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

*****

**Dated: 04.06.2023**

*Date of Zero Draft MoM sent to EAC:01.06.2023*
*Approval by Chairman: 03.06.2023*
*Uploading on PARIVESH:04.06.2023*

## MINUTES OF THE 32nd EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON 26th & 29th MAY, 2023

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

**Time:** **10:30 AM onwards**

## DAY-1: MAY 26, 2023 [FRIDAY]

### (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 30th and 31st Meeting of the EAC (Industry-1 Sector) held during 15th and 16th May, 2023 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **30th and 31st Meeting of the EAC (Industry-1 Sector) held during 15th and 16th May, 2023** conducted through Video Conferencing, and noted that there is only one modifications/factual correction, in the minutes of the 31st EAC meeting for the project/activities, as detailed below:

**Correction in the Minutes w.r.t. Agenda No. 31.3: Manufacturing of either or Combination of High Carbon Ferro Manganese (24000 TPA) OR Ferro Silicon (7750 TPA) OR Silico Manganese (15500 TPA) OR Pig Iron (24000 TPA) with installation of 2 X 6 MVA Capacity Submerged Arc Furnace by M/s Vinay Alloys, located at Plot No. D -17, MIDC, Umred, District Nagpur, Maharashtra- Consideration of Environmental Clearance proposal as per SOP dated 07.07.2021.**

**[Proposal No. IA/MH/IND1/421780/2023; File No. J-11011/14/2021-IA.II(I)]**
**[Consultant: Pollution and Ecology Control Services; Valid upto 09.06.2023]**

M/s. Vinay Alloys has made an online application vide proposal no. IA/MH/INDI/421780/2023 dated 28.04.2023 along with copy of EIA report and Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

The EC proposal was recommended by the 31st EAC in its meeting held on 16th May 2023. The matter has been examined in the Ministry and it is observed that there is typo 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 31th EAC Meeting dated 16th May, 2023 (Agenda No. 31.3) | Corrections suggested | Remarks/ Justification |
|---|---|---|---|
| Page No. 60 Para 31.3.15 | Project proponent initiated the construction of the project before obtaining EC based on the consent to establish obtained from MPCB. The project was considered by the Ministry as per SOP dated 07.07.2021. Credible Action has been taken by Maharashtra Pollution Control Board and has field a Case vide No. SCC93/2023MPCB dated 08.02.2023 filed against the violation carried out. Total Damage cost calculated is Rs. 1.88 lacs and Remediation Cost towards construction is calculated as Rs. 3.44 lacs. Total amount invested is Rs. 4.0 Crores. 1% of total amount | Project proponent initiated the construction of the project before obtaining EC based on the consent to establish obtained from MPCB. The project was considered by the Ministry as per SOP dated 07.07.2021. Credible Action has been taken by Maharashtra Pollution Control Board and has field a Case vide No. SCC93/2023MPCB dated 08.02.2023 filed against the violation carried out. Total Damage cost calculated is Rs. 1.88 lacs and Remediation Cost towards construction is calculated as Rs. 3.44 lacs. Total amount invested is Rs. 4.0 Crores. 1% of total amount invested is Rs. 4.0 lakhs will be paid before issuance of EC. | The EAC noted that this is Typo error and recommended for the correction in the minutes. |

| MoM ref point no. | Details given in MoM of 31th EAC Meeting dated 16th May, 2023 (Agenda No. 31.3) | Corrections suggested | Remarks/ Justification |
|---|---|---|---|
| | invested is Rs. 4.0 lakhs will be paid before issuance of EC.<br>**Bank guarantee of Rs. 3.44 lacs towards remediation cost will be submitted to MPCB**. | **Bank guarantee of Rs. 6.99 lacs towards Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan will be submitted to CPCB.** | |
| Page No. 63 Para 31.3.16 The Committee noted the following: (Point 6) | 6. The project proponent reported that Credible Action has been taken by Maharashtra Pollution Control Board and has field a Case vide No. SCC93/2023MPCB dated 08.02.2023 filed against the violation carried out. Total Damage cost calculated is Rs. 1.88 lacs and Remediation Cost towards construction is calculated as Rs. 3.44 lacs. Total amount invested is Rs. 4.0 Crores. 1% of total amount invested is Rs. 4.0 lakhs will be paid before issue of EC.<br>**Bank guarantee of Rs. 3.44 lacs towards remediation cost will be submitted to MPCB.** The EAC also deliberated upon the findings of Damage Assessment, Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan total (budget amounting to) and found it satisfactory. | 6. The project proponent reported that Credible Action has been taken by Maharashtra Pollution Control Board and has field a Case vide No. SCC93/2023MPCB dated 08.02.2023 filed against the violation carried out. Total Damage cost calculated is Rs. 1.88 lacs and Remediation Cost towards construction is calculated as Rs. 3.44 lacs. Total amount invested is Rs. 4.0 Crores. 1% of total amount invested is Rs. 4.0 lakhs will be paid before issue of EC.<br>**Bank guarantee of Rs. 6.99 lacs towards Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan cost will be submitted to CPCB**. The EAC also deliberated upon the findings of Damage Assessment, Remediation Plan, Natural Resource Augmentation Plan and Community Resource Augmentation Plan total (budget amounting to) and found it satisfactory. | The EAC noted that this is Typo error and recommended for the correction in the minutes. |
| Page No. 67 Para 31.3.17 Specific Condition v | v. Project proponent shall be required to submit a bank guarantee for an amount of Rs. 6.99 Lakhs to the **SPCB** prior to the grant of EC. The plan shall be completed in three years whereas the bank guarantee shall be for five years. The bank | v. Project proponent shall be required to submit a bank guarantee for an amount of Rs. 6.99 Lakhs to the **CPCB** prior to the grant of EC. The plan shall be completed in three years whereas the bank guarantee shall be for five years. The bank guarantee shall be released by | The EAC noted that this is Typo error and recommended for the |

| MoM ref point no. | Details given in MoM of 31th EAC Meeting dated 16th May, 2023 (Agenda No. 31.3) | Corrections suggested | Remarks/ Justification |
|---|---|---|---|
| | guarantee shall be released by the **SPCB** after successful implementation of Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan. | the **CPCB** after successful implementation of Remediation plan, Natural Resource Augmentation Plan and Community Resource Augmentation plan. | correction in the minutes. |
| Page No. 67 Para 31.3.17 Specific Condition vi | vi. Project proponent shall be required to submit Rs. 4.0 Lakhs towards penalty provisions i.e., 1% of project cost attributable to the expansion, as per SOP dated 07.07.2021 to the **CPCB** prior to the grant of EC. | vi. Project proponent shall be required to submit Rs. 4.0 Lakhs towards penalty provisions i.e., 1% of project cost attributable to the expansion, as per SOP dated 07.07.2021 to the **SPCB** prior to the grant of EC. | Typo error |

The EAC, after detailed deliberations, recommended the above-mentioned correction in the minutes of the EAC meeting.

Details of the proposals considered during the 32nd meeting **conducted** through **Video Conferencing**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:

## Consideration of Environmental Clearance Proposals

### Agenda No. 32.1

**32.1 Proposed Standalone Clinker Grinding Unit with Cement production Capacity of 2.5 Million TPA along with Installation of D.G. Sets of Capacity 1750 kVA (1250/500/250/125) by M/s Jaykaycem (Central) Limited, located at Village Ledar, Tehsil Bara, District Prayagraj, Uttar Pradesh – Consideration of Environmental Clearance.**

**[Proposal No. IA/UP/IND1/411361/2022; File No. IA-J-11011/300/2022-IA-II (IND-I)]**
**[Consultant: J.M EnviroNet Pvt. Ltd.; Valid upto 07.08.2023]**

32.1.1 M/s. Jaykaycem (Central) Limited has made an online application vide proposal no.: IA/UP/IND1/411361/2022 dated 05.05.2023 along with copy of EIA report and Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(b) Cement Plants under Category "B" of the schedule of the EIA Notification, 2006 and attracts general condition due to Interstate Boundary of Uttar Pradesh - Madhya Pradesh falls at a

distance of 0.75 km in SSE direction from the proposed project site being appraised at Central Level.

32.1.2 Name of the EIA consultant: M/s. J.M EnviroNet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0172; valid upto 07.08.2023, as on May 31, 2023].

