 villages in 10 km radius study area. The proposed project will have a large impact on these sensitive area.
6. In view of the same, the Committee is of the view that the instant proposal is incomplete and needs to be revised.

### **Recommendations of the Committee**

- 41.11.5 In view of the foregoing and after deliberations, the Committee recommended that **proposal to be returned in its present form** to address the shortcomings enumerated at para no. 41.11.4 above.

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### **Agenda No. 41.12**

- 41.12 Forward Integration, Expansion and Product Diversification programme of existing mini Steel Plant by installation of Sponge Iron Kilns (1x200 TPD), Induction Furnaces (2x15 T + 1x7.5 T) & modernization / up gradation of existing furnaces i.e. 1x4 T, 2x3.5 T & 1x6 T to augment capacity to 3x7 T + 1x6 T with (1x10 T+1x15T) LRF and 6/11 m, 2 Strand Continuous Casting Machine, Hot rolling Mill (1,00,000 TPA) & Light Structural Mill (80,000 TPA), Sinter Plant (35 TPD), WHR Boiler (1x24 TPH), Submerge by M/s Salagram Power And Steel Private Limited, located at Palitpur Road, Village & P.O. Mirzapur, District: Purba Bardhaman, West Bengal - Consideration of TOR**

**[Proposal No. IA/WB/IND/273355/2022; File No. IA-J-11011/174/2022-IA-II(IND-I)]**

- 41.12.1 M/s. Salagram Power and Steel Pvt. Ltd. has made an application online vide proposal no. IA/WB/IND/273355/2022 dated 14.07.2023 along with the application in prescribed format (CAF, Form – I Part A & B), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (Ferrous & Nonferrous) and 1(d) Thermal Power Plants under Category ‘A’ of the schedule of the EIA Notification, 2006 and being appraised at the Central Level.

### **Details submitted by the project proponent**



41.12.2 The project of M/s Salagram Power and Steel Pvt. Ltd. located at Palitpur Road, Village & P.O. Mirzapur, District: Purba Bardhaman, West Bengal state is for setting up of a forward integration, expansion and product diversification programmed of existing mini–Steel Plant by installation of Sponge Iron Kilns (1x200TPD), Induction Furnaces (2x15 T + 1x7.5 T) & modernization / up gradation of existing furnaces i.e.1x4 T, 2x3.5 T & 1x6 T to augment capacity to 3x7 T+ 1x6 T with (1x10 T+1x15T) LRF and 6/11 m, 2Strand Continuous Casting Machine, Hot rolling Mill (1,00,000 TPA) & Light Structural Mill (80,000 TPA), Sinter Plant (1x70 TPD), WHR Boiler (1x22 TPH), Submerged Arc Furnaces (2x4.5 MVA) & Captive Power Plant (1x8 MW), 1x 80 TPD Slag crusher.

41.12.3 The proposal was considered during the 41<sup>st</sup> meeting of the EAC for Industry-I sector held on 2<sup>nd</sup> & 4<sup>th</sup> August, 2023. The deliberations and recommendations of EAC are as follows:

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

41.12.4 The Committee noted the following:

1. The EAC noted that the existing project was accorded environmental clearance from SEIAA vide letter No. EN/2197/T-II-I/044/2008 dated 19.08.2009 in the name of M/s. Shyam Sel Limited for proposed expansion project for installation of Induction Furnace (1x6 MT) and Arc Furnace (1x4.5 MT). The PP reported that later the name of the company was changed to M/s. Salagram Power and Steel Pvt. Ltd. However, PP has not obtained EC transfer in the name of M/s. Salagram Power and Steel Pvt. Ltd. The EAC deliberated and observed that PP/Consultant 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 EC in the name of M/s. Salagram Power and Steel Pvt. Ltd. and thereafter application for ToR shall have been made.
2. The PP reported that they have committed violation as in 2016, CCM installed was not modified in the EC issued by SEIAA, WB. Also Additional Plant and Machinery were installed without EC. The EAC noted that the plant facilities which are in violation are still in operation. Since the project facilities are installed under violation their operation shall be stopped till the regularisation as per Ministry's SOP dated 07.07.2021. The SPCB shall take necessary credible action against the Unit.
3. The EAC advised PP/Consultant to gather all the facts and figures related to the instant proposal for clear understanding and further consideration of the Committee.
4. The total land area of the unit is 11.99 Acres. Acquired land is 9.87 HA and rest 2.12 Acre is under process. Taking into consideration Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014 which reads as "*While full acquisition of land may not be a prerequisite for the consideration of the case for EC, there should be some credible document to show the status of land acquisition w.r.t project site when the case is brought before the concerned EAC/SEAC for appraisal.....*," EAC is of the opinion that, credible document showing the status of land acquisition shall be required at the time of appraisal in pursuance to the said O.M.

5. Distributary No. 06 MC (0.81 km, S) and Gora Nala (0.93 km) are adjacent to the project site. Also there are other water bodies within the study area of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be prepared.
6. PP has reported that ESZ of Ramnabagan Wildlife Sanctuary is at a distance of 3.22 km in SSE direction from Project boundary. The EAC opined that PP shall submit certificate from the Competent Authority along with the authenticated map showing the distance of the Ramnabagan Wildlife Sanctuary and its ESZ from the project site boundary.
7. It is reported that total water requirement after expansion is 694 m<sup>3</sup>/day; out of which 514 m<sup>3</sup>/day of fresh water requirement is being/will be obtained from the Bore-wells and the remaining requirement of 180 m<sup>3</sup> /day is being/will be met from the Recycled. PP shall explore the possibility to source their water requirement from alternate source to reduce their dependency on ground water.
8. **The EAC also recommended that the Ministry shall request the SPCB to take credible action against the Unit as per provisions of the SOP dated 07.07.2021 and restrict the production capacity as per consented capacity.**
9. The EAC warned the consultant [M/s. Enkay Enviro Services Pvt. Ltd.] for not guiding the project proponent properly with respect to submission of all the relevant information related to the project and timely stopping the operations of project facilities installed under violation. The EAC has further directed that Consultant shall improve the PFR report including all the relevant information.
10. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application with the desired information.

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

- 41.12.5 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 41.12.4 above. The proposal may be considered after submission of the requisite information.

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#### **Consideration in Amendment of TOR Proposal**

##### **Agenda No. 41.13**

- 41.13 Expansion of existing “1 x 225 m<sup>3</sup> MBF (1,88,000 TPA), 1 x 40 m<sup>2</sup> Sinter Plant (4,60,000 TPA), 8 x 100 TPD DRI Plant (2,40,000 TPA), 2 x 30 T LF. SMS (1,07,700 TPA), 1 x 0.7 MTPA Coal washery, 2 x 0.12 MTPA Nonrecovery type Coke Oven Plant, 1 x 0.6 million Pellet plant capacity TPA, 2 x 4,000 Nm<sup>3</sup> /hr Producer Gas Plant, 16 MW AFBC, 8 x 1.0 MW (8.0 MW) WHRB based CPP from existing DRI Plant to Integrated Steel Plant of

**capacity 1.7 Million TPA (Finished Steel) with 275 MW Captive Power Plant and 1.25 million TPA Cement Grinding Unit” at Village – Marakuta & Budhipadar, P.O. - Marakuta, Dist. - Jharsuguda, Odisha by M/s MSP Metallics Limited-Consideration of Amendment in TOR**

**[Proposal No. IA/OR/IND/291725/2022; File No. IA-J-11011/494/2007-IA-II(I)]**

- 41.13.1 M/s. MSP Metallics Limited has made an application online vide proposal no. IA/OR/IND/291725/2022 dated 14.07.2023 along with the application in prescribed format - Form 3 (CAF, Form – I Part A & B) and revised PFR and sought for amendment in Standard Terms of Reference accorded by the Ministry vide F. No. IA-J-11011/494/2007-IA-II(I) dated 28.09.2022 w.r.t. subject and implementation status of existing project recorded in the Standard ToR.
- 41.13.2 Name of the EIA consultant: M/s Centre for Envotech and Management Consultancy Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/EIA/2124/RA 0243; valid upto 18.02.2024, as on August 2, 2023].

**Details submitted by Project proponent**

- 41.13.3 M/s. MSP Metallics Limited had initially applied for Terms of Reference vide Proposal No. IA/OR/IND/291725/2022 dated 24.09.2022 for Expansion of Steel Plant 1.05 million TPA With CPP To Integrated Steel Plant 1.7 million TPA Finished Steel With 275 MW Captive Power Plant. Accordingly, Standard ToR was granted by the Ministry vide no. F. No. IA-J-11011/494/2007-IA-II(I) dated: 28.09.2022.
- 41.13.4 The instant proposal is for amendment in Terms of Reference dated 28.09.2022 w.r.t. change in subject and implementation status of existing project recorded in the Standard TOR. The details are given below:

**(A) Subject of the ToR**

<b>Sl. No</b>	<b>As per ToR F. No. IA-J-11011/494/2007-IA-II(I) dated: 28.09.2022.</b>	<b>Proposed Amendment</b>
1.	<b>Subject:</b> Expansion of Steel Plant 1.05 million TPA With CPP To Integrated Steel Plant 1.7 million TPA Finished Steel With 275 MW Captive Power Plant	<b>Subject:</b> Expansion of existing implemented project [1 x 225 m <sup>3</sup> MBF (1,88,000 TPA), 1 x 40 m <sup>2</sup> Sinter Plant (4,60,000 TPA), 8 x 100 TPD DRI Plant (2,40,000 TPA), 2 x 30 T I.F. SMS (1,07,700 TPA), 1 x 0.7 MTPA Coal washery, 2 x 0.12 MTPA Non-recovery type Coke Oven Plant, 1 x 0.6 million TPA Pellet plant, 2 x 4,000 Nm <sup>3</sup> /hr Producer Gas Plant, 16 MW AFBC, 8 x 1.0 MW (8.0 MW) WHRB Based CPP from existing DRI Plant] to Integrated Steel Plant of capacity 1.7 Million TPA (Finished Steel) with 275 MW Captive Power Plant and

		1.25 million TPA Cement Grinding Unit by addition of some facilities and by revamping, augmentation, up gradation/modification of existing technologies & facilities and increasing annual working days to 330 days.
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**(B) Implementation status of existing EC, proposed configuration and capacity to be in modified TOR is as follows:**

S. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 13.07.2009 & 27.10.2009								Expansion proposal considering 330 annual working days		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per last (21/04/2011, 31.03.2015)/valid CTO (22.03.2023 & 13.06.2023)						
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Configuration	Capacity	Configuration	Capacity	
1.	Mini Blast Furnace with PCM	1 x 225 m <sup>3</sup> + 1 x 300 m <sup>3</sup> + 2 x 380 m <sup>3</sup>	10,60,000 TPA	1 x 225 m <sup>3</sup>	1,88,000 TPA	1 x 300 m <sup>3</sup> + 2 x 380 m <sup>3</sup>	8,72,000 TPA	1 x 225 m <sup>3</sup>	1,88,000 TPA	Expansion of existing MBF 1 x 225 m <sup>3</sup> by process optimization and raw material mix and changing core size to 450 m <sup>3</sup> .	5,30,000 TPA	2 x 450 m <sup>3</sup>	1.06 million TPA	Hot Liquid Metal/Pig Iron/High Quality Liquid steel
	Matching New PCM, & LD	**	**	**	**	**	**	**	**	**	Addition of 1 x 450 m <sup>3</sup> MBF			
2.	Sinter Plant	1 x 40 m <sup>2</sup>	4,60,000 TPA	1 x 40 m <sup>2</sup>	4,60,000 TPA	**	**	1 x 40 m <sup>2</sup>	4,60,000 TPA	Expansion by process optimization and raw material mix	69,000 TPA	1 x 40 m <sup>2</sup> + 1 x 75 m <sup>2</sup>	1.52 million TPA	Sinter
										Addition of new module of Sinter plant of 1 x 75 m <sup>2</sup>	(+) 9,91,000 TPA			
3.	DRI plant	8 x 100 TPD + 1 x 300 TPD + 4 x 550 TPD	9,94,000 TPA	8 x 100 TPD	2,40,000 TPA	1 x 300 TPD + 4 x 550 TPD	7,54,000 TPA	8 x 100 TPD	2,40,000 TPA	Expansion of existing 8 x 100 TPD kiln by process optimization and raw material mix	1,40,000 TPA	8 x 145 TPD + 4 x 1000 TPD	1.70 million TPA	Sponge Iron
	Matching Preheater with DRI kiln & Coal Dryer	**	**	**	**	**	**	**	**	**	Addition of new 4 x 1,000 TPD DRI			

S. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 13.07.2009 & 27.10.2009								Expansion proposal considering 330 annual working days		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per last (21/04/2011, 31.03.2015)/valid CTO (22.03.2023 & 13.06.2023)						
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Configuration	Capacity	Configuration	Capacity	
	(Stand by)													
4.	Steel Melting Shop	1 X 15 T + 3 X 18 T + 1 X 20 T + 4 X 30 T	10,50,000 TPA	2 X 30 T	1,07,700 TPA	1 X 15 T + 3 X 18 T + 1 X 20 T + 2 X 30 T	9,42,300 TPA	2 X 30 T	1,07,700 TPA	Expansion of existing SMS (I.F.) by process optimization Addition of 15 x 25 T I.F. + 4 x 30 T I.F. with matching LRF/AOD, CCM and oxygen optimized furnace	(+) 50,300 TPA	(15 x 25 T + 6 x 30 T) I.F.	1.50 million TPA	Billets & Slab
	Matching LRF/AOD, CCM and oxygen optimized furnace	**	**	**	**	**	**	**	**		**			
5.	SMS Slag Crusher	**	**	**	**	**	**	**	**	New 3 x 20 TPH	60 TPH	3 x 20 TPH	60 TPH	Metal Recovery
6.	Oxygen Plant	**	**	**	**	**	**	**	**	New 2 x 200 TPD	400 TPD	2 x 200 TPD	400 TPD	Oxygen
7.	Lime Dolomite Plant	**	**	**	**	**	**	**	**	New 1 x 300 TPD	300 TPD	1 x 300 TPD	300 TPD	Calcined Lime & Dolomite
8.	Ferro Alloy Plant	**	**	**	**	**	**	**	**	New 6 x 9 MVA	0.12 million TPA	6 x 9 MVA	0.12 million TPA	Ferro Alloys (FeMn, FeSi, SiMn & FeCr)
9.	Jigging Plant	**	**	**	**	**	**	**	**	New 4 x 11 TPH	44 TPH	4 x 11 TPH	44 TPH	Metal Recovery
10.	Chrome Briquette plant	**	**	**	**	**	**	**	**	New 2 x 40 TPH	80 TPH	2 x 40 TPH	80 TPH	Chrome Briquette
11.	Coal Washery	1 x 0.7 + 1 x 0.8 MTPA	15,00,000 TPA	1 x 0.7 MTPA	7,00,000 TPA	1 x 0.8 MTPA	8,00,000 TPA	1 x 0.7 MTPA	7,00,000 TPA	Change in technology & expansion of existing coal washery 1 x 0.7 MTPA to 1 x 0.8	(+) 0.9 million TPA	2 x 0.8 MTPA	1.60 million TPA	Washed Coal

S. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 13.07.2009 & 27.10.2009								Expansion proposal considering 330 annual working days		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per last (21/04/2011, 31.03.2015)/valid CTO (22.03.2023 & 13.06.2023)						
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Configuration	Capacity	Configuration	Capacity	
										MTPA by process optimization and addition of new 1 x 0.8 MTPA				
12.	Non-recovery type Coke Oven Plant	5 x 0.12 MTPA	6,00,000 TPA	2 x 0.12 MTPA	2,40,000 TPA	3 x 0.12 MTPA	3,60,000 TPA	2 x 0.12 MTPA	2,40,000 TPA	Expansion of existing 2 x 0.12 MTPA to 2 x 0.13 by process optimization and addition of 3 x 0.13 MTPA	(+) 0.41 million TPA	5 x 0.13 MTPA	0.65 million TPA	Metallurgical Coke
13.	Rolling Mill with Pickling Line & Continuous Galvanizing/ Galvalume, CCL Line	**	**	**	**	**	**	**	**	New 0.70 million TPA		0.70 million TPA		HR Product (Flat, Coil); Seamless Pipes Galvanized/ Galvalume / Colour Coated Product
14.	Bar, Wire Rod Mill and Wire Drawing	**	**	**	**	**	**	**	**	New 0.50 million TPA		0.50 million TPA		TMT Bar, Wire & Wire Rod
15.	Ductile Iron Plant	**	**	**	**	**	**	**	**	New 0.50 million TPA		0.50 million TPA		DI Pipes, Fitting & Accessories
16.	Pellet plant	1 x 0.6 million TPA	6,00,000 TPA	1 x 0.6 million TPA	6,00,000 TPA	**	**	1 x 0.6 million TPA	6,00,000 TPA	Enhancement of existing pellet plant capacity by process optimization.	(+) 4,00,000 TPA	1 x 1.0 million TPA + 2 x 1.25 million TPA	3.5 million TPA	Iron Ore Pellet
										Addition of new module	2.5 million TPA			

S. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 13.07.2009 & 27.10.2009								Expansion proposal considering 330 annual working days		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per last (21/04/2011, 31.03.2015)/valid CTO (22.03.2023 & 13.06.2023)						
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Configuration	Capacity	Configuration	Capacity	
										(2 x 1.25 million TPA)				
17.	I/O Beneficiation	**	**	**	**	**	**	**	**	1 x 1.5 + 1 x 3.0 million TPA	4.5 million TPA	1.5 million TPA + 1 x 3.0 million TPA	4.5 million TPA	Concentrated Iron Ore
18.	Producer Gas Plant	**	**	**	**	**	**	2 x 4,000 Nm <sup>3</sup> /hr	8,000 Nm <sup>3</sup> /hr	Enhancement of gas generation existing PGP 2 x 4,000 Nm <sup>3</sup> /hr to 2 x 6,000 Nm <sup>3</sup> /hr and addition of 18 x 6,000 Nm <sup>3</sup> /hr	(+) 1,12,000 Nm <sup>3</sup> /hr	20 x 6,000 Nm <sup>3</sup> /hr	1,20,000 Nm <sup>3</sup> /hr	Producer Gas
19.	Cement Grinding unit	**	**	**	**	**	**	**	**	3 x 600 TPD (Ball Mill) + 1 x 2000 TPD (VRM)	1.25 million TPA	3 x 600 TPD (Ball Mill) + 1 x 2000 TPD (VRM)	1.25 million TPA	OPC, PPC, PSC & Composite
20.	Captive Power Plant	1 x 25 MW-F.B.C	25 MW	1 x 16 MW-A.F.B.C	16 MW	**	**	1 x 16 MW-A.F.B.C	16 MW	Expansion in existing AFBC by improvement in heat efficiency of boiler	(+) 4 MW	110 MW FBC (Coal & Dolochar Mix) Based- 1 x 20 MW A.F.B.C + 2 x 45 MW C.F.B.C	275 MW	Power
		8 x 2.5 MW + 4 x 10 MW-WHRB	60 MW	8 x 1.0 MW	8 MW	8 x 1.5 MW + 4 x 10 MW-WHRB	52 MW	8 x 1.0 MW	8 MW	Addition of new CFBC (Coal Dolochar mix based) 2 x 45 MW	90 MW			
										Expansion in WHRB Based CPP from existing DRI Plant by improvement in	(+) 8 MW			



S. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 13.07.2009 & 27.10.2009								Expansion proposal considering 330 annual working days		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Unimplemented (B)		As per last (21/04/2011, 31.03.2015)/valid CTO (22.03.2023 & 13.06.2023)						
		Config.	Capacity	Config.	Capacity	Config.	Capacity	Config.	Capacity	Configuration	Capacity	Configuration	Capacity	
										heat efficiency of boiler				
										Additional WHRB Based CPP from 4 x 1000 TPD DRI	104 MW			
										WHRB Based CPP from Coke Oven plant	45 MW			
21.	Railway Siding	**	**	**	**	**	**	**	**	New	01 No.	01 No.	Material Handling	

41.13.5 **Reasons / Justification for Amendment:**

The expansion proposal was submitted considering expansion from EC accorded facilities but only few facilities i.e. “1 x 225 m3 MBF (1,88,000 TPA), 1 x 40 m2 Sinter Plant (4,60,000 TPA), 8 x 100 TPD DRI Plant (2,40,000 TPA), 2 x 30 T I.F. SMS (1,07,700 TPA), 1 x 0.7 MTPA Coal washery, 2 x 0.12 MTPA Non-recovery type Coke Oven Plant, 1 x 0.6 million Pellet plant capacity TPA, 16 MW AFBC, 8 x 1.0 MW (8.0 MW) WHRB Based CPP from DRI Plant from EC accorded configuration have been implemented and rest of the facilities are yet to be implemented and the environmental clearance validity accorded to M/s MSP Metallica Limited have been expired. Looking after the facts of implementation of the project and to have more clarity w.r.t to project implementation and proposed expansion, company has decided to apply for amendment in TOR already accorded by ministry. Accordingly, the subject and content of the PFR has been revised keeping the ultimate production capacity as per previous accorded valid TOR.

41.13.6 The PP has reported that there is no change in the ultimate production capacity as accorded in TOR and no change in any other parameter of the proposed project.

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

**Written representations:**

41.13.8 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 04.08.2023 through email dated 04.08.2023 submitted an affidavit stating the detailed chronology and declaring that the company has not violated any environmental norms and is operating its existing installed facilities after obtaining statutory clearances.

**Deliberation by the Committee**

41.13.9 The Committee noted the following:

- i. M/s. MSP Metallica Limited had initially applied for Terms of Reference vide Proposal No. IA/OR/IND/291725/2022 dated 24.09.2022 for Expansion of Steel Plant 1.05 million TPA With CPP To Integrated Steel Plant 1.7 million TPA Finished Steel With 275 MW Captive Power Plant. Accordingly, Standard ToR was granted by the Ministry vide no. F. No. IA-J-11011/494/2007-IA-II(I) dated 28.09.2022.
- ii. The instant proposal is for amendment in Terms of Reference dated 28.09.2022 w.r.t. change in subject and implementation status of existing project recorded in the Standard TOR as detailed in para 41.13.4 above.
- iii. The PP reported that the expansion proposal was submitted considering expansion from EC accorded facilities but only few facilities i.e. “1 x 225 m3 MBF (1,88,000 TPA), 1 x 40 m2 Sinter Plant (4,60,000 TPA), 8 x 100 TPD DRI Plant (2,40,000 TPA), 2 x 30 T I.F. SMS (1,07,700 TPA), 1 x 0.7 MTPA Coal washery, 2 x 0.12 MTPA Non-recovery type Coke Oven Plant, 1 x 0.6 million Pellet plant capacity TPA, 16 MW AFBC, 8 x 1.0 MW (8.0 MW) WHRB Based CPP from DRI Plant from EC accorded configuration

have been implemented and rest of the facilities are yet to be implemented and the environmental clearance validity accorded to M/s MSP Metallics Limited have been expired. Looking after the facts of implementation of the project and to have more clarity w.r.t to project implementation and proposed expansion, company has decided to apply for amendment in TOR already accorded by ministry. Accordingly, the subject and content of the PFR has been revised keeping the ultimate production capacity as per previous accorded valid TOR.

- iv. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.

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

- 41.13.10 After deliberations, the Committee **recommended** the proposal **subject to uploading the written submission on portal** for amendment in ToR granted vide no. F. No. IA-J-11011/494/2007-IA-II(I) dated 28.09.2022 w.r.t. subject and implementation status of existing project recorded in the Standard ToR as detailed in para 41.13.4 above. The other terms and conditions of ToR dated 28.09.2023 shall remain the same.

**\*\*\***

**Agenda No. 41.14**

- 41.14 Setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA Crude Steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant by M/s. JSW Utkal Steel Limited, located at Polanga, BayanalaKandha, Gobindapur, Dhinkia, Nuagaon and Jatadhara villages, Ersama Tehsil, Jagatsinghpur District, Odisha.**

**[Proposal is placed before the EAC as per the Order of Hon'ble NGT dated 20.03.2023 in the matter of Appeal No. 21 of 2022/EZ [I.A. No. 167/2022/EZ] and Others titled Prafulla Samantray Vs. Union of India & Ors. Regarding]**

**[Proposal No. IA/OR/IND/74396/2018; File No. J-11011/524/2017-IA.II (I)]**

- 41.14.1 The Environment Clearance was granted to M/s. JSW Utkal Steel Limited [JSW USL] by the Ministry vide letter No. J-11011/524/2017-IA.II (I) dated 11.04.2022 for setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA crude steel with 10 MTPA Cement grinding unit & 900 MW Captive Plant Near Paradeep Jagatsinghpur district, Odisha by M/s. JSW Utkal Steel Limited. The project is interlinked with the setting up of an "All- weather, Multi cargo Greenfield Captive Jetty (ies) of handling capacity of 52 MTPA at Jatadhari Muhan River, district Jagatsinghpur, Orissa", for which the Environment Clearance was granted by the Ministry of Environment, Forest and Climate Change vide letter dated 12.04.2022 to the Project Proponent (M/s. JSW Utkal Steel Limited).
- 41.14.2 Appeals vide 21-22 of 2022 titled Prafulla Samantray Vs. Union of India & Ors. was filed before the Hon'ble National Green Tribunal (Eastern Zone), challenging the EC granted dated 11.04.2022 by the Ministry. The Environment Clearance for setting up of the ISP and Cement grinding unit was challenged in Appeal No. 21/2022 and the Environment Clearance dated 12.04.2022 for setting up the Captive jetty was challenged in Appeal No. 22/2022 before the same Bench. Both the appeals were connected and were heard together at length during the proceedings. The Hon'ble NGT, vide its final order and judgment dated 20.03.2023 has allowed the Appeals and suspended the Environment Clearance granted for both the projects. Accordingly, Hon'ble NGT has remitted the matter to the MoEF&CC for fresh appraisal and decision by MoEF&CC in the light of observations made in the judgement. The issues highlighted by the Hon'ble NGT are as follows:

Quote:

*Para 35 of the Hon'ble NGT Order: On due consideration, we are of the opinion that recommendation of the EAC without express consideration of following issues are vitiated*

- a. Cumulative EIA saw the light of the day for the first time after the public hearing*
- b. Permissibility of sourcing water from Mahanadi when drinking water is scarce has not been duly evaluated. The observation with regard to scarcity of water can be seen*

*in the minutes of the meeting dated 18.05.2021. The recommendation accepting the contra stand of the PP is not based on independent evaluation.*

*c. Jetty is located within 500 meters of the Paradeep Port which is unnecessary as opined in the report submitted by Ms. Meena Gupta earlier.*

*d. Paradeep is polluted industrial area.*

*e. The SIA has been conducted later and was not part of public hearing.*

*f. The project by Posco was abandoned and was adversely commented upon by this Tribunal vide order dated 30.03.2012 in Appeal No. 08/2011 which aspect has not been examined.*

*g. Conditions stipulated in the EC granted to POSCO will have to be considered, in case ECs are to be granted.*

*Para 36 of the Hon'ble NGT Order: We are conscious that the project involves huge investment. At the same time, principle of sustainable development cannot be ignored. Apart from significant issue of public hearing, important issue of location of the project close to polluted area, jetty being unnecessarily close to an established port, huge water being taken from the river which may affect drinking water needs and flow of the river are important issues which need express consideration.*

*Para 37 of the Hon'ble NGT Order: Matter will need fresh appraisal by the EAC by reasoned consideration and fresh decision by MoEF&CC.*

Unquote.

41.14.3 In compliance with the order of the Hon'ble NGT dated 20.03.2023, the aforesaid project along with the observations and directions of the Hon'ble NGT, was placed before the Expert Appraisal Committee (EAC) of Industry- 1 sector during its 26<sup>th</sup> meeting held on 17th April 2023. The Project proponent has attended the EAC meeting and informed the EAC that after the judgement of Hon'ble NGT, the activities had been stopped and there were no activities at the project site.

41.14.4 The Committee deliberated on the directions issued by the Hon'ble NGT along with its concerned issues and accordingly, the opinions of the member present during the meeting were deliberated along with the representation of the Project Proponent on the said points. The Committee was of the view that the concerns raised by Hon'ble NGT needed to be addressed more intensely and systematically and Environment Clearance dated 11.04.2022 needed to be revisited. For the same, it is imperative to constitute a Working Group under EAC (Industry-1 Sector).

#### **Recommendations of the 26<sup>th</sup> EAC Meeting:**

41.14.5 In view of the foregoing and after detailed deliberations, the EAC decided to constitute a Working Group under EAC (Industry-1 Sector) to look into the aspects of the observations made by the Hon'ble NGT comprising of the following members:

- i. Dr. Jai Krishna Pandey, EAC Member (Industry 1 Sector)
- ii. Dr. S. Ranganathan, EAC Member (Industry 1 Sector)
- iii. Dr. E V R Raju, EAC Member (Industry 1 Sector)
- iv. Dr. Hemant Sahasrabudhe, EAC Member (Industry 1 Sector)
- v. Dr. Sandeepan BS, Scientist B-Representative of MoEF&CC-For assisting the Working Group

The EAC was of the view that the Working Group shall:

1. Examine all the necessary documents pertaining to the project in the light of the observation of Hon'ble NGT order dated 20.03.2023.
2. The Working Group shall also look into the reports and issues deliberated during the previous appraisal of the project based on which the instant proposal was recommended for grant of EC.
3. The Working Group shall also take into consideration the representations made by the Project Proponent and shall be called upon for any clarification required in the matter.
4. The report of the Working Group shall be submitted at the earliest for further consideration of the EAC (Industry -1 Sector).

41.14.6 Accordingly, the Working Group convened three meetings, for five days, first one on 20/04/2023 [Through Video conferencing mode], the second meeting on 26/04/2024 [Through Video conferencing mode] and the third during 2-4 May 2023 [Through Physical mode at MoEFCC, New Delhi]. The Working Group deliberated in detail on various issues mentioned in the Hon'ble NGT order dated 20.03.2023. The Working Group identified the documents required for addressing the directions of the Honourable NGT. Upon receipt of various documents from MoEFCC for addressing the directive of the Honourable NGT, the working group made detailed deliberations on documents findings. The Working Group has given an opportunity to the PP to make a presentation on the project and display drone video of the Project site and surroundings.

41.14.7 Documents/ information relating to the Hon'ble NGT case, provided by MoEFCC were reviewed by the Working group and noted that the then EAC has gone through the entire appraisal process and observed that there were three EAC meetings convened regarding ToR application and five EAC meetings convened regarding EC proposal. The working Group has gone through the documents submitted by the Project proponent and the Minutes of the then EAC meetings and after detailed deliberations, agreed with the observations/recommendations made by the then EAC in various meetings.

41.14.8 **Appraisal by the then EAC for Terms of reference (ToR) :** The Working group noted that the then EAC had gone through the entire appraisal process and observed that there were three EAC meetings convened w.r.t. ToR proposal. The details are as below:

- (i) The working group noted that the Project proponent submitted application vide proposal no. IA/OR/1ND/70478/2017 on 25.10.2017 for Terms of reference (ToR) for the first time. The proposal was considered in the 24th meeting of Expert Appraisal Committee

(Industry-1) held during 13th to 15th November, 2017 wherein the committee observed that the procedure for consideration of the integrated and inter linked projects was issued by MOEFACC vide OM No. J-110I3/41/2006-IA. II(I), dated 24th December, 2010. Integrated and inter linked projects having multispectral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/inter linked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended for returning the proposal in the present form and advised to make afresh application in the prescribed format (Form-I) and the pre-feasibility report giving full details of the project (comprehensively for the integrated/ inter linked projects as also for the particular component, sector specific). The Ministry after accepting the recommendation of the EAC (Industry-1) returned the proposal in the present form and advised the PP to submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/interlinked projects as also for the particular component, sector specific) in the prescribed format vide letter dated 5/12/2019.

- (ii) The project proponent had submitted the revised application again vide proposal no. IA/OR/1ND/74396/2018 on 13.08.2018 for ToR for undertaking detailed EIA study as per the EIA, Notification, 2006. The project was considered for ToR in 35th Meeting of EAC held on 18th – 19th September, 2018 wherein it was decided that sub-committee comprising of EAC members and Officer concerned with the subject matter would undertake a site visit and thereafter the proposals would be considered by the EAC for grant of ToR. Accordingly, sub-committee undertook a site visit during 29-31st January, 2019 and submitted its report to EAC. After accepting the recommendation of EAC (Industry – I), in 4th meeting of the EAC (Industry-I) held during 20-22nd February, 2019, the Ministry accorded specific ToRs, in addition to the standard ToR's and Sector Specific ToR's for carrying out detailed EIA/EMP. The Ministry, after accepting the recommendation of EAC, accorded the ToR to the PP vide Letter dated 19.03.2019 for carrying out detailed EIA/EMP for the project.

#### 41.14.9 **Appraisal by the then EAC for Environmental Clearance (EC):**

The Working group noted that the then EAC has gone through the entire appraisal process for grant of EC and observed that there were Five EAC meetings convened w.r.t. EC proposal. The details are as below:

**1<sup>st</sup> EAC appraisal for EC:** M/s. JSW Utkal Steel Limited has made an online application vide proposal no. IA/OR/IND/74396/2018 dated 04/03/2021 along with copy of EIA/EMP report and Form- 2 seeking Environmental Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3 (a) Metallurgical industries (Ferrous & non-ferrous) under Category “A” of the schedule of the EIA notification, 2006 and appraised at Central level.

The proposal was considered by the EAC (Industry 1) in its 32nd meeting of the EAC (Industry-I) held on 15<sup>th</sup>-17<sup>th</sup> March, 2021. However, the project proponent vide email dated 16/03/2021 expressed their inability to participate in the EAC meeting and requested to return their proposal in its present form to “revisit and correct the uploaded Form-2 for incorporating the Integrated [Common] EIA Report for ISP and Jetty(ies) Project at Paradeep, Odisha”. In view of the request made by the project proponent, the Committee accepted the request of the project proponent to withdraw the proposal in its present form.

**2<sup>nd</sup> EAC appraisal for EC:** Again M/s. JSW Utkal Steel Limited has made an online application vide proposal no. IA/OR/IND/74396/2018 dated 05/05/2021 along with copy of EIA/EMP report and Form 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. Subsequently, the proposal was considered by the EAC (Industry 1) in its 36<sup>th</sup> meeting held on 18-19<sup>th</sup> May, 2021. The EAC has taken cognizance of the issues raised in the public consultation dated 31/01/2020 and 07/02/2020 alleging several shortcomings in the public hearing held for the project on 29/12/2019; and report of District Magistrate on public consultation besides the EIA-EMP submitted by the PP. In view of the foregoing and after deliberations, the EAC recommended to return the proposal in its present form to address number of shortcomings as enumerated in the MoM of 36<sup>th</sup> meeting of the EAC (Industry-I) held on 18-19<sup>th</sup> May, 2021.

**3<sup>rd</sup> EAC appraisal for EC:** Again M/s. JSW Utkal Steel Limited has made an online application vide proposal no. IA/OR/IND/74396/2018 dated 02/09/2021. Subsequently, the proposal was considered by REAC in its 44<sup>th</sup> meeting held on 13<sup>th</sup> – 14<sup>th</sup> September, 2021. The EAC has noted the replies made by the PP to its earlier Minutes of the Meetings. After detailed deliberations, the Committee recommended to return the proposal in its present form to address the observations enumerated at para no. 44.8.25 of MoM of 44<sup>th</sup> meeting of the EAC (Industry-I) held on 13 – 14<sup>th</sup> September, 2021, with respect to the public representations, the Committee recommended to seek the views of Odisha Pollution Control Board and the PP.