**Details submitted by Project proponent**

32.1.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|
| 19.08.2022 | Standard ToR issued | Terms of Reference | 31.08.2022 | 30.08.2026 |

32.1.4 The project of M/s. Jaykaycem (Central) Limited located in Ledar Village, Bara Tehsil, Prayagraj District, Uttar Pradesh State is for setting up of a new Standalone Clinker Grinding Unit with Cement Production Capacity of 2.5 Million TPA along with installation of D.G. Sets of capacity 1750 kVA (1250 / 500 / 250 / 125).

32.1.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>Total land area proposed at the time of ToR for the project was 19.88 ha; [Private agriculture land]. As on date, Consent from land owner for 18.029 ha has been obtained.</td><td>-</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land area proposed at the time of TOR for the project was 19.88 ha.<br>As on date, Consent from land owner for 18.029 ha (44.5508 Acre) has been obtained out of which company has land Sale Deed for 4.35 ha (10.7630 Acre) and for purchase of remaining 13.67 ha (33.7879 Acre), the company has submitted application on 21st April, 2023 to the DM, Prayagraj, UP for exemption under Land Ceiling Act for purchase of more than 5.05 ha (12.5 Acre) of land in UP.</td><td>-</td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: No habitation exists within the project site.<br>Study Area: Villages falling near to the project site are as given below:
<table>
<tr><th>Habitation</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Gada</td><td>~0.8 km</td><td>SE</td></tr>
<tr><td>Ledar</td><td>~ 2.0 Km</td><td>SW</td></tr>
<tr><td>Kataha</td><td>~ 2.0 Km</td><td>ENE</td></tr>
<tr><td>Amgondar</td><td>~ 2.3 Km</td><td>West</td></tr>
<tr><td>Abhaipur</td><td>~ 2.5 Km</td><td>SW</td></tr>
<tr><td>Biharia</td><td>~ 2.5 Km</td><td>NW</td></tr>
</table></td><td>Land is purchased through mutual agreement with land owner.</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Benipur</td><td>~ 3.5 Km</td><td>ENE</td></tr>
<tr><td>Shivrajpur</td><td>~ 3.5 Km</td><td>ESE</td></tr>
<tr><td>Janwan</td><td>~ 3.5 Km</td><td>WNW</td></tr>
<tr><td>Malapur</td><td>~ 5.0 Km</td><td>ENE</td></tr>
<tr><td>Shankargarh</td><td>~5.0 Km</td><td>SE</td></tr>
</table>
However, there are approx. 64 villages in the 10 km radius study area.
</td><td></td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A.</td><td>25°12'18.39"N</td><td>81°33'55.22"E</td></tr>
<tr><td>B.</td><td>25°12'16.97"N</td><td>81°34'1.33"E</td></tr>
<tr><td>C.</td><td>25°12'16.61"N</td><td>81°34'1.17"E</td></tr>
<tr><td>D.</td><td>25°12'14.80"N</td><td>81°34'11.61"E</td></tr>
<tr><td>E.</td><td>25°12'11.87"N</td><td>81°34'10.95"E</td></tr>
<tr><td>F.</td><td>25°12'12.21"N</td><td>81°34'8.97"E</td></tr>
<tr><td>G.</td><td>25°12'1.07"N</td><td>81°34'9.23"E</td></tr>
<tr><td>H.</td><td>25°12'0.99"N</td><td>81°34'6.63"E</td></tr>
<tr><td>I.</td><td>25°11'59.33"N</td><td>81°34'6.46"E</td></tr>
<tr><td>J.</td><td>25°11'59.29"N</td><td>81°34'6.21"E</td></tr>
<tr><td>K.</td><td>25°11'55.10"N</td><td>81°34'5.80"E</td></tr>
<tr><td>L.</td><td>25°11'55.03"N</td><td>81°34'4.84"E</td></tr>
<tr><td>M.</td><td>25°11'59.41"N</td><td>81°34'5.41"E</td></tr>
<tr><td>N.</td><td>25°11'59.62"N</td><td>81°34'0.83"E</td></tr>
<tr><td>O.</td><td>25°11'58.94"N</td><td>81°34'0.34"E</td></tr>
<tr><td>P.</td><td>25°11'57.72"N</td><td>81°33'59.95"E</td></tr>
<tr><td>Q.</td><td>25°11'56.43"N</td><td>81°33'56.45"E</td></tr>
<tr><td>R.</td><td>25°11'57.82"N</td><td>81°33'56.13"E</td></tr>
<tr><td>S.</td><td>25°12'4.63"N</td><td>81°33'58.93"E</td></tr>
<tr><td>T.</td><td>25°12'6.90"N</td><td>81°33'59.55"E</td></tr>
<tr><td>U.</td><td>25°12'6.74"N</td><td>81°33'59.97"E</td></tr>
<tr><td>V.</td><td>25°12'9.51"N</td><td>81°34'1.33"E</td></tr>
<tr><td>W.</td><td>25°12'10.79"N</td><td>81°33'53.23"E</td></tr>
<tr><td>X.</td><td>25°12'11.36"N</td><td>81°33'51.57"E</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>148 m to 154 m above mean sea level</td><td>-</td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No Forest Land is involved in the project site.</td><td>-</td></tr>
<tr><td>7.</td><td>Water body ( River, Lakes, Pond, Nala,</td><td>Project site: No water body exists within the project site.</td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Study area: Following water bodies are falling within 10 km radius study area:
<table>
<tr><th>S. No</th><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>1.</td><td>Loni Nala</td><td>~4.0 km</td><td>SSW</td></tr>
<tr><td>2.</td><td>Pardawan talab</td><td>~4.5 km</td><td>NNW</td></tr>
<tr><td>3.</td><td>Barasot Nala</td><td>~ 4.5 km</td><td>NNW</td></tr>
<tr><td>4.</td><td>Baghla Jhil</td><td>~6.0 km</td><td>NE</td></tr>
<tr><td>5.</td><td>Baghar Nala</td><td>~6.5 km</td><td>NNW</td></tr>
<tr><td>6.</td><td>Dubha Minor</td><td>~6.5 km</td><td>NE</td></tr>
<tr><td>7.</td><td>Hardi talab</td><td>~7.0 km</td><td>SW</td></tr>
<tr><td>8.</td><td>Bundela Nala</td><td>~7.0 km</td><td>NNW</td></tr>
<tr><td>9.</td><td>Baghla Minor</td><td>~7.0 km</td><td>NE</td></tr>
<tr><td>10.</td><td>Bachhla Canal</td><td>~7.5 km</td><td>ESE</td></tr>
<tr><td>11.</td><td>Jhagrabaria Nala</td><td>~7.5 km</td><td>NE</td></tr>
<tr><td>12.</td><td>Chitauli Nala</td><td>~8.0 km</td><td>SSW</td></tr>
<tr><td>13.</td><td>Bhatgawan Bandh</td><td>~8.0 km</td><td>WSW</td></tr>
<tr><td>14.</td><td>Gangiwa Nala</td><td>~8.5 km</td><td>NW</td></tr>
<tr><td>15.</td><td>Soharwa Minor</td><td>~8.5 km</td><td>SSE</td></tr>
<tr><td>16.</td><td>Yamuna River</td><td>~9.0 km</td><td>NW</td></tr>
<tr><td>17.</td><td>Semra Bandh</td><td>~ 9.0 km</td><td>SW</td></tr>
<tr><td>18.</td><td>Arwari Bandh</td><td>~9.0 km</td><td>East</td></tr>
<tr><td>19.</td><td>Sarauli Nala</td><td>~9.5 km</td><td>NNE</td></tr>
<tr><td>20.</td><td>Donrhakiya Minor</td><td>~9.5 km</td><td>South</td></tr>
<tr><td>21.</td><td>Pandua Minor</td><td>~9.5 km</td><td>North</td></tr>
</table></td><td></td></tr>
<tr><td>8.</td><td>Existence of ESZ / ESA / national park / wildlife sanctuary / biosphere reserve / tiger reserve / elephant reserve etc. if any within the study area.</td><td>No ESZ, National Park, Wildlife Sanctuary, Tiger/ Elephant Reserve, Biosphere Reserve exist within 10 km radius study area<br>However, the 13 Reserve Forests (RFs) and 02 Protected Forests (PFs) existing within the 10 km radius Study area are as follows:<br>• Reserve Forests- Ledar RF (~0.5 km in South), Khatkari RF (~0.75 km in South), Lakhnauti RF (~1.5 km in North), Lakhanpur (~2.0 km in ESE), Jobai Pahar RF (~2.5 km in NE), RF (~3.0 km in WNW), RF (~3.5 km in WNW), Janwan (~4.0 km in WNW), Baghla (~4.0 km in NE), Channar RF (~6.5 km in SW),</td><td>-</td></tr>
</table>

| S. No. | Particulars | Details | Remarks |
|---|---|---|---|
| | | Bojh RF (~7.5 km in WSW), Ghatia (~8.5 km in SSW), & Mahrja RF (~9.5 Km in WSW)<br>• ***Protected Forests***- Barha kotra PF (~5.5 km in NW), Baraha Kathar PF (~6.5 km in SSW). | |