**4<sup>th</sup> EAC appraisal for EC:** Again M/s. JSW Utkal Steel Limited had again made an online application vide proposal no. IA/OR/IND/74396/2018 dated 07/01/2022. Subsequently, the proposal was considered in 52nd REAC (Industry-1) held on 27<sup>th</sup>, 28<sup>th</sup> and 31<sup>st</sup> January, 2022. The EAC has noted the replies made by the PP to its earlier Minutes of the Meetings; report submitted by Odisha Pollution Control Board on 11/10/2021 on public consultation/representations and response of PP; and various representations received by the EAC from different stake-holders and the PP’s reply to them. In view of the foregoing and after detailed deliberations, the EAC deferred the consideration of the proposal and sought additional information from the PP.

**5<sup>th</sup> EAC appraisal for EC:** Based on the replies submitted by PP to the queries raised by the EAC in its earlier meeting/s the proposal was considered in 53rd meeting of Expert Appraisal Committee (Industry-1) held on 10-11th February, 2022. The EAC has noted the replies made by the PP to its earlier Minutes of the Meetings and requirements. In



view of the detailed deliberations, the EAC recommended the instant proposal for grant of Environment Clearance under provision of EIA Notification, 2006 subject to the stipulation of specific conditions and general conditions.

Based on the recommendation of EAC, the MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1) has granted the Environment Clearance for Setting up of a Greenfield Integrated Steel Plant of capacity 13.2 MTPA Crude Steel with 10 MTPA Cement grinding unit & 900 MW Captive Power Plant proposal of M/s. JSW Utkal Steel Limited under the provisions of EIA Notification, 2006 subject to the specific conditions and general conditions and other mitigation measure, vide EC Identification No.EC22A008OR135518 dated 11-04-2022.

41.14.10 The aforesaid project along with the observations and directions of the Hon'ble NGT, and the finding/recommendations were presented by the Working group before the Expert Appraisal Committee (EAC) of Industry- 1 sector in 31<sup>st</sup> meeting held on 15<sup>th</sup> – 16<sup>th</sup> May, 2023.

**Deliberation by the Committee in its 31<sup>st</sup> meeting held on May 15-16, 2023.**

41.14.11 The Committee, after detailed deliberations, noted the following:

- (i) The EAC has gone through the Working Group's findings and deliberated in detail each issue highlighted by the Hon'ble NGT in its order dated 20.03.2023.
- (ii) The Committee noted that the then EAC has deliberated the project as per provisions of the EIA Notification, 2006 for the instant ISP project and noted that there were three EAC meetings convened for the appraisal of ToR application and five EAC meetings were convened for the appraisal of EC proposal. The working Group has gone through the documents and the Minutes of the EAC meetings and after detailed deliberations, agreed with the observations/recommendations made by the then EAC in various meetings as per provisions of the EIA Notification, 2006.
- (iii) The Committee has deliberated in detail the issues highlighted at Para nos. 35, 36 and 37 of the Order by the Hon'ble NGT and the observation of the working group in each point and noted the following:
  - a) **Cumulative EIA saw the light of the day for the first time after the public hearing:**  
Based on the documents examined and letter of OSPCB dated 03.07.2020 to MoEFCC, it is confirmed that the Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing.

It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing.

The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/ variation between the “Integrated EIA Report, November 2019” (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.

- b) **Permissibility of sourcing water from Mahanadi:** As per the review of documents this Working group noticed that WRD, Orissa State Govt. is the nodal agency responsible for managing and allocation of the water resources in the state of Odisha. It is based on the WRD water allocation to the PP, the earlier EAC had accepted the sourcing water from Mahanadi. However, the PP submitted that, Post grant of Environmental clearance, Govt. of Odisha has revised the location for withdrawal of said water from Mahanadi lower basin, at upstream of proposed Instream storage structures (ISS) at Chowdhurigada for the proposed steel plant. PP shall submit documents to establish water balance in the new source at Chowdhurigada and confirm the availability of water based on studies carried out by WRD of Odisha. All ways should be explored by the PP for reducing water usage in the changing environment.
- c) **Jetty is located within 500 meters of the Paradeep Port:** This issue is being deliberated by the EAC (Infra-1 Sector) of the MoEFCC. The Infra I sector finding may be included in this section.
- d) **Paradeep is polluted industrial area:** In the EIA-EMP report PP had claimed that there was no “severely polluted area” within 10 km radius of the project site. However, this Working Group has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that “a small portion of the said project area is overlapping with the demarcated SPA of Paradeep”. Therefore, this matter needs to be considered by the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA.
- e) **The SIA has been conducted later and was not part of public hearing:** SIA study was prescribed as ToR to the PP and the social environment impact was carried out for study area (10 km radial coverage) covering 181 villages, 1 census town and 1 municipality as part of Draft Integrated EIA Report, December, 2019. The same was also submitted to OSPCB on 16.11.2019 for conducting Public Hearing. Earlier, the

then EAC in its 36<sup>th</sup> meeting held during 18-19th May, 2021 observed that R&R Plan based on Public Hearing, SIA and as per Odisha Governments R&R Plan Preparation Guidelines has not been furnished. Based on the recommendation of the then EAC, SIA for R&R purpose was conducted by empanelled agency (STARR, Bhubaneswar) and the report was included in Common EIA Report for appraisal of EAC. It was noted that the SIA study done by STARR is limited to R&R issues. General social environment impact was already done in draft EIA/EMP Report. The same was deliberated by the then EAC and accordingly specific conditions were included in the recommendations of the EAC. However, the EAC may further deliberate on the finding of the Social Impact Assessment (SIA) study and may further suggest Social Impacts Mitigation Action Plan (like Community Development Plan/ Community Engagement Plan/Social Mitigation Plan/Village adoption) to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project.

- f) **The project by POSCO was abandoned and was adversely commented upon by this Tribunal:** The EAC has gone through the Working Group inference in each point on the order of NGT dated 30.03.2012 and the EAC opines that this direction of the Hon'ble NGT would not be relevant and applicable now.
- g) **Conditions stipulated in the EC granted to POSCO will have to be considered, in case ECs are to be granted:** The conditions stipulated in the EC granted to POSCO (in Jan 2007 and Jan 2014) vis-à-vis the recent EC granted to M/s JSW Utkal ISP (in April 2022) has been compared. Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, fresh appraisal by the EAC may be further deliberated for additional EC conditions, if any, w.r.t. Decarbonisation, Green buildings, Supply of drinking water to the neighbourhood etc.
- (iv) The Committee noted that PP has reported that the Govt. of Odisha has revised the location for withdrawal of said water from Mahanadi lower basin, at upstream of proposed Instream storage structures (ISS) at Chowdhurigada for the proposed steel plant.
- (v) The Committee also noted that in the EIA/EMP report the PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. Further, it can be seen in Minutes of the Meeting of 52<sup>nd</sup> EAC, the PP has responded against a representation dated 27/01/2022 that "The proposed project site is 12 Km SE of Paradip and is not a part of any Severely Polluted area as notified by CPCB." The Committee has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". In this regard, the Committee opines that this matter needs to be apprised as per OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA.

41.14.12 The Project proponent has also attended the EAC meeting on 16<sup>th</sup> May 2023.

### **Recommendations of the 31<sup>st</sup> EAC meeting held on 16<sup>th</sup> May 2023**

- 41.14.13 The EAC deliberated on point wise suggestions/recommendation of the Working Group and accepted the findings/recommendations. However, the following additional information/clarifications may be sought from the PP and accordingly the proposal may be placed before the next EAC meeting for further deliberation:
- i. The PP may be asked to submit documents to establish water balance for the new source at Chowdhurigada and confirm the availability of water based on scientific study based on the change of scenario.
  - ii. The PP is further advised to formulate an action plan to further reduce the 'Water footprint' of the company by way of minimization, recycling, conservation, alternate source of water etc., as per new scenario.
  - iii. The PP is further advised to prepare a comprehensive report on the basic water requirement in the riparian region (domestic and agriculture demand). The PP shall be directed to draw up a detailed action plan for the water distribution system to ensure the adequate water supply to all villages in the vicinity of a radius of 2/5/10 Km of the Plant site with pipeline water supply under the proposed CSR activity. The PP shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers.
  - iv. The PP is to submit a detailed report on how the Environment Management Plan for the proposed ISP project will comply with the Action Plan prepared by OSPCB/ CPCB for the abatement of the pollution in the Industrial areas of Paradeep, keeping in view the Comprehensive Environmental Pollution Index (CEPI) as per Ministry's OM of 2019 on CEPI/SPA.
  - v. In the EIA/EMP report the PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. However, this Working Group has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". Therefore, this matter needs to be considered as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA and PP needs to submit the detailed action Plan as per the Ministry's OM of 2019.
  - vi. The PP is advised to submit a SIA study finding and the Action Plan (Community Development/ Engagement Plan/Social Mitigation Plan) formulated to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project be submitted to the EAC.
  - vii. The PP is advised to enhance the funds on social environment along with village adoption and its activities. The EAC is of the opinion that these action will significantly

improve the quality of life and standard of living of the villagers living in the vicinity of project site.

- viii. The PP may be asked to submit detailed reports/ Action Plans on Decarbonization program including plans for not letting out CO<sub>2</sub> into the atmosphere after calcination. CO<sub>2</sub> may be captured and treated appropriately. Water balance (including the villages) study; implementing Sustainable developmental goals; waste recycling/utilisation with Circular economy principles; e-waste disposal as per Government guidelines; filling of earth material to raise the ground etc.
- ix. The PP submitted that they will fill the entire site with dredged sand in order to safeguard the area from flood plains. In this context, the PP is advised to submit a detailed engineering drawing and design for the said reclamation.

41.14.14 The 31<sup>st</sup> EAC deliberated the issues in depth and is of the view that the above-mentioned information may be sought from the PP. Afterwards, the proposal may be placed before the EAC for further deliberation after receipt of the information from the PP.

#### **Deliberations and Recommendations of the 33<sup>rd</sup> EAC meeting held on 30<sup>th</sup> May 2023**

41.14.15 The PP, vide letter dated 26<sup>th</sup> May 2023, has submitted response to the queries as sought by the EAC held on 16<sup>th</sup> May, 2023, accordingly the project was considered in the Expert Appraisal Committee (EAC) of Industry- 1 sector in 33<sup>rd</sup> meeting held on 30<sup>th</sup> May, 2023.

41.14.16 The Committee, after detailed deliberations, noted the following:

- (i) The EAC has gone through the point wise response of the PP regarding the observation of 31<sup>st</sup> EAC.
- (ii) The Committee noted that further clarification/information may be provided by PP in following points:
  - a) In all Figures/Maps the location and boundary of the proposed JSW plant should be shown.
  - b) Preferably Use same units everywhere w.r.t. MCM, Cusecs, Litres
  - c) More information/ details should be provided about ponds of nearby villages.
  - d) The water consumption per tonne of steel may be revisited and details must be provided.
  - e) The response to query of point number 5 of 31st EAC (Regarding the detailed action Plan as per the Ministry's OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA is inadequate. PP need to provide adequate reply.
  - f) The PP should revisit the environmental responsibility/CER activities and amount allocated for it. PP should specifically try to develop all possible modern facilities in their proposed hospital.

- g) The response to the query to the road map for Decarbonisation, Sustainable development, Circular economy need to be elaborated adequately.
- h) The details w.r.t. greenbelt development according to Ministry's OM of MoEFCC dated 31-10-2019 need to be submitted.
- i) The detailed engineering drawings of retaining wall should be provided.

**Recommendations of the 33rd EAC meeting held on 30th May 2023**

- 41.14.17 The EAC deliberated on the point wise response of the PP. After the detailed deliberation EAC decided to ask from Project Proponent revised comprehensive report incorporating all observations (a to i) of EAC. Accordingly, the proposal may be placed before the next EAC meeting for further deliberation.
- 41.14.18 The PP, vide letter dated 5<sup>th</sup> June 2023, has submitted response to the queries as sought by the earlier EACs, accordingly the project was considered in the Expert Appraisal Committee (EAC) of Industry- 1 sector in 36<sup>th</sup> meeting held on 7th May, 2023.
- 41.14.19 The project proponent submitted the reply to the points raised by the EACs as follows

Sl. No.	Point raised by 31 <sup>st</sup> EAC	Reply by the PP
1.	Establish water balance for the new source at Chaudhurygada and confirm the availability of water based on scientific study based on the change of scenario	<ul style="list-style-type: none"> <li>• The location of intake of water has been changed from Jobra barrage to u/s of Chowdhury Gada ISS and recommendation from WRD, GoO has been accorded.</li> <li>• Water demand has been reduced from 99.8 Cusecs to 60 Cusecs i.e. about 40% reduction. Based on this water requirement the water availability study has been conducted at the revised location through independent expert agency and found that the Chaudhurygada ISS with pondage of 51 MCum is adequate to meet the water requirement of ISP, drinking water to villages and other consumers in the area including future demand on a sustainable basis</li> </ul>
2.	The PP is further advised to formulate an action plan to further reduce the 'Water footprint' of the company by way of minimization, recycling, conservation, alternate source of water etc. as per new scenario	<ul style="list-style-type: none"> <li>• The total water requirement for the proposed project has been revisited &amp; revised and the water balance diagram has been prepared based on Best Industry Practices. The water consumption envisaged for the proposed project of JSWUSL was already reworked on the basis of reduced water consumption of</li> </ul>

		5,127 m <sup>3</sup> /hr (50.3 cusecs). Since the EC of the proposed project is presently being revalidated by MoEFCC, JSWUSL seeks to reflect the reduction in the water consumption in the revalidated EC.
3.	The PP is further advised to prepare a comprehensive report on the basic water requirement in the riparian region (domestic and agriculture demand). The PP shall be directed to draw up a detailed action plan for the water distribution system to ensure the adequate water supply to all villages in the vicinity of a radius of 2/5/10 Km of the Plant site with pipeline water supply under the proposed CSR activity. The PP shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers	<ul style="list-style-type: none"> <li>• Already addressed in Sl. No i and ii</li> </ul>
4.	The PP is to submit a detailed report on how the Environment Management Plan for the proposed ISP project will comply with the Action Plan prepared by OSPCB/CPCB for the abatement of the pollution in the Industrial areas of Paradeep, keeping in view the Comprehensive Environmental Pollution Index (CEPI) as per Ministry's OM of 2019 on CEPI/SPA	<ul style="list-style-type: none"> <li>• The mitigation measures proposed by JSWUSL as part of the EC already conform to the Action Plan formulated by OSPCB for Paradeep PIA</li> </ul>
5.	In the EIA/EMP report the PP had claimed that there was no "severely polluted area" within 10 km radius of the project site. However, this Working Group has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that "a small portion of the said project area is overlapping with the demarcated SPA of Paradeep". Therefore, this matter needs to be considered as per the OM of MoEFCC dated 31-10-	<ul style="list-style-type: none"> <li>- The inadvertent omission of SPA within 10 km radius was critically reviewed and found that the conditions stipulated in the EC complies with 16 out of the 18 conditions for CPA/SPA as per OM of 2019.</li> <li>- For development of greenery in more than 40% of project area, JSW has identified 85 Ha of such land located in six blocks</li> <li>- These all are Govt land as per the RoR but status of the land is Forest land as per the DLC Report.</li> </ul>

	<p>2019 to deal with CPA/SPA and PP needs to submit the detailed action Plan as per the Ministry's OM of 2019</p>	<ul style="list-style-type: none"> <li>- This land cannot be leased to JSW without forest diversion.</li> <li>- However, for the purpose of plantation JSW will propose State Govt to enter into an MoU to carry out plantation in order to meet the requirements under the OM and Forest transfer condition.</li> <li>- The selection of species will be in consultation with the State Forest Dept, experts including Ecologist &amp; ICFRE and the maintenance cost for stipulated period will be met by JSW.</li> <li>- JSW shall not use the land for any purpose other than green belt.</li> </ul> <p>While executing the project at site, JSWUSL revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to Rs. 657.05 Crore from Rs. 196.05 Crore.</p>
<p>6.</p>	<p>The PP is advised to submit a SIA study finding and the Action Plan (Community Development/Engagement Plan/Social Mitigation Plan) formulated to address the social, R&amp;R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project be submitted to the EAC</p>	<p>Based on <u>the socio-economic impact assessment, needs assessment and public consultations</u>, JSW USL has prepared a detailed peripheral development plan spread over 7 years, that includes substantial improvement in areas such as</p> <ul style="list-style-type: none"> <li>- Skill Development,</li> <li>- rural community Infrastructure,</li> <li>- Health Care,</li> <li>- Drinking Water,</li> <li>- Sanitation,</li> <li>- Livelihood,</li> <li>- Agriculture,</li> <li>- Education,</li> <li>- Sports Promotion,</li> <li>- Promotion of culture and tourism,</li> <li>- Environment &amp; Bio-Diversity conservation,</li> <li>- social security for old-age etc.”</li> </ul>
<p>7.</p>	<p>The PP is advised to enhance the funds on social environment along with village adoption and its activities. The EAC is of the opinion that these action will significantly improve the quality of life and standard of living of the villagers living in the vicinity of project site</p>	<p>While executing the project at site, JSWUSL revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to increased to Rs. 657.05 Crore from Rs. 196.05 Crore.</p>



8.	<p>The PP may be asked to submit detailed reports/ Action Plans on Decarbonization program including plans for not letting out CO<sub>2</sub> into the atmosphere after calcination. CO<sub>2</sub> may be captured and treated appropriately. Water balance (including the villages) study; implementing Sustainable developmental goals; waste recycling/utilisation with Circular economy principles; e-waste disposal as per Government guidelines; filling of earth material to raise the ground etc.</p>	<ul style="list-style-type: none"> <li>• JSWUSL will adopt the strategy formulated by Ministry of Steel for reduction of carbon footprint i.e. Nationally Determined Contributions (NDCs) for iron and steel sector to MOEF&amp;CC to reduce GHG emission by adopting clean and green technologies. Currently, as per the NDCs of the steel sector submitted to MoEF&amp;CC, average CO<sub>2</sub> emission intensity of the Indian steel industry was projected to reduce from 3.1 tons CO<sub>2</sub>/tcs in 2005 to 2.64 tons CO<sub>2</sub>/tcs by 2020 and 2.4 tons CO<sub>2</sub>/tcs by 2030 (i.e. approx. 1% per year). To achieve the target of 2.4 tons CO<sub>2</sub>/tcs the Ministry of Steel has recommended the adoption of Best Available Technologies (BATs).</li> <li>• Further, JSW Steel has set a target of achieving specific carbon emission target of 1.95 tCO<sub>2</sub> by 2030 and 1.17 tCO<sub>2</sub> by 2050. These targets and trajectory have been derived based on International Energy Agency (IEA) Sustainable Development Scenario (SDS). On commissioning the production facilities, JSWUSL will be integrated with JSW Steel, and these targets will be applicable to JSWUSL as well.</li> </ul>
9.	<p>The PP submitted that they will fill the entire site with dredged sand in order to safeguard the area from flood plains. In this context, the PP is advised to submit a detailed engineering drawing and design for the said reclamation.</p>	<p>Reclamation of land would be carried out in 3 categories</p> <ul style="list-style-type: none"> <li>• Category 1 : Exposed to offshore wave, Rubble mound revetment armored with Acropod</li> <li>• Category 2 : Exposed to water basin area, earth bank using sand material from adjacent area</li> <li>• Category 3 : Boundary line of steel plant, planted</li> <li>• earth bank using sand material from adjacent area</li> </ul> <p>JSWUSL has provided detailed engineering and design for reclamation of land area using surplus dredged sand</p>
<b>Sl.</b>	<b>Point raised by 33<sup>rd</sup> EAC Meeting</b>	

No.		
1	In all Figures/Maps the location and boundary of the proposed JSW plant should be shown.	The location and boundary of the proposed plant site is shown in the relevant maps in the Comprehensive Responses to the EAC Industry-1 Observations submitted.
2	Preferably Use same units everywhere w.r.t. MCM, Cusecs, Litres	The same has been complied with in the Comprehensive Responses to the EAC Industry-1 Observations. The units have been provided in Cusecs and equivalent values in MCum are given in brackets.
3	More information/ details should be provided about ponds of nearby villages.	JSW has currently identified 110 existing community ponds which will be rejuvenated by desilting and strengthening the bond and the water collected will be led to ground water recharge. The details of identified ponds, village-wise is submitted
4	The water consumption per tonne of steel may be revisited and details must be provided.	JSWUSL has drawn up a revised action plan for water conservation, with adoption of best water management practices: adoption of ZLD and rainwater harvesting systems. The water demand for JSWUSL has been reduced from earlier 99.8 Cusecs to 50.3 Cusecs (From 6.2 to 3.4 m <sup>3</sup> /ton of crude steel) for ISP including captive jetties. The revised water balance diagram submitted.
5	The response to query of point number 5 of 31st EAC (Regarding the detailed action Plan as per the Ministry's OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA is inadequate. PP need to provide adequate reply.	The action plan as drawn up by JSWUSL complies to the 18 points applicable to CPA/SPA in line with OM of MoEFCC of 31st Oct 2019 has been submitted.
6	The PP should revisit the environmental responsibility/CER activities and amount allocated for it. PP should specifically try to develop all possible modern facilities in their proposed hospital.	JSW revisited the environmental responsibility/CER activities and has enhanced the allocation to 657.05 Cr over a period of seven years. The details of the initiatives have been shown in the Comprehensive Responses to the EAC Industry-1 Observations. The details of the budget estimate (sector specific) is also given in the table.
7	The response to the query to the road map for Decarbonisation, Sustainable development, Circular economy need to elaborated adequately.	The above details as applicable to JSWUSL are presented in Comprehensive Responses to the 31 <sup>st</sup> EAC Industry-1 Observations under reply to query (viii.).
8	The details w.r.t. greenbelt development according to Ministry's OM of MoEFCC dated 31-10-2019 need to be submitted.	Efforts were made to increase the existing 33% green belt within the project site by adding one extra row of plantation covering 2-meter width all along the boundary which resulted into enhancement of 1% green belt. With the Green belt adjacent to project premises consisting 85 Ha (about 7%) and Green belt within the project premises consisting of 406 Ha (34%), greenery of 40% of plant area is being complied.

9	The detailed engineering drawings of retaining wall should be provided.	The detailed engineering drawings of retaining wall is submitted and deliberated by the EAC.
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41.14.20 Unit wise make-up Water Requirement (As proposed earlier and revised)

Sl. No.	Consumers	Make-up water, cu m/hr		% reduction	Justification for reduction
		As per EC dated 11.04.2022	Revised consumption		
1.	Raw material handling	300	300	0.0	-
2.	Sinter plant	60	60	0.0	-
3.	Pellet plant	600	500	16.7	Based on revised consumption data from equipment supplier
4.	Coke Oven By Product Recovery plant	900	850	5.6	Based on revised consumption data from equipment supplier
5.	Blast furnace	1405	900	35.9	The blowdown from the saturator will be treated for removal of ammonia and cyanide and further treated in a RO plat to recover water, which will be recycled within BF
6.	DRI	380	350	7.9	Based on revised consumption data from equipment supplier
8.	SMS	1160	980	15.5	Based on revised consumption data from equipment supplier
9.	Hot strip mill	1340	900	32.8	In order to produce special quality steel in HSM, DM water will be used as make up in Direct cooling water to control chloride in circulating water. The blow down from this system shall be treated in a RO unit to recover the water which will be recycled in HSM
10.	Plate mill	250	150	40.0	In order to produce special quality steel in Mills area., DM water will be used as make up in Direct cooling water to control chloride in circulating water. The blow down from this system shall be treated in a RO unit to recover the water which will
11.	LP mill	240	220	8.3	

Sl. No.	Consumers	Make-up water, cu m/hr		% reduction	Justification for reduction
		As per EC dated 11.04.2022	Revised consumption		
					be recycled in Mills.
12.	Cold rolling mill & tin plate	625	460	26.4	The wastewater containing acidic and alkaline streams shall be treated separately to neutralize the water. The treated wastewater shall be combined with oily effluent and treated in the BOD plant for removal of organics. The water will be further treated in a RO unit to recover water which will be recycled.
13.	Air Separation Plant	900	500	44.4	DM/soft water will be used to enhance COC in cooling towers.
14.	Chilled water plant	250	250	0.0	-
15.	Softening plant	260	260	0.0	-
16.	DM plant	970	900	7.2	Based on revised consumption data from equipment supplier
18.	DWTP (ISP+Jetty)	225	160	28.9	Revised basis of drinking water requirement from 225 l/p/d to 155 l/p/d
19.	Miscellaneous, Cement plant, LCP	355 (including greenery)	155	56.3	Treated water from STP is now proposed to be used for greenery in place of fresh water. Reduction in amount of water reserved for contingency for miscellaneous use. Cement
20.	Jetty	87	87	0.0	
	<b>Total</b>	10,307	7982	22.6	
A	<b>Recovery from CETP and MEE condensate</b>	(-) 1370	(-)1170	-	
B	<b>Recovery from dewatering of iron ore slurry</b>	-	(-)1500	-	
C	<b>Recovery from MEE condensate</b>	-	(-)235	-	
D	<b>Other Losses</b>	(+) 363	(+) 50	-	
	<b>Net Make up water</b>	<b>9300</b>	<b>5127</b>	44.87	

Sl. No.	Consumers	Make-up water, cu m/hr		%	Justification for reduction
		As per EC dated 11.04.2022	Revised consumption		
	intake				

41.14.21 **Compliance to CEPI Guidelines as per action plan of OSPCB for PIA (July 2020)**

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
<b>A</b>	<b>Water: Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB, July 2020 to bring down the CEPI score</b>	
1	Conduct comprehensive wastewater audit for industries including run-off management	Not applicable. Storm water management has been evaluated by modelling to collect run off and pump it back to reservoir
2	Provision of water Recycling system	Extensive cascaded water recycling system has been proposed to ensure ZLD.
3	Complete utilization of treated water from ETP for different heads to minimize fresh intake water	ZLD system proposed for efficient use of water
4	Installation of desalination plant to reduce freshwater consumption	Adequate quantity of freshwater from Mahanadi has been assured by WRD for the project, without compromising on the allocation to priority consumers like drinking, irrigation and environment flow. Will be considered at a later stage if it becomes necessary.
5	Provision of adequate number of Settling Pits for all drainage networks and utilization of settled water for dust suppression and plantation.	Settling pits are proposed to capture storm water for settling solids if any and pump back the water to the reservoir, to conserve water.
6	Provision of a Sewage Treatment Plant for the port township	Proposed for the plant. The treated water will be recycled for plantation activity.
7	Provision of Centralized Automobile Servicing Center with an ETP facility. The treated effluent shall be reused in vehicle washing.	Incorporated near the Parking area. The water used for washing shall be treated and recycled. Dry washing of vehicles will be encouraged to save water.
8	Maintaining minimum stock of minerals like coal, iron ore, coke, etc. (optimize detention time) to reduce fugitive emission from these	All major raw materials will be stored in covered sheds and transported in closed conveyors/trucks to reduce fugitive dust emissions.

<b>Sl. No.</b>	<b>Recommendation action plan of OSPCB for PIA (July 2020)</b>	<b>Proposed by JSWUSL</b>
	minerals. and stack height of storage of these minerals	Suitable ventilation systems with bag filters are proposed for junction houses and material handling operations.
9	Establishment of on-line monitoring station for water quality monitoring of River Mahanadi and online data transmission facility with SPCB and CPCB	On-line systems proposed for sea water discharge and individual ETPs and this condition is stipulated in EC.
10	Construction of water impoundment and rainwater harvesting structures	A large reservoir has been proposed to collect storm water or recycle during rainy seasons
11	Preparation of prefeasibility report and development of facility for central pooling of surplus treated effluent of PPL, IFFCO, ESSAR, IOCL and using the same for common cause i.e. road dust suppression, firefighting, industrial use etc.	In the initial stages, the surplus water from slurry dewatering after treatment will be shared with IDCO to supply water to the industries. An MOU has been signed with IDCO for this purposes.
<b>B</b>	<b>AIR: “Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB, July 2020 to bring down the CEPI score”</b>	
1	All the conveyor belts within and connecting to the Port to be provided with sensor supported dust suppression arrangement	All conveyor belts shall be covered to avoid fugitive dust emissions. Bag filters will be provided to capture entrained dust at transfer points.
2	Deployment of vacuum type dust cleaning machine for internal and approach connecting roads	Paved roads with vacuum cleaning machines proposed to reduce dust emissions
3	Raw Material handling area needs to be fully mechanized	Incorporated in the design
4	Provision of wind barrier wall around pet-coke and provision dust suppression system in pet-coke storage are	Wind fence shall be provided for minor raw materials to reduce fugitive emissions.
5	Development of parking plaza	The movement of raw materials and finished products is mainly through sea routes. However, parking facilities with tyre washing systems are provided at critical cross over points to reduce fugitive emissions.

<b>Sl. No.</b>	<b>Recommendation action plan of OSPCB for PIA (July 2020)</b>	<b>Proposed by JSWUSL</b>
6	All stack yard shall be equipped with automatic water sprinkling system	Not applicable, as the raw materials are stored in covered sheds
7	Speed of vehicle engaged for intra transportation of PPT should be mechanically restricted through speed control	Speed of all vehicles shall be restricted to the limits indicated in Factory Act.
8	Provision of Concrete/ Bituminous road with drainage facility for all transportation road, internal road connecting mineral stack yards, with mechanized sweeping facility	Concrete roads are proposed within the plant. Mechanised vacuum facilities are proposed.
9	Establishment of an extensive air quality monitoring network (CAAQMS) for Paradeep Area	6 nos of CAAQMS are proposed surrounding the plant and connected to CPCB/SPCB
<b>C</b>	<b>Land: Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB, July 2020 to bring down the CEPI score</b>	
1	Provision of mechanized wheel washing facility having effluent treatment and recycling facility	Proposed
2	Storage of treated water of ETP for captive consumption in the process and gardening in the IOCL township	CETP of suitable capacity has been proposed to treat all wastewater and to ensure ZLD
3	Provision of composting plant for the port township	Proposed for canteen wastes.
4	Provision of briquetting mineral units within the port premises for utilization of mineral fines	All dust and sludge generated in the air and water pollution control facility shall be treated and recycled in sinter plant.
5	Promotion of industries within SPA, which uses waste products like fly ash, phosphor-gypsum, waste oil, and waste heat.	A 10 MTPA cement plant is being established to utilize waste products of steel making like fly ash and slag to produce cement. Feasibility of utilizing the wastes from other units of PIA will be examined for overall waste management.
<b>D</b>	<b>Other measures over and above what is recommended by OSPCB</b>	<ul style="list-style-type: none"> <li>- Iron ore transportation through slurry pipeline</li> <li>- Movement of finished products like pellet, cement etc through sea.</li> <li>- Provision of dry FGD based DeSOx and ammonia based DeNOx for</li> </ul>

Sl. No.	Recommendation action plan of OSPCB for PIA (July 2020)	Proposed by JSWUSL
		<p>captive power plants.</p> <ul style="list-style-type: none"> <li>- MEROS equivalent high efficiency bag filters at Sinter Plant</li> <li>- Design target for APC less than 30 mg/Nm<sup>3</sup> particulate matter</li> <li>- Dry GCP in BF and BOF</li> <li>- Provision of CDQ in Coke Ovens and TRT in Blast Furnaces</li> <li>- Zero effluent discharge with water recovery from iron ore slurry</li> <li>- Utilization of fly ash and BF slag in captive cement grinding unit</li> <li>- 100 % utilization of steel slag as aggregates in construction</li> <li>- Vehicle Tyre washing system at all 4 gates of the plant</li> <li>- Paved roads with mechanized road sweeper</li> <li>- Construction of 4 lane metaled roads for smooth traffic movement</li> </ul>

41.14.22 **Compliance to the Ministry's OM of 31-10-2019 2019 on CPA/SPA areas**

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
1.	Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.	<p>The stack emission details considered for the proposed ISP have been given in Appendix 2-3 of Common EIA Report (January 2022). All processes have been designed considering more stringent emission norms than the existing standard. The salient features considered in the project for the stack emissions are as follows:</p> <ul style="list-style-type: none"> <li>• Particulate matter emission from all stacks shall be less than 30mg/Nm<sup>3</sup>, BFG and BOFG shall be cleaned to achieve 10 mg/Nm<sup>3</sup> and Sinter Plant waste gas emissions shall achieve 5 mg/Nm<sup>3</sup> as stipulated in the EC. Further JSWUSL adopted the Best Available Technologies and the emission standards set for this</li> </ul>



Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		<p>project are stricter than 30 mg/Nm<sup>3</sup> as mentioned below:</p> <ul style="list-style-type: none"> <li>• DR plant process stack shall have PM less than 10 mg/Nm<sup>3</sup></li> <li>• MEROS or equivalent technology shall be installed to control dioxin and furan emissions from sinter plant.</li> </ul>
2	CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.	<ul style="list-style-type: none"> <li>• As mentioned in Section 6.1.2 of Common EIA Report (January 2022), Continuous emission monitoring system (CEMS) would be installed for 24/7 measurement of: <ul style="list-style-type: none"> <li>i) PM for all DE stacks</li> <li>ii) PM, SO<sub>2</sub>, NO<sub>x</sub> and CO for all process stacks</li> </ul> </li> <li>• The SCADA system would be based on client-server architecture and will comprise of Remote Terminal Units (RTU), located at strategic locations for on-line field data collection and transmission to the central SCADA server.</li> <li>• There would be direct connectivity to OSPCB and CPCB servers for online data transfer via a splitter system.</li> </ul>
3	Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.	<p>The fugitive emission control measures adopted for the proposed ISP are elaborated in Section 2.13.1, 4.4.3 and 4.5.3 of the Common EIA Report (January 2022). The control measures proposed as part of the EMP are highlighted below:</p> <ul style="list-style-type: none"> <li>• All major raw materials shall be stored in covered shed. Minor raw materials and intermediate product stockpiles shall be enclosed with wind fence and water spray system shall be provided.</li> <li>• Covered conveyor transport from jetty to raw material handling yards and process units.</li> <li>• Pneumatic or covered truck transportation would be employed for the collected dusts from the dust catchers of various units.</li> <li>• Plant roads would be black topped &amp; kept dust free by using industrial vacuum cleaners and water sprinkling at regular intervals.</li> <li>• Installation of tyre washing system at critical areas of the plant and at gates for incoming as well as</li> </ul>

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		<p>outgoing vehicles to reduce the fugitive dust emissions.</p> <ul style="list-style-type: none"> <li>• Restriction of speed for vehicle movement within the plant</li> </ul>
4	Transportation of materials by rail/ conveyor belt, wherever feasible.	<ul style="list-style-type: none"> <li>• In an ISP, nearly 3 tons of raw material is required to produce one ton steel. As shown in Section 4.5.4 of Common EIA Report (January 2022), nearly 97% of raw materials would be transported by sea, rail, and through pipe. Only a maximum of 3% of locally available raw material shall be transported by Road. Iron Ore, a major raw material will be transported in slurry form through pipeline.</li> <li>• Major products like HR coils, pellet, cement will be moved through sea. Dispatch of critical steel products (like CRM) and delivery to local consumers will be through Rail/Road.</li> <li>• The Internal movement of material shall be through closed conveyors.</li> </ul>
5	Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).	<p>As shown in Section 2.6.2 (Fuels and Chemicals) of Common EIA Report (January 2022), clean &amp; sulphurised by-product fuel gases viz. BF gas, BOF gas and Coke oven gas shall be used in furnaces.</p> <ul style="list-style-type: none"> <li>• It will be supplemented with Propane/LPG for special applications.</li> <li>• Furnace Oil and LSHS shall not be used as fuel. LDO shall be used in Pellet Plant only for startup.</li> </ul>
6	Best Available Technology may be used. For example, usage of EAF/SAF/IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.	<p>As elaborated in Section 2.5 (Technology and process description of ISP) of Common EIA Report (January 2022), the steel manufacturing process would be based on the BF-BOF caster route which is globally accepted as the best available technology for steel making in ISPs.</p> <ul style="list-style-type: none"> <li>• The following Best Available Technologies as applicable for ISP would be implemented. <ul style="list-style-type: none"> <li>○ Coke Ovens would be equipped with by product recovery and Coke Dry Quenching system.</li> <li>○ Sinter Plant would be equipped with MEROS equivalent technology as well as Sinter Cooler Waste Heat Recovery System</li> <li>○ Blast Furnace would be equipped with Top Recovery</li> </ul> </li> </ul>