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

| S. No. | Plant Equipment /Facility | Proposed Unit | |
|---|---|---|---|
| | | Configuration | Capacity |
| 1. | Cement Mill (VRM) for Cement manufacturing | 1 x 450 TPH | 2.5 Million TPA |
| 2. | D.G. Sets | 1750<br>(1250 / 500 / 250 / 125) kVA | 1750<br>(1250 / 500 / 250 / 125) kVA |
| 3. | HAG (Coal, Diesel and Biomass based) | 1 x 20 M kcal per hour | 20 M kcal per hour |

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

| S. No. | Raw Material | Quantity required per annum (Million TPA) | Source | Distance from site (kms) | Mode of Transportation |
|---|---|---|---|---|---|
| 1. | Clinker | 1.50 | Integrated Cement Plant of Jaykaycem (Central) Ltd, subsidiary of M/s. JK Cement Ltd. at Panna district of Madhya Pradesh | 250 | Road |
| 2. | Gypsum | 0.13 | Imported & Indian mineral gypsum and Industrial waste & chemical gypsum | 1120 | Rail & Road |
| 3. | Fly ash & Pond ash | 0.88 | Prayagraj Thermal Power Station, Bara (Uttar Pradesh) | 10 | Road |
| 4. | Slag | 0.18 | Steel Plants in Madhya Pradesh | 200 - 250 | Road |
| 5. | Limestone | 0.25 | Captive mine of Integrated Cement Plant of Jaykaycem (Central) Ltd, subsidiary of M/s. JK Cement Ltd. at Panna district of Madhya Pradesh and local market | 250 | Road |

32.1.8 The water requirement for the proposed project is estimated as 200 $m^3$ /day (total fresh water); which will be obtained from the Ground water. The permission for drawl of groundwater is

obtained from Uttar Pradesh Groundwater Board vide letter. No. NOC047077, NOC017949 & NOC017949 dated 09th November, 2022.

32.1.9 The power requirement for the proposed project is estimated as 13 MW; which will be met from Uttar Pradesh Vitaran Nigam Ltd of UPPCL (GoUP) and D.G. Sets of 1750 KVA for Emergency back up during power failure.

32.1.10 Baseline Environmental Studies:

<table>
<tr><th>Period</th><th>Summer Season (March to May, 2022)</th></tr>
<tr><td>AAQ parameters at 09 locations (Min. & Max.)</td><td>• $PM_{2.5}$ - 24.1 to 51.2 µg/m$^3$<br>• $PM_{10}$ - 44.6 to 84.6 µg/m$^3$<br>• $SO_2$ - 5.2 to 14.2 µg/m$^3$<br>• $NO_x$ - 10 to 26.4 µg/m$^3$<br>• CO - 0.52 to 0.95 mg/m$^3$</td></tr>
<tr><td>Incremental GLC level</td><td>• $PM_{10}$ - 0.91 µg/m$^3$ (approx. 200 m in South East Direction)<br>• $SO_2$ - 1.67 µg/m$^3$ (approx. 250 m in South East Direction)<br>• $NO_2$ - 1.78 µg/m$^3$ (approx. 220 m in South East direction)</td></tr>
<tr><td>Ground water quality at 08 locations</td><td>• pH - 6.85 to 7.42<br>• Total Hardness - 99.0 to 267.3 mg/l<br>• Chlorides - 34.9 to 129.9 mg/l<br>• Fluoride - 0.12 to 0.35 mg/l<br>• Iron as Fe – 0.09 to 0.32 mg/l</td></tr>
<tr><td>Surface water quality at 02 locations</td><td>• pH - 7.34 to 7.52<br>• DO - 6.7 mg/l to 7.1 mg/l<br>• BOD - 4.9 mg/l to 8.4 mg/l<br>• COD - 20.0 mg/l to 32.0 mg/l</td></tr>
<tr><td>Noise levels Leq (Day & Night)</td><td>48.9 to 54.2 Leq dB (A) for the day time and 40.3 to 43.9 Leq dB (A) for the night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>✓ Traffic study has been conducted at NH - 731A (now NH-35) which is adjacent to project site in south direction.<br>✓ Transportation of raw material, fuel & finished product will be done 100% by road.<br>✓ Existing PCU is 282 PCU/hr. on NH - 731A and existing level of service (LOS) is: B.
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH - 731A</td><td>282</td><td>1200</td><td>0.23</td><td>B</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td>✓ PCU load after proposed project will be 282 (Existing) + 48.75 (Additional) PCU/hr. and level of service (LOS) will be: B (Considering 100% Transportation by road)
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH - 731A</td><td>330.75</td><td>1200</td><td>0.27</td><td>B</td></tr>
</table>
*Capacity as per IRC: 106-1990 for urban areas Guide line for capacity for roads.<br><br>Conclusion: The level of service will remain same as “B” i.e. Very Good after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No schedule - I species were recorded in the 10 km radius study area during field survey which comes in (IWPA) Indian Wildlife Protection Act, 1972.</td></tr>
</table>

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

| S. No. | Type of Waste | Source | Quantity generated | Mode of Treatment / Disposal |
|---|---|---|---|---|
| 1. | Dust | Cement Plant | 200 TPD | Dust collected from various APCEs will be totally recycled into the process. |
| 2. | STP Sludge | STP | ~30kg/day | Used as manure for greenbelt development / plantation. |
| 3. | Municipal Waste | Domestic usage and or commercial waste | ~40 kg/day | Waste will be collected & segregated into bio-degradable & non– degradable. Further, Bio-degradable waste will be converted into organic manure by installation of Organic Waste Convertor (OWC) machine and manure will be used for greenbelt development & plantation and non–degradable waste will be sent to authorized vendor from CPCB/SPCB scientifically in compliance of Solid Waste Management rules 2016, as amended thereof. |
| 4. | Used Oil | Plant maintenance | ~5 KL / annum | Will be generated per Schedule- I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; which will be sent to CPCB/ SPCB authorized recycler. Used Oil/ Spent oil will be filled in Empty barrels and further sent to CPCB/ SPCB authorized recycler. |
| 5. | Contaminated cotton rags | | ~1.2 MT/annum | |
| 5. | Empty Barrels | | ~300 Barrels/ Annum | |
| 6. | Waste/ Residue containing oil | | ~2.0 KL/ Annum | |

| S. No. | Type of Waste | Source | Quantity generated | Mode of Treatment / Disposal |
|---|---|---|---|---|
| 7. | E- Waste | | ~1.0 Tonnes/Annum | Will be sent to registered vendors as per E-Waste (Management) Rules, 2016. |
| 5. | Used Lead acid batteries | Plant Canteen | ~50 Nos./Annum | Will be stored in the designated storage area and will be disposed off/ sent to registered vendors as per Battery Waste Management Rules 2020. |

32.1.12 Public Consultation:

| | |
|---|---|
| Details of advertisement given | Public Hearing Notice published in Newspapers "Times of India" and "Dainik Jagran" on 03rd Nov., 2022. |
| Date of Public Consultation | 05th Dec., 2022 (Monday) at 11:00 AM |
| Venue | Public Hearing for the project was conducted at Project Site, Ledar, Tehsil: Bara, District: Prayagraj (Uttar Pradesh). |
| Presiding Officer | Additional District Magistrate (Nazul), Prayagraj |
| Major issues raised | Employment, Environment, water related, CSR, Health, etc. |

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

The total Budget earmarked for the Socio-Economic development as per PH issues raised along with Model Village adoption is 5.71 Crores (~1.5 % of total Project Cost). The company is proposing to adopt three Villages viz. Village Gadha, Village Ledar & Village Abhaipur as a part of model village development plan.

| S. No. | Physical Targets | Budget (Rs. in lakhs) | Budget (Rs. in lakhs) | | | |
|---|---|---|---|---|---|---|
| | | | 01st Year | 02nd Year | 03rd Year | 04th Year |
| A. | Employment Generation | | | | | |
| 1. | Construction of Vocational training centre for Self-employment oriented training in trades of - Sewing, Dress making, Computer, Beautician, House wiring, Carpentry & Plumbing | 75 | 25 (Village Gadha) | 25 (Village Abhaipur) | 25 (Village Ledar) | -- |
| 2. | Capacity building of farmers to enhance productivity at Village Gadha, Abhaipur, and Ledar | 15 | 5 (30 farmers/ covering all 3 villages) | 5 (30 farmers/ covering all 3 villages) | 5 (30 farmers/ covering all 3 villages) | -- |
| 3. | Women empowerment centre by providing Income generation training in Farm and Non-Farm activity. | 30 | 10 (Village Gadha) | 10 (Village Abhaipur) | 10 (Village Ledar) | -- |
| B. | Education Sector | | | | | |
| 1. | Renovation of School Buildings (Minor repairing of building, whitewashing, repairing of gates & windows and rooftop repairing) at 05 Villages | 90 | 25 (Village Ledar) | 25 (Village Gadha) | 25 (Village Abhaipur) | 15 (Village Shankargarh) |
| 2. | RO/ water filter and Water Cooler (02 each school & village) and Furniture (300 Students in each schools) | 60 | 10 (Village Ledar) | 10 (Village Shankargarh) | 20 (Village Gadha & New Bharat Anusuchit Janjati Sewa Sansthan H.S. Gadha Katra) | 20 (Govt. Primary School Mauhara Shankargarh) & (Primary School Amgondar, Upper Primary School Amgondar ) |
| 3. | Computer (45 Nos.) will be provided to the nearby three schools (15 each school) of nearby villages | 30 | 10 (Computers to 20 students in Govt. Primary School Mauhara Shankargarh) | 10 (Computers to 20 students in Primary School Amgondar, Upper Primary | 10 (Computers to 20 students in Primary School Taktai, Primary | -- |

| S. No. | Physical Targets | Budget (Rs. in lakhs) | Budget (Rs. in lakhs) | | | |
|---|---|---|---|---|---|---|
| | | | 01st Year | 02nd Year | 03rd Year | 04th Year |
| | | | | School Amgondar) | School Abhaipur) | |
| 4. | Development of Smart classes/ e-classrooms for quality education in nearby three schools | 15 | 5 (Govt. Primary School Mauhara Shankargarh ) | 5 (Primary School Amgondar, Upper Primary School Amgondar ) | 5 (Primary School Taktai, Primary School Abhaipur) | -- |
| 5. | Library and Reading Rooms furniture and books in existing school | 15 | 5 (Village Gadha) | 5 (Village Ledar) | 5 (Village Abhaipur) | -- |
| 6. | Providing Sports Kit to schools (Cricket kit / Table Tennis / basketball / badminton kit etc) | 3 | 1 (Govt. Primary School Mauhara Shankargarh) | 1 (Primary School Amgondar, Upper Primary School Amgondar) | 0.5 (Primary School Abhaipur) | 0.5 (Primary School Taktai) |
| C. | Health Sector | | | | | |
| 1. | 1 ambulance will be provided for all 3 villages and Renovation of existing dispensary with medical equipment for Primary health centre and medical health camp. | 50 | 30 (Village Gadha) (Ambulance and Dispensary) | 10 (Village Abhaipur) | 10 (Village Ledar) | -- |
| D. | Drinking water and rain water harvesting | | | | | |
| 1. | Hand Pump (04 each village) in consultation with Administration | 70 | 10 (Village Ledar) | 10 (Village Abhaipur) | 20 (Villages | 30 (Villages Shankargarh, |

| S. No. | Physical Targets | Budget (Rs. in lakhs) | Budget (Rs. in lakhs) | | | |
|---|---|---|---|---|---|---|
| | | | 01st Year | 02nd Year | 03rd Year | 04th Year |
| | | | | | Chipiya & Gadha) | Bihariya & Shivrajpur) |
| 2. | Construction of rainwater harvesting structure in nearby Govt School | 10 | 2 (Upper Primary School Gadha Katra) | 4 (Primary School Amgondar, Upper Primary School Amgondar ) | 2 (Primary School Abhaipur) | 2 (Primary School Taktai) |
| E. | Infrastructure Development | | | | | |
| 1. | Installation of solar electric lights in nearby 4 villages (5 each) & 3 schools (2 each) | 6 | 0.5 (Village Ledar) | 0.5 (Village Shankargarh ) | 0.5 (Village Bihariya) | 4.5 (Upper Primary School Gadha Katra, Govt. Primary School Mauhara Shankargarh, Govt. Primary School Taktai, Primary School Abhaipur) |
| 2. | Construction of community toilet in public places | 30 | 10 (Village Ledar) | 10 (Village Gadha) | 10 (Village Abhaipur) | -- |
| 3. | Creating Model Anganwadi | 30 | 10 (Village Ledar) | 10 (Village Gadha) | 10 (Village Abhaipur) | -- |
| F. | Environment Management | | | | | |
| 1. | Plantation in nearby villages (Total 6000 saplings) | 12 | 2 (Villages Ledar) | 2 (Village Gadha) | 4 (Villages Abhaipur | 4 (Villages Shankargarh & Janwa) |

| S. No. | Physical Targets | Budget (Rs. in lakhs) | Budget (Rs. in lakhs) | | | |
|---|---|---|---|---|---|---|
| | | | 01st Year | 02nd Year | 03rd Year | 04th Year |
| | | | | | and Bihariya) | |
| 2. | Providing tools & facilities for organic farming in the nearby villages | 30 | 5 (Villages Ledar) | 5 (Village Gadha) | 5 (Village Abhaipur) | 15 (Villages Shankargarh, Janwa and Bihariya) |
| **Total** | | **571** | **165.5** | **147.5** | **167** | **91** |

***Note: *The above action plan will be implemented during project implementation phase. Zero date will start from the date of construction start for the proposed project.***
*****The activities given in the above table are excluding the Pollution Control and mitigation measures which are included in EMP Cost [i.e. Capital Cost: Rs. 37.45 Crores & Annual Recurring Cost: Rs. 72.1 Lakhs/annum***
******Villages can be interchanged as per situation demand. Activities may be changed as per situation and community requirement***

32.1.13 The capital cost of the project is Rs. 380.23 Crores and the capital cost for environmental protection measures is proposed as Rs. 37.45 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 72.1 Lakhs per annum. The employment generation from the proposed project is about 180 persons during construction phase and about 205 persons during operational phase. The details of cost for environmental protection measures are as follows:

| S. No. | Particular | Cost in Crores | |
|---|---|---|---|
| | | Capital Cost | Recurring Cost /annum |
| i. | Air Pollution Control | 31 | 0.47 |
| ii. | Water Pollution Control and Rain Water Harvesting Measures | 5 | 0.071 |
| iii. | Noise Pollution Control | 0.15 | 0.02 |
| iv. | Environment monitoring | 0.6 | 0.05 |
| v. | Greenbelt & Plantation | 0.5 | 0.05 |
| vi. | Others | 0.2 | 0.06 |
| | **Total** | **37.45** | **0.721** |

32.1.14 Proposed Greenbelt will be developed in 6.56 ha which is about 33 % of the total project area of 19.88 ha. A 5-30 m wide greenbelt, consisting of at least 3 tiers around project 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 16,400 saplings will be planted and nurtured in 6.56 Hectares as per action plan given below:

***Action Plan for plantation during monsoon season, FY2023-24***

1. Total plantation area along the boundary = 3.94 ha.
2. Plantation density = 2500 trees/ ha.
3. Total no. of plants = 2500 x 3.94 ha = 9850 nos.
4. Timeline = July, 2023 to December, 2023.
5. Type of species = Local species

***Action Plan for plantation during monsoon season, FY2024-25***

1. Total plantation area along the boundary = 2.62 ha.
2. Plantation density = 2500 trees/ ha.
3. Total no. of plants = 2500 x 2.62 ha = 6650 nos.
4. Timeline = July, 2024 to December, 2025.
5. Type of species = Local species