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		<p>Turbine and Dry Gas Cleaning System and BF slag will be used for cement making.</p> <ul style="list-style-type: none"> <li>○ BOF would have Dry Gas Cleaning System</li> <li>○ Coke oven gas based DRI plant would be installed.</li> <li>○ 60% hot charging would be carried out at mills.</li> <li>○ BF Slag and Fly Ash from CPP would be utilized for manufacturing Cement within plant premises.</li> <li>○ Ammonia injection based DeNOx system and dry De SOx would be employed for captive power plant</li> </ul>
7	<p>Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible</p>	<p>Efforts were made to increase the existing 33% green belt within the project site by adding one extra row of plantation covering 2 meter width all along the boundary which resulted into enhancement of 1% green belt.</p> <p>With the Green belt adjacent to project premises consisting 85 Ha (about 7%) and Green belt within the project premises consisting of 406 Ha (34%), greenery of 40% of plant area is being complied.</p> <p>JSWUSL also proposes to generate additional greenery through vertical gardening wherever possible</p>
8	<p>Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc</p>	<p>As committed under socioeconomic development activities in Table 10-6 of Common EIA Report (January 2022), JSWUSL has already proposed to carry out urban plantation in 11 villages for plantation of 100,000 trees. Further, as per the FC conditions JSWUSL will carry out plantation in the adjoining 169.535 ha of forest land.</p>
9	<p>Assessment of carrying capacity of transportation load on roads inside the industrial premises. If the roads required to be widened, shall be prescribed as a condition.</p>	<p>As mentioned in the replies submitted against shortcomings pointed out by EAC (Ind 1) on 14.09.22 JSWUSL committed that all internal roads shall be of Concrete with a minimum 9 m width designed for 25-year life and to carry heavy loads. These roads will be maintained by mechanized cleaning.</p> <ul style="list-style-type: none"> <li>● All connecting roads shall be of bituminous type designed as per IRC guidelines considering the MSA value corresponding to the type and number of vehicles proposed in the roads.</li> </ul>

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
10	Reuse/recycle of treated wastewater, wherever feasible	<ul style="list-style-type: none"> <li>• As mentioned in Section 2.6.3 of Common EIA Report (January 2022), freshwater will be used in cascaded manner in different processes for effective utilisation. The Cooling towers shall have high COC, to minimise blowdown. Dedicated ETPs shall be established to treat the water and recycle it back, with a small portion blown down to CETP for treatment. The blowdown from cooling towers and ETPs shall be treated in CETP through RO-ZLD to recover water for recycle. The RO rejects in solid form shall be sent for TSDF.</li> <li>• 1,500 m<sup>3</sup>/hr of water recovered from iron ore slurry would be reused in the plant. Treated water from STP would be used for greenery development.</li> <li>• The entire plant would operate on Zero Liquid Discharge principle to minimise fresh water intake.</li> </ul>
11	Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting)	<ul style="list-style-type: none"> <li>• As mentioned in Section 6.2 of Common EIA Report (January 2022), on-line continuous monitoring of pH, BOD, COD, TSS &amp; Total Organic Carbon at CETP Inlet &amp; Outlet would be carried out as per Guidelines for Water Quality Monitoring (MINARS/27/2007-08) by CPCB.</li> </ul>
12	A detailed water harvesting plan may be submitted by the project proponent	<ul style="list-style-type: none"> <li>• As mentioned in the replies submitted against shortcomings pointed out by EAC (Ind 1) on 14.09.2021, the plant layout has been firmed up considering rainwater drains all along the plant roads and these drains would be led to catch pits to settle the suspended solids. These catch pits would also be equipped with oil skimmers to remove Oil &amp; Grease from the surface run off and settleable solids. The water impounded in the catch pit would be pumped to the raw water treatment plant for utilization to the extent possible and the balance storm water would be drained to the sea.</li> <li>• Rainwater beyond the plant area will be collected from natural drains and will be used in recharging the ponds provided for the purpose. The details of such ponds/wells is given in CSR activities, planned by</li> </ul>

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		JSWUSL.
13	Zero liquid discharge wherever techno-economically feasible.	<ul style="list-style-type: none"> <li>• Addressed in Sl. No. 10.</li> </ul>
14	In case, domestic wastewater generation is more than 10 KLD, the industry may install STP.	<ul style="list-style-type: none"> <li>• As mentioned in Table 2-16 of Common EIA Report (January 2022), STP of about 4300 KLD would be installed to treat the sewage from ISP and Jetty and the treated sewage would be utilized for greenery development.</li> </ul>
15	Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.	<p>The handling of process solid waste is addressed in Section 2.13.4 of Common EIA Report (January 2022)</p> <p>The salient features are as follows:</p> <ul style="list-style-type: none"> <li>• BF Slag and fly ash would be utilized for cement manufacturing within the ISP premises for which a 10 MTPA cement plant is envisaged.</li> <li>• Mill scale and sludge along with flue dusts would be recycled in the Sinter Plant</li> <li>• BOF slag would be processed in the Metal recovery plant for separation of metallics and the non-metallic part will be used partially in the Sinter Plant and the balance, after weathering/steam aging shall be utilized for making road, railway ballast, construction aggregate etc.</li> <li>• Envisages 100% utilisation of solid wastes without any stockpiling.</li> </ul>
16	More stringent norms for management of hazardous waste. The waste generated should be preferably utilised in co-processing.	<p>As mentioned in Section 2.13.4 of Common EIA Report (January 2022), hazardous wastes like BOD sludge and Coal Tar sludge shall be recycled in the Coke Ovens. Pickle liquor shall be recycled in ARP to recover acid for reuse.</p> <p>STP sludge and canteen wastes shall be composted and used as manure for greenery development.</p> <p>Used/waste oil shall be handed over to authorized used oil recyclers. Non reusable oils shall be incinerated, as</p>

Sl. No.	Conditions for SPA & CPA as per OM of 2019	Proposed at JSWUSL
		mandated in EC.  All other inorganic hazardous waste with no usage like (ZLD salt, chrome sludge etc) shall be handed over to authorized agency for disposal in TSDF
17	Monitoring of compliance of EC conditions may be submitted with third party audit every year.	Shall be complied through agencies accredited by MoEFCC/CPCB/SPCB.
18	The % of the CER may be at least 1.5 times the slabs given in the OM dated 01.05.2018 for SPA and 2 times for CPA in case of Environmental Clearance.	While executing the project at site, JSWUSL revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to Rs. 657.05 Cr from Rs. 196.05 Cr.

41.14.23 **Additional Action Plan & Budget Under CER activity:** Action plan as per MoEF&CC O.M. dated 30/09/2020 (This is in addition to the amount of Rs. 196.05 Cr have been earmarked to address the issues raised during public hearing. In EC dated 11/04/2022)

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
<b>VILLAGE ADOPTION PROGRAM</b>								
Adoption of Villages to develop them as Model smart villages	Adoption of 10 Villages within 0-2 Km radius of project site. (Dhinkia, Gobindpur, Garakujanga, Noliasahi, Polanga, Bhuinyapal, Nuagan,			Adoption of 6 Villages within 0-2 Km radius of project site (Abhaychandpur, Trilochanpur, Banapatakandha, Kokakhand, Kankardia, Nuaratanpur				16.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
	Bayanalkandha, Panigadiakandha, Balitutha.)			)				
<b>RURAL COMMUNITY INFRASTRUCTURE</b>								
Peripheral road for the villages near project site			Building 15 KM peripheral 2 Lane concrete road starting from Village Bhyuanpal, through Polanga, Garhkujang, Nuagan, Gobindpur to connecting to Paradip coastal road.					60.00
Street Light/Mini and High mast lighting at Public places including repair & maintenance in villages/towns/markets within 10 Km of Project Location		200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	200 street/Hig/minimast light	4.00
Street Lights on Paradip-Cuttack Highway	200 Street lights	200 Street lights						2.00
Development of Parks/Recreation Centres/Gyms etc. in		1 Children Park at Garakujan ga	One General Park at Nuagan	1 children Park at Gobindpur	One General Park cum 1 children park/Gym, 1 at Dhinkia	One General Park cum 1 children cum sensory park at Balitutha	One General Park cum 1 children cum 1 children park/Gym at Trilochanpur & Kankar	5.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
							dia	
Bus Shelters and Upgradation of Bus Stand with basic facilities		2 Bus shelters at Balitutha & Nuagan	2 Bus shelters at Dhinkia & Trilochanpur	2 Bus shelters at Kankardia, Chatua & Upgradation of Paradip Bus stand	2 Bus shelters at Abhaychandanpur, Mahal, Chhatara	2 Bus shelters at Chakradhaspur, Paradip Garh	2 Bus shelter on Chatua - Ersama road	6.00
Model Haat/Market Place/Vending Zone for SHGs/Farmer Market		One vending zone at Patana	One vending zone at Mahal	1 Model haat development at Balitutha	One vending zone at Nuagan	One vending zone at Chatua		2.50
Development of facilities at Village Crematoriums with shed, sitting area, water facility etc. (All villages have separate crematorium for different castes)		1 Crematorium in Nuagan G.P, 3 in Dhinkia G.P & Deployment of 1 Hearse Van	3 Crematorium in Dhinkia G.P	3 Crematorium in Nuagan G.P	3 Crematorium in Garhkujan G.P	2 Crematorium in Kankardia village. & Deployment of 1 Hearse Van	2 Crematorium in Nuaratanpur & Balitutha	3.00
Facilities for drivers & helpers				Construction of facilities like parking plaza, Toilet & bathing complex, Cloakroom Fast aid station etc. for Truckers community at a strategic location near the project site.				8.00
<b>HEALTH CARE</b>								
Phase 2 expansion of 200 bedded Hospital.				Phase 2 Expansion of 200 bedded Hospital in collaboration with State Govt. With trauma care and Burn treatment units				130.00
Emergency Ambulance & Mobile Medical Unit	3 Ambulances		1 Ambulance	1 MMU	1 Ambulance	1 Ambulance		4.00



<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
Deployment within 10 KM of Project Area								
Establishment of a Therapy Centre for Children with Special Needs				1 Therapy Centre at Balitutha with facilities for physiotherapy, Occupational Therapy, Speech Therapy etc. Deployment of Professional Therapists and assistant therapists. Post CER period, operational expenses for the same shall be taken up under CSR of the company..				2.00
Treatment support to Critical Patients from poor families from nearby villages/ towns. Post CER period, the same shall be taken up under CSR of the company.		10 Patients	25 Patients	25 Patients	25 Patients	25 Patients	25 Patients	3.00
Veterinary Care facility upgradation/ establishment			Build/Upgrade local veterinary care facility at Patana & Balitutha. Deployment of trained veterinary Doctor & staff. Manpower expenses to be later taken up under CSR.					2.00
<b>EDUCATION</b>								
Phase 2 Expansion of Public School				Phase 2 expansion of Public school with construction of Hostel for Boys & Girls, Staff quarters, Library, Computer lab, Science Lab, Play-ground, deployment of school Bus etc.				12.00
Infrastructure upgradation of Govt. Schools in collaboration with Govt. of Odisha's Mo-School Abhiyan				Infra upgradation of Govt. 3 Govt. schools. Kunja Bihari High School, Nuagan U.P. School, Polanga	Infra upgradation of Govt. 2 Govt. schools. Nuagan Primary School, Balitutha U.P. School	Infra upgradation of Govt. 2 Govt. schools. Trilochanpur U.P. School, Nuaratanpur U.P. School,	Infra upgradation of Govt. 2 Govt. schools. Chatua U.P. School,	4.50

<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
				U.P. School		l,	Kankar dia U.P. School,	
Transformation of Anganwadis in villages within 10-15 KM of project area	20 Model Anganwadis	50 Model Anganwadis	50 Model Anganwadis	50 Model Anganwadis				4.50
STEM/Robotic Lab/Science Exhibition/ Computer learning facility etc.	2 Labs establishment in K.B. High School, Nuagan & Garhkujan High School	2 Labs establishment in Dhinkia High School & Balitutha High School	2 Labs establishment in Bamdeipur High School, Kunjakoti High School	2 Labs establishment in Badagabapur High School, Chatua High School	2 Labs establishment in Paradip College, Erasama College			2.00
Teacher Training/ Special Education Cell etc. in schools upto Block/District level	100 Teacher training	100 Teacher training	100 Teacher training	100 Teacher training	200 Teacher training	200 Teacher training	200 Teacher training	2.00
Extra curricular training/ Competitive coaching etc. for students from villages within 10 KM of project area	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 100 selected students/ Aspirants	Coaching for 150 selected students/ Aspirants	Coaching for 150 selected students/ Aspirants	3.00
Subject Expert Teacher Support to local Govt. Schools		20 Teachers to be provided to Local Govt. Schools in phased manner for subjects like Science, Mathematics, English etc. The same shall be taken up under CSR post CER period.						3.00

Project Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Budget (In Rs. Crores)
with inadequate staff within 5 KM of project area								
<b>WATER</b>								
Rejuvenation of Ponds & Water bodies / Creating new ones with ground water recharge, bund, plantation, steps, street light etc.		Pond rejuvenation village wise - Dhinkia - 8, Patana-1, Gobindpur -7, Trilochanpur- 5	Pond rejuvenation village wise - Nuagan-20	Pond rejuvenation village wise - Garhkujang-15, Noliasahi-3, Polanga-3	Pond rejuvenation village wise - Abhaychandra -6, Nuagan -2, Bayanalkandha -3, Panigadia -1, Kankardia -2, Bamdeipur -4	Pond rejuvenation village wise - Balitutha -8, Bijipur-8, Badagabap -3, Badabuda -1	Pond rejuvenation village wise - Kunjakothe-3, Khuranta-5, Bhuyanpal-2	15.00
<b>SANITATION</b>								
Mechanised vehicle for garbage lifting and transportation & Establishment of solid waste processing unit				Additional waste collection vehicle deployment, Establishing village level segregation centres in Dhinkia, Garhkujang, Nuagan G.P.s. One central solid waste processing unit in one of the above three G.Ps based on feasibility.				5.00
Development of Public Toilets/Women Exclusive Toilets in villages within 10 KM and/or nearby town/market place etc.	2 Public/Women Exclusive Toilets to be constructed in Garhkujan & Nuagan	2 Public/Women Exclusive Toilets to be constructed in Balitutha & Trilochanpur	2 Public/Women Exclusive Toilets to be constructed in Patapur & Balia	2 Public/Women Exclusive Toilets to be constructed in Chatua & Erasama	2 Public/Women Exclusive Toilets to be constructed in Kankardia & Kunjakothi	2 Public/Women Exclusive Toilets to be constructed in Paradip & Taladanda		3.50
Waste to Wealth			1 enterprise infrastructure and equipment to convert plastic, rubber,	Garhkujang G.P with training,				1.00

<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
Enterprise			metal and other waste to creative daily use products.					
<b>ENVIRONMENT &amp; BIO DIVERSITY</b>								
Mangrove Forest Conservation in collaboration with Govt. in coastal Odisha		Rs. 50 lakh contribution	Rs. 50 lakh contribution	Rs. 50 lakh contribution	Rs. 50 lakh contribution			2.00
Bio diversity park/ Aqua museum in village within 5 Km of project area and/or nearby town				1 Bio diversity park		1 Aqua museum		8.00
Carry out plantation and afforestation programs in peripheral villages within 0-5 Km and or road side.	Plantation & maintenance of 4 lakh trees in villages within 0-5 KM from project site							38.00
<b>SKILL DEVELOPMENT</b>								
Skill Development of Youth (Male & Female) from villages within 0-2 Km of project area in Industry oriented skills				600 youth	600 youth	400 youth	400 youth	6.00

<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
Providing training to Mission Shakti SHG members from villages within 2 Km of project area				500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	500 SHG members in Enterprise skills, product skills, e-commerce marketing skills etc.	2.00
Entrepreneurship Development Program & Seed fund for Entrepreneurs from villages within 2 Km of project area			50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	50 Youth to be trained in Entrepreneurship Development	2.00
<b>PROMOTION OF SPORTS</b>								
Mini stadium/ Indoor gaming facility development				One Mini stadium/Indoor game facility at Nuagan	One Mini stadium/Indoor game facility at Garhkujan g	One Mini stadium/Indoor game facility at Balitutha	One Mini stadium/Indoor game facility at Kankardia	1.50
Coaching Academy with equipments and coaching staff. Same shall be taken up under CSR		Volleyball Coaching Academy at Dthinkia			Athletics Coaching Academy at Nuagan			1.50

<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
post CER period								
<b>LIVELIHOOD</b>								
Common Production Centres for SHGs within 2 - 5 Km of project area		One Common Production Centre for Mission Shakti SHGs in Dhinkia G.P	One common production centres for Mission Shakti SHGs in Nuagan G.P	One common production centres for Mission Shakti SHGs in Garhkujang G.P	One common production centres for Mission Shakti SHGs in Balitutha G.P'	One common production centres for Mission Shakti SHGs in Bamdeipur G.P	One Common Production Centre for Mission Shakti SHGs in Kunjakothi G.P	2.00
Establishing a Mission Shakti - Women Enterprise Centre of Excellence				One CoE building/facility for Mission Shakti Women Enterprise with equiped facilities to train women entrepreneurs in various small businesses and provide them co-working/ co manufacturing space for products like Food processing, textile, crafts, spices, LED bulb, sanitary pads, furniture etc. at a strategic location in adopted villages in collaboration with State Govt. department of Mission Shakti.				5.00
Betel Cluster Development in villages within 2 Km of project area with focus on direct project affected families				3 betel Cluster Development in Dhinkia, Nuagan & Garhkujan G.P.				10.00

<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
Provision of Electric Vehicles (Three wheeler) to Mission Shakti SHGs for livelihood promotion (Passenger/ Goods). 2 Evs per village in 16 adopted villages.	4 Evs to be given women SHGs	4 Evs to be given women SHGs	4 Evs to be given women SHGs	4 Evs to be given women SHGs	4 Evs to be given women SHGs	6 Evs to be given women SHGs	6 Evs to be given women SHGs	1.50
<b>PROMOTION OF CULTURE &amp; TOURISM</b>								
Development of Places of worship with public amenities				Infra upgradation of Gundicha Temple, Garhkujang	Infra upgradation of Phulakhai Temple, Dhinkia	Infra upgradation of Mangala Temple, Gobindpur	Infra upgradation of Mahaveer Ashram, Nuagan	3.00
Revival of Bhagabat Tungis / Similar cultural centres				Revival of 2 Bhagabat Tungis in Dhinkia G.P	Revival of 2 Bhagabat Tungis in Nuagan G.P	Revival of 2 Bhagabat Tungis in Garhkujan G.P	Revival of 1 of 2 Bhagabat Tungis in balitutha G.P	1.00
Promotion of Eco-tourism		Promotion of eco-tourism at Silali/Paradip sea beaches. That includes need based development of tourist facilities.						2.00
Music/Dance Academy/ Art Centre and Instrument support to local groups within 2 Km of project area						Establishment of Art Centre with Music & dance etc. training and performing facility with Auditorium at a strategic location in one of the adopted village.		2.50
<b>AGRICULTURE</b>								

<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
Mini-Krushi Vigyan Kendra/ Advance Agriculture Centre within 2-5 Km of project area			Mini Krushi Vigyan Kendra establishment & Operational expenses at a strategic location in one of the adopted village.					12.00
Establishment of small Cold storage				2 small solar-hybrid Cold storages of 20-30 ton in Balitutha G.P and Nuagan G.P	1 small solar-hybrid Cold storage of 20-30 ton in Garhkujan G.P	1 small solar-hybrid Cold storage of 20-30 ton in Balitutha G.P	2 small solar-hybrid Cold storages of 20-30 ton in Dhinkia G.P and Bamdeipur G.P	3.00
Assistance to farmers in Dairy farming/ poultry/Organic farming /Farm mechanisation etc. within 2 -5 Km of project area		200 Farmers	200 Farmers	200 Farmers	200 Farmers	200 Farmers	200 Farmers	4.00
Channel for irrigation and to clear water logging as well as to stop saline water ingress to agriculture fields.			Construction of a channel/drain & check dam(s) to clear water logging from the village & fields during monsoon and to stop saline water ingress into fields during storm.					22.00
<b>OLD AGE/DESTITUTE CARE</b>								



<b>Project Description</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Year 7</b>	<b>Budget (In Rs. Crores)</b>
Establishment of Old Age/Destitute care home within 5 Km of project area			1 Old age/ Destitute persons	Home with capacity for 200				3.00
Facilitating Government schemes for people from economically weaker sections from adopted villages		10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.	10000 Govt. scheme benefits to be facilitated.		1.00
<b>UNFORESEEN MISCELLANEOUS ACTIVITIES</b>								
Budget provision for unforeseen needs of the peripheral villages	Budget provision for unforeseen activities in adopted villages							10.00
<b>Total</b>								<b>446.00</b>
<b>PROJECT EXECUTION</b>								
Project Execution Expenses.	Project Execution Expenses, that covers human resources, consultants, design, Monitoring & supervision, documentation, reporting etc. for the CER projects.							15.00
<b>GRAND TOTAL</b>								<b>461.00</b>

### **Deliberation by the 36<sup>th</sup> EAC in its meeting held on June 7, 2023**

41.14.24 The Committee has deliberated in detail the issues highlighted at Para nos. 35, 36 and 37 of the Order by the Hon'ble NGT dated 20/03/2023 and the observation of the working group in each point and further clarification/information sought from PP in in 31<sup>st</sup> and 33<sup>rd</sup> EAC meetings held on 16th May 2023 and 30th May 2023, inter-alia, noted the following:

- i. The Committee noted that while going through the entire EC process, starting from granting of TOR to recommending of EC, it is evident that the then EAC diligently appraised the project and examined all the documents submitted by the PP, and also asked PP to carry out many additional scientific and social studies and examined the project meticulously in various 8 meetings [Three EAC meetings

convened regarding ToR application and five EAC meetings convened regarding EC proposal].

- ii. However, with passage of time and with changing scenario of Industry mingled with the socio- environmental needs of the impact area, it has been felt to add followings to ensure the sustainable industrial development with safeguard of environment and mitigation measures in a holistic manner to address futuristic issues of populations residing in the core as well as in buffer zone while recommending the project for Environment clearance. Point wise response of EAC on (a to g) Para 35 of the Hon’ble NGT Order dated 20/03/2023 is given in tabular form.

Sl no	Points in Hon’ble NGT Order dated 20/03/202	Observation of the EAC in its various meetings	Recommendation of the EAC
1	(a.) <b>Cumulative EIA saw the light of the day for the first time after the public hearing:</b>	<p>The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth. followings are the observation of the EAC:</p> <p>i. It may be mentioned that the Environment Clearances is granted as per EIA Notification, 2006 and as amended time to time under the provisions of the Environment (Protection) Act, 1986, following the four important stages such as (1) Screening (2) Scoping – i.e. prescribing Terms of Reference (TOR) for undertaking detailed Environment Impact assessment studies (3)-Public Consultation - conducted by the respective State /UT Pollution Control Board/Committee, and (4) Appraisal – by Expert Appraisal Committees (EACs).</p> <p>ii. Accordingly, TOR are to be issued after considering the application. Thereafter, as per the TOR issued, Project</p>	<p>The EAC, after detailed deliberations, noted that Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing i.e. the EIA Report which was prepared as per the TOR was available to the Public before Public hearing.</p>

		<p>Proponent is required to comply with the conditions mentioned in the TOR which inter-alia include: (i) collection of base-line data, (ii) preparation of Draft EIA report, (iii) public consultations, (iv) preparation of EIA/EMP Reports and other studies. Subsequently, after public consultation, the final EIA/EMP Reports are submitted to the Ministry along with all the relevant documents. On receipt of final EIA/EMP report after the public consultation, the project is to be appraised by the EAC in a transparent manner. Thereafter, the EAC makes appropriate recommendations and the Ministry takes the appropriate decision with regard to Environmental Clearance.</p> <p>iii. The EAC noted that the project proponent submitted application for Terms of reference (ToR) on 25.10.2017 for the first time. The proposal was considered in the 24th meeting of Expert Appraisal Committee (Industry-I) held during 13th to 15th November, 2017 wherein the committee observed that the procedure for consideration of the integrated and inter linked projects was issued by MOEFCC vide OM No. J-110I3/41/2006-1A. II(I), dated 24th December, 2010. Integrated and inter linked projects having multispectral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project</p>	
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		<p>(comprehensively for the integrated/inter linked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended for returning the proposal in the present form and advised to make afresh application. Accordingly, PP applied again and Ministry accorded the ToR.</p> <p>iv. The then EAC in its 36th Meeting held on 18-19th May, 2021 has gone through the following record.</p> <p>a) <u>Public representation:</u> It was apprised to the EAC that Ministry was in receipt of a representation on 31/01/2020 and 07/02/2020 alleging that several shortcomings in the public hearing held for the project on 29/12/2019 inter-alia including no common EIA report has been prepared to covering each of the sectoral component in a comprehensive manner.</p> <p>b) <u>Report of District Magistrate and Odisha Pollution Control Board (OPCB) on public representation:</u> As per the District Magistrate report. dated 29/05/2020, the public hearing for the instant project was conducted by the District Administration on 29/12/2019 as per the guidelines laid down in the EIA Notification, 2006. Further with respect to the common EIA report, it has been responded by OPCB stating that JSW submitted individual EIA reports for both the projects separately along with an integrated EIA report. All the three reports were distributed to the concern offices as per the guidelines of the EIA Notification,</p>	
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		<p>2006 and was uploaded on to the OSPCB website.</p> <p>v. The EAC also noted that it was appraised by the then EAC in its 52<sup>nd</sup> meeting held on 27th, 28th and 31st January, 2022., that a report was submitted by Odisha Pollution Control Board on 11/10/2021 on public representations dated 11/09/2021 and representation dated 12/09/2021 given as below:</p>													
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		<p>JSW USL from Jobra as per the Government guidelines.</p>	
<p>Further the then EAC in MoM of 52<sup>nd</sup> meeting after deliberation observed “As per the communication received from Odisha State Pollution Control Board, the Common EIA Report as prepared by JSW USL has been received by the Board along with the summary for both the projects (in English &amp; local language, Odia). The public hearing for the project was conducted as per the procedure prescribed in the EIA Notification, 2006.”</p> <p>vi. It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/ variation between the “Integrated EIA Report, November 2019” (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of</p>			

		Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.	
	<b>(b). Permissibility of sourcing water from Mahanadi:</b>	<p>The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth. followings are the observation of the EAC:</p> <p>i. The EAC noted that the question with regard to scarcity of water was sought by the EAC in its 36th meeting dated 18.05.2021. PP submitted response as <i>“Currently 80 % of the Jobra Dam water is drained into the sea. Proposed plant shall draw 98.1 Cusec water from Jobra, which will reduce the drainage into sea by maximum 10 %. Hence sea water desalination has not been considered from commercial viability point of view and also due to high power cost and its implication on climate change.”</i> EAC in its 44th meeting held 13-14th September, 2021 has evaluated this and asked for further clarification as <i>“Detailed report validating this claim that 80 % water is drained into sea has not been submitted. Also, the above claim by PP that enough water is available needs to be confirmed by Authorities managing water in the State. No calculations are available on the cost of desalination vs the CAPEX and OPEX of water withdrawal from Jobra Barrage”</i>. PP submitted its detailed</p>	<p>The EAC, after detailed deliberations, recommended that Specific condition no. (xiv) of EC dated 11.04.2022 w.r.t. water source and its quantity is revised based on the reduction of water requirement from 99.8 Cusecs to 60 Cusecs, accordingly the revised/updated EC conditions may be as below:</p> <p><b><i>(xiv). 147500 KLD water shall be sourced from ISS at Chaudhurygada, 25 km from the site. (Including the additional water required to provide ferrule water to villages enroute water pipeline 24400 KLD). No Ground water shall be abstracted.</i></b></p> <p><b><i>(xxvii) 1481 m3/h of</i></b></p>

		<p>response in the 52nd meeting of the EAC held on 27th and 28th January, 2022. Along with detailed calculation regarding the water availability PP also submitted that the Water Resources Department (WRD), managing water in the state Government of Odisha, after analysis of the available data and the projection carried out by them, has permitted the water withdrawal.</p> <p>ii. As per the review of documents the EAC noted that WRD, Orissa State Govt. is the nodal agency responsible for managing and allocation of the water resources in the state of Odisha. It is based on the WRD water allocation to the PP, the earlier EAC had accepted the sourcing water from Mahanadi.</p> <p>iii. The EAC noted that the PP submitted, Post grant of Environmental clearance, Govt. of Odisha has revised the location for withdrawal of said water from Mahanadi lower basin, at upstream of proposed Instream storage structures (ISS) at Chowdhurigada for the proposed steel plant.</p> <p>iv. The EAC noted that WRD Government of Odisha water allocation letter to the PP dated 01.10.2022. Department of Water Resources have allocated 99.8 cusec of surface water in favour of M/s JSW Utkal Steel Ltd. for operation purpose for their plant at Jagatsinghpur from the intake point on the U/S of the proposed Chaudhurygada ISS without assurance during lean period with the terms &amp; conditions.</p> <p>v. The EAC noted that with passage of time and with changing scenario water requirement for the proposed project has to be revisited &amp; revised based on Best Industry Practices. PP has submitted a revised Water demand. It has been</p>	<p><i>wastewater shall be generated from the plant and same shall treated and recycled maintaining ZLD status of the plant</i></p> <p><i>(xv.) Treated surplus water from Iron Ore Slurry dewatering plant shall be fully utilized.</i></p>
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		reduced from 99.8 Cusecs to 60 Cusecs i.e about 40% reduction. Unit wise make-up Water Requirement as proposed earlier and revised is given in table at para 36.3.20.	
	<b>(c). Jetty is located within 500 meters of the Paradeep Port:</b>	<p>The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and submissions by the PP and further noted that the PP has informed that Paradeep Port is located beyond 12.5 km from the proposed captive jetties of JSWUSL as evidenced through geotagged data. This issue is being deliberated by the EAC (Infra-1 Sector) of the MoEFCC. The Infra I sector finding may be considered in this regard.</p> <p>The 324<sup>th</sup> meeting of Expert Appraisal Committee (Infra-1) held on 19th – 21st April, 2023 deliberated on the directions issued by the Hon’ble NGT along with its concerned issues. The proposal will be again placed before the committee after submission of replies by the PP.</p>	The EAC, after detailed deliberations, recommended that the finding of the EAC (Infra-1 Sector) in this regard may be considered.
	<b>(d).Paradeep is polluted industrial area:</b>	<p>The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth based on the documents submitted by the PP. followings are the observation of the EAC:</p> <p>i. The EAC has examined the earlier EIA/EMP Report which were submitted by the PP before the then EAC (Industry 1 Sector) and noted that the EIA/EMP report, inter-alia, mentioned that there was no “severely polluted area” within 10 km radius of the project site.</p> <p>ii. However, this EAC has gone through the letter of OSPCB dated 18-4-2023 addressed</p>	<p>The EAC, after detailed deliberations, recommended that <b><u>Additional specific conditions</u></b> shall be included.</p> <p><i>The PP shall strictly implement the action plan prepared as per MoEF&amp;CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&amp;CC O.M. No. 22-23/2028-IA.III dated 05/07/2022. Stringent measures shall be undertaken as per the submitted action plan to</i></p>

		<p>to JSWUSL that “a small portion of the said project area is overlapping with the demarcated SPA of Paradeep”.</p> <p>iii. The EAC has noted that CEPI in Paradeep industrial area has improved from 69.35 to 60.61 in the past ten years, as reported in the “Action Plan for Abatement of Pollution in Industrial areas of Paradeep, OSPCB, July 2020”</p> <p>iv. Therefore, the EAC noted that this matter needs to be considered by the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA.</p> <p>v. In view of the above, the PP was asked to submit a detailed report on how the Environment Management plan for the proposed ISP project will comply with the Action Plan prepared by OSPCB/ CPCB for the abatement of the pollution in the Industrial areas of Paradeep, keeping in view the Comprehensive Environmental Pollution Index (CEPI) as per Ministry’s OM of 2019 on CEPI/SPA. The Compliance to CEPI Guidelines is in para 36.3.21 and Compliance to the Ministries OM of 31-10-2019 2019 CPA/SPA areas is at para 36.3.22. The same has been deliberated by the EAC.</p> <p>vi. The EAC deliberated on the proposed mitigation measures and detailed action plan submitted and found it satisfactory.</p>	<p><i>minimise the Air emissions. All conditions stipulated in the “Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score” shall be also strictly complied and implemented by the PP.</i></p> <p><b><u>Green belt condition</u></b> shall be modified based on the compliances of the OM of 2019.</p> <p><i>(xxviii). Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the plant area on Government land at the cost of the Project Proponent. Tree density of 2500 trees per ha shall be maintained. Necessary arrangements(MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other</i></p>
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			<p><i>than green belt by the PP. The selection of species will be in consultation with the State Forest Department, and forestry experts. JSW shall not use this 85 ha. land for any purpose other than green belt.</i></p>
	<p><b>(e.) The SIA has been conducted later and was not part of public hearing:</b></p>	<p>The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth based on the documents submitted by the PP. followings are the observation of the EAC:</p> <p>i. The EAC noted that, SIA study was prescribed as ToR to the PP and the social environment impact was carried out for study area (10 km radial coverage) covering 181 villages, 1 census town and 1 municipality as part of Draft Integrated EIA Report, December, 2019. The same was also submitted to OSPCB on 16.11.2019 for conducting Public Hearing. Earlier, the then EAC in its 36th meeting held during 18-19th May, 2021 observed that <i>R&amp;R Plan based on Public Hearing, SIA and as per Odisha Governments R&amp;R Plan Preparation Guidelines has not been furnished.</i> Based on the recommendation of the then EAC, SIA for R&amp;R purpose was conducted by empanelled agency (STARR, Bhubaneswar) and the report was included in Common EIA Report for appraisal of EAC. It was noted that the SIA study done by STARR is limited to R&amp;R issues. General social environment impact was already done in draft EIA/EMP Report. The same was deliberated by the then EAC and</p>	<p>The EAC, after detailed deliberations, recommended that an amount of Rs. 196.05 Cr have been earmarked to address the issues raised during public hearing in EC dated 11.04.2022. The same has been revised to 657.05 Cr PH Action Plan as enclosed at para 36.3.23.</p>

		<p>accordingly specific conditions were included in the recommendations of the EAC.</p> <p>ii. However, the EAC further deliberated on Social Impact Assessment (SIA) study and suggest to Social Impacts Mitigation Action Plan (like Community Development Plan/Community Engagement Plan/Social Mitigation Plan/Village adoption) to address the social, R&amp;R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project. and based on the deliberations PP revisited the socioeconomic development needs and the total budget for complying the socio economic development need reworked and increased to Rs. <b>657.05 Cr</b> from Rs. <b>196.5 Cr</b> as given in para 36.3.23</p>	
	<p><b>(f). The project by POSCO was abandoned and was adversely commented upon by this Tribunal</b></p>	<p>The EAC, in its various meetings, has gone through each point on the order of Hon'ble NGT dated 20.03.2012 and other relevant documents. followings are the observation of the EAC:</p> <p>(i) The EAC noted that the erstwhile PP (POSCO) received the EC in the year 2007 and subsequently, deliberations have been carried out at different forums and additional conditions were imposed on 31.01.2011. Further, the present petitioner (who was also the petitioner at that time) went to NGT (Appeal No. 8/2011) and NGT quashed the additional conditions in March 2012 without altering the original EC of 2007.</p> <p>(ii) The proposal regarding revalidation of Environmental Clearance was placed before the Expert Appraisal Committee (Industry) in its 6th meeting held during 5-7th March, 2013 and further reconsidered in its 8th meeting held during 16-17th May, 2013. After considering the facts and events, the EAC recommended for the revalidation of the environmental clearance dated 19.7.2007 subject to environmental safeguards including</p>	<p>The EAC, in its various meetings, examined the EIA/EMP Reports and various other studies and all the minutes of the then EAC meetings and their deliberations and noted that the then EAC had scrutinized the project in depth and very stringent/realizable EC conditions are specified.</p>

		<p>the recommendations given in the report of the Expert Committee headed by Shri K. Roy Paul which was constituted by the Ministry in pursuance to the directions given by the Hon'ble National Green Tribunal on 30.3.2012. Based on the recommendation of EAC, the Ministry had revalidated the EC for a period of five years with effect from 18.7.2012 subject to stipulation of the additional conditions for compliance vide letter dated 7th January 2014.</p>	
	<p><b>(g.)Conditions stipulated in the EC granted to POSCO will have to be considered, in case ECs are to be granted:</b></p>	<p>The conditions stipulated in the EC granted to POSCO (in Jan 2007 and Jan 2014) vis-à-vis the recent EC granted to M/s JSW Utkal ISP (in April 2022) has been compared. Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, However EAC further deliberated for additional EC conditions, w.r.t. Decarbonisation, Circular economy, Sustainable Development Goals, Green buildings, Supply of drinking water to the neighbourhood.</p>	<p>The EAC, after detailed deliberations, recommended that the following Additional specific conditions shall be included.</p> <p><i>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.</i></p> <p><i>Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy</i></p>

			<p><i>transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitor able with defined time frames.</i></p> <p><i>ii. The PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement.</i></p> <p><i>ii. The PP should prepare and implement a Road map on Circular economy and also align their operation towards achieving the goal of Sustainable Development.</i></p> <p><i>iv. The PP should engage the local communities through their involvement in</i></p>
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			<p><i>preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&amp;R, livelihood issues of the project-affected families (PAFs) and the population living within 2/5/10 kms of the project.</i></p> <p><i>v. The PP shall adopt and implement “Green Building” concept during the construction and operational periods to minimise the carbon foot print.</i></p>
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**Directions of the Hon'ble Supreme Court of India in the matter of Civil Appeal nos. 3657-3658 of 2023**

- 41.14.25 The Committee also noted that Meanwhile, the same Petitioners, Prafulla Samantara & Ors of the said Hon'ble NGT case also approached the Hon'ble Supreme Court of India with a prayer to set aside the Judgment & Order dated 20.03.2023 passed by the National Green Tribunal, Eastern Zone Bench Kolkata in Appeal No. 21 of 2022 (EZ) & Appeal No. 22 of 2022 (EZ) and to quash the Environment Clearances of the said projects.