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

**Written representations:**

32.1.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 27.05.2023 through email dated 27.05.2023 submitted the following information:

| **Point no 1** | **Budget for CER activities as 1.5% of the total Project Cost** |
|---|---|
| Reply | 1. Total Project Cost, Rs. 380.23 Crores.<br>2. Company will spend Rs. 5.70 Crores (1.5% of total project cost) to address the points raised during the public hearing and to adopt the 03 Villages namely Gadha, Ledar and Abhaipur for socio economic development.<br>3. Detailed Action Plan along with budgetary allocation is updated at para 32.1.12 above. |
| **Point no 2** | **1. Plant Layout after incorporating the suggestions of the EAC:**<br>**2. Action plan for Plantation along the boundary during monsoon FY 2023-24.** |
| Reply | Plant Layouts after incorporating EAC suggestions are submitted**.**<br>***Action Plan for plantation during monsoon season, FY2023-24***<br>6. Total plantation area along the boundary = 3.94 ha.<br>7. Plantation density = 2500 trees/ ha.<br>8. Total no. of plants = 2500 x 3.94 ha = 9850 nos.<br>9. Timeline = July, 2023 to December, 2023.<br>10. Type of species = Local species<br><br>***Action Plan for plantation during monsoon season, FY2024-25***<br>6. Total plantation area along the boundary = 2.62 ha.<br>7. Plantation density = 2500 trees/ ha.<br>8. Total no. of plants = 2500 x 2.62 ha = 6650 nos.<br>9. Timeline = July, 2024 to December, 2025.<br>10. Type of species = Local species |
| **Point no 3** | **Water balance** |
| Reply | Three years old sapling will be planted during monsoon which will improve survival and for the watering drip irrigation will be provided to reduce water consumption. Revised copy of the water balance is submitted. |
| **Point no 4** | **Quality of the diesel with respect to % of Sulphur proposed for use in HAG as fuel.** |
| Reply | High Speed Diesel with 0.25% of Sulphur content will be used for HAG operation. Coal and Biomass are other fuel options for HAG operation. |
| **Point no 5** | **Clarification regarding relation of Grinding unit with Cement Plant at Panna** |
| Reply | Clinker for the clinker grinding unit will be sourced mainly from the operating cement Plant of Jaykaycem (Central) Limited located at Panna district, Madhya Pradesh. Both Prayagraj and Panna are independent standalone units. |
| **Point no 6** | **Clarification regarding relation of the Grinding Unit with mines at Panna** |
| Reply | Limestone will be sourced mainly from the limestone mines of Jaykaycem (Central) Limited located at Panna district, Madhya Pradesh. Both Prayagraj and Panna are independent standalone units. However, as advised by the Hon'ble EAC members, we will explore locally available limestone. |
| **Point 7** | **GLC of CO to be submitted.** |
| Reply | Isopleth showing GLC of CO is submitted. |

| Point 08 | Status of Land possession |
|---|---|
| Reply | 1. Total area of the Proposed Grinding Unit is 19.88 ha.<br>2. As on date PP has land Sale Deed for 4.35 ha (10.7630 Acre). Consent from land owner for additional 13.67 ha (33.7879 Acre) has been obtained. Company has submitted application on 21st April, 2023 to the DM, Prayagraj, UP for exemption under Land Ceiling Act. Copy of application is submitted.<br>3. Based PP's experience for getting the exemption and land registry/ possession, we expect to complete the process by end of June, 2023. |

**Deliberations by the Committee**

32.1.17 The Committee noted the following:

1. The instant proposal is for setting up of a new Standalone Clinker Grinding Unit with Cement Production Capacity of 2.5 Million TPA along with installation of D.G. Sets of capacity 1750 kVA (1250 / 500 / 250 / 125).
2. The proposed cement griding unit is a category B project and appraised as Category A project due to Interstate Boundary of Uttar Pradesh - Madhya Pradesh falls at a distance of 0.75 km in SSE direction from the proposed project site.
3. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
4. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
5. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
6. The total project area is 19.88 ha. As on date, Consent from land owner for 18.029 ha (44.5508 Acre) has been obtained out of which company has land Sale Deed for 4.35 ha (10.7630 Acre) and for purchase of remaining 13.67 ha (33.7879 Acre), the company has submitted application on on 21st April, 2023 to the DM, Prayagraj, UP for exemption under Land Ceiling Act for purchase of more than 5.05 ha (12.5 Acre) of land in UP.
7. There are about 64 villages within 10 km radius study area of the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.

8. The water requirement for the proposed project is estimated as 200 m3 /day (total fresh water); which is proposed to be obtained from the Ground water.
9. The Committee has found that the baseline data and incremental GLC due to the proposed project and found it satisfactory.
10. The PP has submitted that Greenbelt will be developed in 6.56 ha which is about 33 % of the total project area of 19.88 ha. Total no. of 16,400 saplings will be planted and nurtured in 6.56 Hectares in three years. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that as committed, the greenbelt shall be completed within two years, with maximum plantation during the 1st year itself.
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:**

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

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

**A. Specific Condition:**

i. 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 obtain complete acquisition of the proposed land and convert for the industrial purpose as per State Government Rules/Guidelines prior to commencement of project.

iv. There are about 64 villages within 10 km radius study area 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 some of these locations in its environmental monitoring programme.

v. The water requirement of 200 $m^3$/day shall be obtained from ground water after obtaining necessary permission from the Competent Authority. PP shall also explore the possibility of shifting to alternate source of water to reduce its dependency from groundwater.

vi. 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 Villages. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

vii. All the commitments made towards socio-econmic 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. 5.71 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

viii. PP shall adopt three Villages namely viz. Village Gadha, Village Ledar & Village Abhaipur as committed and 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. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ 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.

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 and at quenching towers 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. 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/$Nm^3$ and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.

xvi. 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).
   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.

xvii. Provide Low NOx burners as primary measures and SCR /NSCR technologies as secondary measure to control NOx emissions.

xviii. The emission norms applicable for the cement plant shall be adhered to.

xix. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.

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

xxi. Petcoke dosing shall be controlled automatically to control $SO_2$ 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. 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. Tyre washing facilities shall be provided at the entrance of the plant gates.

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

vi. 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.

vii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.

viii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.

ix. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.

**IV. Noise monitoring and prevention**

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

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

**V. Energy Conservation measures**

i. 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 management**

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

ii. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.

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

iv. 100% utilization of fly ash shall be ensured.

v. 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.

vi. 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. 32.2**

**32.2 Expansion of Production Capacity of Sponge Iron Kilns, Induction Furnaces, Rolling Mills (Hot Charging and Reheating), Captive Power Plant (AFBC+WHRB), Fly Ash Bricks Unit and New Sub-Merged Arc Furnaces by M/s. Hi-Tech Power and Steel Limited, located at Village: Parsada, Post: Sarora, Tehsil: Tilda, District: Raipur, Chhattisgarh – Consideration of Environmental Clearance.**

**[Proposal No.: IA/CG/IND1/412752/2022; File No. IA-J-11011/171/2017-IA-II(IND-I)]**
**[Consultant : M/s Anacon Laboratories Pvt. Ltd.; Valid upto 28.06.2023]**

32.2.1 M/s. Hi-tech Power and Steel Ltd. have made an online application vide proposal No. IA/CG/IND1/412752/2022 dated 06.05.2023 along with copy of EIA report and Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal power plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised as Category "A" at Central Level.

32.2.2 Name of the EIA consultant: M/s Anacon Laboratories Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. QCI/NABET/ENV/ACO/23/2719; valid upto 28.06.2023, as on May 31, 2023].

**Details submitted by Project proponent**

32.2.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|
| 05.06.2021 | Standard Terms of Reference issued | Terms of Reference | 23.06.2021 | 22.06.2025 |

32.2.4 The project of M/s. Hi-tech Power and Steel Ltd. located at Village: Parsada, Tehsil- Tilda and District: Raipur, Chhattisgarh is for expansion of manufacturing facilities for production of Sponge Iron from 90000 TPA to 350000 TPA, MS Billet from 138000 TPA to 300000 TPA, Steel Rerolled products (through Hot Charging and Reheating Furnace) from 150000 TPA to 300000 TPA, Captive power generation plant comprising of Waste Heat Recovery Boilers (WHRB) from 6 MW to 22 MW and Atmospheric Fluidized Bed Combustion (AFBC) Boiler from 6 MW to 14 MW, Fly Ash Bricks Manufacturing from 99 Lakhs Nos. to 198 Lakhs Nos. and Ferro Alloys 38000 TPA or Pig Iron 76000 TPA.

32.2.5 Environmental Site Settings:

| Sl. | Particulars | Details | Remarks |
|---|---|---|---|
| 1. | Total land | Total land – 30.457 Ha. (Private land) | Free hold already diverted for industrial use. |
| | | The land area in EC dated 05.11.2020 was mentioned as 20.079 Ha./71.8 Acre, (old EC typographical mistake) whereas the correct figure is 29.079 Ha./71.8 Acre, this areas has been correctly mentioned in Form-2 during the appraisal of the above referred EC application (a copy of Form-2 submitted is submitted) in which 29.079 hectare was mentioned. Now the present EIA consultant Anacon has correctly filed the application this time. During appraisal of the above EC dated 05.11.2020 committee had directed to PP (EC Specific condition No. xi) to allot 1.378 Ha. land for truck parking). Thus, the PP has added this 1.378 ha land in 29.079 Hectare land area and now the entire land in total has become 30.457 Ha. (29.079 Ha. + 1.378 Ha Parking). PH was conducted for 30.457 Ha. Area and in Form 1 as well as EIA/EMP report this area is consistent. Thus, total land area of the project at present is 30.457 Ha., which is inclusive of 1.378 Ha. land area procured for parking area. The entire land is diverted for industrial use. | |
| 2. | Land acquisition details as per MoEF&CC O.M. dated 7/10/2014 | Total 30.457 Hectare land is already in existence with the company. | The project area is 30.457 Hectare which is already owned by the company |

<table>
<tr><th>Sl.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site: Not any<br>Study Area:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Parsada</td><td>1.5 km</td><td>SSW</td></tr></table></td><td>R&R - Not applicable.</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site.</td><td><table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>Point # 1</td><td>21°33'31.35"N</td><td>81°45'5.61"E</td></tr><tr><td>Point # 2</td><td>21°33'43.41"N</td><td>81°45'13.12"E</td></tr><tr><td>Point # 3</td><td>21°33'51.52"N</td><td>81°45'35.25"E</td></tr><tr><td>Point # 4</td><td>21°33'33.82"N</td><td>81°45'40.36"E</td></tr></table></td><td>-</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>277-288 M above mean sea level</td><td>The entire area is almost flat with moderate gradient</td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No forest land is involved in the proposed plant site.</td><td>-<br>-</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Study area:<br>1) Jamuniya Nadi - 8Kms /E<br>2) Kulhan Nala- 9.3Kms/WSW<br>3) Bhatapara Branch (Mahanadi Canal)- 1.3Kms/ENE<br>4) Seonath River - 8 Kms/WNW<br>5) Kharun River - 8.5 Kms/W<br>6) Gadaria Nala- 2 Kms/NW<br>7) Chitawar Nala- 8Kms/NE<br>8) Dhumma Nala- 8.5Kms/SE<br>9) Kotri Nala- 6.4Kms/NNW<br>10) Deorani Jethani Nala- 1Km/S<br>11) Bannubai Talab 3.2 SE<br>12) Atal Sagar 5.2 km/E<br>13) Ghughua Tank 3.2 km/N<br>14) Parsada Reservoir 0.5 km/SE</td><td>No water body is involved in the proposed plant site</td></tr>
<tr><td>8.</td><td>Existence of ESZ/ESA / national park/ wildlife sanctuary/ biosphere reserve/tiger reserve/ elephant reserve etc. if any within the study area</td><td>Nil<br><br>List of Reserve Forest:<br>Bilari Reserve Forest - 0.5 Kms/NNW,<br>Bilari Ghughua Reserve Forest - 3.4 Kms/NE</td><td>-</td></tr>
</table>

32.2.6 It is reported that Consent to Establishment was obtained from Chhattisgarh Environment Conservation Board (CECB) for establishment of 1 x 100 TPD DRI Kiln (1st DRI Kiln) vide Board letter no. 3686/B-292/TC/CECB/2002 Raipur dated 07/10/2002. (does not attract EC as per provisions of EIA Notification 1994 as capital investment was < Rs 100 crores for new projects). Later Consent to Establishment was obtained from Chhattisgarh Environment Conservation Board (CECB) for expansion for establishment of 1 x 100 DRI Kiln (2nd Kiln) along with 10 MW Power Plant (WHRB – 4 MW & FBC - 6 MW), Ingots. / Billets capacity 48,000 TPA and Fly ash brick plant 99,00,000 nos./year vide Board letter no. 4781/TS/CECB/2005, Raipur Dt. 07/10/2005 (does not attract EC as per provisions of EIA Notification 1994 as capital investment was < Rs 50 crores for expansion projects). Subsequently obtained Environmental Clearance for further expansion of steel plant by State Environment Impact Assessment Authority, Chhattisgarh (SEIAA-CG) for establishment of Induction Furnace Unit (3 x 10 MT) to produce Billets of 90,000 TPA, Electric Arc Furnaces to produce Pig Iron -12,000 TPA and Rolling Mill (1 x 500 TPD) to produce Rolled Product of 1,50,000 TPA vide letter no. 1253/SEIAA-CG/EC/Ind/Roll RYP/343 dated 12-12-2013. The existing plant was lastly accorded environmental clearance from MoEF&CC, New Delhi F. No J-11011/171/2017-IA II (I) dated 05.11.2020 for Sponge Iron- 90000 TPA, WHRB- 6 MW, AFBC- 6 MW, Induction Furnaces - 138000 TPA, Rolling Mill- 150000 TPA. The latest Consent to Operate for the existing unit was accorded by Chhattisgarh Environment Conservation Board vide letter no. 3416 /TS/CECB/2022 Nava Raipur, Atal Nagar, dated: 10.08.2022 and CTO was renewed from 31/05/2023 and 31/05/2024.

32.2.7 Implementation Status of existing CTE/EC:

| **The Consent and EC history in Tabular form is being provided as below:** | | | |
|---|---|---|---|
| **Consent to Establish (CTE)/ Consent to Operate (CTO)/ Environment Clearance (EC) details** | **Date of Issue** | **Capacity** | **Remark** |
| CTE 3686/B-292/TC/CECB/2002 | 07-01-2002 | First 100 TPD X 1 No. DRI Kiln with 30000 TPA | Investment was less than 100 Crores Rs. Thus, not in purview of EIA Notification 1994. |
| CTO EI/RYP/2909/TS/CECB/2003 | 08-07-2003 | First 100 TPD X 1 No. DRI Kiln with 30000 TPA | Investment was less than 100 Crores Rs. Thus, not in purview of EIA Notification 1994. |
| CTE 4781/TS/CECB/2005 | 07-10-2005 | Second 100 TPD Kiln with 30000 TPA ; 4 MW WHRB, 6 MW AFBC, 48000 TPA MS Ingot/Billet through 8 MT X 2 Nos, Induction Furnace additional capacity | Investment was less than 100 Crores Rs. Thus, not in purview of EIA Notification 1994. |