The Hon'ble Supreme Court of India in its Order of Civil Appeal nos. 3657-3658 of 2023 dated 15-5-2023 directed that:

*“We direct that after the appellants ventilate their grievances by raising complaints in the representation before the EAC within a period of three weeks from today, the EAC, when it passes an order which is a reasoned order as directed by the NGT, the same will be taken into consideration. The appeals are disposed of on the said terms”.*

Following the above order of the Hon'ble Supreme Court of India, it is to mention that no grievances or complaints have been received by the EAC/Ministry from the petitioners within the time of three weeks granted by the Hon'ble Supreme Court, till the finalisation of the minutes of the meeting.

**Recommendations of the 36<sup>th</sup> EAC held on June 7, 2023**

- 41.14.26 In view of the foregoing and after detailed deliberations, the Committee observed that while going through the entire EC process, starting from granting of TOR to recommending of EC, it is evident that the then EAC diligently appraised the project and examined all the documents/Reports. Further, the then EAC has also sought some additional scientific and social studies and the project was critically appraised by the then EAC in its different meetings. It needs to be mentioned that conclusions of present EAC are based on the detailed deliberations in the meetings of working group (2 days online and 3 days physical) especially constituted by EAC for this purpose and critical examinations of working group recommendations and responses of Project Proponents in its 4 meetings.
- 41.14.27 The present EAC has deliberated the direction of the Hon'ble NGT Order dated 20/03/2023 vis-a-vis the compliance of the directions of Hon'ble NGT. After detailed deliberations, the EAC has reiterated the recommendations of the then Expert Appraisal Committee for grant of EC with additional safeguard and mitigation measures that became essential with changing scenario with passage of time.

The present EAC after deliberation, envisaged the need of revisiting CER budget to address issues raised during public hearing and other socio-economic issues. As a result of such deliberation, the PP has revised their PH action plan Budget substantially to Rs.657.05 crore



from the earlier budget of Rs. 196.05 crore to address various holistic need of people which includes, health care, infrastructure development, education, livelihood, village adoption etc.

The EAC has also **recommended** that an amount of Rs. 196.05 Crore be earmarked to address the issues raised during public hearing in EC dated 11.04.2022. The same has been revised to 657.05 Crore.

The EAC, also noted that the PP has informed that Paradeep Port is located beyond 12.5 km from the proposed captive jetties of JSWUSL as evidenced through geotagged data. This issue is being deliberated by the EAC (Infra-1 Sector) of the MoEFCC. The EAC, after detailed deliberations, recommended that the finding of the EAC (Infra-1 Sector) with regard to Jetty may be considered.

The EAC has **recommended** for grant of Environment Clearance dated 11.04.2022 subject to the stipulation **additional environmental safeguards and mitigation measures** including the following additional specific conditions:

Sl No	Specific conditions w.r.t. EC dated 11.04.2023	Revised Specific conditions	Remarks
1	(xiv). 223200 KLD water shall be sourced from upstream of Jobra barrage at Mahanadi river, 87 km from the site. No Ground water shall be abstracted.	(xiv.) 147500 KLD water shall be sourced from ISS at Chaudhurygada, 25 km from the site. (Including the additional water required to provide ferrule water to villages enroute water pipeline 24400 KLD). No Ground water shall be abstracted. The PP, as committed, shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers. The PP as committed shall rejuvenate the identified 110 existing community ponds.	With changing scenario, the water requirement for the proposed project has been revisited and revised based on Best Industry Practices (as summarized in table 36.3.20) and the water requirement is substantially reduced now.
2	(xv). Treated surplus water from Iron Ore Slurry dewatering plant shall be	(xv). Treated surplus water from Iron Ore Slurry dewatering plant shall be	With changing scenario water requirement for the proposed project has been

	fully utilized in construction and supplied to IDCO as per MOU between IDCO and PP.	fully utilized in the Unit.	revisited & revised based on recycling of water and its use in the process so that water requirement is decreased.
3	(xxviii). Green belt shall be developed in 372 ha of the plant area with a tree density of 2500 trees per ha. Plantation shall be completed in 3 years followed by gap filling in the next two years.	(xxviii.) Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the plant area on Government land at the cost of the Project Proponent. Tree density of 2500 trees per ha shall be maintained. Necessary arrangements (MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other than green belt by the PP. The selection of species will be in consultation with the State Forest Department, and forestry experts. M/s JSW shall not use this 85 ha. land for any purpose other than green belt.	EAC has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that “a small portion of the said project area is overlapping with the demarcated SPA of Paradeep” and considered the proposal as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA. The Committee deliberated the Action plan on the CEPI guidelines and found in order.
5	(xxxii). 1905 m <sup>3</sup> /hr waste water shall be generated from the plant, the same shall be treated and recycled maintaining ZLD status of the plant.	(xxxii). 1481 m <sup>3</sup> /h of wastewater shall be generated from the plant and same shall be treated and recycled maintaining ZLD status of the plant	With changing scenario, the water requirement for the proposed project has been revisited and revised based on proposed Best Industry Practices.
<b>Additional Safeguards/EC conditions</b>			
6	-	The PP shall strictly implement the action plan prepared as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-	The EAC has gone through the letter of OSPCB dated 18-4-2023 that “a small portion of the said project area is overlapping with the demarcated SPA of

		23/2028-IA.III dated 05/07/2022. Stringent measures shall be undertaken as per the submitted action plan to minimise the Air emissions. All conditions stipulated in the “Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score” shall be also strictly complied and implemented by the PP. Compliance Report shall be submitted to IRO, MoEFCC.	Paradeep” and considered the proposal as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA. The Committee deliberated the Action plan on the CEPI guidelines and found in order.
7	-	The 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.	Some more additional EC conditions are being stipulated by the present EAC (Industry-1 Sector), while considering proposals by considering the global climate change and sustainable development.
8.	-	The PP should prepare and implement a Road map on	

		Circular economy and also align their operations towards achieving the goal of Sustainable Development.	
9.	-	The PP should engage the local communities through their involvement in preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&R, livelihood issues of the project-affected families (PAFs) and the population living within 2/5/10 kms of the project.	This may help the local people for Community Development and livelihood etc.
10		The PP shall adopt and implement the “Green Building” concept during the construction and operational periods to minimise the carbon foot print.	Some more additional EC conditions are being stipulated by the present EAC (Industry-1 Sector), while considering proposals by considering the global climate change and sustainable development and community engagement.
11	-	The PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement.	This may help the local people for getting water supply.

### **Deliberations of the 40th EAC meeting held on 21<sup>st</sup> July 2023**

- 41.14.28 The Member Secretary informed the EAC on 21.7.2023 during the Physical meeting held at MoEFCC, New Delhi that the Ministry has received a notice vide letter dated 17.07.2023 in reference to the order of Hon'ble Supreme Court of India, [CA No 3657-58 of 2023]. The Hon'ble Apex Court in its order dated 15.05.2023, directed the Appellant to file representation before the Expert Appraisal Committee, within 3 weeks from the date from passing of the said Order.
- 41.14.29 The appellant in its covering letter of the above notice has also mentioned that they have forwarded the representation on 29.05.2023 by speed post addressed to EAC (Industry-1) and EAC (Infra-1), New Delhi. Copy of representation has also been forwarded by the Appellant in its covering letter/notice.
- 41.14.30 Surprisingly, this said representation was never received by Chairman / Members / Member Secretary of EAC-Industry-1 Sector and it was brought to Notice to EAC on 21st July, 2023 during 40th EAC meeting held in Delhi on 19-21 July 2023.
- 41.14.31 In fact, EAC-Industry-1 Sector critically re-examined this case and send its recommendations to MoEFCC during its 36th EAC meeting held on 7th June 2023. However, after receiving this representation for the first time on 21st July, 2023, the EAC decided to re-examine the case in the best interests of environment and local community in compliance with the order of Hon'ble Supreme Court of India dated 15th May, 2023.

### **Recommendations of the 40<sup>th</sup> EAC meeting held on 21st July 2023**

- 41.14.32 After detailed deliberations, the EAC accordingly recommended as follows: -
- (i) The copy of representation should be circulated to all EAC members for its detailed examination.
  - (ii) The copy of representation may be forwarded to the PP for their response, if any.
  - (iii) The earlier recommendation of 36th EAC meeting held on 7th June, 2023 of this particular agenda must be put on hold till Committee decides otherwise.

All above three actions should be immediately implemented.

### **Deliberations of the 41th EAC meeting held on 4<sup>th</sup> August 2023**

- 41.14.33 It was informed to the EAC on 04.08.2023 during the 41<sup>st</sup> EAC meeting that the recommendation of 40th EAC regarding the instant case were complied with. The copy of representations was circulated to all EAC members for detailed examination and was also forwarded to PP for their response.

41.14.34 It was also informed to the EAC that the Ministry vide letter dated 01.08.2023 has forwarded the reply to the Appellant in response of Notice dated 17.07.2023. The reply, inter-alia, mentioned that the EAC has placed the instant representation in next Agenda of the EAC to be held on 4th August 2023 for further consideration and deliberation.

41.14.35 The EAC also noted that the PP vide letter dated 31/07/2023 has also submitted their detailed response and the executive summary to the representation / complaint submitted by the petitioner. The gist of PP's submission is given below:

- (i) The project will create employment opportunity to the tune of around 12,000 casual and contract workers and 3000 direct employments during the Construction phase; and approximately 12,000 direct employment & 45000 indirect employment during the operational phase.
- (ii) The estimated capital cost for the integrated steel plant is about INR 65,000 crore and captive jetty INR 2200 Crore. Establishment of this project will benefit the Central Government and State Government to the tune of approximately Rs. 5421 crores per annum over a period of 30 years by way of GST and Corporate Income Tax etc.
- (iii) Common EIA, SIA (Social Impact Analysis) as required under the TOR and R & R plan were carried out before the public hearing.
- (iv) JSW has not adopted the POSCO project which was abandoned and rather applied afresh for the grant of EC.
- (v) Expenditure on CER of Rs.607.3 Cr will benefit the local residents residing within 10km radial coverage from the project site.

#### **Recommendations of the 41<sup>st</sup> EAC meeting held on 4<sup>th</sup> August 2023**

41.14.36 After detailed deliberations, the EAC was of the view that since the matter require detailed deliberation and scrutiny of all the issues in the best interest of the environment, ecology and the livelihood of affected parties, the EAC decided that all the EAC the members shall go through the entire representation para wise and EAC will deliberate the matter on 8<sup>th</sup> August 2023 in full length.

#### **Deliberations of the 41th EAC meeting held on 8<sup>th</sup> August 2023**

41.14.37 The matter was again considered on 08.08.2023 by the EAC. The representation submitted by the Mr. Prafulla Samantara with regard to the order dated 15.05.2023 passed by the Hon'ble Supreme court of India in the matter of CA no. 3657-58 of 2023 was deliberated in depth by the EAC during the meeting. The details of deliberations are as under:

#### **DELIBERATIONS ON THE REPRESENTATION SUBMITTED BY MR. PRAFULLA SAMANTARA WITH REGARD TO THE ORDER DATED 15.05.2023 PASSED BY THE HON'BLE SUPREME COURT OF INDIA IN CA NO. 3657-58 OF 2023**

Para No(s).	Content of the Representation of Mr. Prafulla Samantara dated	Detailed Deliberations by EAC in its meeting held on 08.08. 2023
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	<b>dated 29-5-2023</b>	
<b>1</b>	<p>The present representation is being preferred in view of the direction issued by the Hon'ble Supreme Court in an Order dated 15.05.2023 passed in CA No 3657-58 of 2023. After noting the concern of the Appellant that there is denial of public hearing, the order noted as follows:</p> <p>Mr. Dhruv Mehta, learned senior counsel appearing on behalf of the second respondent (Project Proponent), would point out that the appellants will be free to represent before the EAC which has been directed to pass an order giving reasons by the NGT.</p> <p>We think there is merit in the said stand and the modification of the impugned order on the said lines should redress the grievance of the appellants as well. Accordingly, the appeals are disposed of as follows:</p> <p>We direct that after the appellants ventilate their grievances by raising complaints in the representation before the EAC within a period of three weeks from today, the EAC, when it passes an order which is a reasoned order as directed by the NGT, the same will be taken into consideration. True Copy of the Order dated 15.05.2023 passed by the Hon'ble Supreme Court in CA No. 3657-58 of 2023 is annexed herewith and marked as ANNEXURE R-1</p>	<p>The Ministry has notified the EIA Notification, 2006 and as per the instant provisions the process of the Environment Clearance is having four important stages such as (1) Screening (2) Scoping – i.e. prescribing Terms of Reference (TOR) for undertaking detailed Environment Impact assessment studies (3)-Public Consultation - conducted by the respective State /UT Pollution Control Board/Committee, and (4) Appraisal – by the then Expert Appraisal Committees (EACs).</p> <p>There was no denial of Public Hearing as stated by Mr. Prafulla Samantara, Public consultation took place on 20.12.2019 as per the provisions of the EIA Notification, 2006.</p> <p>The then EAC has verified the facts and noted that as per the District Magistrate report, dated 29/05/2020, the Public hearing for the instant project was conducted by the District Administration on 29/12/2019 as per the provisions laid down in the EIA Notification, 2006. Further, with respect to the common EIA report, it has been responded by OPCB stating that JSW submitted individual EIA reports for both the projects separately along with an integrated EIA report. All the three reports were distributed to the concern offices as per the guidelines of the EIA Notification, 2006 and was uploaded on to the OSPCB website.</p> <p>Following the Directive of the Hon'ble Supreme Court of India dated 15-5-2023, this EAC, Industry-1 had waited for the appellant, Mr. Prafulla Samantara for his representation for more than three weeks' time given by the Hon'ble Supreme Court to the appellant to sent his grievances before the EAC. But none of the Members received any representation by the appellants till 07-06-2023, after which the EAC had taken the decision of recommending the project with a number mitigation measures in the form of additional EC conditions as per the provisions of the EIA Notification, 2006.</p> <p>The Hon'ble Supreme Court of India in its directive dt. 15-5-2023 has not made the statement that “there is denial of public hearing” as stated by the appellant. It is to be noted that though the Hon'ble Court clearly mentioned in its directive that the appellants ventilate their grievances by raising complaints in the representation before the EAC within a period of three weeks, Mr. Prafulla Samantara did not send their representation to the email ids or addresses of the EAC members already available in the public domain, however as</p>

		<p>reported the representation was sent to the Ministry.</p> <p>It was informed the EAC on 21.7.2023 during the Physical meeting held at MoEFCC, New Delhi that the Ministry has received a notice vide letter dated 17.07.2023 in reference to the order of Hon'ble Supreme Court of India, [CA No 3657-58 of 2023]. In view of the above, after receiving this representation for the first time on 21st July, 2023, the EAC decided to re-examine the case in the best interests of environment and local community in compliance with the order of Hon'ble Supreme Court of India dated 15<sup>th</sup> May, 2023. Also the Ministry, vide letter dated 01.08.2023 communicated the Appellant that the instant representation will be considered by the EAC in its next meeting.</p>
2	That the order of the Supreme Court in making representation is in the context of denial of public hearing as already noted in the order/judgment of the Tribunal dated 20.03.2023.	There was no denial of Public Hearing as stated by the appellant, Mr. Prafulla Samantara. Public consultation took place on 20.12.2019 as per the provisions of the EIA Notification, 2006.
3	<p>That brief background is necessary: aforesaid Appeal before the Supreme Court was filed against the Judgment &amp; Order dated 20.03.2023 passed by the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in Appeal No. 21 of 2022 &amp; Appeal No. 22 of 2022, by which the following Environment Clearances, were suspended, with the direction for afresh consideration:</p> <p>a) Dated 12.04.2022 granted to all-weather, Multi cargo Greenfield Captive jetty (ies) of handling capacity of 52 MTPA at Jatadhari Muhan River, district Jagatsinghtpur, Orissa". (Hereinafter the Jetty Project') proposed by JSW Utkal Steel Ltd.</p> <p>b) Dated 11.04.2022 granted to Greenfield Integrated Steel Plant (ISP) of capacity of 13.2 MTPA crude steel with 10</p>	No comment needed as this is a matter of fact.



	<p>MTPA Cement grinding unit 86 900 MW Captive Power Plant near Paradeep, Jagatsinghpur. District, Odisha (hereinafter 'the ISP Project') proposed by JSW Utkal Steel Ltd.</p> <p>True Copy of the Judgment 86 Order dated 20.03.2023 passed by the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in Appeal No. 21 of 2022 &amp; Appeal No. 22 of 2022 is annexed herewith and marked as ANNEXURE R-2</p>	
3	<p><b>That reading of:</b></p> <p>a) The Order passed by the Hon'ble Supreme Court;</p> <p>b) The Judgment of the Hon'ble Tribunal; and</p> <p>c) The Minutes of Meeting of EAC (Industry - I) (Particularly 18-19th May, 2021, 13 - 14th September, 2021 86 27 - 28th January, 2022);</p> <p>d) The Minutes of Meeting of EAC Infrastructure I (Particularly 3-4<sup>th</sup> March, 2021, 23-24<sup>th</sup> June, 2021, 16<sup>th</sup> September, 2021); Clearly show that:</p>	<p>The present EAC, after detailed deliberations, and keeping in view the Hon'ble Supreme Court's order and the NGT's directions, decided that the matter requires detailed deliberation and scrutiny of all the issues in the best interest of the environment, ecology and the livelihood of affected parties, therefore, the EAC decided that all the members of the EAC shall go through the entire representation para wise and accordingly the EAC deliberated the matter again on 4<sup>th</sup> &amp; 8<sup>th</sup> August 2023.</p>
A	<p>The initial proposal submitted for both the project had substantive shortcomings. The Comprehensive EIA Report as per the OM Dated 24<sup>th</sup> December, 2010 was not submitted. The EAC had pointed out that the individual EIA reports prepared respectively by M.N. Dastur &amp; Co. in respect of the Integrated Steel Plant and by M/s. WAPCOS Ltd. in respect of Jetties, seem to have been merged together and presented as Common/Integrated EIA Report. The EAC as an expert body is well aware, that mere</p>	<p>At Paragraph 36.3.24.ii Table of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that:</p> <p><i>i. It may be mentioned that the Environment Clearances is granted as per EIA Notification, 2006 and as amended time to time under the provisions of the Environment (Protection) Act, 1986, following the four important stages such as (1) Screening (2) Scoping – i.e. prescribing Terms of Reference (TOR) for undertaking detailed Environment Impact assessment studies (3)-Public Consultation - conducted by the respective State /UT Pollution Control Board/Committee, and (4) Appraisal – by Expert Appraisal Committees (EACs).</i></p> <p><i>ii. Accordingly, TOR are to be issued after considering the application. Thereafter, as per the TOR issued, Project Proponent is required to comply with the</i></p>

<p>merging of the two EIA reports, cannot be termed as Comprehensive EIA Report as is the requirement of OM dated 24th December, 2010. The reason and purpose of having Comprehensive EIA Report is to have comprehensive and cumulative assessment of the environmental impact of all the interlinked and inter-connected projects together.</p>	<p><i>conditions mentioned in the TOR which inter-alia include: (i) collection of base-line data, (ii) preparation of Draft EIA report, (iii) public consultations, (iv) preparation of EIA/EMP Reports and other studies. Subsequently, after public consultation, the final EIA/EMP Reports are submitted to the Ministry along with all the relevant documents. On receipt of final EIA/EMP report after the public consultation, the project is to be appraised by the EAC in a transparent manner. Thereafter, the EAC makes appropriate recommendations and the Ministry takes the appropriate decision with regard to Environmental Clearance.</i></p> <p><i>iii. The EAC noted that the project proponent submitted application for Terms of reference (ToR) on 25.10.2017 for the first time. The proposal was considered in the 24th meeting of Expert Appraisal Committee (Industry-I) held during 13th to 15th November, 2017 wherein the committee observed that the procedure for consideration of the integrated and inter linked projects was issued by MOEFCC vide OM No. J-110I3/41/2006-IA. II(I), dated 24th December, 2010. Integrated and inter linked projects having multispectral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/inter linked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended for returning the proposal in the present form and advised to make afresh application. Accordingly, PP applied again and Ministry accorded the ToR.</i></p> <p><i>iv. The then EAC in its 36th Meeting held on 18-19th May, 2021 has gone through the following record.</i></p> <p><i>a) <u>Public representation:</u> It was apprised to the EAC that Ministry was in receipt of a representation on 31/01/2020 and 07/02/2020 alleging that several shortcomings in the public hearing held for the project on 29/12/2019 inter-alia including no</i></p>
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common EIA report has been prepared to covering each of the sectoral component in a comprehensive manner.

b) Report of District Magistrate and Odisha Pollution Control Board (OPCB) on public representation: As per the District Magistrate report. dated 29/05/2020, the public hearing for the instant project was conducted by the District Administration on 29/12/2019 as per the guidelines laid down in the EIA Notification, 2006. Further with respect to the common EIA report, it has been responded by OPCB stating that JSW submitted individual EIA reports for both the projects separately along with an integrated EIA report. All the three reports were distributed to the concern offices as per the guidelines of the EIA Notification, 2006 and was uploaded on to the OSPCB website.

v. The EAC also noted that it was appraised by the then EAC in its 52<sup>nd</sup> meeting held on 27th, 28th and 31st January, 2022., that a report was submitted by Odisha Pollution Control Board on 11/10/2021 on public representations dated 11/09/2021 and representation dated 12/09/2021 given as below:

<i>S No</i>	<i>Representation points</i>	<i>Comment of OPCB dated 11/10/2021</i>
<i>i</i>	<i>Integrated EIA was not made available prior public hearing.</i>	<i>Board after receipt of Common EIA Report along with EIA reports of ISP &amp; Captive Jetties, public hearing was conducted by the Board.</i>
<i>ii</i>	<i>Assessment for water requirement was missing.</i>	<i>No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter. However, assessment of Water requirement is available in the EIA report for the ISP.</i>
<i>iii</i>	<i>Availability of water for the industrial activity from</i>	<i>No comments. However, as intimated by the proponent, Water Resource Department of Government of Odisha,</i>

		<p><i>Jobra Barrage has allocated the required quantity of water to JSW USL from Jobra as per the Government guidelines.</i></p>
<p><i>Further the then EAC in MoM of 52<sup>nd</sup> meeting after deliberation observed “As per the communication received from Odisha State Pollution Control Board, the Common EIA Report as prepared by JSW USL has been received by the Board along with the summary for both the projects (in English &amp; local language, Odia). The public hearing for the project was conducted as per the procedure prescribed in the EIA Notification, 2006.”</i></p> <p><i>vi. It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/variation between the “Integrated EIA Report, November 2019” (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</i></p> <p><i>The EAC, after detailed deliberations, noted that Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing i.e. the EIA Report which was prepared as per the TOR was available to</i></p>		

		<i>the Public before Public hearing.</i>
B	<p>The "Form I" submitted for ISP Project, shows the Jetty Project as an interlinked and inter-connected project. The Minutes of Meeting of EAC (Industry I) dated 18-19th May, 2021 records another Project i.e., Iron Ore Grinding &amp; Desliming Plant with slurry transportation for 30 MTPA as another interlinked and inter-connected project.</p> <p>Clearly the said fact was originally not disclosed in Form I, which is sufficient to reject the project proposal at the outset. Shockingly, even till date, there doesn't appear to have been either the direction issued by the EAC or the effort made by the Project Proponent to include the impact of all the interlinked and interconnected project in one Comprehensive EIA Report.</p>	<p>At Para no. 36.3.8 (i) and 36.3.22 of the MoM of this EAC dt. 07-06-2023, the EAC has already deliberated these points, Further the PP has submitted the Pre-feasibility report on Setting up of greenfield 13.2 MTPA ISP with captive jetty of 52 MTPA handling capacity and 30 MTPA iron ore grinding &amp; Desliming facilities for JSW-USL, August 2018, along with Form-1, which is mandatory for application for obtaining TOR/EC of any project to MOEFCC and the same was also examined by this EAC.</p> <p>As submitted by the PP, it is to be stated that the raw material, viz. iron ore for the proposed ISP will be brought through a pipeline in slurry form from the mining area in Keonjhar district, from the Iron Ore Grinding &amp; Desliming Plant is located at a distance of about 325 KM from the ISP site, and the application for grant of EC for Iron Ore Grinding &amp; Desliming Plant has been applied separately by the parent company.</p> <p>The EAC, after detailed deliberations, noted that the PP has already submitted the information regarding the iron ore grinding &amp; Desliming facilities. Since it is far away i.e. 325 km therefore PP has submitted the separate application as per the provisions of the EIA Notification, 2006.</p>
C	<p>That the EIA Report submitted with the proposals, in either of the cases, did not have all the studies, information, materials which were necessary for appraisal of the projects. The studies though were stated to have been conducted, but, were not been put up in the public domain and in any case not placed before the public, during or prior to Public Hearing.</p>	<p>Reply given at Para 3A above and important point is reiterated here:</p> <ul style="list-style-type: none"> <li><i>It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/variation between the "Integrated EIA Report, November 2019" (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment,</i></li> </ul>

		<p><i>baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</i></p>									
D	<p>The R &amp; R Plan, the Social Impact Assessment (SIA), the two crucial documents, were neither prepared nor were made part of the EIA report. Though, it appears that Social Impact Assessment was subsequently prepared, but, the same is of no avail, as it is supposed to be the initial study required to be conducted to understand the feasibility and viability of the proposed project from the environmental, social and livelihood perspective. The R &amp; R Plan doesn't even appear to have been submitted.</p> <p>In the Minutes of Meeting of EAC the figure as represented is 64 Project Affected Families (PAF), which on the face of it is false, as in 2008-09, POSCO Ltd. had shown 471 to be the number of PAF and over and above that and with the inclusion of adult sons as separate Unit in terms of Orrisa Rehabilitation &amp; Resettlement Policy, the number of PAF's was stated to be 718 PAF.</p>	<p>The EAC, after detailed deliberations, noted that the SIA study was prescribed as ToR to the PP and the social environment impact was carried out for study area (10 km radial coverage) covering 181 villages, 1 census town and 1 municipality as part of Draft Integrated EIA Report, December, 2019. The same was also submitted to OSPCB on 16.11.2019 for conducting Public Hearing. Earlier, the then EAC in its 36th meeting held during 18-19th May, 2021 observed that R&amp;R Plan based on Public Hearing, SIA and as per Odisha Governments R&amp;R Plan Preparation Guidelines has not been furnished. Based on the recommendation of the then EAC, SIA for R&amp;R purpose was conducted by empanelled agency (STARR, Bhubaneswar) and the report was included in Common EIA Report for appraisal of EAC. It was noted that the SIA study done by STARR is limited to R&amp;R issues. General social environment impact was already done in draft EIA/EMP Report. The same was deliberated by the then EAC and accordingly specific conditions were included in the recommendations of the EAC.</p> <p>The EAC-1, in its recommendations dated 07-6-2023, further deliberate on the finding of the Social Impact Assessment (SIA) study and further suggest Social Impacts Mitigation Action Plan (like Community Development Plan/ Community Engagement Plan/Social Mitigation Plan/Village adoption) to address the social, R&amp;R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project.</p> <p>The PP submitted that the Land requirement and displacement for both the projects as:</p> <table border="1"> <thead> <tr> <th></th> <th>POSCO Project</th> <th>JSW project</th> </tr> </thead> <tbody> <tr> <td>Land requirement</td> <td>4004 Acres</td> <td>2950 Acres</td> </tr> <tr> <td>Displacement</td> <td>471 Families</td> <td>64 families</td> </tr> </tbody> </table> <p>Lesser land requirement by JSW led to fewer number of families displaced.</p>		POSCO Project	JSW project	Land requirement	4004 Acres	2950 Acres	Displacement	471 Families	64 families
	POSCO Project	JSW project									
Land requirement	4004 Acres	2950 Acres									
Displacement	471 Families	64 families									
E	The Project Proponent wants to go ahead without the discussion	The matter has deliberated by the EAC given at Paras 1 and 3A above.									

	<p>of various aspects concerning environment and rehabilitation in public hearing; which is legally impermissible.</p> <p>It is necessary to have a proper public hearing and consideration of the views of affected people and verification of facts by the EAC. EAC itself cannot grant public hearing. The procedure for public hearing in compliance of natural justice and as per the EIA Notification is required to be followed.</p>	
4	<p>That in view of the fact that material documents, studies, etc. have been concealed by the PP, the submission of the Appellants is that the said fact itself is sufficient to reject the proposal as per Clause 8 of the EIA Notification, 2006.</p>	<p>The Committee noted that while going through the entire EC process, starting from granting of TOR to recommending of EC, it is evident that the then EAC diligently appraised the project and examined all the documents submitted by the PP, and also asked PP to carry out many additional scientific and social studies and examined the project meticulously in various 8 meetings [Three EAC meetings convened regarding ToR application and five EAC meetings convened regarding EC proposal]. Based on the recommendations of the EAC, the Ministry has granted the EC in 11<sup>th</sup> April 2022 as per the provisions of the EIA Notification, 2006.</p>
5	<p>The Hon'ble Supreme Court, High Courts and the Hon'ble National Green Tribunal, in several judgments and orders, have categorically held that public hearing is mandatory and is part of Art.21. It can be meaningful only if complete documents and facts are put in public domain so that people express their concerns and point out the deficiencies and the correct facts. Public hearing has to be conducted with complete transparency. The findings of the Tribunal affirm that SIA report and cumulative EIA were not part of public hearing. Therefore, Public Hearing held in December, 2019 is completely vitiated.</p>	<p>The matter has deliberated by the EAC given at Paras 1, 3A &amp; 4 above.</p> <p>It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/ variation between the "Integrated EIA Report, November 2019" (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings</p>

		<p>and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</p> <p>The EAC, after detailed deliberations, noted that Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing i.e. the EIA Report which was prepared as per the TOR was available to the Public before Public hearing.</p> <p>The Minutes of the EAC meetings which led to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</p>
<b>6</b>	<b>Therefore what is required is that:</b>	
i	the Project Proponent be directed to prepare the Comprehensive EIA Report, which considers all the components of the projects and contains all the necessary environmental studies including the SIA and R&R;	The EAC noted that SIA study was prescribed as ToR to the PP and the social environment impact was carried out for study area (10 km radial coverage) covering 181 villages, 1 census town and 1 municipality as part of Draft Integrated EIA Report, December, 2019. The same was also submitted to OSPCB on 16.11.2019 for conducting Public Hearing. Earlier, the then EAC in its 36 <sup>th</sup> meeting held during 18-19th May, 2021 observed that R&R Plan based on Public Hearing, SIA and as per Odisha Governments R&R Plan Preparation Guidelines has not been furnished. Based on the recommendation of the then EAC, SIA for R&R purpose was conducted by empanelled agency (STARR, Bhubaneswar) and the report was included in Common EIA Report for appraisal of EAC. It was noted that the SIA study done by STARR is limited to R&R issues. General social environment impact was already done in draft EIA/EMP Report. The same was deliberated by the then EAC and accordingly specific conditions were included in the recommendations of the EAC. However, the EAC may further deliberate on the finding of the Social Impact Assessment (SIA) study and may further suggest Social Impacts Mitigation Action Plan (like Community Development Plan/ Community Engagement Plan/Social Mitigation Plan/Village adoption) to address the social, R&R, livelihood issues of the project affected families (PAFs) and also the population living within 2/5/10 kms of the project
ii	the said Comprehensive EIA Report and other studies/documents should be made public and made available to the people in advance before public hearing;	
iii	Thereafter public hearing should be conducted as per the EIA Notification and the law settled by the Supreme Court/NGT;	



		<p>Public hearing has been conducted on 20-12-2019 as per the provisions of EIA,2006.</p> <p>At Paragraph 36.3.11.iii (a) of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that: <i>Based on the documents examined and letter of OSPCB dated 03.07.2020 to MoEFCC, it is confirmed that the Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing.</i></p> <p>At Paragraph 36.3.24.ii Table of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that: <i>The EAC, after detailed deliberations, noted that Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing i.e. the EIA Report which was prepared as per the TOR was available to the Public before Public hearing.</i></p> <p><i>Further, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</i></p>
iv	EAC should then consider the entire material including comments of the people with due application of mind. Unless these steps are fully complied with, any consideration by the EAC will be an empty formality, against law and settled environment principles.	Complete Environmental appraisal has been done by the then EAC as per the provisions of the EIA notification, 2006, and all the documents etc. were diligently reviewed by this EAC to recommend for the modified EC to the project.
7	That without prejudice to the aforesaid submission, it is most humbly submitted that the Appellants, to be able to effectively exercise the right to make representation, as directed by the Hon'ble Supreme Court, would require all the documents, studies, material, information etc. that is being taken into consideration	<p><i>The Minutes of the EAC meetings which led to the preparation of the Final EIA/EMP report, January 2022 and other study reports were uploaded in the MoEFCC Parivesh portal for information to all and the public.</i></p> <p>The appellants can very well obtain all the reports etc from the PARIVESH portal which is in the public domain.</p>

	<p>by the EAC. Therefore, it is most humbly requested that all such documents, studies, material, information etc., should be supplied to the Appellants.</p>	
<p><b>8</b></p>	<p>The attention of the EAC is also drawn to finding rendered in Para 35(F) of the Judgment &amp; Order of the Hon'ble Tribunal, as reproduced below: The project POSCO was abandoned and was adversely commented upon by this Tribunal vide order dated 03.03.2012 in Appeal No 8/2011 which aspect has not been examined. It is submitted that the reasons contained in the reports and in order dated 30.3.2012 are required to be examined by the EAC, which EAC has not done.</p>	<p>The statement by the Mr. Prafula Samantara is not true. This EAC has critically examined all the reports relating to this project as well as the POSCO project and the Hon'ble NGT order dated 30-3-2012.</p> <p>The EAC, in its various meetings, has gone through each point on the order of Hon'ble NGT dated 20.03.2012 and other relevant documents. following are the observation of the EAC:</p> <p>(i) <i>The EAC noted that the erstwhile PP (POSCO) received the EC in the year 2007 and subsequently, deliberations have been carried out at different forums and additional conditions were imposed on 31.01.2011. Further, the present petitioner (who was also the petitioner at that time) went to NGT (Appeal No. 8/2011) and NGT quashed the additional conditions in March 2012 without altering the original EC of 2007.</i></p> <p>(ii) <i>The proposal regarding revalidation of POSCO Environmental Clearance was placed before the Expert Appraisal Committee (Industry) in its 6th meeting held during 5-7th March, 2013 and further reconsidered in its 8th meeting held during 16-17th May, 2013. After considering the facts and events, the EAC recommended for the revalidation of the environmental clearance dated 19.7.2007 subject to environmental safeguards including the recommendations given in the report of the Expert Committee headed by Shri K. Roy Paul which was constituted by the Ministry in pursuance to the directions given by the Hon'ble National Green Tribunal on 30.3.2012. Based on the recommendation of EAC, the Ministry had revalidated the EC for a period of five years with effect from 18.7.2012 subject to stipulation of the additional conditions for compliance vide letter dated 7th January 2014.</i></p> <p>At Paragraphs 36.3.11 (f), (g) and 36.3.24 (ii) table of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that: <i>Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, However EAC further deliberated for additional EC conditions, w.r.t. Decarbonisation, Circular economy,</i></p>

		<p><i>Sustainable Development Goals, Green buildings, Supply of drinking water to the neighborhood.</i></p> <p>Moreover, the ECs of both the projects cannot be compared one to one for the reasons that:</p> <p>i) The POSCO project was using FINEX technology where the parameters/ mechanism were different as compared to conventional BF-BOF route.</p> <p>ii) JSWUSL project emission limits parameters are stricter than the ones stipulated for POSCO within the permissible limits.</p> <p>iii) The EC is for the full capacity of 13.2 MTPA unlike the POSCO project which had the EC of 4 MTPA</p> <p>iv) The land requirement for JSW project is 2950 as compared to POSCO which asked for 4004 acres of land.</p>
9	It is keeping in view the aforesaid direction, the Appellant would like to draw the attention of the Committee to the brief history of the said project and to the proceedings which were undertaken in respect of the project, when the same was conceived by M/ s. POSCO Ltd.	As described above EAC has already went through the history of POSCO project. For the instant project it may be mentioned that the Environment Clearances is granted as per EIA Notification, 2006 and as amended time to time under the provisions of the Environment (Protection) Act, 1986, following the four important stages such as (1) Screening (2) Scoping – i.e. prescribing Terms of Reference (TOR) for undertaking detailed Environment Impact assessment studies (3)-Public Consultation - conducted by the respective State /UT Pollution Control Board/Committee, and (4) Appraisal – by the then Expert Appraisal Committees (EACs).
10 (10.1-10.12)	Brief Facts/History of the Project as was proposed by POSCO Ltd.	This EAC has critically examined all the reports/ earlier ECs relating to this project as well as the POSCO project and the Hon'ble NGT order dated 30-3-2012. The following are the observation of the EAC:
11	After these reports, the MoEF imposed certain more conditions in the Environment & Forest Clearances which were granted. The modified Environment Clearances were challenged before the Hon'ble National Green Tribunal in Appeal No 8/2011 which was decided by the Judgment & Order dated 30.03.2012. Though POSCO abandoned the project, the Final Directions as reproduced below, apply squarely on the present project, which have not been complied with:	<p>(i) <i>The EAC noted that the erstwhile PP (POSCO) received the EC in the year 2007 and subsequently, deliberations have been carried out at different forums and additional conditions were imposed on 31.01.2011. Further, the present petitioner (who was also the petitioner at that time) went to NGT (Appeal No. 8/2011) and NGT quashed the additional conditions in March 2012 without altering the original EC of 2007.</i></p> <p>(ii) <i>The proposal regarding revalidation of Environmental Clearance was placed before the Expert Appraisal Committee (Industry) in its 6th meeting held during 5-7th March, 2013 and further reconsidered in its 8th meeting held during 16-17th May, 2013. After considering the facts and events, the EAC recommended for the revalidation of the environmental clearance dated 19.7.2007 subject to environmental</i></p>

	<p>8) For all the above discussion and deliberation on the issues and the study of records made by us and keeping in view the need for industrial development, employment opportunities, etc. but not compromising with the environmental and ecological concerns, we propose to dispose of this Appeal with the following directions;</p> <p>8.1) The MOM shall make a fresh review of the Project with specific reference to the observations/apprehensions raised by the Review Committee in both the reports i.e. the one given by Ms. Meena Gupta and the other by the Majority Members apart from consideration to the views of the EACs and also with reference to the observations made in this Judgment by issuing fresh TOR accordingly.</p> <p>8.2) However, the final order dated 31.01.2011 made by the MOEF shall stand suspended till such fresh review, appraisal by the EACs and final decision by MOEF is completed, since some study might have already been initiated in view of the final order dated 31.1.2011.</p> <p>8.3) The MOEF shall constitute the said fresh review committee by engaging subject matter specialists for better appreciation of environmental issues. The project proponent shall be asked to furnish relevant details required for the said review by the newly constituted committee to recommend specific conditions to be attached/ revised in the</p>	<p><i>safeguards including the recommendations given in the report of the Expert Committee headed by Shri K. Roy Paul which was constituted by the Ministry in pursuance to the directions given by the Hon'ble National Green Tribunal on 30.3.2012. Based on the recommendation of EAC, the Ministry had revalidated the EC for a period of five years with effect from 18.7.2012 subject to stipulation of the additional conditions for compliance vide letter dated 7th January 2014.</i></p> <p>At Paragraphs 36.3.11 (f), (g) and 36.3.24 (ii) table of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that:</p> <p><i>The conditions stipulated in the EC granted to POSCO (in Jan 2007 and Jan 2014) vis-à-vis the recent EC granted to M/s JSW Utkal ISP (in April 2022) has been compared. Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, However EAC further deliberated for additional EC conditions, w.r.t. Decarbonisation, Circular economy, Sustainable Development Goals, Green buildings, Supply of drinking water to the neighborhood.</i></p> <p><i>This was done keeping in view the changing scenario in the socio-environmental domain with passage of time after the grant of EC to POSCO project in Jan 2007/ Jan 2014 and the recent EC granted to M/s JSW Utkal ISP in April 2022.</i></p>
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	<p>ECs granted by MOEF.</p> <p>8.4) The MOEF shall define timelines for compliance of the conditions in the ECs and considering the nature and extent of the project, MOEF should establish a special committee to monitor the progress and compliance on regular basis.</p> <p>8.5) The MOEF shall consider optimizing the total land requirement for 4 MTPA Steel plant proportionately instead of allotting entire land required for 12 MTPA steel plant which is an uncertain contingency.</p> <p>8.6) The MOEF shall consider feasibility of insisting upon every major industry that requires large quantity of water to have creation of its own water resource facility rather than using/ diverting the water that is being meant for drinking/ irrigation purposes.</p> <p>8.7) It is desirable that the MOEF shall establish clear guidelines/directives for project developers that they need to apply for a single EC alone if it involves components that are essential part to the main industry such as the present case where main industry is the Steel plant, but it involves minor components of port, captive power plant, residential complex, water supply, etc.</p> <p>8.8) It is desirable that MOEF shall undertake a study on Strategic Environmental Assessment for establishment of number of ports all along the coastline of Orissa with due consideration to the issues related to biodiversity, risks associated, etc.</p>	
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	<p>8.9) It is also desirable that MOEF shall take a policy decision that in large projects like POSCO where MOM are signed for large capacities and upscaling is to be done within a few years, the EIA right from the beginning, should be assessed for the full capacity and EC granted on this basis.</p> <p>True Copy of the Judgment &amp; Order dated 30.03.2012 passed by the Hon'ble National Green Tribunal in Appeal No. 8 of 2011 is being annexed herewith and marked as ANNEXURE R-3</p>	
12	<p>In the present case, as mentioned above, the project which was abandoned by POSCO Ltd. is being undertaken by the new Project Proponent i.e. JSW Utkal Steel Ltd. Admittedly, there are various components of the project, i.e Integrated Steel Plant (Consist of Steel Plant, Cement Plant, Power Plant etc. It also has Captive Jetties and Iron Ore Grinding &amp; Desliming Plant with slurry transportation for 30 MTPA.</p>	<p>This is a matter of fact.</p> <p>At Para no. 36.3.8 (i) and 36.3.22 of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that:</p> <p><i>The PP has submitted the Pre-feasibility report on Setting up of greenfield 13.2 MTPA ISP with captive jetty of 52 MTPA handling capacity and 30 MTPA iron ore grinding &amp; Desliming facilities for JSW Utkal Steel Ltd., August 2018, along with Form-1, which is mandatory for application for obtaining TOR/EC of any project to MOEFCC. And the same was also examined by this EAC while recommending for the modified EC.</i></p>
13	<p>For each of the components, separate and individual EIA Reports have been prepared. For ISP it has been prepared by M/s. M. N. Dastur &amp; Co. and for Jetties it has been prepared by M/s. WAPCOS Ltd. The Reports, as stated, are based on the data collected over one season only. It admittedly did not account for all the projects together with other industries already existing in the vicinity. It admittedly did not take into account the existence of the industries in the Paradeep</p>	<p>Comment same as given in paragraph 3A above.</p> <p>The statement made by the appellant that the EIA reports prepared in contravention of these directions deserves to be rejected at the outset and is totally baseless and irrational.</p> <p><i>All conditions stipulated in the "Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score" shall be also strictly complied and implemented by the PP. The mitigation measures proposed by JSWUSL as part of the EC already conform to the Action Plan formulated by OSPCB for Paradip PIA.</i></p>

	<p>Industrial Area which is barely 375 Mts. from the Project Site.</p> <p>The aforesaid admitted facts, clearly show that the directions (8.7 &amp; 8.9) issued by the Hon'ble National Green Tribunal have not been adhered to. If POSCO Ltd. itself had gone ahead with the project, the same could not have been allowed by the MoEF&amp;CC unless it was in compliance with the said directions.</p> <p>Therefore, for the same reason, merely because the project has now been undertaken by the new project proponent, the directions given by the NGT cannot be ignored. The EIA reports prepared in contravention of these directions deserve to be rejected at the outset. The appraisal on these reports being in the teeth of directions of the Tribunal, would be a, clear case of violation of Tribunal's directions and impermissible in law.</p>	
<b>14</b>	<p>As far as need, purpose and viability of the proposed Port is concerned, the Committee has been of the clear view that the same is not necessary. Paradeep Port can be very well used by the Project Proponent. Even if the new port are to be envisaged, the same can be set up only after the MOEF &amp; CC undertakes the exercise as directed by the Hon'ble Tribunal in Para 8.8 above. Therefore, the proposal for establishment of Port is liable to be rejected at the outset.</p>	<p>The EAC (Infra-I Sector) in their 330<sup>th</sup> meeting of Expert Appraisal Committee (Infrastructure-I ) held on 19th - 20th June, 2023 noted that:</p> <p>“It was clarified by the PP during the meeting that Paradeep Port is located beyond 12 km from the proposed captive jetties of JSWUSL. PP also submitted necessary supporting documents in this regard.”</p>
<b>15</b>	<p>The magnitude of the project, as has been observed by the Committee and the Hon'ble</p>	<p>The statement of the appellant that It is for the said reason, permitting such a huge project proponent, apparently is not in consonance with the sustainable development is unscientific.</p>

	<p>Tribunal, is huge. Its capacity is more than 6 steel plants of India, Bhilai, Bokaro, Durgapur, Rourkela, Burnpur and Salem put together. This mega steel plant of JSW, with a big cement plant, a thermal power plant etc, will have emissions affecting human health and the GHG will have severe cumulative effect. The project site is Ecologically Sensitive. It is for the said reason, permitting such a huge project proponent, apparently is not in consonance with the sustainable development. The Appellants are enclosing the report "Health Impacts. Assessment of Integrated Steel Plant, JSW Utkal Steel Limited, Odisha, India", prepared by Centre for Research on Energy and Clean Air (CREA) for consideration by the EAC. The said Report is being annexed herewith and marked as ANNEXURE R-4.</p>	<p>The then EAC and this EAC had critically examined all the socio-environmental impacts of the project, directed all necessary studies required and recommended the EC with prudent and stringent environmental conditions and mitigation measures required with changing scenario with passage of time, including additional EC conditions, w.r.t. Decarbonisation, Circular economy, Sustainable Development Goals, Green buildings, Supply of drinking water to the neighborhood and also monitoring the health of the soil in the neighborhood of the industry.</p> <p>Salem Steel Plant is not an integrated steel Plant. It should not be clubbed with the other Plants in the list. The appellant is deliberately quoting the production of steel in ancient ISP's which were established in 1950s. He has conveniently omitted the production level in the modern steel plants. Existing and approved projects of modern ISPs have production level comparable to that of JSW-USL.</p> <p>The report mentioned and enclosed by the appellant "Health Impacts. Assessment of Integrated Steel Plant, JSW Utkal Steel Limited, Odisha, India", prepared by Centre for Research on Energy and Clean Air (CREA) is out of context and appears to be published with an ulterior motive not suitable to the development of our country. The said report/ paper mentions distorted, arbitrary, exaggerated and qualitative air quality and health impact data/ results, with a biased view so as to target the project in bad light. Interestingly, the references quoted in the paper/ report are all non-Indian, when there are scores of technical papers of Indian authors &amp; scientists/ CPCB literature available.</p> <p>Moreover, the post project baseline PM10 has been predicted based on the Air pollution dispersion modelling exercise considering 24 hourly average as per the standard practice and the values lies within the NAAQS values. The standard prescribes for annual average as 60% of 24 hourly average values of PM10 (100) and therefore, 24-hourly average data cannot be compared with the annual average values.</p>
<p><b>16</b></p>	<p><b>Therefore, it is submitted that:</b></p>	
<p>a</p>	<p>The entire proposal deserves to be rejected under Clause 8 of the EIA Notification for concealment of the relevant reports /material as stated above;</p>	<p>The appellant's contention that the entire proposal deserves to be rejected under Clause 8 of the EIA Notification for concealment of the relevant reports /material is out of context. The then EAC appraised and this EAC reviewed the Project as per all the applicable and relevant provisions laid down in the EIA notification 2006.</p>



		<p><i>The Minutes of the EAC meetings, EIA/EMP reports, and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</i></p> <p>The Committee observed that while going through the entire EC process, starting from granting of TOR to recommending of EC, it is evident that the then EAC diligently appraised the project and examined all the documents/Reports. Further, the then EAC has also sought some additional scientific and social studies and the project was critically appraised by the then EAC in its different meetings. It needs to be mentioned that conclusions of present EAC are based on the detailed deliberations in the meetings of working group (2 days online and 3 days physical) especially constituted by EAC for this purpose and critical examinations of working group recommendations and responses of Project Proponents in its 4 meetings.</p> <p>The present EAC has deliberated the direction of the Hon'ble NGT Order dated 20/03/2023 &amp; Hon'ble Supreme Court order dated 15.05.2023. After detailed deliberations, the EAC has reiterated the recommendations of the then Expert Appraisal Committee for grant of EC with additional safeguard and mitigation measures that became essential with changing scenario with passage of time.</p>
b	Admittedly, Cumulative EIA, the R &R Plan, the Social Impact Assessment Report and other relevant material did not exist at the time of public hearing, as rightly found by the Tribunal which findings have been affirmed by the Supreme Court. Therefore, as discussed above, public hearing has to be granted as follows:	<p>The present EAC after detailed deliberations, and keeping in view the Hon'ble Supreme Court's order and the NGT's directions, decided that the matter requires detailed deliberation and scrutiny of all the issues in the best interest of the environment, ecology and the livelihood of affected parties, therefore, the EAC decided that all the members of the EAC shall go through the entire representation para wise and EAC would deliberate the matter on 8<sup>th</sup> August 2023 in full length. Further EAC noted that that At Paragraph 36.3.24.ii Table of the MoM of this EAC dt. 07-06-2023, it has already been deliberated that:</p> <p><i>i. It may be mentioned that the Environment Clearances is granted as per EIA Notification, 2006 and as amended time to time under the provisions of the Environment (Protection) Act, 1986, following the four important stages such as (1) Screening (2) Scoping – i.e. prescribing Terms of Reference (TOR) for undertaking detailed Environment Impact assessment studies (3)-Public Consultation -</i></p>
i	The Project Proponent be directed to prepare the Comprehensive EIA Report, which considers all the components of the projects and contains all the necessary environmental studies including the SIA and R&R and cumulative impact of pollution on the ecologically sensitive	

	area;	
ii	The said Comprehensive EIA Report and other studies/documents should be made public and made available to the people in advance before public hearing;	conducted by the respective State /UT Pollution Control Board/Committee, and (4) Appraisal – by Expert Appraisal Committees (EACs).
iii	Thereafter public hearing should be conducted as per the EIA Notification and the law settled by the Supreme Court/NGT;	ii. Accordingly, TOR are to be issued after considering the application. Thereafter, as per the TOR issued, Project Proponent is required to comply with the conditions mentioned in the TOR which inter-alia include: (i) collection of base-line data, (ii) preparation of Draft EIA report, (iii) public consultations, (iv) preparation of EIA/EMP Reports and other studies. Subsequently, after public consultation, the final EIA/EMP Reports are submitted to the Ministry along with all the relevant documents. On receipt of final EIA/EMP report after the public consultation, the project is to be appraised by the EAC in a transparent manner. Thereafter, the EAC makes appropriate recommendations and the Ministry takes the appropriate decision with regard to Environmental Clearance.
iv	EAC should then consider the entire material including comments/observations of the people with due application of mind.	iii. The EAC noted that the project proponent submitted application for Terms of reference (ToR) on 25.10.2017 for the first time. The proposal was considered in the 24th meeting of Expert Appraisal Committee (Industry-I) held during 13th to 15th November, 2017 wherein the committee observed that the procedure for consideration of the integrated and inter linked projects was issued by MOEFCC vide OM No. J-11013/41/2006-IA. II(I), dated 24th December, 2010. Integrated and inter linked projects having multispectral components shall prepare a common EIA report, covering impact of each of the component in a comprehensive manner after obtaining ToR from each of the respective sectoral Expert Appraisal Committee (EACs). For the purpose, the project proponent shall submit the applications to each of the sector simultaneously giving full details of the project (comprehensively for the integrated/inter linked projects as also for the particular component, sector specific) in the prescribed format (Form-I) and the pre-feasibility report. Therefore, the committee recommended for returning the proposal in the present form and advised to make afresh application. Accordingly, PP applied again and Ministry accorded the ToR.  iv. The then EAC in its 36th Meeting held on 18-19th

May, 2021 has gone through the following record.

*a) Public representation: It was apprised to the EAC that Ministry was in receipt of a representation on 31/01/2020 and 07/02/2020 alleging that several shortcomings in the public hearing held for the project on 29/12/2019 inter-alia including no common EIA report has been prepared to covering each of the sectoral component in a comprehensive manner.*

*b) Report of District Magistrate and Odisha Pollution Control Board (OPCB) on public representation: As per the District Magistrate report. dated 29/05/2020, the public hearing for the instant project was conducted by the District Administration on 29/12/2019 as per the guidelines laid down in the EIA Notification, 2006. Further with respect to the common EIA report, it has been responded by OPCB stating that JSW submitted individual EIA reports for both the projects separately along with an integrated EIA report. All the three reports were distributed to the concern offices as per the guidelines of the EIA Notification, 2006 and was uploaded on to the OSPCB website.*

v. *The EAC also noted that it was apprised by the then EAC in its 52<sup>nd</sup> meeting held on 27th, 28th and 31st January, 2022., that a report was submitted by Odisha Pollution Control Board on 11/10/2021 on public representations dated 11/09/2021 and representation dated 12/09/2021 given as below:*

<i>S No</i>	<i>Representation points</i>	<i>Comment of OPCB dated 11/10/2021</i>
<i>i</i>	<i>Integrated EIA was not made available prior public hearing.</i>	<i>Board after receipt of Common EIA Report along with EIA reports of ISP &amp; Captive Jetties, public hearing was conducted by the Board.</i>
<i>ii</i>	<i>Assessment for water requirement was missing.</i>	<i>No comments as this is not part of procedure for conducting public hearing for prior EC as per EIA Notification, 2006 and amendment thereafter. However, assessment of Water</i>

			requirement is available in the EIA report for the ISP.
		iii	<p>Availability of water for the industrial activity from Jobra Barrage</p> <p>No comments. However, as intimated by the proponent, Water Resource Department of Government of Odisha, has allocated the required quantity of water to JSW USL from Jobra as per the Government guidelines.</p>
			<p>Further the then EAC in MoM of 52<sup>nd</sup> meeting after deliberation observed “As per the communication received from Odisha State Pollution Control Board, the Common EIA Report as prepared by JSW USL has been received by the Board along with the summary for both the projects (in English &amp; local language, Odia). The public hearing for the project was conducted as per the procedure prescribed in the EIA Notification, 2006.”</p> <p>vi. It is important to mention here that, as per the provisions of the EIA notification 2006, only the draft EIA needs to be made available before and during the Public hearing. The Final EIA/EMP report is submitted to MoEFCC after completion of public hearing, incorporating the points raised during the PH along with the mitigation measures etc. proposed by the PP. therefore, additional clarifications asked by the EAC during the appraisal process can't be part of the Draft EIA/EMP report for the PH. Moreover, procedure laid down in EIA Notification 2006 allows submitting of clarifications by the PP with reference to the observations of the EAC. It is pertinent to mention here that there is no significant difference/variation between the “Integrated EIA Report, November 2019” (Draft Common EIA Report), and the final EIA/EMP report of January 2022 that would invite significant changes in the impact assessment, baseline information and any other socio-environmental status of the proposal, but for the inclusion of Public hearing proceedings and findings of the additional information sought by the EAC in its various meetings. However, the Minutes of the EAC meetings which lead to the preparation of the Final EIA/EMP report, January 2022 and other study reports are uploaded in the MoEFCC Parivesh portal for information to all and the public.</p>

		<p><i>The EAC, after detailed deliberations, noted that Common EIA Report including the cumulative impact of both the projects were in the Draft Integrated EIA report were submitted by the PP to OSPCB, which were uploaded on OSPCB website at the time of public hearing i.e. the EIA Report which was prepared as per the TOR was available to the Public before Public hearing.</i></p>
c	<p>The present project is in continuation of the earlier project abandoned by POSCO and therefore, it should comply with all the recommendations of the Expert Committee, as discussed above and the order 30.03.2012 of the Hon'ble National Green Tribunal, accepting the recommendations of the Committee. Unless those conditions/directions are fully complied with, no clearance can be granted. Any such clearance will be on the face of it in violation of Tribunal's order dated 30.03.2012 as well as subsequent Order dated 20.03.2023 passed by the Honble National Green Tribunal, Eastern Zone Bench., Kolkata. The EIA reports which have been prepared by the Project Proponent are contrary thereto and cannot form the basis for appraisal of project of such a magnitude, particularly, when the same is located in an Ecologically Sensitive Area, which is severely polluted;</p>	<p>The statement made by Mr. Prafula Samantara is totally out of context.</p> <p>This EAC has critically examined all the reports/ earlier ECs relating to this project as well as the POSCO project and the Hon'ble NGT order dated 30-3-2012.</p> <p>The conditions stipulated in the EC granted to POSCO (in Jan 2007 and Jan 2014) vis-à-vis the recent EC granted to M/s JSW Utkal ISP (in April 2022) has been compared. Although there are very stringent environmental conditions and mitigation measures stipulated in EC granted to M/s JSWUL, However EAC further deliberated for additional EC conditions, w.r.t. Decarbonisation, Circular economy, Sustainable Development Goals, Green buildings, Supply of drinking water to the neighborhood. The additional conditions are listed below.</p> <p>(i) The present EAC, envisaged the need of revisiting the Corporate Environmental Responsibility (CER) of the project proponent and thereby enhancing the budget to address the issues raised during public hearing dated 11-4-2022 and other socio-economic issues. As a result of such deliberation, the PP has revised their PH action plan Budget substantially to Rs.657.05 crore from the earlier budget of Rs. 196.05 crore, which is an increase of more than 300 %, to address various holistic needs of people which includes, health care, infrastructure development, education, livelihood, village adoption etc.</p> <p>(ii) PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement. The PP, shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to</p>

		<p>villagers. The PP shall also rejuvenate the identified 110 existing community ponds.</p> <p>(iii) PP shall engage the local communities through their involvement in preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&amp;R, livelihood issues of the project-affected families (PAFs) and the population living within 2/5/10 kms of the project.</p> <p>(iv) PP 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 monitorable with defined time frames.</p> <p>(v) PP shall adopt and implement "Green Building" concept during the construction and operational periods to minimise the carbon foot print.</p> <p>(vi) PP shall prepare and implement a Road map on Circular economy and also align their operations towards achieving the goal of Sustainable Development.</p> <p>(vii) PP shall strictly implement the action plan prepared as per MoEF&amp;CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&amp;CC O.M. No. 22-23/2028-IA.III dated 05/07/2022. Stringent measures shall be undertaken as per the submitted action plan to minimise the Air emissions. All conditions stipulated in the "Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score" shall be also strictly complied and implemented by the PP.</p> <p>(viii) PP shall monitor the health of the soil in the</p>
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		<p>neighborhood of the industry on a regular basis.</p> <p>(ix) Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the plant area on Government land at the cost of the Project Proponent. Necessary arrangements (MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other than green belt by the PP.</p> <p>(x) With changing scenario, the water requirement for the proposed project has been revised based on Best Industry Practices and the water requirement is substantially reduced now from 1905 m<sup>3</sup>/hr to 1481 m<sup>3</sup>/hr, and the wastewater generated from the plant shall be treated and recycled maintaining ZLD status of the plant. Treated surplus water from Iron Ore Slurry dewatering plant shall also be fully utilized.</p> <p>This was done keeping in view the changing scenario in the socio-environmental domain with passage of time after the grant of EC to POSCO project in Jan 2007/ Jan 2014 and the recent EC granted to M/s JSW Utkal ISP in April 2022.</p>
d	Because as held by the Tribunal, Jetty is located within 500 meters of the Paradeep Port and is unnecessary as opined in the report submitted by Ms. Meena. Gupta earlier.	<p>The EAC (Infra-I Sector) in their 330<sup>th</sup> meeting of Expert Appraisal Committee (Infrastructure-I ) held on 19th - 20th June, 2023 noted that:</p> <p>“It was clarified by the PP during the meeting that Paradeep Port is located beyond 12 km from the proposed captive jetties of JSWUSL. PP also submitted necessary supporting documents in this regard.”</p>
e	Compliance of all directions/findings given by the Tribunal in the order dated 20.03.2023 is mandatory.	<p>This EAC has deliberated all the directives given in Judgment &amp; Order dated 20.03.2023 passed by the Hon'ble National Green Tribunal, Eastern Zone Bench, Kolkata in Appeal No. 21 of 2022 86. Appeal No. 22 of 2022. After detailed deliberation, the EAC has recommended the EC with additional safeguard to the said project. The detailed Minutes of the EAC Meetings has been uploaded in the public domain PARIVESH portal.</p>

**The EAC in its meeting held on 8<sup>th</sup> August 2023 concluded/recommended that:**

41.14.38 All the points that have been raised by Mr. Prafulla Samantara in his above representation have been already prudently addressed by this EAC in its deliberations and recommendations dated 07-06-2023. The committee has also addressed all the concerns raised in the Judgment & Order dated 20.03.2023 passed by the Hon'ble National Green Tribunal, Eastern Zone Bench,

Kolkata, in Appeal No. 21 of 2022 86. Appeal No. 22 of 2022 and the Order dated 15.05.2023 passed by the Hon'ble Supreme Court in CA No. 3657-58 of 2023. This was done with the collective and stringent socio-environmental acumen of this Committee, leaving no scope for omissions or any biases, which is clearly evident from the various out-of-the-box recommendations made for protecting and conserving the environment as well as the well-being of the people at large. This EAC has taken utmost care to address all the issues keeping in view the environment, ecology and the livelihood of affected parties.

41.14.39 It is pertinent to mention that the EAC in its 36<sup>th</sup> Meeting held on 7<sup>th</sup> June 2023 recommended additional safeguards and mitigation measures that became essential with changing scenario with passage of time, considering the global climate change and sustainable development paradigms are given below

- (i) The present EAC, envisaged the need of revisiting the Corporate Environmental Responsibility (CER) of the project proponent and thereby enhancing the budget to address the issues raised during public hearing dated 11-4-2022 and other socio-economic issues. As a result of such deliberation, the PP has revised their PH action plan Budget substantially to Rs.657.05 crore from the earlier budget of Rs. 196.05 crore, which is an increase of more than 300 %, to address various holistic needs of people which includes, health care, infrastructure development, education, livelihood, village adoption etc.
- (ii) PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement. The PP, shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers. The PP shall also rejuvenate the identified 110 existing community ponds.
- (iii) PP shall engage the local communities through their involvement in preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&R, livelihood issues of the project-affected families (PAFs) and the population living within 2/5/10 kms of the project.
- (iv) PP 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 monitorable with defined time frames.
- (v) PP shall adopt and implement "Green Building" concept during the construction and operational periods to minimise the carbon foot print.



- (vi) PP shall prepare and implement a Road map on Circular economy and also align their operations towards achieving the goal of Sustainable Development.
- (vii) PP shall strictly implement the action plan prepared 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 05/07/2022. Stringent measures shall be undertaken as per the submitted action plan to minimise the Air emissions. All conditions stipulated in the “Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score” shall be also strictly complied and implemented by the PP.
- (viii) PP shall monitor the health of the soil in the neighborhood of the industry on a regular basis.
- (ix) Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the plant area on Government land at the cost of the Project Proponent. Necessary arrangements (MOU) shall be made with the State Govt. in this regard within six months. This land shall not be used for any purpose other than green belt by the PP.
- (x) With changing scenario, the water requirement for the proposed project has been revised based on Best Industry Practices and the water requirement is substantially reduced now from 1905 m<sup>3</sup>/hr to 1481 m<sup>3</sup>/hr, and the wastewater generated from the plant shall be treated and recycled maintaining ZLD status of the plant. Treated surplus water from Iron Ore Slurry dewatering plant shall also be fully utilized.

**Thus, the EAC has deliberated all the points/issues/facts raised by Mr. Prafulla Samantara in his representation/compliant dated 29.05.2023. The EAC is of the view that the project has been deliberated in great detail having full concern for the best interest of Environment, Ecology and livelihood of the local people. The EAC does not find any scope for further deliberation on the representation of Mr. Prafulla Samantara because all the concern raised by Prafulla Samantara have been taken proper care by the Expert Appraisal Committee in its several meetings. Therefore, the representation has been considered and disposed by the EAC after thorough examination.**

**Though all the minutes of the EAC are in public domain even then EAC recommended that the minutes of this EAC meeting [concerning JSW-Utkal Project] may be forwarded to Mr. Prafulla Samantara accordingly.**

The EAC also reiterates its **recommendations** during its 36<sup>th</sup> EAC meeting held on 7<sup>th</sup> June 2023 for grant of Environment Clearance dated 11.04.2022 subject to the stipulation **additional environmental safeguards and mitigation measures** including the following additional specific conditions:

Sl No	Specific conditions w.r.t. EC dated 11.04.2023	Revised Specific conditions	Remarks by the EAC
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1	(xiv). 223200 KLD water shall be sourced from upstream of Jobra barrage at Mahanadi river, 87 km from the site. No Ground water shall be abstracted.	(xiv.) 147500 KLD water shall be sourced from ISS at Chaudhurygada, 25 km from the site. (Including the additional water required to provide ferrule water to villages enroute water pipeline 24400 KLD). No Ground water shall be abstracted. The PP, as committed, shall create water harvesting stations at regular intervals along the 25 Km pipe line through which water is drawn from the Chowdhurigada ISS and make water available to villagers. The PP as committed shall rejuvenate the identified 110 existing community ponds.	With changing scenario, the water requirement for the proposed project has been revisited and revised based on Best Industry Practices (as summarized in table) and the water requirement is substantially reduced now.
2	(xv). Treated surplus water from Iron Ore Slurry dewatering plant shall be fully utilized in construction and supplied to IDCO as per MOU between IDCO and PP.	(xv). Treated surplus water from Iron Ore Slurry dewatering plant shall be fully utilized in the Unit.	With changing scenario water requirement for the proposed project has been revisited & revised based on recycling of water and its use in the process so that water requirement is decreased.
3	(xxviii). Green belt shall be developed in 372 ha of the plant area with a tree density of 2500 trees per ha. Plantation shall be completed in 3 years followed by gap filling in the next two years.	(xxviii.) Green belt shall be developed over an area of 34% (383 ha) of plant area inside the plant and on 85 Ha (7% of plant area) outside the plant area on Government land at the cost of the Project Proponent. Tree density of 2500 trees per ha shall be maintained. Necessary arrangements (MOU) shall be made with the State Govt. in this regard	EAC has gone through the letter of OSPCB dated 18-4-2023 addressed to JSWUSL that “a small portion of the said project area is overlapping with the demarcated SPA of Paradeep” and considered the proposal as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA. The Committee deliberated the Action plan

		within six months. This land shall not be used for any purpose other than green belt by the PP. The selection of species will be in consultation with the State Forest Department, and forestry experts. M/s JSW shall not use this 85 ha. land for any purpose other than green belt.	on the CEPI guidelines and found in order.
5	(xxxii).1905 m <sup>3</sup> /hr waste water shall be generated from the plant, the same shall be treated and recycled maintaining ZLD status of the plant.	(xxxii). 1481 m <sup>3</sup> /h of wastewater shall be generated from the plant and same shall treated and recycled maintaining ZLD status of the plant	With changing scenario, the water requirement for the proposed project has been revisited and revised based on proposed Best Industry Practices.
<b>Additional Safeguards/EC conditions to be included in the EC</b>			
6	-	The PP shall strictly implement the action plan prepared 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 05/07/2022. Stringent measures shall be undertaken as per the submitted action plan to minimise the Air emissions. All conditions stipulated in the “Action Plan for abatement of pollution in industrial areas of Paradeep, prepared by OSPCB in July 2020 to bring down the CEPI score” shall be also strictly complied and implemented by the PP. Compliance Report shall be submitted to IRO, MoEFCC.	The EAC has gone through the letter of OSPCB dated 18-4-2023 that “a small portion of the said project area is overlapping with the demarcated SPA of Paradeep” and considered the proposal as per the OM of MoEFCC dated 31-10-2019 to deal with CPA/SPA. The Committee deliberated the Action plan on the CEPI guidelines and found in order.