| The Consent and EC history in Tabular form is being provided as below: | | | |
|---|---|---|---|
| **Consent to Establish (CTE)/ Consent to Operate (CTO)/ Environment Clearance (EC) details** | **Date of Issue** | **Capacity** | **Remark** |
| CTO 6186 and 6188 /TS/CECB/2005 | 31-12-2005 | Second 100 TPD Kiln with 30000 TPA additional capacity | Investment was less than 100 Crores Rs. Thus, not in purview of EIA Notification 1994. |
| CTO 6673 and 6675/TS/CECB/ 2012 | 31-01-2012 | Addition of 4 MW WHRB, 6 MW AFBC, 48000 TPA MS Ingot/Billet through 8 MT X 2 Nos, Induction Furnace | |
| EC: CGSEIAA EC NO. 1253/SEIAA-CG/EC/Ind/Roll RYP/343 dated 12-12-2013 | 12-12-2013 | Induction Furnaces (10 MT X 3 Nos) 90000 TPA, Rolling Mill 150000 TPA | The company had obtained Prior Environment Clearance under EIA Notification 2006. |
| CTE 5447/TS/CECB/2013 | 20-02-2014 | Induction Furnaces (10 MT X 3 Nos) 90000 TPA, Rolling Mill 150000 TPA | As per EC dated 12.12.2023 |
| CTO 6383/TS/CECB/2018 | 30-11-2018 | Sponge Iron - 60000 TPA<br>WHRB- 4 MW<br>AFBC- 6 MW<br>Induction Furnaces - 108000 TPA<br>Rolling Mill - 150000 TPA | As per EC dated 12.12.2023 |
| CTO 1189/TS/CECB/2020 | 01-06-2020 | Sponge Iron - 60000 TPA<br>WHRB - 4 MW<br>AFBC - 6 MW<br>Induction Furnaces - 138000 TPA<br>Rolling Mill - 150000 TPA | As per EC dated 12.12.2023 |
| EC J- 11011/ 171/ 2017-IA II (I) | 05-11-2020 | Sponge Iron- 90000 TPA, WHRB- 6 MW, AFBC- 6 MW, Induction Furnaces - 138000 TPA, Rolling Mill- 150000 TPA. | New EC for expansion proposal has been obtained. |
| CTE 11543/TS/CECB/2021 | 31-03-2021 | Sponge Iron- 90000 TPA,<br>WHRB- 6 MW,<br>AFBC- 6 MW,<br>Induction Furnaces - 138000 TPA, | As per EC J- 11011/ 171/ 2017-IA II (I) dated 05.11.2020 |

| The Consent and EC history in Tabular form is being provided as below: | | | |
|---|---|---|---|
| **Consent to Establish (CTE)/ Consent to Operate (CTO)/ Environment Clearance (EC) details** | **Date of Issue** | **Capacity** | **Remark** |
| | | Rolling Mill- 150000 TPA. | |
| CTO 3416/TS/CECB/2022 | 10-08-2022 | Sponge Iron- 90000 TPA, WHRB- 6 MW, AFBC- 6 MW, Induction Furnaces - 138000 TPA, Rolling Mill- 150000 TPA. | As per EC J- 11011/ 171/ 2017-IA II (I) dated 05.11.2020 |

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

| **S. No.** | **Details** | **Capacity as per EC ( in TPA)** | | **Proposed additional Capacity ( in TPA)** | **Final Capacity and Configuration after Expansion ( in TPA)** |
|---|---|---|---|---|---|
| | | **Total Capacity Permitted** | **Implemented Capacity** | | |
| 1. | DRI Kilns for Sponge Iron | 90000 [2 x 100 TPD & 1 x 100 TPD] | 90000 [2 x 100 TPD & 1 x 100 TPD] | 260000 [2x350 TPD] | 350000 [3x 100 TPD, and 2x350 TPD] |
| 2. | Induction Furnace with CCP/ PCM and Arc Furnace | 138000 IF [2 x 8 MT & 3 x 10 MT] | 138000 [2 x 8 MT & 3 x 10 MT] | 162000 [Induction Furnace - 3 x 15 MT with CCM 15 T LRF X 1 No] | 300000 [Induction Furnace - 2 x 8 MT & 3 x 10 MT and 3 x 15 MT with CCM 15 T LRF X 1 No] |
| | | 12000 AF | 0 | 0 | 0 |
| 3. | Rolling Mill | 150000 | 150000 | 150000 | 300000 |
| | i) Hot Charging based | 150000 (1x500 TPD) | 78000 | 72000 | 150000 [Electrical driven Rolling Mill about 450 TPD] |
| | ii) Reheating Furnace Based | | 72000 | 78000 | 150000 [Billet Reheating Furnace based Rerolling Mill will be about 450 TPD] |
| 4. | Captive Power plant | 12 MW | 12 MW | 24 MW | 36 MW |
| | i) WHRB from Sponge Iron | 6 MW | 6 MW | 16 MW | 22 MW |

| S. No. | Details | Capacity as per EC ( in TPA) | | Proposed additional Capacity ( in TPA) | Final Capacity and Configuration after Expansion ( in TPA) |
|---|---|---|---|---|---|
| | | Total Capacity Permitted | Implemented Capacity | | |
| | ii) AFBC boiler | 6 MW | 6 MW | 8 MW | 14 MW |
| 5. | Fly Ash brick Plant | 99 Lakh Nos | 99 Lakh Nos | 99 Lakh Nos | 198 Lakh Nos |
| 6. | Ferro Alloys (9MVA X 2nos) | - | - | 38000 | 38000 [9 MVA 2 Nos Submerge ArcFurnace (SiMn – 38000 TPA, FeMn – 51000 TPA and FeSi – 19000 TPA)] |
| | Or Pig Iron | - | - | 76000 | 76000 |

32.2.9 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 | | Qty (in TPA) | Source | Dist. from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|---|
| **For Sponge Iron Plant** | | | | | | |
| 1. | Iron Ore | | 560000.00 | Odisha Iron Ore Mines and NMDC Iron Ore Mines | 600 | By Rail to the nearest railway siding and then by Road through covered vehicles |
| 2. | Coal | Indian And/ or | 455000.00 | SECL Coal mines/ Open market/ Local Market | 300 | By Rail to the nearest railway siding and then by Road through covered vehicles or by port and then by rail to the nearest railway siding and then by Road through covered vehicles |
| | | Imported | | | | |
| 3. | Limestone/ Dolomite | | 17500.00 | Open Market | 100 | By Road through covered vehicles |
| 4. | Refractory Material | | 500.00 | Open Market | 100 | By Road through covered vehicles |
| | **Total** | | **1033000.00** | | | |
| **For Induction Furnace (SMS)** | | | | | | |
| Sponge Iron | | | 300000 | Captive production/ Local market | 100 | Internally available/ By Road through covered vehicles |
| Pig Iron / CI Scrap | | | 37113 | Captive production/ Local market | 100 | Internally available/ By Road through covered vehicles |

| S. No. | Raw Material | Qty (in TPA) | Source | Dist. from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|
| Melting Scrap | | 6200 | Captive generation/ Local market | 0 | Internally available/ By Road through covered vehicles |
| Ferro Alloys | | 3000 | Captive production/ Local market | 0 | Internally available/ By Road through covered vehicles |
| Aluminum | | 300 | Open Market/BALCO | 100 | By Road through covered vehicles |
| Ramming Mass | | 750 | Open Market | 100 | By Road through covered vehicles |
| Steel Sheet Former | | 75 | Open Market | 100 | By Road through covered vehicles |
| LDO for Laddle Preheating | | 582 | Open Market | 100 | By Road through covered tankers |
| Calcined lime for refining of liquid steel | | 15000 | Open Market | 100 | By Road through covered tankers |
| Flurospar and other additive for de phos | | 3000 | Open Market | 100 | By Road through covered tankers |
| Electrodes | | 600 | Open Market | 100 | By Road through covered tankers |
| **Total =** | | **366620** | | | |
| **For Hot Charging Rerolling mill** | | | | | |
| Hot Billets | | 153000.00 | Captive Production in Steel Melting shop | 0 | Internal Transfer |
| **Total** | | **153000.00** | | | |
| **For Reheating Furnace based Rerolling mill** | | | | | |
| Cold Billets Internally available | | 153000 | Captive production/ Local market as per requirement | 0 | Internal Transfer through vehicle |
| Coal | | 18000 | SECL Coal mines/ Open market/ Local Market | 300 | By Rail to the nearest railway siding and then by Road through covered vehicles or by port and then by rail to the nearest railway siding and then by Road through covered vehicles |
| **Total** | | **171000.00** | | | |
| **For Ferro Alloys Plant** | | | | | |
| Manganese (Mn) Ore | | 72965.00 | Mines at Orissa and | 600 | By Road through |

| S. No. | Raw Material | Qty (in TPA) | Source | Dist. from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|
| | | | Madhya Pradesh and Vidarbha region | | covered vehicles |
| High Mn Slag | | 13898.00 | Captive | 0 | Internal transfer |
| Quartz | | 2780.00 | Mines in Raigarh | 300 | By Road through covered vehicles |
| Met Coke/Coal/Charcoal | | 20847.00 | Open Market | 100 | By Road through covered vehicles |
| Dolomite | | 1043.00 | Mines in Bilaspur | 150 | By Road through covered vehicles |
| Electrode Paste | | 1043.00 | Open Market/ Local Industries | 100 | By Road through covered vehicles |
| M.S. Item. | | 348.00 | Open Market/ Local Industries | 0 | Internal Transfer |
| Lancing Pipe and Canister Sheet | | 522.00 | Open Market/ Local Industries | 100 | By Road through covered vehicles |
| Oxygen Gas | | 105.00 | Open Market/ Local Industries | 100 | By Road through Cylinder/ Tankers |
| **Total** | | **113551.00** | | | |
| **For Captive Power Plant** | | | | | |
| Char Dolochar | | 105000.00 | Captive generation in SID | 0 | Internally available. |
| Coal | | 67684.00 | SECL Mines | 300 | By Road through covered vehicles |
| Fluidizing Bed Media | | 150.000 | Local Industries | 100 | By Road through covered vehicles |
| **Total** | | **173014.00** | | | |
| **For Fly Ash Brick Plant** | | | | | |
| Fly Ash/ Coal Ash etc. | | 45045.00 | Internally available. | 0 | By Road through covered trucks |
| Gypsum and Cement | | 6930.00 | Open market | 100 | |
| Granulated slag from Induction Furnace | | 17325.00 | Internally available. | 0 | |
| **Total ::** | | **69300.00** | | | |