7	-	<p>The 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.</p>	<p>Some more additional EC conditions are being stipulated by the present EAC (Industry-1 Sector), while considering proposals by considering the global climate change and sustainable development.</p>
8.	-	<p>The PP should prepare and implement a Road map on Circular economy and also align their operations towards achieving the goal of Sustainable Development.</p>	
9.	-	<p>The PP should engage the local communities through their involvement in preparation and implementation of Social Impacts Mitigation Action Plan (like Community Development Plan/Social Mitigation Plan) to address the social, R&amp;R, livelihood issues of the project-affected families (PAFs) and the population living within</p>	<p>This may help the local people for Community Development and livelihood etc.</p>

		2/5/10 kms of the project.	
10		The PP shall adopt and implement the “Green Building” concept during the construction and operational periods to minimise the carbon foot print.	Some more additional EC conditions are being stipulated by the present EAC (Industry-1 Sector), while considering proposals by considering the global climate change and sustainable development and community engagement.
11	-	The PP shall provide access point in every revenue village along the pipeline (from Choudhury Gada ISS to ISP about 25 km of length, passing through multiple villages of Kujang and Ersama Block) route to get water as per requirement.	This may help the local people for getting water supply.

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**Other item with the permission of the Chairman**

**Agenda No. 41.15**

**41.15 Expansion in Existing Environmental Clearance granted capacity of Integrated Cement Plant - Clinker: 2.0 to 4.5 million TPA, Cement: 4.0 to 6.0 Million TPA, Waste Heat Recovery Power Generation: 20 to 40 MW and installation of Captive Power Plant: 25 MW, DG Sets of 2000 KVA (1000/500/250/125 KVA) along with Railway Siding at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan by M/s Shree Cement Limited -Re-Consideration of Environmental Clearance.**

**[Proposal No.: IA/RJ/IND1/407182/2022; File No. J-11011/1173/2007-IA.II (I)]  
[Consultant: J.M. EnviroNet Pvt. Ltd.; Valid upto : 07.08.2023]**

- 41.15.1 Shree Cement Limited has made an online application vide proposal no. IA/RJ/IND1/407182/2022 dated 2<sup>nd</sup> December, 2022 along with copy of EIA/EMP Report, Forms (Part A, B and C) and Certified Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006, as amended thereof for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Cement Plants and 1(d) Thermal Power Plants under Category “A” of the schedule of the EIA Notification, 2006 and appraised at Central Level.
- 41.15.2 Name of the EIA consultant: M/s. J. M. Environet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2809; Valid up to 31.10.2023, as on August 2, 2023].
- 41.15.3 The proposal cited above was considered during the 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022. After detailed deliberation, it was observed by the EAC that:
1. The existing project was initially accorded EC from MoEF&CC, New Delhi for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA; further validity of same for 3 years was extended vide letter dated 29<sup>th</sup> September, 2016; which was expired on 14<sup>th</sup> July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines upto 14<sup>th</sup> July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&CC vide letter dated 3<sup>rd</sup> February 2021. Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, granted by RSPCB vide letter dated 28.02.2019. Based on EC obtained from MoEF&CC, the project is under construction of utilities & infrastructure development and yet not operational.

2. The EAC noted that instant proposal is a part of Interlinked project. Limestone Mine (ML No.: 47/2007& ML Area: 624 ha.) with existing production capacity of 3.2 Million TPA located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the mine has been obtained from MoEF&CC, New Delhi vide letter no. J-11011/1173/2007-IA II (I) dated 15<sup>th</sup> July, 2009 (valid up to 14<sup>th</sup> July, 2039). To cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application (Proposal No. IA/RJ/MIN/272197/2022 dated 11.05.2022) for increase of limestone production capacity from 3.2 to 6.822 Million TPA was submitted to MoEF&CC. The proposal was considered in the 53<sup>rd</sup> EAC meeting of Non-Coal Mining (NCM) Sector held during 28<sup>th</sup> – 29<sup>th</sup> June, 2022. The project proponent submitted the proposal for Terms of Reference for Expansion in Limestone Production Capacity from 3.2 Million TPA to 6.822 Million TPA (Total Excavation: 27.298 Million TPA). *After, the detailed deliberations, the Committee (NCM) noted that the project proponent has started production in the year 2021-22 and has achieved a production of 478.18 tonnes only out of the 3.2 MTPA production limit granted in the earlier Environmental Clearance letter dated 15.07.2009. Also, the Committee (NCM) observed that there will be an instant shock load on the environment by jumping twice the production capacity granted in previous Environmental Clearance. The EAC (NCM) felt that the Environmental Management Plan (EMP) which is in place cannot be fully tested at this juncture since the production capacity reached by the project proponent is way beyond the prescribed limit. The EAC (NCM) was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee. Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion. Therefore, the Committee (NCM) deferred the proposal.* The EAC noted that PP has hid this information and these facts are not submitted before the EAC neither in presentation nor in the Report. In view of the same, the EAC (Industry-1) seeks clarification from the PP regarding fulfilling the limestone requirement for the proposed expansion in the instant application.
3. On perusal of kml file, the EAC noted that there are number of the schools adjacent to the project site (Three corners of the boundary of the project) and within the study area. However, PP has not reported this neither in the EIA/EMP Report nor in the Presentation. The EAC also observed that there is a habitation inside the project boundary, though PP has reported that there is no habitation within the plant site and hence R&R is not applicable. Further PP has reported that the nearest habitation to the project site include Gothra (0.5 Km, NE), Dhani Kanakawali (1.5 km, WSW), Jhajhar (1.5 km, WNW), Basawa (2 km, SSW), Keswa Ki Dhani (2 Km, NE), Neharon Ki Dhani (3 km, SSe) and Bhairoo Ki Bas (3 km, NNW). There are approx. 43 other villages in 10 km radius study area of the project site. Considering the Environmental Sensitivity to the adjacent schools and habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.
4. 1000 m<sup>3</sup>/day water is proposed for the expansion project which is proposed to be sourced from STP Treated Water of Nagar Palika, Nawalgarh/ Ground Water/ Mine Pit. The EAC

deliberated on water consumption and consequently the ETP/STP capacity and is of the view that the quantity of water requirement is not justified and there is a need to understand the water balance along with the source of water available near the project site as PP has also proposed the ground water as source of water.

5. The PP shall submit the compliance status of earlier commitments and its implementation status along with details of expenditures on the issues raised during the PH while granting the EC in February 2021.
6. Existing greenbelt (GB) is developed in 3.7 ha area (6476 Nos saplings) only which is about 2.47% of the total project area. The Committee deliberated that EC was granted long back in 2009 and further in 2021 and still the greenbelt development is very poor. The GB width along plot boundary is too small. It must be around 40 m to incorporate 3 tier GB design. Further for 49.40ha of Gb the PP to plant 123500 trees. PP shall ensure around 1200cum water per day for the proposed GB sustainability.
7. Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit to understand the ecological/environmental sensitivity of the area to the schools and local habitation, fulfilment of raw material (limestone), water consumption, sources & treatment proposed in project, greenbelt development at the project site.

41.15.4 In view of the foregoing and after deliberations, the Committee recommended to defer the proposed project and recommended for site visit of the proposed project area by a sub-committee of EAC Industry-1 members comprising of Dr. J.K. Pandey, Dr. S. Raghavan and Representative of MoEFCC to conduct the site visit and submit the Report. The proposal shall be appraised based on the findings of the sub-committee and deliberation of EAC.

41.15.5 Accordingly, the EAC (Industry-1) sub-committee conducted a site visit to M/s. Shree Cement Limited, located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan during 13-14<sup>th</sup> January 2022.

41.15.6 At this instance, the proposal was further considered by the EAC (Industry 1) in its 24<sup>th</sup> meeting of the EAC for Industry-I sector held on 28<sup>th</sup> February – 1<sup>st</sup> March, 2023. The details of the proposed project are as follows:

**Details submitted by Project proponent**

41.15.7 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>
11 <sup>th</sup> May, 2022	Standard ToR was issued by MoEF&CC	Standard Terms of Reference	08 <sup>th</sup> June, 2022	07 <sup>th</sup> June, 2026

41.15.8 The project of M/s. Shree Cement Limited located at Gothra Village, Nawalgarh Tehsil, Jhunjhunu District, Rajasthan is for expansion in existing Environmental Clearance granted capacity of Integrated Cement Plant - Clinker: 2.0 to 4.5 Million TPA, Cement: 4.0 to 6.0



Million TPA, Waste Heat Recovery Power Generation: 20 to 40 MW and installation of Captive Power Plant: 25 MW, DG Sets of 2000 KVA (1000/500/250/125 KVA) along with Railway Siding.

41.15.9 Environmental Site Settings:

S. No.	Particulars	Details submitted by the PP	Remarks																														
i.	Total land	Total Land Area of the Integrated Cement Plant Site including township is 153.62 ha; Out of which, 3.92 ha. land widening and construction of connecting area excluded for Road. The Effective land area of Integrated Cement Plant including residential colony is 149.70 ha; Out of 149.70 ha i.e., effective area of the site, 135.34 ha is for the Integrated Cement Plant (including 49.2 ha common area of plant & mine lease) and remaining 14.36 ha area is reserve for residential Colony.	Land use: Industrial Land																														
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	Total land is under the possession of the company.	-																														
iii.	Existence of habitation & involvement of R&R, if any.	<p><b>Plant Site:</b> No habitation exists within the plant site and R&amp;R is not applicable.</p> <p><b>Study Area:</b></p> <table border="1"> <thead> <tr> <th>Habitation</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Gothra</td> <td>~0.50 Km</td> <td>NE</td> </tr> <tr> <td>Dhani Kanakawali</td> <td>~1.50 Km</td> <td>WSW</td> </tr> <tr> <td>Jhajhar</td> <td>~1.50 Km</td> <td>WNW</td> </tr> <tr> <td>Basawa</td> <td>~2.0 Km</td> <td>SSW</td> </tr> <tr> <td>Keswa Ki Dhani</td> <td>~2.0 Km</td> <td>NE</td> </tr> <tr> <td>Neharon Ki Dhani</td> <td>~3.0 Km</td> <td>SSE</td> </tr> <tr> <td>Bhairoo Ki Bas</td> <td>~3.0 Km</td> <td>NNW</td> </tr> </tbody> </table> <p>There are approx. 43 other villages in 10 km radius study area.</p>	Habitation	Distance (km)	Direction	Gothra	~0.50 Km	NE	Dhani Kanakawali	~1.50 Km	WSW	Jhajhar	~1.50 Km	WNW	Basawa	~2.0 Km	SSW	Keswa Ki Dhani	~2.0 Km	NE	Neharon Ki Dhani	~3.0 Km	SSE	Bhairoo Ki Bas	~3.0 Km	NNW	-						
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S. No.	Particulars	Details submitted by the PP			Remarks						
		10.	27°47'35.92"N	75°19'44.51"E							
v.	Elevation of the project site	415 m to 422 m above mean sea level.			-						
vi.	Involvement of Forest land if any.	No Forest Land is involved in the plant site.			-						
vii.	Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area	<p><b>Plant site:</b> No water body exists within the plant site.</p> <p><b>Study area:</b> Following water body fall within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water body</th> <th>Distance (km)</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Udaipur Lohagarh Ki Nadi</td> <td>~4.0 km</td> <td>ENE</td> </tr> </tbody> </table>			Water body	Distance (km)	Direction	Udaipur Lohagarh Ki Nadi	~4.0 km	ENE	-
Water body	Distance (km)	Direction									
Udaipur Lohagarh Ki Nadi	~4.0 km	ENE									
viii.	Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.	Nil.			-						
ix	Interlinked Project	<ul style="list-style-type: none"> <li>Limestone Mine (ML No.: 47/2007&amp; ML Area: 624 ha.) with existing production capacity of 3.2 Million TPA located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the mine has been obtained from MoEF&amp;CC, New Delhi vide letter no. J-11011/1173/2007-IA II (I) dated 15<sup>th</sup> July, 2009 (valid up to 14<sup>th</sup> July, 2039).</li> <li>To cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application for Gothra Limestone Mine with limestone production capacity from 3.2 to 6.822 Million TPA is under process with MoEF&amp;CC.</li> </ul>									

41.15.10 The existing project was initially accorded Environmental Clearance from MoEF&CC, New Delhi for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Ltd.; further validity of same for 3 years was extended vide letter dated 29<sup>th</sup> September, 2016; which was expired on 14<sup>th</sup> July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines upto 14<sup>th</sup> July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA,

Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&CC vide letter no. J-11011/1173/2007-IA.II (I) dated 03<sup>rd</sup> February 2021. Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited granted by RSPCB vide letter no. F(CPM)/Jhunjhunu (Nawalgarh)/2(1)/2018-2019/ 7228-7230 and vide Order No. 2018-2019/CPM/5424 dated 28.02.2019, Validity: 14.06.2018 to 31.05.2023. Based on EC obtained from MoEF&CC, the project is under construction of utilities & infrastructure development and yet not operational. Consent to Establish for Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, granted by RSPCB vide letter no. F(CPM)/Jhunjhunu (Nawalgarh)/2(1)/2018-2019/ 7228-7230 and vide Order No. 2018-2019/CPM/5424 dated 28.02.2019 Validity: 14/06/2018 to 31/05/2023, Consent to Establish for Additional Cement production capacity 1.0 Million TPA Cement granted by RSPCB vide letter no. F(CPM)/ Jhunjhunu (Nawalgarh)/ 2(1)/2018-2019/636-638 and vide Order No. 2021-2022/CPM/5701 dated 15.06.2021 with Validity: 02.03.2021 to 28.02.2026, & Captive Power Plant of 36 MW, WHRS of 20 MW granted by RSPCB vide letter no. F(CPM)/Jhunjhunu(Nawalgarh)/2(1)/2018-2019/7793-7795 and vide Order No. 2018-2019/CPM/5447 dated 26.03.2019 Validity: 14.06.2018 to 31.05.2023 and Residential Colony granted vide letter no. F(CPM)/Jhunjhunu(Nawalgarh)/2(1)/2018-2019/5858-5860 and vide Order No. 2021-2022/CPM/8544 dated 24.01.2022 Validity: 03.11.2021 to 31.10.2026.

Facilities Envisaged	Consent Status (CTE)	Implementation Status	Production details as per CTE
Clinker	Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited granted by RSPCB vide letter no. F(CPM)/Jhunjhunu (Nawalgarh)/2(1)/2018-2019/ 7228-7230 and vide Order No. 2018-2019/CPM/5424 dated <b>28.02.2019</b> <b>Validity: 14.06.2018 to 31.05.2023</b>	At present, the project is under construction of utilities & infrastructure development and yet not operational.	2.0 Million TPA
Cement	Additional Cement production capacity 1.0 Million TPA Cement located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited granted by RSPCB vide letter no. F(CPM)/ Jhunjhunu (Nawalgarh)/ 2(1)/2018-2019/636-638 and vide Order No. 2021-2022/CPM/5701 dated <b>15.06.2021</b> <b>Validity: 02.03.2021 to 28.02.2026</b>		3.0 Million TPA
			1.0 Million TPA
CPP	Captive Power Plant of 36 MW, WHRS of 20 MW located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) granted by RSPCB vide letter no.	At present, the project is under construction of utilities &	36 MW
WHRS			20 MW

	F(CPM)/Jhunjhunu(Nawalgarh)/2(1)/2018-2019/7793-7795 and vide Order No. 2018-2019/CPM/5447 dated <b>26.03.2019</b> <b>Validity: 14/06/2018 to 31/05/2023</b>	infrastructure development and yet not operational	
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41.15.11 Implementation status of the existing EC:

S. No.	Facilities	Units	As per EC dated 03 <sup>rd</sup> February 2021	Implementation Status as on date	As per CTO
1.	Clinker	Million TPA	2.0	Not implemented	At present, the project is under construction for utilities & infrastructure development and yet not operational.
2.	Cement	Million TPA	4.0	Not implemented	
3.	WHRS	MW	20 MW	Not implemented	
4.	CPP	MW	25 MW	Not implemented	
5.	D.G. Sets	KVA	2000	Not implemented	

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

S. No.	Plant Equipment / Facility	Existing Facilities as per EC dated 03 <sup>rd</sup> February, 2021						Proposed Unit*		Final (Existing + Proposed)	
		Total (A + B)		Implemented (A)		Un - implemented (B)		Config uration	Capacity	Config uration	Capacity
		Config uration	Capacity	Config uration	Capacity	Config uration	Capacity				
1.	Clinker*	Kiln: 1 x 6700 TPD	2.0 Million TPA	-	-	Kiln: 1 x 6700 TPD	2.0 Million TPA	Kiln: 1 x 7500 TPD	2.5 Million TPA	Kiln: 1 x 13500 TPD	4.5 Million TPA
2.	Cement	VRM / Ball mill with Roller Press: 1 x 13400 TPD	4.0 Million TPA	-	-	VRM / Ball mill with Roller Press: 1 x 13400 TPD	4.0 Million TPA	VRM 2 x 9000 TPH	2.0 Million TPA	VRM 18000 TPH	6.0 Million TPA
3.	CPP	CPP Boiler 1 x 136 TPH	25 MW	-	-	CPP Boiler 1 x 136 TPH	25 MW	-	-	CPP Boiler 1 x 136 TPH	25 MW
4.	WHRS	PH & AQC Boiler (20 MW)	20 MW	-	-	PH & AQC Boiler (20 MW)	20 MW	PH & AQC Boiler (20 MW)	20 MW	PH & AQC Boiler (40 MW)	40 MW

\*Clinker will also be sent to the sister grinding units, market sale (through rail and road) and will also be received from outside or sister units of SCL, if clinker unit is not in operation or in case of shortfall of clinker.

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

S. No.	Name of Raw Material	Quantity (MTPA)			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Additio nal	Total			
For Clinker							
1.	Limestone	3.2	3.622	6.822	Captive limestone mine	Adjacent to the plant	Covered Conveyor belt
2.	Laterite/ Iron ore/ Mill scale/ Lead Zinc Slag	0.06	0.0075	0.0675	Laterite from Bhilwara, Lead zinc slag, Iron ore and red ochre from Chittorgarh (Raj.) and mill scale from Mandi Gobindgarh, Punjab	280 – 400 km	By Road

#### Raw material requirement - OPC/RHPC/SRC/PPC/PSC/Composite Cement

SN	Raw Material	Requirement (in Million TPA) for Cement Production ***								Source	Distance (in km) and Mode of transportation
		Existing Capacity as per granted EC **				Total Capacity after expansion					
		OPC / RHPC/ SRC	PPC	PSC	Composite Cement	OPC / RHPC/ SRC	PPC	PSC	Composite Cement		
1	Clinker*	2.00	2.32	1.52	1.52	5.58*	3.48	2.28	2.28	Expansion of clinker unit (4.5 Million TPA) Within Plant	via Covered Conveyor Belt
2	Gypsum	0.15	0.28	0.28	0.28	0.42	0.42	0.42	0.42	Mineral & Chemical Gypsum from Nagaur and Bikaner (Raj.); Synthetic Gypsum from sister units of SCL at Beawar (Ajmer) and Ras (Pali); Imported Gypsum from Oman & Pakistan <i>via</i> Kandla Port	170 to 300 By Road & Rail 950 Kandla Port By Road & Rail
3	Fly ash	-	1.4	-	1.4	-	2.10		2.10	Panipat Thermal Power Station /Suratgarh Super Thermal Power Station (RVUNL), Suratgarh & CPP	230 to 300 By Road
4	Slag	-	-	2.2	0.8	-	-	3.30	1.20	Tata Steel Ltd.,	1400 to 1600

SN	Raw Material	Requirement (in Million TPA) for Cement Production ***								Source	Distance (in km) and Mode of transportation
		Existing Capacity as per granted EC **				Total Capacity after expansion					
		OPC / RHPC/ SRC	PPC	PSC	Composite Cement	OPC / RHPC/ SRC	PPC	PSC	Composite Cement		
										Jamshedpur; Rourkela Steel Plant, Rourkela; Bhilai Steel Plant, Bhilai, Tata Steel, Jamshedpur etc.	By Road & Rail
<b>Total</b>		<b>2.15</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	-	-

\* Clinker will also be sent to the sister grinding units, market sale and will also be received (rail and road) from outside if Clinkerization plant is not in operation or in case of shortfall of clinker.  
\*\* As per granted EC & CTE/ Under construction phase  
\*\*\* Cement production will be done 6.0 Million TPA only either from various options as OPC/RHPC/SRC/PPC/PSC/Composite Cement.

41.15.14 The water requirement as per existing granted EC for Integrated Cement Plant is 750 KLD and the total water requirement after expansion will be 1000 KLD; which will be sourced from STP Treated Water of Nagar Palika, Nawalgarh/ Ground Water/ Mine Pit. Permission for withdrawal of 1200 KLD of Ground Water was obtained from CGWA vide NOC No. CGWA/NOC/IND/REN/1/2022/7128 which is valid up to 31<sup>st</sup> December, 2023 and an agreement has been signed on 21<sup>st</sup> July, 2020 between Shree Cement Limited and Nagar Palika, Nawalgarh for supply of 3 MLD treated sewage water to meet the requirement of non-potable industrial applications for the project.

41.15.15 The power requirement as per existing granted EC is 35.6 MW. Total requirement after expansion will be 65.37 MW; out of which 25 MW will be sourced from CPP, 40 MW will be sourced from WHRS and balance will be sourced from State Grid supply and DG Sets (plant lighting in case of emergency).

41.15.16 Baseline Environmental Studies:

Period	Winter Season (December, 2021 to February, 2022)
AAQ parameters at 12 locations	<ul style="list-style-type: none"> <li>PM<sub>2.5</sub> - 25.1 to 46.1 µg/m<sup>3</sup></li> <li>PM<sub>10</sub> - 51 to 83.7 µg/m<sup>3</sup></li> <li>SO<sub>2</sub> - 5.3 to 13.8 µg/m<sup>3</sup></li> <li>NO<sub>2</sub> - 10.6 to 25.5 µg/m<sup>3</sup></li> <li>CO - BDL to 0.78 mg/m<sup>3</sup></li> </ul>
Incremental GLC level	<ul style="list-style-type: none"> <li>PM = 2.29 µg/m<sup>3</sup> (Level at 100 m in SE direction)</li> <li>SO<sub>2</sub> = 2.41 µg/m<sup>3</sup> (Level at 700 m in SE direction)</li> <li>NO<sub>x</sub> = 3.97 µg/m<sup>3</sup> (Level at 900 m in SE direction)</li> <li>CO = 0.000307 mg/m<sup>3</sup> (Level at 100 m in SE direction)</li> </ul>
Ground water	<ul style="list-style-type: none"> <li>pH - 7.63 to 7.96</li> <li>Total Hardness - 155.45 to 255.65 mg/l</li> </ul>

quality at 09 locations	<ul style="list-style-type: none"> <li>Chlorides –79.65 to 186.32 mg/l</li> <li>Fluoride - 0.76 to 1.16 mg/l</li> <li>Heavy Metals - Iron as Fe: 0.14 to 0.26 mg/l</li> </ul>																									
Surface water quality	Surface water sample could not be collected as the water body is seasonal water body (Udaipur Lohagarh Ki Nadi at ~4.0 Km in ENE direction) and was found dry during the monitoring period.																									
Noise levels at 08 locations	Noise Level During Day Time –50.9 to 65.6 Leq dB (A) Noise Level During Night Time –40.9 to 43.6 Leq dB (A)																									
Traffic assessment study findings	<ul style="list-style-type: none"> <li>Traffic study has been conducted at SH –8 which is approximately 8.0 km in WNW direction and from Village Road connecting to MDR-25B; which is adjacent to plant site.</li> <li>Transportation of raw material &amp; finished product will be done as per details given below: <ul style="list-style-type: none"> <li>Limestone - via Covered Conveyor belt from Captive Limestone Mine</li> <li>Fly ash - 100% by road</li> <li>Gypsum (Mineral, Chemical &amp; Imported) – 50% by road &amp; 50 % by rail</li> <li>Slag - 50 % by road &amp; 50 % by rail</li> <li>Iron ore - 50 % by road &amp; 50 % by rail</li> <li>Bauxite - 50 % by road &amp; 50 % by rail</li> <li>Clinker – 50 % by road &amp; 50 % by rail</li> <li>Cement - 50 % by road &amp; 50 % by rail.</li> </ul> </li> <li>PCU load after proposed project will be 471.45 (Existing) + 247 (Additional) PCU/hr on SH –8 and 61.9 (Existing) + 199.75 (Additional) at on Village Road connecting to MDR-25B and level of service (LOS) will be:</li> </ul> <table border="1" data-bbox="384 1234 1453 1576"> <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>SH– 8</td> <td>471.45 (Existing) + 247 (Additional)</td> <td>1200</td> <td>0.59</td> <td>C</td> </tr> <tr> <td>Village Road connecting to MDR-25B</td> <td>61.9 (Existing) + 199.75 (Additional)</td> <td>625</td> <td>0.42</td> <td>C</td> </tr> </tbody> </table> <p><i>* Capacity as per IRC- 64-1990 &amp; 106-1990 Guidelines.</i></p> <p><b>Conclusion:</b> The level of service will be “C” i.e., Good for SH - 8 and village road connecting to MDR-25B due to expansion project (before installation of railway siding).</p> <ul style="list-style-type: none"> <li>PCU load after expansion project (After installation of Railway Siding) will be 471.45 (Existing) + 137 (Additional) PCU/hr. on SH –8 and 61.9 (Existing) + 111.25 (Additional) at on Village Road connecting to MDR-25B and level of service (LOS) will be:</li> </ul> <table border="1" data-bbox="384 1917 1453 2040"> <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></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH– 8	471.45 (Existing) + 247 (Additional)	1200	0.59	C	Village Road connecting to MDR-25B	61.9 (Existing) + 199.75 (Additional)	625	0.42	C	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS					
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	SH –8	471.45 (Existing) + 137 (Additional)	1200	0.50	C
	Village Road connecting to MDR-25B	61.9 (Existing) + 111.25 (Additional)	625	0.27	B
<p>* Capacity as per IRC- 64-1990 &amp; 106-1990 Guidelines.</p> <p><b>Conclusion:</b> The level of service will be “C” i.e., Good for SH- 8 and “B” i.e., Very Good for village road connecting to MDR-25B after including additional traffic due to expansion project (after installation of railway siding).</p> <p><b>SCL’s proposal for installation of railway siding will turns out to be beneficial to the environment in terms of global CO<sub>2</sub> emission reduction, reduction in GHG emission and ultimately will lead to achieve Sustainable Development Goal for the Indian Railway sector.</b></p>					
Flora and fauna	<p>Two schedule - I species i.e., Indian Peafowl (<i>Pavo cristatus</i>) &amp; Desert Cat (<i>Felis libyca</i>) recorded in the study area during field survey; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act’ 1972.</p> <p>Wildlife Conservation Plan for all the Schedule- I species has been authenticated by PCCF (Wildlife) Jaipur on 26<sup>th</sup> Nov., 2020.</p>				

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

S. No.	Type of Waste	Waste	Source	Quantity Generated (Approx.)	Mode of Treatment / Disposal	
1.	SW	Dust	Cement Plant	1.0625 TPA	Dust collected from various APCEs will be totally recycled back into the process.	
2.	SW	Fly ash	CPP	438 TPD	Will be utilized in cement manufacturing process (PPC & Composite Cement)	
3.	SW	STP Sludge	STP	6 Kg/day	Will be used as manure in horticulture and greenbelt development.	
3.	HW	Used / Spent Oil (5.1) and Waste	Plant maintenance	100 KL / Annum	Will be generated as per Schedule- I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; which will be sold to CPCB/ SPCB authorized recycler. Used Oil/ Spent oil will be filled in Empty barrels and further sold to CPCB/ SPCB authorized recycler.	
		Waste/ Residue (contaminated cotton rags) containing oil(Cat 5.2)		2.0 Tonnes/ Annum		
		Empty Barrels		300 Barrels/ Annum		
		E-Waste		0.15 Tonnes/Annum		Will be sold to registered vendors as per E-Waste Management Rules, 2016.
		Used Lead acid batteries		100 Nos./Annum		Will be stored in the designated storage area and will be disposed-off/ sold to registered vendors as per Battery Waste Management Rules 2020.
4.	MSW	Bottles, paper,	Plant and	404 TPA	Municipal Solid Waste will be collected &	



S. No.	Type of Waste	Waste	Source	Quantity Generated (Approx.)	Mode of Treatment / Disposal
5.		cans, textile, etc. Kitchen and canteen/ Green waste	Colony		segregated into bio- degradable & non-degradable. Further, Bio- degradable waste will be converted into organic manure by installation of Organic Waste Converter (OWC) machine and manure will be used for greenbelt development & plantation and non-degradable waste will be sold to authorized vendor from CPCB/SPCB as per scientifically in compliance of Solid Waste Management rules 2016, as amended thereof.

#### 41.15.18 Public Consultation:

Details of advertisement given	Public Hearing Notice published in Newspapers “Dainik Bhaskar” and “Rajasthan Patrika” on 17 <sup>th</sup> September, 2022
Date of Public Consultation	21 <sup>st</sup> October, 2022 at 11:00 am
Venue	Tehsil Office, Nawalgarh, Jhunjhunu (Rajasthan)
Presiding Officer	• Additional District Magistrate, Jhunjhunu
Major issues raised	Issues related to Employment, Environment & Pollution, Plantation, Socio-economic development related, water, land, Health etc.

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

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
1	Employment Related	Establishment of Skill Development Training Centre	01 Centre	60	01 Centre	60	01 Centre	60	180
			(Village Gothra & Basawa)		(For Villages Parasrampura & Jhajhar)		(Chaoudhani & Deogaon)		
2	Women Empowerment	Development of Women Empowerment Centre for Socio economic development (Skill Development training)	01 Centre	50	01 Centre	40	01 Centre	40	130
			(For Village Parasrampura & Gothra)		(For Village Deogaon )		(For Village Jhajhar)		
3	Education and Sports Facilities	Upgradations/ Renovation of Classrooms in Schools of	Village Gothra, Jhajhar & Choudhani	142	Village Parasrampura	50	Village Basawa	50	242

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)		
			1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year				
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs			
		nearby Villages									
		Development & modification of Playground and providing necessary sports equipment	Village Parasrampura & Gothra	120	Village Deogaon	60	Village Keswa Ki Dhani	40	220		
4	Rural Infrastructure Development	Construction of Stadium facilities	Village Parasrampura	200	Village Parasrampura	160	Village Parasrampura	160	520		
		Construction and Strengthening of road network at nearby Villages connecting with SH-8 & SH-37	01 No	(Village Gothra, Project site & Village Choudhani)	300	02 No.	200	(Villages Jhajhar & Nawalgarh)	02 No.	200	700
			(Village Gothra & Deogaon)			02 No.			80		
		Construction of Toilets in Nearby Villages.		02 No.	40	( Villages Gothra & Parasrampura)	02 Nos	40		(Village Chaurhani & Jhajhar)	40
			Upgradation/ Renovation of Community Centers	02 Nos			40		(Villages Choudhani & Basawa )		02 No.
		Installation of Solar lights		20 Nos	20	(Villages Deogaon & Choudhani )		20 No.		20	(Villages Khirod & Pujaron ki Dhani)
			Restoration of Water ponds / percolation tanks by desilting, clearing the water paths,	02 No.			80	( Villages Basawa & Keswa Ki Dhani )	02 Nos		
		Ground Water Conservation		(Villages Gothra & Jhajar)							

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
		strengthening the banks etc., and Development of wells and stepwells							
		Rain water harvesting on Govt. School Building	03 No. (Villages Gothra, Parasrampura & Basawa)	30	02 Nos (Villages Chaurhani & Poojari Ki Dhani)	20	01 Nos (Village Devgaon )	10	60
6	Safe Drinking Water	Construction of Water Tanks in Nearby Villages	03 Nos. (Villages Gothra, Khirod, Todpura)	30	02 Nos (Villages Balriya & Parasrampura)	20	01 No. (Village Poojari Ki Dhani)	20	70
		Installation of Water Coolers to provide safe drinking water at community places & Schools	05 No. (Village Gothra , Basawa, Pujaron ki Dhani, Jhajhar & Keswa ki Dhani)	50	04 No. (Villages Choudhani, Devipura, Khirod & Todpura)	40	04 No. (Village Parasrampura, Beri, Bhijnagar & Nawalgarh)	40	130
7	Health	Providing Mobile Medical Van (medicine & checkup) and organizing Health camps in nearby Villages	02 Nos (Villages Gothra, Basawa & Poojari ki dhani)	40	02 Nos. (Villages Parasrampura & Khirod)	40	01 No. (Villages Todpura)	20	100
		Renovation and construction of Community health center Health Centre	02 Nos (Village Khirod & Gothra)	40	02 Nos ( Villages Basawa & Parasrampura)	40	01 Nos (Village Pujari Ki Dhani)	20	100
		Provide medical investigating equipment and need based support Material set	02 Nos (Village Gothra & Deogaon)	20	02 Nos ( Villages Todpura & Khirod)	20	01 No. (Village Parasrampura)	10	50
8	Plantation & Agricultural and animal	Upgrading Facilities in veterinary	2 no. (Village Gothra & Deogaon)	10	2 no. (Village Chaurhani &	10	01 Nos (Village	10	30

S. No.	Concerns raised during the Public Hearing	Physical activity to be done	Unit of Measurement						Tentative Budget (Rs. in lacs)
			1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> Year		
			Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	Location / Area	Budget in Lakhs	
	Husbandry	hospital			Basawa )		Jhajhar)		
		Awareness and aid for organic farming in the nearby villages	03 Nos. (Villages Gothra, Khirod, Deogaon)	30	02 Nos. (Villages Parasrampura & Basawa )	20	01 No. (Village Jhajhar & Pujaro Ki Dhani)	10	60
		Additional avenue plantation equal to 7% (i.e. 25000 tress) of the project site area will be done along the roads of nearby villages; new connecting road constructed from Gothra to Parasarampura; railway siding area and in the nearby villages outside the project site	25000 nos. saplings (Villages Gothra, Choudhani, Parashrampura, Basawa and Deogaon)	75	-		-		75
<b>Sub Total</b>				<b>1457</b>		<b>1040</b>		<b>910</b>	<b>3407</b>
<b>Total</b>									<b>3407*</b>

**Note:** \*However expenditure of 6.75 Crores has already been done under CER/CSR activities & PH commitments in the nearby area of the site. Villages can be interchanged as per situation demand. Activities may be changed as per situation and community requirement.

41.15.19 Existing capital cost of the project was Rs. 1660 Crores. The capital cost for the after expansion is Rs. 3407.1 Crores & the capital cost for environmental protection measures is proposed as Rs. 184.79 Crores. The annual recurring cost towards the environmental protection measures for expansion is Rs. 8.81 Crores/ annum. The employment generation from the expansion project is 1500 people. The details of cost for environment protection measures are as follows:

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
i.	Air Pollution Control/ Noise Management	45	0.6	142.1	5.83

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
ii.	Water Pollution Control	0.5	0.06	17.2	1.9725
iii.	Environment Monitoring and management	3	0.3	3.66	0.4205
iv.	Greenbelt Development	0.2	0.02	6.175	0.3088
v.	Hazardous Waste Storage & Handling	-	-	0.5	0.075
vi.	Occupational Health & Safety	0.3	0.02	0.75	0.075
vii.	Organic Waste Converter & Its Facilities	-	-	0.15	0.0225
viii.	Others (Housekeeping and Municipal Waste Management)	-	-	0.5	0.075
	<b>Total</b>	<b>50</b>	<b>1.00</b>	<b>171.04</b>	<b>8.81</b>
ix.	Addressal of Public Consultation concerns	16.3	-	12.5	-
x.	Details of adaption of village, if any	-	-	1.25	-
	<b>Grand Total</b>	<b>66.3</b>	<b>1.00</b>	<b>184.79</b>	<b>8.81</b>

41.15.20 Greenbelt & Plantation is being / will be developed in ~49.40 ha which is about ~33 % of the total effective project area of 149.70 ha. Existing greenbelt has already been developed in 3.7 ha area (6476 Nos saplings) which is about 2.47% of the total project area, balance 45.70 ha (1,17,024 Nos saplings) will be developed. Native Plant species such as Neem, Amla, Imli, Shisham, Bargad, Pipal, Karanj, Mango, Gulmohar, Amaltas, Senjana, Shahtut, Siris, Gurhal, Arjun, Dubai Tree, Semal, Saptarni, Palash, Jamun etc. is being/ will be planted @ 2500 Trees per hectare with 90% survival rate as per consultation with local forest officer and as per CPCB guidelines. Additional avenue plantation equal to 7% (i.e. 25000 tress) of the project site area will be done along the roads of nearby villages; new connecting road constructed from Gothra to Parasarampura; railway siding area and in the nearby villages outside the project site.

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

#### **Certified compliance report from Regional Office**

41.15.22 The Status of compliance of earlier EC was obtained from Integrated Regional Officer, Jaipur vide File IV/ENV/R/IND-112/750/2009 dated 18th May, 2022 in the name of M/s. Shree Cement Ltd. The site was inspected on 20<sup>th</sup> April, 2022. IRO has reported that the construction and establishment work is under process wherein construction activity of industrial unit is just initiated. Thus IRO in its report has examined the compliance of conditions and has reported that most of the conditions has been agreed to be complied by the company and few are complied.

#### **Findings of EAC (Industry-1) sub-committee during visit:**

41.15.23 The observations and recommendations of the EAC (Industry-1) sub-committee based on the site visit to M/s. Shree Cement Limited, located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu, Rajasthan during 13-14<sup>th</sup> January 2022 are as follows:

**Observation of Sub-committee:**

1. The committee visited three Schools located outside the boundary of the project and discussed with principal/head of the concerned School. It was observed that the Schools 1, 2 and 3 were located at village Dhahar Wali Johari Gothara (Govt. School), Bhakhariyon Ki Dhani (Govt. School) and Sarswati Sec. School, Gothara (Private School) with student capacity of 10, 30 and 438, respectively. Further, information about the school was observed on- and the on-line Report cards of the Schools are submitted.
2. A multi layered green belt plantation was observed towards school.
3. Total Four Houses (with about 13-14 families) in two clusters were observed within the project boundary. In one cluster, only one house was there which was locked. In another cluster, 3 houses were present and 2 were locked and a person residing in one house (having 4 families) was available for discussion. As per interaction with the available resident, one house (which was found locked) shifted to Punjab and in other 2 houses some families are residing. Both clusters of houses have been temporarily excluded/ separated from the project site with a temporary boundary wall.
4. With a view to see the CER activity undertaken by the PP against 2021 EC, the committee observed a sports complex under construction at Parasrampura Village and RCC road for local community developed by PP in Gothra village. The committee visited a Gaushala a Gothra village which was renovated by PP.

**Recommendations of Sub-committee:**

1. Considering the fact regarding the occurrence of all the three schools at the distance of 35 meters, 115 meters and 55 meters from the project boundary, and 970 meters, 570 meters and 1170 meters from the Stack, respectively, a dense vegetation of multi-layered plantation must be developed adjacent to schools and habitation.
2. Considering the environmental sensitivity to the adjacent area, PP to ensure a thick Green belt all around project boundary within the project site with three tier system.
3. PP to expedite the acquisition/possession of remaining houses which has not yet been vacated with proper negotiation.
4. Regarding the fulfilment of raw material and water consumption, sources and treatment should be deliberated by EAC as the matter is mostly conceptual in nature.
5. During the operation phase, PP is advised to conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.
6. The PP should develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, etc.

7. The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.
8. Rain water harvesting system should be developed/ implemented in the plant area.
9. PP shall develop green belt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR).

41.15.24 Based on the points raised by the EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022, and the recommendations made by the EAC (Industry-1) sub-committee, the project proponent submitted its reply vide letter dated 02.02.2023 uploaded on PARIVESH portal on 08.02.2023. Point-wise is as follows:

<b>A. Reply to the issues raised by EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> &amp; 19<sup>th</sup> December 2022</b>		
<b>S. No.</b>	<b>ADS Point</b>	<b>Reply/Response of PP</b>
i	The existing project was initially accorded EC from MoEF&CC, New Delhi for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA; further validity of same for 3 years was extended vide letter dated 29th September, 2016; which was expired on 14th July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines upto 14th July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&CC vide letter dated 3rd February 2021. Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, granted by RSPCB vide letter dated 28.02.2019. Based on EC obtained from MoEF&CC, the project is under construction of utilities &	The EC for existing project was initially accorded by MoEF, New Delhi on 15th July, 2009 for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA; which was expired on 14th July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines up to 14th July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&CC vide letter dated 3 <sup>rd</sup> February 2021.  As per the Earlier granted EC dated 3rd February, 2021 company has obtained Consent to Establish (CTE) from RSPCB and at present, the project is under construction of utilities & infrastructure development and yet not operational.

**A. Reply to the issues raised by EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022**

S. No.	ADS Point	Reply/Response of PP
	infrastructure development and yet not operational.	
ii	<p>The EAC noted that instant proposal is a part of Interlinked project. Limestone Mine (ML No.: 47/2007 &amp; ML Area: 624 ha.) with existing production capacity of 3.2 Million TPA located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the mine has been obtained from MoEF&amp;CC, New Delhi vide letter no. J-11011/1173/2007-IA II (I) dated 15th July, 2009 (valid up to 14th July, 2039). To cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application (Proposal No. IA/RJ/MIN/272197/2022 dated 11.05.2022) for increase of limestone production capacity from 3.2 to 6.822 Million TPA was submitted to MoEF&amp;CC. The proposal was considered in the 53rd EAC meeting of Non-Coal Mining (NCM) Sector held during 28th – 29th June, 2022. The project proponent submitted the proposal for Terms of Reference for Expansion in Limestone Production Capacity from 3.2 Million TPA to 6.822 Million TPA (Total Excavation: 27.298 Million TPA). After, the detailed deliberations, the Committee (NCM) noted that the project proponent has started production in the year 2021-22 and has achieved a production of 478.18 tonnes only out of the 3.2 MTPA production limit granted in the earlier Environmental Clearance letter dated 15.07.2009. Also, the Committee (NCM) observed that that there will be an</p>	<p>To fulfil the limestone requirement for expansion, PP has applied a proposal to MoEF&amp;CC for Terms of Reference (ToR) approval for Expansion in Limestone Production Capacity from 3.2 Million TPA to 6.822 Million TPA (Total Excavation: 27.298 Million TPA i.e. Limestone: 6.822 Million TPA, Top Soil: 0.118 Million TPA, Waste: 20.0 Million TPA, ROM Reject: 0.358 Million TPA) and installation of Crushers 1200 TPH &amp; 400 TPH along with Wobbler in our existing Gothra Limestone Mine (ML No.: 47/2007 &amp; ML Area: 624 ha.) for the aforesaid Gothra Limestone Mine on 11.05.2022 information of the interlink proposal was submitted to MoEF&amp;CC in EC application.</p> <p>The proposal was considered by EAC (Non-Coal Mines) in 53rd Meeting held on 28.06.2022. During meeting EAC, MoEF&amp;CC has asked to submit some additional information &amp; clarification.</p> <p>SCL has submitted the reply to above ADS points to MoEF&amp;CC for further consideration of the project and grant of EC vide letter no. SCL/ Gothra Limestone Mine/Nawalgarh/EC-ToR/2022-23/3236, dated 02.02.2023.</p>



**A. Reply to the issues raised by EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022**

S. No.	ADS Point	Reply/Response of PP
	<p>instant shock load on the environment by jumping twice the production capacity granted in previous Environmental Clearance. The EAC (NCM) felt that the Environmental Management Plan (EMP) which is in place cannot be fully tested at this juncture since the production capacity reached by the project proponent is way beyond the prescribed limit. The EAC (NCM) was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee. Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion. Therefore, the Committee (NCM) deferred the proposal. The EAC noted that PP has hid this information and these facts are not submitted before the EAC neither in presentation nor in the Report. In view of the same, the EAC (Industry-1) seeks clarification from the PP regarding fulfilling the limestone requirement for the proposed expansion in the instant application.</p>	
iii	<p>On perusal of kml file, the EAC noted that there are number of the schools adjacent to the project site (Three corners of the boundary of the project) and within the study area. However, PP has not reported this neither in the EIA/EMP Report nor in the Presentation. The EAC also observed that there is a habitation inside the project boundary, though PP has reported that there is no habitation within the plant site and hence R&amp;R is not applicable. Further PP has reported</p>	<p>There are 3 (three) Schools located near to site details of the same along with distance from project boundary &amp; stack are as follows:</p> <ol style="list-style-type: none"> <li>1. GPS Dhahar Wali Johari Gothara - Govt. School, established in 1999, 2 Class Rooms, approx. 9 Students. – 35 meters from Boundary &amp; 970 meters from Stack</li> <li>2. GPS Bhakhariyon Ki Dhani - Govt. School, established in 1999, 2 Class Rooms, approx. 24 Students. – 115 meters from Boundary &amp; 570 meters from Stack</li> <li>3. Sarswati Sec. School, Gothara - Private School, established in 2007, 12 Class Rooms, approx. 442 Students. – 55 meters from Boundary &amp; 1170 meters from Stack</li> </ol> <p>PP has proposed 15 meters greenbelt &amp; plantation all along the periphery of plant boundary, we have planned multi-layer</p>

**A. Reply to the issues raised by EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022**

S. No.	ADS Point	Reply/Response of PP																												
	<p>that the nearest habitation to the project site include Gothra (0.5 Km, NE), Dhani Kanakawali (1.5 km, WSW), Jhajhar (1.5 km, WNW), Basawa (2 km, SSW), Keswa Ki Dhani (2 Km, NE), Neharon Ki Dhani (3 km, SSE) and Bhairoo Ki Bas (3 km, NNW). There are approx. 43 other villages in 10 km radius study area of the project site. Considering the Environmental Sensitivity to the adjacent schools and habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.</p>	<p>greenbelt &amp; plantation of minimum 50 meters towards Schools and habitation. Whereas the SCL has proposed &amp; earmarked to develop the 33% (i.e., ~49.40 ha) area under greenbelt &amp; plantation of the total effective project area with 1,23,500 numbers of plant in upcoming 3 years with density of plantation is 2500 trees per ha. Out of which, as on date (14.01.2023) SCL has done plantation in 5.62 ha area (11276 Nos saplings) with recently planted 4800 numbers of plants under mass Plantation Program conducted on 06.01.2023 at our plant site towards locations of existing schools &amp; habitations.</p>																												
iv	<p>1000 m<sup>3</sup> /day water is proposed for the expansion project which is proposed to be sourced from STP Treated Water of Nagar Palika, Nawalgarh/ Ground Water/ Mine Pit. The EAC deliberated on water consumption and consequently the ETP/STP capacity and is of the view that the quantity of water requirement is not justified and there is a need to understand the water balance along with the source of water available near the project site as PP has also proposed the ground water as source of water.</p>	<p>To fulfil the water requirement for the project including Cement plant, Limestone Mines &amp; Residential Township, SCL has obtained CGWA NOC/Permission for withdrawal/ abstract of 1200 KLD groundwater vide NOC No. CGWA/NOC/IND/REN/1/2022/7128, which is valid up to 31<sup>st</sup> Dec., 2023. Apart from this, SCL has also signed an agreement with Nagar Palika, Nawalgarh for supply of 3 MLD treated sewage water on 21<sup>st</sup> July, 2020 to meet the non-potable industrial applications requirements for the project. Whereas, as per observation of the Hon'ble EAC Member, SCL has modified &amp; revised the water balance based on the peak water requirement of the project including greenbelt &amp; plantation development has been submitted along with ADS reply.</p>																												
v	<p>The PP shall submit the compliance status of earlier commitments and its implementation status along with details of expenditures on the issues raised during the PH while granting the EC in February 2021.</p>	<p>Details of CSR Activities done in the nearby villages as per the existing EC and requirement of the nearby villages has been submitted along with ADS reply as shown below-</p> <table border="1" data-bbox="667 1644 1484 2024"> <thead> <tr> <th rowspan="2">S. No.</th> <th rowspan="2">Activity Heads</th> <th colspan="3">Years (Rs. In Lakhs)</th> </tr> <tr> <th>2021-22</th> <th>2022-23</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Educational Programme</td> <td>-</td> <td>5.5</td> <td>5.5</td> </tr> <tr> <td>2.</td> <td>Health &amp; Family Welfare</td> <td>5.3</td> <td>6.5</td> <td>11.8</td> </tr> <tr> <td>3.</td> <td>Social Development &amp; Welfare</td> <td>11.7</td> <td>21.45</td> <td>33.15</td> </tr> <tr> <td>4.</td> <td>Infrastructure</td> <td>89.9</td> <td>364.67</td> <td>624.57</td> </tr> </tbody> </table>	S. No.	Activity Heads	Years (Rs. In Lakhs)			2021-22	2022-23	Total	1.	Educational Programme	-	5.5	5.5	2.	Health & Family Welfare	5.3	6.5	11.8	3.	Social Development & Welfare	11.7	21.45	33.15	4.	Infrastructure	89.9	364.67	624.57
S. No.	Activity Heads	Years (Rs. In Lakhs)																												
		2021-22	2022-23	Total																										
1.	Educational Programme	-	5.5	5.5																										
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**A. Reply to the issues raised by EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022**

S. No.	ADS Point	Reply/Response of PP			
		Development			
		<b>Grand Total</b>	<b>106.9</b>	<b>398.12</b>	<b>675.02</b>
vi	Existing greenbelt (GB) is developed in 3.7 ha area (6476 Nos saplings) only which is about 2.47% of the total project area. The Committee deliberated that EC was granted long back in 2009 and further in 2021 and still the greenbelt development is very poor. The GB width along plot boundary is too small. It must be around 40 m to incorporate 3 tier GB design. Further for 49.40 ha of Gb the PP to plant 123500 trees. PP shall ensure around 1200 cum water per day for the proposed GB sustainability.	<p>The EC for project was initially accorded by MoEF, New Delhi on 15th July, 2009 for Integrated Cement Plant with limestone having production capacity of 3.2 Million TPA at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited. The Consent for establishment (CTE) of Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, granted by RSPCB vide letter dated 28.02.2019. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&amp;CC vide letter dated 3rd February 2021.</p> <p>Based on the LOI for limestone mine and based on the State Government notification for requirement land for Cement Plant 20.01.2007, 25.06.2008 &amp; 28.06.2008 the EC was granted in 2009.</p> <p>Finally, land was allotted on 12.05.2015 and lease deed was executed on 01.06.2016, but the complete physical possession of land was handover to us in Dec. 2020 by intervention of RIICO &amp; Collector – Jhunjhunu, Government of Rajasthan, whereas still 13-14 families not vacant the houses, for which SCL is under negotiation with them. However, SCL has constructed a temporary boundary wall to isolate thus habitation from the site and planned the greenbelt on that area after vacant by families.</p> <p>Since, the complete land was not possession with SCL, thus project proponent could not initiate the execution of project and plantation &amp; greenbelt development at site. After physical possession of land, SCL started the construction of boundary wall to secure the land and also started plantation in peripheral area of plant, colony &amp; mines from 2021. Accordingly, while appeared for EC appraisal presentation after submission of Final EIA, the status of existing greenbelt (GB) development was 3.7 ha area with 6476 Nos saplings, which was about 2.47% of the total project area. Whereas, the SCL has proposed &amp; earmarked to develop the 33% (i.e., ~49.40 ha) area under greenbelt &amp; plantation of the total effective project area with 1,23,500 numbers of plant in upcoming 3 years with density of plantation is 2500 trees per ha. Out of which, as on date (14.01.2023) SCL has done plantation in 5.62 ha area (11276</p>			

**A. Reply to the issues raised by EAC during its 19<sup>th</sup> EAC meeting held during 16<sup>th</sup> & 19<sup>th</sup> December 2022**

S. No.	ADS Point	Reply/Response of PP																														
		<p>Nos saplings) with recently planted 4800 numbers of plants under mass Plantation Program conducted on 06.01.2023.</p> <p>Plantation &amp; Greenbelt development is ongoing process for under development site and Shree Cement committed for sustainable development of the site and surrounding area of the project, therefor they have planned to complete the greenbelt &amp; planation development in coming 3 years to achieve the proposed number of tree/ plants i.e. 1,23,500 numbers with density of plantation is 2500 trees per ha. with minimum width of 15 meters in the periphery of boundary and minimum 50 meters width greenbelt &amp; plantation towards nearby the Schools.</p> <p>Native Plant species such as Neem, Amla, Imli, Shisham, Bargad, Pipal, Karanj, Mango, Gulmohar, Amaltas, Senjana, Shahtut, Siris, Gurhal, Arjun, Dubai Tree, Semal, Saptaparni, Palash, Jamun etc. is being/ will be planted, as per CPCB guidelines. Detailed plan of Greenbelt development is as follows:</p> <table border="1" data-bbox="667 1016 1490 1355"> <thead> <tr> <th>S. No.</th> <th>Year plantation after EC &amp; CTE</th> <th>Wise after upto</th> <th>Area in ha.</th> <th>Numbers of Plantation</th> <th>Survival Rate</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Existing and planned upto March, 2023</td> <td></td> <td>5.62*</td> <td>14,050</td> <td>90%</td> </tr> <tr> <td>2.</td> <td>1<sup>st</sup> year</td> <td></td> <td>22.00 ha</td> <td>55,000</td> <td>90%</td> </tr> <tr> <td>3.</td> <td>2<sup>nd</sup> year</td> <td></td> <td>21.78 ha</td> <td>54,450</td> <td>90%</td> </tr> <tr> <td></td> <td><b>Total</b></td> <td></td> <td><b>49.40</b></td> <td><b>1,23,500</b></td> <td><b>90%</b></td> </tr> </tbody> </table> <p>* Existing 11,276 number of plantations has been done in 5.62 ha. area as on 1<sup>st</sup> Feb. 2023; which will be further dense @ 2500 trees / ha upto March, 2023.</p>	S. No.	Year plantation after EC & CTE	Wise after upto	Area in ha.	Numbers of Plantation	Survival Rate	1.	Existing and planned upto March, 2023		5.62*	14,050	90%	2.	1 <sup>st</sup> year		22.00 ha	55,000	90%	3.	2 <sup>nd</sup> year		21.78 ha	54,450	90%		<b>Total</b>		<b>49.40</b>	<b>1,23,500</b>	<b>90%</b>
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vii	Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit to understand the ecological/environmental sensitivity of the area to the schools and local habitation, fulfilment of raw material (limestone), water consumption, sources & treatment proposed in project, greenbelt development at the project site.	Inspection & site visit of Sub-committee of EAC (Industry - 1) of the EAC was conducted from 13 <sup>th</sup> -14 <sup>th</sup> Jan. 2023 and site visit report with some recommendations issued on 02.02.2023.																														

**B. Recommendations of the Sub-Committee along with the compliance and further commitments by SCL are as follows:**

S. No.	Recommendations of the Sub-Committee	Compliance and commitments by SCL
1.	Considering the fact regarding the occurrence of all the three schools at the distance of 35 meters, 115 meters and 55 meters from the project boundary, and 970 meters, 570 meters and 1170 meters from the stack, respectively, a dense vegetation of multi-layered plantation must be developed adjacent to school and habitation.	SCL has proposed 15 meters Greenbelt & plantation all along the periphery of plant boundary and also planned multi-layer greenbelt & plantation of minimum 50 meters towards Schools and habitation. Amended plant layout showing greenbelt & plantation has been provided at slide no. 10. SCL has proposed & earmarked to develop the 33% (i.e., ~49.40 ha) area under greenbelt & plantation of the total effective project area with 1,23,500 numbers of plant in upcoming 3 years with density of plantation is 2500 trees per ha. Out of which, as on date (14.01.2023) SCL has done plantation in 5.62 ha area (11276 Nos saplings) with recently planted 4800 numbers of plants under mass Plantation Program conducted on 06.01.2023.
2.	Considering the environmental sensitivity to the adjacent area, PP to ensure a thickness green belt all around project boundary within the project site with three tier system.	
3.	PP to expedite the acquisition/ possession of remaining houses which has yet not been vacated with proper negotiation.	Noted and will be complied
4.	Regarding the fulfilment of raw material and water consumption, sources and treatment should be deliberated by EAC as the matter is mostly conceptual in nature	Limestone (Raw material) will be fulfilled by captive limestone mines, whereas the raw water requirement will be fulfilled by treated water received from STP of Nawalgarh Town through pipelines for which an agreement has been executed. Apart from this, the NOC from CGWA for abstraction of ground water has been obtained to fulfill the fresh drinking & domestic water requirements of cement plant, limestone mines & residential township, apart from this the rainwater collected in bottom most pit of mines will also be utilized in the project
5.	During the operation phase, PP is advised to conduct air monitoring in the vicinity of adjoining schools and human	Noted and hereby committed to comply the same.  A detailed Air Quality Management Plan along with Air Pollution Control Equipment and Covered Storage Facilities proposed in the

**B. Recommendations of the Sub-Committee along with the compliance and further commitments by SCL are as follows:**

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	<p>habitations to assess environmental/ ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.</p>	<p>project has been prepared and is given on the next slides, same will be complied during execution of the project.</p>																														
6.	<p>The PP should develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouse), electrostatic precipitators etc.</p>	<table border="1"> <thead> <tr> <th data-bbox="547 461 715 584" rowspan="2">Emissions</th> <th colspan="2" data-bbox="722 461 1082 499">Source</th> <th data-bbox="1090 461 1503 584" rowspan="2">Mitigation Measures Provided / to be provided</th> </tr> <tr> <th data-bbox="722 510 850 584">Plant Unit</th> <th data-bbox="858 510 1082 584">Section</th> </tr> </thead> <tbody> <tr> <td data-bbox="547 595 715 804" rowspan="3">PM</td> <td data-bbox="722 595 850 804" rowspan="3">Cement Plant</td> <td data-bbox="858 595 1082 674">Raw Mill &amp; Kiln</td> <td data-bbox="1090 595 1503 674">Bag House (1 no.)</td> </tr> <tr> <td data-bbox="858 685 1082 723">Coal Mill</td> <td data-bbox="1090 685 1503 723">Bag House (1 no.)</td> </tr> <tr> <td data-bbox="858 734 1082 772">Cooler</td> <td data-bbox="1090 734 1503 772">ESP (1 no.)</td> </tr> <tr> <td data-bbox="547 792 715 1106">SO<sub>2</sub></td> <td data-bbox="722 792 850 1106">Cement Plant</td> <td data-bbox="858 792 1082 1106">Raw Mill &amp; Kiln</td> <td data-bbox="1090 792 1503 1106"> <p>Due to the interaction of raw materials and kiln gases, rotary kiln systems have inherent SO<sub>2</sub> removal efficiencies ranging between 40-99% of the sulphur input to the system.</p> </td> </tr> <tr> <td data-bbox="82 1178 156 2036">7.</td> <td data-bbox="164 1178 539 2036"> <p>The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours average exposures) with permissible limits based on free silica content of air borne respirable dust</p> </td> <td data-bbox="547 1117 715 1364">NO<sub>x</sub></td> <td data-bbox="722 1117 850 1364">Cement Plant</td> <td data-bbox="858 1117 1082 1364">Raw Mill &amp; Kiln</td> <td data-bbox="1090 1117 1503 1364"> <ul style="list-style-type: none"> <li>○ Low NO<sub>x</sub> burners.</li> <li>○ Incline Calciner for low NO<sub>x</sub> formation.</li> <li>○ Installation of analyzer at the inlet of Kiln to monitor O<sub>2</sub> &amp; NO<sub>x</sub>.</li> </ul> </td> </tr> <tr> <td data-bbox="547 1375 715 2036">Fugitive Emission</td> <td data-bbox="722 1375 850 2036">Cement Plant</td> <td data-bbox="858 1375 1082 1487">Raw Material Handling &amp; Storage</td> <td data-bbox="1090 1375 1503 2036" rowspan="2"> <ul style="list-style-type: none"> <li>○ Bag filters (168 nos.) at various material handling &amp; transfer points will be provided.</li> <li>○ Covered Conveyor belts for transfer of raw materials/ finished products inside the plant.</li> <li>○ Fly ash received through closed bulkers &amp; fed into silo through pneumatic system.</li> <li>○ Clinker will be stored in tank while Fly Ash and Cement will be stored in the silos.</li> </ul> </td> </tr> <tr> <td data-bbox="858 1498 1082 2036">Transportation activity</td> <td data-bbox="1090 1498 1503 2036"></td> </tr> </tbody> </table>	Emissions	Source		Mitigation Measures Provided / to be provided	Plant Unit	Section	PM	Cement Plant	Raw Mill & Kiln	Bag House (1 no.)	Coal Mill	Bag House (1 no.)	Cooler	ESP (1 no.)	SO <sub>2</sub>	Cement Plant	Raw Mill & Kiln	<p>Due to the interaction of raw materials and kiln gases, rotary kiln systems have inherent SO<sub>2</sub> removal efficiencies ranging between 40-99% of the sulphur input to the system.</p>	7.	<p>The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours average exposures) with permissible limits based on free silica content of air borne respirable dust</p>	NO <sub>x</sub>	Cement Plant	Raw Mill & Kiln	<ul style="list-style-type: none"> <li>○ Low NO<sub>x</sub> burners.</li> <li>○ Incline Calciner for low NO<sub>x</sub> formation.</li> <li>○ Installation of analyzer at the inlet of Kiln to monitor O<sub>2</sub> &amp; NO<sub>x</sub>.</li> </ul>	Fugitive Emission	Cement Plant	Raw Material Handling & Storage	<ul style="list-style-type: none"> <li>○ Bag filters (168 nos.) at various material handling &amp; transfer points will be provided.</li> <li>○ Covered Conveyor belts for transfer of raw materials/ finished products inside the plant.</li> <li>○ Fly ash received through closed bulkers &amp; fed into silo through pneumatic system.</li> <li>○ Clinker will be stored in tank while Fly Ash and Cement will be stored in the silos.</li> </ul>	Transportation activity	
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**B. Recommendations of the Sub-Committee along with the compliance and further commitments by SCL are as follows:**

S. No.	Recommendations of the Sub-Committee	Compliance and commitments by SCL			
					<ul style="list-style-type: none"> <li>○ Gypsum, Slag, Dolochar, Biomass, Coal and Petcoke will be stored in the covered sheds.</li> <li>○ Iron Ore, &amp; Pond ash will be stored in the covered sheds/Yards.</li> <li>○ Water sprinkling will be done to control dust Proper maintenance of vehicles to reduce gaseous emissions.</li> <li>○ All the movement area/ roads will be concreted.</li> <li>○ Using Vacuum sweeping machine for better housekeeping.</li> <li>○ Greenbelt &amp; plantation is being/ will be done along the plant boundary to attenuate air pollution.</li> </ul>

**Following Air Pollution Control Equipment are proposed in the Project:**

S. No	Location of APCE	Type of APCE		Total After Expansion	Design Efficiency (%)
		Existing As per Granted EC	Additional		
1.	Raw Mill and Kiln	Bag House	-	1	99.99
2.	Clinker Cooler	Cooler ESP	-	1	99.95
3.	Cement Mill	Bag House	Bag House	2	99.99
4.	Coal Mill	Bag House	-	1	99.99
5.	Transfer Points	Bag filters	Bag filters	168	99.99

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		<p><b>Following Covered Storage Facilities are proposed in the Project:</b></p> <table border="1"> <thead> <tr> <th data-bbox="549 409 644 495">S.No</th> <th data-bbox="644 409 1107 495">Section</th> <th data-bbox="1107 409 1246 495">Unit</th> <th data-bbox="1246 409 1489 495">Capacity</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Limestone Stock Pile</td> <td>Tonnes</td> <td>2 x 100000</td> </tr> <tr> <td>2.</td> <td>Clinker tank</td> <td>Tonnes</td> <td>3 X 75000</td> </tr> <tr> <td>3.</td> <td>OPC silo</td> <td>Tonnes</td> <td>2 X 10000</td> </tr> <tr> <td>4.</td> <td>PPC silo</td> <td>Tonnes</td> <td>2 X 10000</td> </tr> <tr> <td>5.</td> <td>PSC &amp; RHPC silo</td> <td>Tonnes</td> <td>2 X 10000</td> </tr> <tr> <td>6.</td> <td>SRC &amp; Composite Silo</td> <td>Tonnes</td> <td>2 X 10000</td> </tr> <tr> <td>7.</td> <td>Iron Ore/ Laterite</td> <td>Tonnes</td> <td>20000</td> </tr> <tr> <td>8.</td> <td>Fly Ash Silo</td> <td>Tonnes</td> <td>10000</td> </tr> <tr> <td>9.</td> <td>Pond ash</td> <td>Tonnes</td> <td>10000</td> </tr> <tr> <td>10.</td> <td>Gypsum</td> <td>Tonnes</td> <td>15000</td> </tr> <tr> <td>11.</td> <td>Coal/Petcoke/Dolochar/Biomass</td> <td>Tonnes</td> <td>100000</td> </tr> <tr> <td>12.</td> <td>Slag</td> <td>Tonnes</td> <td>10000</td> </tr> <tr> <td>13.</td> <td>Alternative Fuel and Raw Material (AFR)</td> <td>Tonnes</td> <td>15000</td> </tr> </tbody> </table>	S.No	Section	Unit	Capacity	1.	Limestone Stock Pile	Tonnes	2 x 100000	2.	Clinker tank	Tonnes	3 X 75000	3.	OPC silo	Tonnes	2 X 10000	4.	PPC silo	Tonnes	2 X 10000	5.	PSC & RHPC silo	Tonnes	2 X 10000	6.	SRC & Composite Silo	Tonnes	2 X 10000	7.	Iron Ore/ Laterite	Tonnes	20000	8.	Fly Ash Silo	Tonnes	10000	9.	Pond ash	Tonnes	10000	10.	Gypsum	Tonnes	15000	11.	Coal/Petcoke/Dolochar/Biomass	Tonnes	100000	12.	Slag	Tonnes	10000	13.	Alternative Fuel and Raw Material (AFR)	Tonnes	15000
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6	Rain water harvesting system should be developed/ implemented in the plant area	25 Nos. Rainwater Harvesting (RWH) Structure with capacity of 885 cum for Cement Plant and Residential Township has been proposed. Apart from this, 1 Rain Water Harvesting Pond with capacity of 110715 cum is also proposed to accumulated & collect the rainwater for further uses and reduces the fresh and raw water requirements of the project.																																																								
7	PP shall develop greenbelt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR)	Company has proposed 15 meters wide greenbelt & plantation all along the periphery of plant boundary, and also, planned multilayer greenbelt & plantation of minimum 50 meters towards Schools. Apart from this, the detailed CSR plan proposed for the nearby Schools are given as below**																																																								

41.15.25 Based on the above submission of PP, the proposal was reconsidered during 24<sup>th</sup> meeting of the EAC for Industry-I sector held on 28<sup>th</sup> February – 1<sup>st</sup> March, 2023. The deliberations and recommendations of the EAC are as follows:

**Written representations (During 28<sup>th</sup> February – 1<sup>st</sup> March, 2023):**



41.15.26 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 28.02.2023 through email dated 28.02.2023 submitted the following information:

S. No.	Additional Observations / ADS Point of EAC	Reply submitted by the PP
1	PP should increase the Cost of Action Plan including PH commitments 1% of the expansion project cost.	The PP has revised and detailed out the plan for socio-economic development including PH commitments equal to 1% (i.e. 34.07 Crores) of the project cost (i.e. 3407 Crores). However, expenditure of Rs 6.75 Crores has already been done under CER/CSR activities & PH commitments in the nearby area of the site. The detailed plan of socio-economic development including PH commitments is submitted and updated at para 24.4.18 above.
2	PP should plan and submit the details of additional 7% (i.e. 25000 tress) under avenue plantation along the roads, railway siding in the nearby villages outside the project site.	Additional avenue plantation equal to 7% (i.e. 25000 tress) of the project site area will be done along the roads of nearby villages; new connecting road constructed from Gothra to Parasarampura; railway siding area and in the nearby villages outside the project site. Details of the same have been incorporated in detailed socio-economic development plan submitted.

### **Deliberations by the Committee**

41.15.27 The Committee noted the following:

- i. The instant proposal is for expansion in existing Environmental Clearance granted capacity of Integrated Cement Plant - Clinker: 2.0 to 4.5 Million TPA, Cement: 4.0 to 6.0 Million TPA, Waste Heat Recovery Power Generation: 20 to 40 MW. DG Sets of 2000 KVA (1000/500/250/125 KVA) along with Railway Siding. Further, PP during the presentation during 24<sup>th</sup> meeting of the EAC for Industry-I sector held on 28<sup>th</sup> February – 1<sup>st</sup> March, 2023 submitted that in order to fulfil the requirement of greenbelt development towards School, plant layout has also been amended and proposal for installation of Captive Power Plant of 25 MW (Thermal) is now dropped out. The Committee deliberated the issues.
- ii. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
- iii. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will

- be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
- iv. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
  - v. The existing project was initially accorded Environmental Clearance from MoEF&CC, New Delhi for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Ltd.; further validity of same for 3 years was extended vide letter dated 29<sup>th</sup> September, 2016; which was expired on 14<sup>th</sup> July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines upto 14<sup>th</sup> July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&CC vide letter no. J-11011/1173/2007-IA.II (I) dated 03<sup>rd</sup> February 2021. Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited granted by RSPCB vide letter no. F(CPM)/Jhunjhunu (Nawalgarh)/2(1)/2018-2019/ 7228-7230 and vide Order No. 2018-2019/CPM/5424 dated 28.02.2019, Validity: 14.06.2018 to 31.05.2023. Based on EC obtained from MoEF&CC, the project is under construction of utilities & infrastructure development and yet not operational.
  - vi. The EAC noted that instant proposal is a part of Interlinked project. Limestone Mine (ML No.: 47/2007& ML Area: 624 ha.) with existing production capacity of 3.2 Million TPA located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the mine has been obtained from MoEF&CC, New Delhi vide letter no. J-11011/1173/2007-IA II (I) dated 15th July, 2009 (valid up to 14th July, 2039). To cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application (Proposal No. IA/RJ/MIN/272197/2022 dated 11.05.2022) for increase of limestone production capacity from 3.2 to 6.822 Million TPA was submitted to MoEF&CC. The proposal was considered in the 53rd EAC meeting of Non-Coal Mining (NCM) Sector held during 28th – 29th June, 2022. After, the detailed deliberations, the Committee (NCM) noted that the project proponent has started production in the year 2021-22 and has achieved a production of 478.18 tonnes only out of the 3.2 MTPA production limit granted in the earlier Environmental Clearance letter dated 15.07.2009. Also, the Committee (NCM) observed that that there will be an instant shock load on the environment by jumping twice the production capacity granted in previous Environmental Clearance. The EAC (NCM) felt that the Environmental Management Plan (EMP) which is in place cannot be

fully tested at this juncture since the production capacity reached by the project proponent is way beyond the prescribed limit. The EAC (NCM) was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee. Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion. Therefore, the Committee (NCM) deferred the proposal.

- vii. Based on the site visit conducted by EAC (Industry-1) sub-committee during 13-14<sup>th</sup> January, 2023, the EAC noted the following:

**Observation of Sub-committee:**

- 1. The committee visited three Schools located outside the boundary of the project and discussed with principal/head of the concerned School. It was observed that the Schools 1, 2 and 3 were located at village Dhahar Wali Johari Gothara (Govt. School), Bhakhariyon Ki Dhani (Govt. School) and Sarswati Sec. School, Gothara (Private School) with student capacity of 10, 30 and 438, respectively. Further, information about the school was observed on- and the on-line Report cards of the Schools are submitted.*
- 2. A multi layered green belt plantation was observed towards school.*
- 3. Total Four Houses (with about 13-14 families) in two clusters were observed within the project boundary. In one cluster, only one house was there which was locked. In another cluster, 3 houses were present and 2 were locked and a person residing in one house (having 4 families) was available for discussion. As per interaction with the available resident, one house (which was found locked) shifted to Punjab and in other 2 houses some families are residing. Both clusters of houses have been temporarily excluded/ separated from the project site with a temporary boundary wall.*
- 4. With a view to see the CER activity undertaken by the PP against 2021 EC, the committee observed a sports complex under construction at Parasrampura Village and RCC road for local community developed by PP in Gothra village. The committee visited a Gaushala a Gothra village which was renovated by PP.*

**Recommendations of Sub-committee**

- 1. Considering the fact regarding the occurrence of all the three schools at the distance of 35 meters, 115 meters and 55 meters from the project boundary, and 970 meters, 570 meters and 1170 meters from the Stack, respectively, a dense vegetation of multi-layered plantation must be developed adjacent to schools and habitation.*
- 2. Considering the environmental sensitivity to the adjacent area, PP to ensure a thick Green belt all around project boundary within the project site with three tier system.*
- 3. PP to expedite the acquisition/possession of remaining houses which has not yet been vacated with proper negotiation.*
- 4. Regarding the fulfilment of raw material and water consumption, sources and treatment should be deliberated by EAC as the matter is mostly conceptual in nature.*

5. *During the operation phase, PP is advised to conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.*
  6. *The PP should develop a control strategy and mitigation plan that incorporates the pollution control measures. The Clean Air practices shall be adopted like mechanical collectors, wet scrubbers, fabric filters (baghouses), electrostatic precipitators, etc.*
  7. *The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.*
  8. *Rain water harvesting system should be developed/ implemented in the plant area.*
  9. *PP shall develop green belt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR).*
- viii. The EAC deliberated the site visit report and its recommendations and the EAC is of the view that the PP shall implement all the recommendations/suggestion made by the sub-committee during of the visit.
  - ix. Total Land Area of the Integrated Cement Plant Site including township is 153.62 ha; Out of which, 3.92 ha land widening and construction of connecting area excluded for Road. The Effective land area of Integrated Cement Plant including residential colony is 149.70 ha; Out of 149.70 ha i.e., effective area of the site, 135.34 ha is for the Integrated Cement Plant (including 49.2 ha common area of plant & mine lease) and remaining 14.36 ha area is reserve for residential Colony.
  - x. The nearest habitation to plant are Gothra (0.5 Km, NE), Dhani Kanakawali (1.5 km, WSW), Jhajhar (1.5 km, WNW), Basawa (2 km, SSW), Keswa Ki Dhani (2 Km, NE), Neharon Ki Dhani (3 km, SSe) and Bhairoo Ki Bas (3 km, NNW). There are approx. 43 other villages in 10 km radius study area of the project site. Further, the three schools are at the distance of 35 meters, 115 meters and 55 meters from the project boundary, and 970 meters, 570 meters and 1170 meters from the Stack respectively. The EAC deliberated on the mitigation measures through greenbelt development and found it satisfactory.
  - xi. Udaipur Lohagarh Ki Nadi flows at a distance of 4 km in the ENE direction from the project site. 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.
  - xii. The total water requirement after expansion is proposed to be 1000 KLD; which will be sourced from STP Treated Water of Nagar Palika, Nawalgarh/ Ground Water/ Mine Pit. The EAC deliberated on the modified & revised the water balance based on the peak water requirement of the project including greenbelt & plantation development and found it satisfactory.
  - xiii. Greenbelt & Plantation is being / will be developed in ~49.40 ha which is about ~33 % of the total effective project area of 149.70 ha. Existing greenbelt has already been developed in 3.7 ha area (6476 Nos saplings) which is about 2.47% of the total project

area, balance 45.70 ha (1,17,024 Nos saplings) will be developed. Company has planned multi-layer greenbelt & plantation of minimum 50 meters towards Schools and habitation and 15 meters greenbelt & plantation all along the periphery of plant boundary. Additional avenue plantation equal to 7% (i.e. 25000 trees) of the project site area will be done along the roads of nearby villages; new connecting road constructed from Gothra to Parasarampura; railway siding area and in the nearby villages outside the project site. The committee deliberated on the revised greenbelt development plan and the avenue plantation as submitted and found it satisfactory.

- xiv. Two schedule - I species i.e., Indian Peafowl (*Pavo cristatus*) & Desert Cat (*Felis libyca*) recorded in the study area during field survey; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act' 1972. Wildlife Conservation Plan for all the Schedule- I species has been authenticated by PCCF (Wildlife) Jaipur on 26<sup>th</sup> November, 2020.
- xv. The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.
- xvi. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
- xvii. The EAC deliberated on the compliance status of earlier commitments and its implementation status along with details of expenditures on the issues raised during the PH while granting the EC in February 2021 and noted that PP has spent around Rs. 675.02 Lakhs on educational programme, health & family welfare, social development & welfare and infrastructural development and advised to fulfil the commitments as per the action plan. The Committee also deliberated on the public hearing issues along with revised action plan for the instant proposal submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.
- xviii. The Committee deliberated upon the written submission of the Project Proponent and found it satisfactory.
- xix. 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.
- xx. The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

### **Recommendations of the Committee**

41.15.28 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 information** on Parivesh portal under the provisions of EIA Notification, 2006 subject to 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 conditions:**

- (i) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iii) The nearest habitation to plant are are Gothra (0.5 Km, NE), Dhani Kanakawali (1.5 km, WSW), Jhajhar (1.5 km, WNW), Basawa (2 km, SSW), Keswa Ki Dhani (2 Km, NE), Neharon Ki Dhani (3 km, SSE) and Bhairoo Ki Bas (3 km, NNW). There are approx. 43 other villages in 10 km radius study area of the project site. Further, three schools are within the vicinity of the plant. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.
- (iv) During the operation phase, PP shall conduct air monitoring in the vicinity of adjoining schools and human habitations to assess environmental/ecological impact. The PP should implement a project specific AQMP (Air Quality Management Plan) with Best practices.
- (v) Udaipur Lohagarh Ki Nadi flows at a distance of 4 km in the ENE direction from the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- (vi) As committed, PP shall adopt villages and formulate Village Adoption program consisting of need-based community development activities, to develop them into model villages.
- (vii) The total water requirement after expansion of 1000 KLD shall be sourced from STP Treated Water of Nagar Palika, Nawalgarh/ Ground Water/ Mine Pit. Necessary permissions shall be obtained from the Competent Authority in this regard. PP shall explore the possibility of limiting the use of ground water to reduce dependency.
- (viii) Three tier Green Belt shall be developed with majority in the 1<sup>st</sup> year covering at least 33% of the total project area as per the submitted plan 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. Additional avenue plantation equal to 7% (i.e. 25000 tress) of the project site area shall be done along the roads of nearby villages; new connecting road constructed from Gothra to Parasarampura; railway siding area and in the nearby villages outside the project site. 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 the villages namely Gothra (0.5 Km, NE), Dhani Kanakawali (1.5 km, WSW), Jhajhar (1.5 km, WNW), Basawa (2 km, SSW), Keswa Ki Dhani (2 Km, NE), Neharon Ki Dhani (3 km, SSE) and Bhairoo Ki Bas (3 km, NNW) and multi-layer greenbelt & plantation of minimum 50 meters towards Schools as per the submitted plan. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

- (ix) The PP shall develop green belt around the school boundary/premises and shall provide basic facilities to the nearby School as part of Corporate Social Responsibility (CSR).
- (x) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
- (xi) PP shall complete the acquisition/possession of remaining houses which has not yet been vacated with proper negotiation as per Rules and Regulations.
- (xii) The PP should monitor cement dust exposures in clinker, grinding and packing areas using personal and area air samplers and to compare the results of cement dust (8 hours' average exposures) with permissible limits based on free silica content of air borne respirable dust.
- (xiii) The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.
- (xiv) The PP shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.
- (xv) 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.
- (xvi) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.
- (xvii) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.
- (xviii) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.
- (xix) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm<sup>3</sup>.
- (xx) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm<sup>3</sup> by using best available technology.
- (xxi) Petcoke dosing shall be controlled automatically to control SO<sub>2</sub> emission from chimney within the prescribed limits.
- (xxii) PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.
- (xxiii) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

- (xxiv) Action Plan for fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, fixing the location of fire water tanks, separate power system for fire fighting, involvement of qualified and trained fire personnel, nearest fire station & time required to reach the proposed site shall be prepared and implemented.
- (xxv) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.
- (xxvi) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- (xxvii) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- (xxviii) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- (xxix) 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 with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25<sup>th</sup> August, 2014 (Cement) and subsequent amendment dated 9<sup>th</sup> May, 2016 (Cement) and 10<sup>th</sup> May, 2016 (in case of Co-processing Cement); 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 fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.
- iv. The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanised bag cleaning facilities for better maintenance of bags.
- vii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.
- viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
- x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
- xi. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.
- xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
- xiii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport
- xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

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

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25<sup>th</sup> August, 2014 (Cement) and subsequent amendment dated 9<sup>th</sup> May, 2016 (Cement) and 10<sup>th</sup> May, 2016 (in case of Co-processing Cement) 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 regularly monitor ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
- v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
- vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

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

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

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

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

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

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

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

- i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.

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

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

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.
- iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

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

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

#### **X. Miscellaneous**

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

- relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
  - v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
  - vi. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
  - vii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
  - viii. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
  - ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
  - x. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
  - xi. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  - xii. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  - xiii. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
  - xiv. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
  - xv. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**Reconsideration of EC proposal on the observation of Ministry**

41.15.29 The minute of 24<sup>th</sup> meeting were uploaded on Parivesh Portal on 7<sup>th</sup> March, 2023 and file was processed in the Ministry for approval of the Competent Authority. The Ministry examined the proposal and raised query seeking justification for physical and financial progress of the existing EC and the time-line for completion/ commissioning, and query on instant proposal being a part of Interlinked project.

41.15.30 Therefore, ADS was raised on PARIVESH on 10.04.2023 & 22<sup>nd</sup> May 2023 and reply of same was submitted by PP to MoEF&CC on 01<sup>st</sup> May, 2023 & 20<sup>th</sup> July 2023 respectively. Point - wise reply of the Additional Details Sought is given as follows:

S. No.	ADS Point	Reply/Response of PP															
1	The instant project is an inter-linked project and to cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application (Proposal No. IA/RJ/MIN/272197/2022 dated 11.05.2022) for increase of limestone production capacity from 3.2 to 6.822 Million TPA was also submitted by the PP to MoEF&CC.	<p>Limestone (LS) requirement after the Expansion of Integrated Cement Plant will be 6.75 Million TPA for 4.5 Million TPA Clinker manufacturing. Out of total 6.75 Million TPA, 3.2 Million TPA will be sourced from our Gothra Limestone Mine (ML No.: 47/2007 &amp; ML Area: 624 ha.).</p> <p>Thereafter, the remaining shortfall of limestone requirement (i.e. 3.55 Million TPA) will be sourced from other mine of SCL and open market as mentioned below:</p> <p>(i) 1.88 Million TPA limestone will be sourced from our existing Nimbeti Limestone Mines located near Ras Plant in Pali District of Rajasthan (Where 1.88 Million TPA is excess Limestone available after fulfilling the 23.42 Million TPA requirements of Ras Plant from the total limestone production capacity of Nimbeti Mines i.e. 25.3 Million TPA), and</p> <p>(ii) The balance 1.67 Million TPA limestone requirement will be fulfilled from open market purchase from the associated limestone mines through limestone suppliers. The company has done agreements with limestone suppliers for supply of balance shortfall limestone to cater the requirements of aforesaid cement plant.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Particulars</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td></td> <td><b>Limestone Requirement of Nawalgarh Cement Plant (4.5 Million TPA x 1.5)</b></td> <td>: 6.75 Million TPA</td> </tr> <tr> <td colspan="3"><b>Following will be the Source of Limestone 6.75 Million TPA</b></td> </tr> <tr> <td>(i)</td> <td>Limestone availability at Captive Gothra Limestone Mines</td> <td>: 3.2 Million TPA</td> </tr> <tr> <td>(ii)</td> <td>Excess Limestone availability at Nimbeti Limestone Mines (i.e.</td> <td>: 1.88 Million TPA</td> </tr> </tbody> </table>	Sr. No.	Particulars	Details		<b>Limestone Requirement of Nawalgarh Cement Plant (4.5 Million TPA x 1.5)</b>	: 6.75 Million TPA	<b>Following will be the Source of Limestone 6.75 Million TPA</b>			(i)	Limestone availability at Captive Gothra Limestone Mines	: 3.2 Million TPA	(ii)	Excess Limestone availability at Nimbeti Limestone Mines (i.e.	: 1.88 Million TPA
Sr. No.	Particulars	Details															
	<b>Limestone Requirement of Nawalgarh Cement Plant (4.5 Million TPA x 1.5)</b>	: 6.75 Million TPA															
<b>Following will be the Source of Limestone 6.75 Million TPA</b>																	
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(ii)	Excess Limestone availability at Nimbeti Limestone Mines (i.e.	: 1.88 Million TPA															

S. No.	ADS Point	Reply/Response of PP	
			25.3 Million TPA - 23.42 Million TPA)
		(iii)	Balance shortfall of Limestone requirement after receiving Limestone from company-owned LS mines {Total LS Requirement 6.75 Million TPA – 5.08 Million TPA (i.e. 3.2 Million TPA from Gothra LS Mine + 1.88 Million TPA from Nimbeti LS Mine)} : 1.67 Million TPA
		<b>Total</b>	6.75 Million TPA
		<p><b>Environment Management Plan and Mitigation Measures proposed for Transportation and handling of limestone from other Mines:</b></p> <ul style="list-style-type: none"> <li>○ Limestone will be covered with tarpaulin, while transporting through Truck/ Dumpers.</li> <li>○ Water Sprinkling will be done on haul roads, loading &amp; unloading areas; while transportation of limestone from mines to main Roads/Highways.</li> <li>○ Haul Roads &amp; connecting approach roads will be maintained in good conditions for transport of limestone and greenbelt will be developed.</li> <li>○ Under load conditions will be maintained, while transportation of limestone by vehicles.</li> <li>○ Vehicles will be allowed for transportation of limestone after having valid PUC and speed limit of transportation vehicles will be maintained as prescribed norms.</li> <li>○ Regular maintenance of vehicles engaged for transportation will be done.</li> <li>○ Unnecessary blowing of horn will be avoided.</li> </ul>	
2	In this regard, PP is requested that why the instant project of the PP should not be considered as per Ministry's OM for inter-linked projects? Please clarify this aspect.	The Expansion project of Integrated Cement Plant is an Interlinked Project, However, requirement of limestone for the expanded capacity will be fulfilled by the other limestone sources till the grant of EC for the Gothra Limestone Mine. Details are provided as below:	
3	If it's not inter-linked project then how then PP would meet the raw material requirement for expanded capacity? Please clarify this aspect.	Existing EC issued in 2009 for SCL's captive Gothra Limestone Mine (ML No.: 47/2007 & ML Area: 624 ha.) which is valid up to 2029, having a capacity of 3.2 Million TPA Limestone production, by which company will cater to the partial limestone requirement (3.2 Million TPA from the total limestone requirement i.e. 6.75 Million TPA) for the expanded capacity of the Integrated Cement Plant the balance shortfall limestone requirement will be fulfilled from the open market as well as other mines of SCL till the EC of expanded capacity for Captive Gothra LS Mine will not be granted.	

S. No.	ADS Point	Reply/Response of PP
		The remaining shortfall of limestone requirement (i.e. 3.55 Million TPA), 1.88 Million TPA limestone will be sourced from SCL's existing Nimbeti Limestone Mines located near Ras Plant in Pali District of Rajasthan (Where 1.88 Million TPA is excess Limestone available after fulfilling the 23.42 Million TPA requirements of Ras Plant from the total limestone production capacity of Nimbeti Mines i.e. 25.3 Million TPA) and the balance 1.67 Million TPA limestone requirement will be fulfilled from the nearby limestone mines through open market purchase.

41.15.31 Based on the ADS reply from PP, the Competent Authority advised that the proposal may be referred to EAC to reconsider the proposal especially the aspect related to shortfall in enhanced limestone requirement in absence of EC for expanded capacity of mine.

41.15.32 Accordingly the proposal was reconsidered during 41<sup>st</sup> meeting of the EAC for Industry-I sector held on 2<sup>nd</sup> & 4<sup>th</sup> August, 2023. The deliberations and recommendations of the EAC are as follows:

**Written representations:**

41.15.33 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 04.08.2023 through email dated 04.08.2023 submitted the following information:

With outsourcing of balance limestone required for expansion proposal, following details will be changed as given below:

**1. Source of Limestone**

S. No.	Name of Raw Material	Quantity (MTPA)			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Additio nal	Total			
For Clinker							
1.	Limestone	3.2	3.622	6.822	Captive limestone mine, Nimbeti Limestone Mine of SCL and Open market	Adjacent to the plant and ~300 Km	Covered Conveyor belt and Road
2.	Laterite/ Iron ore/ Mill scale/ Lead Zinc Slag	0.06	0.0075	0.0675	Laterite from Bhilwara, Lead zinc slag, Iron ore and red ochre from Chittorgarh (Raj.) and mill scale from Mandi Gobindgarh,	280 – 400 km	By Road

S. No.	Name of Raw Material	Quantity (MTPA)			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Additio nal	Total			
					Punjab		

## 2. Incremental GLC level (due to transportation of outsourced limestone by road)

S. No.	Particular	Concentration ( $\mu\text{g}/\text{m}^3$ )			
		PM	SO <sub>2</sub>	NO <sub>2</sub>	CO
1.	As submitted in Final EIA/EMP Report	2.29	2.41	3.97	0.30
2.	After inclusion of outsourcing of limestone	2.33	2.70	3.98	0.37

## 3. Traffic assessment study findings

Traffic assessment study findings	<ul style="list-style-type: none"> <li>▪ Traffic study has been conducted at SH –8 which is approximately 8.0 km in WNW direction and from Village Road connecting to MDR-25B; which is adjacent to plant site.</li> <li>▪ Transportation of raw material &amp; finished product will be done as per details given below: <ul style="list-style-type: none"> <li>○ Limestone - 47 % via Covered Conveyor belt from Captive Limestone Mine and 53 % via Road</li> <li>○ Fly ash - 100% by road</li> <li>○ Gypsum (Mineral, Chemical &amp; Imported) – 50% by road &amp; 50 % by rail</li> <li>○ Slag - 50 % by road &amp; 50 % by rail</li> <li>○ Iron ore - 50 % by road &amp; 50 % by rail</li> <li>○ Bauxite - 50 % by road &amp; 50 % by rail</li> <li>○ Clinker – 50 % by road &amp; 50 % by rail</li> <li>○ Cement - 50 % by road &amp; 50 % by rail.</li> </ul> </li> <li>▪ PCU load after proposed project will be 471.45 (Existing) + 240.9 (Additional) PCU/hr on SH –8 and 61.9 (Existing) + 195.37 (Additional) at on Village Road connecting to MDR-25B and level of service (LOS) will be:</li> </ul> <table border="1" style="margin-left: 20px;"> <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>SH– 8</td> <td>471.45 (Existing) + 240.9 (Additional)</td> <td>1200</td> <td>0.59</td> <td>C</td> </tr> <tr> <td>Village Road connecting to MDR-25B</td> <td>61.9 (Existing) + 195.37 (Additional)</td> <td>625</td> <td>0.41</td> <td>C</td> </tr> </tbody> </table> <p>* Capacity as per IRC- 64-1990 &amp; 106-1990 Guidelines.</p> <p><b>Conclusion:</b> The level of service will be “C” i.e., Good for SH - 8 and village road</p>	Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS	SH– 8	471.45 (Existing) + 240.9 (Additional)	1200	0.59	C	Village Road connecting to MDR-25B	61.9 (Existing) + 195.37 (Additional)	625	0.41	C
Road	V (Volume in PCU/hr.)	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS												
SH– 8	471.45 (Existing) + 240.9 (Additional)	1200	0.59	C												
Village Road connecting to MDR-25B	61.9 (Existing) + 195.37 (Additional)	625	0.41	C												



connecting to MDR-25B due to expansion project (before installation of railway siding).  
 ■ PCU load after expansion project (After installation of Railway Siding) will be 471.45 (Existing) + 154.6 (Additional) PCU/hr. on SH –8 and 61.9 (Existing) + 125.4 (Additional) at on Village Road connecting to MDR-25B and level of service (LOS) will be:

Road	V (Volume PCU/hr.)	in	C (Capacity in PCU/hr.)	Existing V/C Ratio	LOS
SH –8	471.45 (Existing) + 154.6 (Additional)	+	1200	0.52	C
Village Road connecting to MDR-25B	61.9 (Existing) + 125.4 (Additional)	+	625	0.29	B

\* Capacity as per IRC- 64-1990 & 106-1990 Guidelines.

**Conclusion:** The level of service will be “C” i.e., Good for SH- 8 and “B” i.e., Very Good for village road connecting to MDR-25B after including additional traffic due to expansion project (after installation of railway siding).

**SCL’s proposal for installation of railway siding will turns out to be beneficial to the environment in terms of global reduction in GHG emission and ultimately will lead to achieve Sustainable Development Goal for the Indian Railway sector.**

### Deliberations by the Committee

41.15.34 The Committee noted the following:

1. The instant proposal is for expansion in existing Environmental Clearance granted capacity of Integrated Cement Plant - Clinker: 2.0 to 4.5 Million TPA, Cement: 4.0 to 6.0 Million TPA, Waste Heat Recovery Power Generation: 20 to 40 MW. DG Sets of 2000 KVA (1000/500/250/125 KVA) along with Railway Siding. Further, PP during the presentation during 24<sup>th</sup> meeting of the EAC for Industry-I sector held on 28<sup>th</sup> February – 1<sup>st</sup> March, 2023 submitted that in order to fulfil the requirement of greenbelt development towards School, plant layout has also been amended and proposal for installation of Captive Power Plant of 25 MW (Thermal) is now dropped out.
2. The proposal was considered and recommended for grant of EC during the 24<sup>th</sup> meeting held on 28<sup>th</sup> February – 1<sup>st</sup> March, 2023.
3. During processing of the proposal, the Competent Authority of MoEF&CC raised ADS seeking justification for physical and financial progress of the existing EC and the time-line for completion/ commissioning, and query on instant proposal being a part of Interlinked project.
4. Further as per ADS reply of PP, the Competent Authority advised that the proposal may be referred to EAC to reconsider the proposal especially the aspect related to shortfall in enhanced limestone requirement in absence of EC for expanded capacity of mine.
5. As per the suggestions of the Ministry, the said proposal has been placed for re-consideration based on the submission of Project proponent.

6. The EAC took into consideration the information furnished by the project proponent wherein PP has undertaken that Limestone (LS) requirement after the Expansion of Integrated Cement Plant will be 6.75 Million TPA for 4.5 Million TPA Clinker manufacturing. Out of total 6.75 Million TPA, 3.2 Million TPA will be sourced from our Gothra Limestone Mine (ML No.: 47/2007 & ML Area: 624 ha.). Thereafter, the remaining shortfall of limestone requirement (i.e. 3.55 Million TPA) will be sourced from other mine of SCL and open market.
7. The EAC also deliberated in detail on the additional information submitted as written submission related to source of limestone, incremental GLC due to transportation of outsourced limestone by road and traffic assessment findings and found in order. The EAC is further of the view that stringent mitigation measures shall be taken to control the emissions due to transportation of outsourced limestone.

### **Recommendations of the Committee**

- 41.15.35 In view of the foregoing and after detailed deliberations, the committee reiterate its decision and **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 stipulation of following additional conditions in addition to the specific conditions and general conditions as detailed in the minutes of 24<sup>th</sup> meeting held on 28<sup>th</sup> February – 1<sup>st</sup> March, 2023.
- i. The PP shall prepare and implement a stringent action plan to control and mitigate the emissions due to transportation of outsourced limestone.

The meeting ended with thanks to the Chair.

**\*\*\***

**ANNEXURE -1**

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

**Preliminary requirements:**

- i. EIA/EMP report cover page shall consists of project title with location, applicable schedule of the EIA Notification, 2006, ToR letter No. with date, study period along with EIA consultant & laboratory details with QCI/NABET/NABL accreditation certificate detail.
- ii. Besides, following points shall be compiled as per QCI/NABET norms:
  - a. Disclaimer by the EIA consultant.
  - b. Declaration by the Functional Area Experts contributed to the EIA study and declaration by the head of the accredited consultant organization/authorized person.
  - c. Undertaking by the project proponent owning the contents (information and data) of the EIA/EMP report.
  - d. Undertaking by the EIA consultant regarding compliance of ToR issued by MoEF&CC.
  - e. Consultant shall submit the Plagiarism Certificate for the EIA/EMP Report.

### **Structure of EIA/EMP report**

#### **Executive Summary**

- i. Table of Contents of the EIA report including list of tables/figures/annexures/abbreviations/symbols/notations.
- ii. Point wise compliance to the ToR issued by MoEF&CC.
- iii. Executive Summary
  - I. Introduction
    - i. Name of the project along with applicable schedule and category as per EIA, 2006.
    - ii. Location and accessibility
  - II. Project description
    - i. Resource requirements (Land; water; fuel; manpower)
    - ii. Operational activity
    - iii. Key pollution concerns
  - III. Baseline Environment Studies
    - i. Ambient air quality
    - ii. Ambient Noise quality
    - iii. Traffic study
    - iv. Surface water quality
    - v. Ground water quality
    - vi. Soil quality
    - vii. Biological Environment
    - viii. Land use
    - ix. Socio-economic environment
  - IV. Anticipated impacts
    - i. Impact on ambient air quality
    - ii. Impact on ambient noise quality
    - iii. Impact on road and traffic
    - iv. Impact on surface water resource and quality
    - v. Impact on ground water resource and quality

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

## **EIA/EMP Report**

### **1. Introduction**

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

### **2. Project description**

#### **A. Site Details**

- i. Location of the project site covering village, Taluka/Tehsil, District and State.
- ii. Site accessibility
- iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).
- iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.
- v. Environment settings of the site and its surrounding along with map.

- vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.
- vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.
- viii. In case if the project site is in vicinity of the river, the industry shall not be located within the river flood plain corresponding to one in 25 years flood, as certified by concerned District Magistrate/Executive Engineer from State Water Resources Department (or) any other officer authorized by the State Government for this purpose as per the provisions contained in the MoEF&CC Office Memorandum dated 14/02/2022.
- ix. In case of canal/ nala/ seasonal drain and any other water body passing through project site, the PP shall submit the suitable steps /conservation plan/mitigation measures along with contouring, Run -off calculations, disposal etc. A robust and full proof Drainage Conservation scheme to protect the natural drainage/water bodies and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided in the report.
- x. Type of land, land use of the project site needs to be submitted.
- xi. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process as per the MoEF&CC O.M. dated 7/10/2014 shall be furnished.
- xii. Project proponent shall prepare Engineering layout plan showing all internal roads minimum 6 m width and 9 m turning radius for smooth traffic flow inside including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
- xiii. Project proponent shall submit contour map of project site along with drainage disposal system with calculations and drawings supported with proper indexing including Rain Water Harvesting details with calculations mentioning about GW recharge along with relevant drawing.
- xiv. A detailed report covering all aspects of Fire Safety Management and Fire Emergency Plan shall be submitted.
- xv. Details of drone survey for the site, needs to be included in report and presented before the EAC during appraisal of the project.

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

- i. Status of Forest Clearance for the use of forest land shall be submitted.
- ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein

final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.

- iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
- iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

### **C. Salient features of the project**

- i. Products with capacities in **Tons per Annum** for the proposed project.
- ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
- iii. Site preparatory activities.
- iv. List of raw materials required and their source along with mode of transportation.
- v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
- vi. Manufacturing process details along with process flow diagram of proposed units.
- vii. Consolidated materials and energy balance for the project.
- viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
- ix. Water balance diagram
- x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
- xi. Man-power requirement.
- xii. Cost of project and scheduled time of completion.
- xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
- xiv. Brief on present status of compliance (Expansion/modernization proposals)
  - a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
  - b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
  - c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 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> <li>• Other parameters relevant to the project and topography of the area</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 parameters should be related to the characteristic properties of the parameters.</li> </ul>

Attributes	Sampling		Remarks
	Network	Frequency	
			<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>			
<b>Parameters for water quality</b> <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,</li> </ul>	Samples for water quality should be collected and analyzed as per: <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>		



Attributes	Sampling		Remarks
	Network	Frequency	
BOD, COD, Phenol <ul style="list-style-type: none"> <li>• Heavy metals</li> <li>• Total coliforms, faecal coliforms</li> <li>• Phyto-plankton</li> <li>• Zoo-plankton</li> <li>• Microalgae/microalgal bloom</li> </ul>			
<b>For River Bodies</b> <ul style="list-style-type: none"> <li>• Total Carbon</li> <li>• pH</li> <li>• Dissolved Oxygen</li> <li>• Biological Oxygen Demand</li> <li>• Free NH<sub>4</sub></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>	
<b>For Ground Water</b>	<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>		
<b>D. Traffic Study</b>			
<ul style="list-style-type: none"> <li>• Type of vehicles</li> <li>• Frequency of vehicles for transportation of materials</li> <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</li> </ul>	Soil samples be collected as per BIS specifications		

Attributes	Sampling		Remarks
	Network	Frequency	
capacity <ul style="list-style-type: none"> <li>• Alkali metals</li> <li>• Sodium Absorption Ratio (SAR)</li> <li>• Permeability</li> <li>• Water holding capacity</li> <li>• Porosity</li> </ul>			
<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 areas /coastal regulation zone (CRZ)</li> </ul> <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> </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> <li>• Secondary data to collect from Government offices, NGOs, published literature.</li> </ul>

Attributes	Sampling		Remarks
	Network	Frequency	
<ul style="list-style-type: none"> <li>• Avi fauna</li> <li>• Rare and endangered species</li> <li>• Sanctuaries / National park / Biosphere reserve</li> <li>• Migratory routes</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 No	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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## **ANNEXURE-2**

### **Standard ToRs FOR CEMENT INDUSTRY [3(b)]**

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;

3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/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, within 10km other industries, forest, eco/sensitive zones, accessibility, (note – in case of industrial estate this information may not be necessary)
- viii. Baseline environmental data – air quality, surface and ground water quality, soil characteristic, flora and fauna, socio/economic condition of the nearby population
- ix. Identification of hazards in handling, processing and storage of hazardous material and safety system provided to mitigate the risk.
- x. Likely impact of the project on air, water, land, flora/fauna and nearby population
- xi. Emergency preparedness plan in case of natural or in plant emergencies
- xii. Issues raised during public hearing (if applicable) and response given

- xiii. CSR plan with proposed expenditure.
- xiv. Occupational Health Measures
- xv. Post project monitoring plan

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**ANNEXURE-3**

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

S. No.	Name	Position	02.08.2023	04.08.2023	08.08.2023
1.	Shri Rajive Kumar	Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
2.	Dr. Dipankar Shome	Vice Chairman	<i>Present</i>	<i>Present</i>	<i>Present</i>
3.	Dr. S. Ranganathan	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
4.	Dr. Ranjit Prasad	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
5.	Dr. S. K. Singh	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
6.	Dr. Tejaswini Ananthkumar	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
7.	Dr. Hemant Sahasrabuddhe	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
8.	Dr. Jai Krishna Pandey	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
9.	Dr. E V R Raju	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
10.	Dr. S K Chaturvedi, Actg. DG, (Representatives of NCCBM)	Member	<i>Absent</i>	<i>Absent</i>	<i>Present</i>
11.	Shri Nazimuddin, Scientist 'F' (Representative of CPCB)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
12.	Dr. S. Raghavan, Scientist 'D' (Representative of National Institute of Occupational Health (NIOH)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
13.	Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department)	Member	<i>Present</i>	<i>Present</i>	<i>Present</i>
14.	Dr. R.B. Lal, Scientist F, MoEFCC	Member Secretary	<i>Present</i>	<i>Present</i>	<i>Present</i>
<b>MoEFCC</b>					
15.	Dr R P Rastogi	Scientist C	<i>Present</i>	<i>Present</i>	<i>Present</i>
16.	Dr Sandeepan BS	Scientist B	<i>Present</i>	<i>Present</i>	<i>Present</i>

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**Approval of EAC Chairman**

**Re: Compiled Draft minutes of the 41th EAC Meeting held on 2nd, 4th, & 8th August 2023 for approval of the Chairman**

**From :** rajivekumar1983@gmail.com

Sun, Aug 13, 2023 08:05 PM

**Subject :** Re: Compiled Draft minutes of the 41th EAC Meeting held on 2nd, 4th, & 8th August 2023 for approval of the Chairman

**To :** Dr R. B. Lal <rb.lal@nic.in>

**Cc :** chairman eac ind 1  
<chairman.eac.ind.1@gmail.com>, ranganathan metals <ranganathan.metals@gmail.com>, ranjitnitj@gmail.com, rajuevr60@gmail.com, sksinghdce@gmail.com, dshome61@gmail.com, tejaswini acf <tejaswini.acf@gmail.com>, sshemant 801 <sshemant\_801@rediffmail.com>, NCCBM DIRECTOR GENERAL <dg@ncbindia.com>, Nazimuddin <nazim.cpcb@nic.in>, Raghavan S <raghuharihar@gov.in>, raghuharihar@yahoo.co.in, Sanjay Bist <sanjay.bist@imd.gov.in>, drjkpandey eac industry1 <drjkpandey.eac.industry1@gmail.com>, RAJESH PRASAD RASTOGI <rp.rastogi@gov.in>, sandeepan <sandeepan.bs@gov.in>

Dear Dr Lal,  
The minutes of meeting are approved.  
Kindly do the needful.

Best wishes  
Rajive Kumar  
Chairman EAC- Industry-1

Sent from my iPhone

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