32.2.10 The PP reported that the Existing Water requirement is 517 $m^3$/day which is obtained from bore well and permission for the same has been obtained from CGWA vides letter no CGWA/NOC/IND/REN/1/2021/6434. The total water requirement after proposed expansion will be estimated as 2220 $m^3$/day, which will be obtained from the Lakhna Annicut. 457 KLD treated water will be reused/recycled in process. Thus final 1763 KLD fresh water will be needed from surface water source as make up. The permission for drawl of surface water is obtained from WRD Vide Lr. No. ALLTDN20220002 Dated 23/07/2020. The existing Ground water requirement will be phased out after expansion. PP also reported that in compliance to previous

EC condition, the work of pipe line laying is under progress and will be completed within 4-5 months i.e. November 2023. After this PP will discontinue the ground water utilization and only surface water will be used for industrial operations. An undertaking regarding laying of pipeline and phasing out of ground water after expansion is submitted.

32.2.11 Total power requirement will be 54 MW out of which 36 MW will be met through captive power plant and 18 MW will be sourced through State Grid (CSPDCL) In addition to this two Nos. of 3300 kVA DG sets are proposed for emergency backup.

32.2.12 Baseline Environmental Studies:

| **Period** | **December 2020 –February 2021** |
|---|---|
| AAQ parameters at 8 Locations (min.and max) | • $PM_{2.5}$ = 17.5 – 32.8 µg/$m^3$<br>• $PM_{10}$ = 49.9 – 80.5 µg/$m^3$<br>• $SO_2$ = 6.0 – 11.8 µg/$m^3$<br>• $NO_2$ = 11.6 – 24.7 µg/$m^3$<br>• CO = 0.199 - 0.429 mg/$m^3$ |
| Incremental GLC level | • PM10 = 1.6 µg/$m^3$ (Level at 0.7 km SW and WSW Direction)<br>• PM2.5 = 0.56 µg/$m^3$ (Level at 0.7 km SW and WSW Direction)<br>• $SO_2$ = 14.5 µg/$m^3$ (Level at 1.2 km SW and WSW Direction)<br>• NOx = 12.0 µg/$m^3$ (Level at 1.0 km SW and WSW Direction)<br>• CO = 50.2 µg/$m^3$ due to transportation<br>• CO = 6.10 µg/$m^3$ occur at about 3.1 km in SSW direction due to DG Set |
| Ground water quality at 8 locations | pH: 6.82 to 7.87. TDS 259 to 802 mg/l. Total hardness: 176.91 to 259.24 mg/l. Fluoride 0.16 to 0.41 mg/l. Nitrate:11.27 – 18.27 mg/l Sulphate: 16.43 – 41.59 mg/l respectively. |
| Surface water quality at 8 locations | pH: 6.67-8.26. TDS 592 to 720 mg/l. Total hardness: 199.65 to 298.5 mg/l. Chloride: 32.81 – 73.57 mg/l. Sulphate: 41.62 – 82.76 mg/l. DO: of 6.4-6.8 mg/l. $PO_4$: 0.27-0.53 mg/l. |
| Noise levels Leq. (Day and Night) | Residential Area – 50.52 to 51.9 dBA for day time and 39.2 to 40.7 dBA for night time.<br>Commercial Area – 52.1 to 54.7 dBA for day time and 41.8 to 42.4 dBA for night time.<br>Silence Zone – 46.1dBA to 47.6 dBA for day time and 37.2 dBA to 38.1 dBA for night time.<br>Industrial area - 63.2 dBA to 67.5 dBA for day time and 53.8 dBA to 56.9dBA for night time. |
| Traffic assessment study findings | • Traffic study has been conducted at NH 30 which is approximately 5.7 km in west direction from the plant site.<br>• Transportation of raw materials, fuel & furnished product will be done 100% by road. |

<table>
<tr><td></td><td>
<ul><li>Existing PCU is 4248/day on NH30 and existing level of service (LOS) is:</li></ul>
<table>
<tr><td>Road</td><td>V (Volume in PCU/Day)</td><td>C (Capacity in PCU/Day)</td><td>Existing V/C Ratio</td><td>LOS</td></tr>
<tr><td>NH 30</td><td>4248</td><td>15000</td><td>0.28</td><td>B</td></tr>
</table>
<ul><li>PCU load after expansion will be 4248 (Existing) + 864.5 (Additional) PCU/Day and Level of service (LOS) will be:</li></ul>
<table>
<tr><td>Road</td><td>V (Volume in PCU/Day)</td><td>C (Capacity in PCU/Day)</td><td>Proposed V/C Ratio</td><td>LOS</td></tr>
<tr><td>NH 30</td><td>5112.5</td><td>15000</td><td>0.34</td><td>C</td></tr>
</table>
**Note: Capacity as per IRC – 15000 Guide line for capacity for roads.*<br>**Conclusion:** The level of service will C after including additional traffic due to proposed project
</td></tr>
<tr><td>Flora and fauna</td><td>No schedule I species fauna and endangered flora are observed.</td></tr>
</table>

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

| S. No. | Name of Waste Generated | Source | Quantity Generated (TPA) | Mode of Treatment | Proposed Disposal Plan | Remarks |
|---|---|---|---|---|---|---|
| 1 | Char Dolochar | DRI kiln | 105000 | Reused | Used in Captive Power Generation | Internally used |
| 2 | Bottom Flue Dust Ash | DRI kiln | 70000 | Reused | Sold to Cement Plants for Iron Oxide supplementation or Used in Brick making and low-lying areas. | Brick making |
| 3 | Kiln Accretion and Refractory waste | DRI kiln | 3150 | Recycling | Given to refractory recycling units | Sold refractory recycling units |
| 4 | Defective Billets | Reheating Furnace | 100 | Recycling | Recycled in own Induction Furnace and steel Re Rolling mill. | Internally used |
| 5 | Mill Scale | Reheating Furnace | 3000 | Reused | Used in own Ferro Alloys as raw material/ sold to Ferro Alloys / Pellet Plants | Internally used |
| 6 | Slag from Induction Furnace | Induction furnace | 54375 | Reused | Given/ Sold to metal recovery units and also used in own plant to make Bricks/ used in Fly | Brick making |

| S. No. | Name of Waste Generated | Source | Quantity Generated (TPA) | Mode of Treatment | Proposed Disposal Plan | Remarks |
|---|---|---|---|---|---|---|
| | | | | | ash brick making unit / landfill. | |
| 7 | Refractory and Ramming Mass waste | Induction furnace | 375 | Reused | Given to refractory recycling units & reused in own Induction furnace | Internally used |
| 8 | Defective and Miss Roll | Rolling mill | 3000 | Recycle & reused | Recycled in own Induction Furnace and steel Re Rolling mill | Internally used |
| 9 | Coal Ash | | 36839 | Reused | To be given to Cement Plants and to Fly Ash Brick making units<br>Used for road making; back filling, and used in own Fly Ash Brick making unit | Brick making |
| 10 | Slag from Ferro Alloys Plant | Ferro Alloys plant | 38000 | Reused | To be given to Cement Plants and Partially Used in own Brick Making Unit and remaining will be given to outside Fly Ash bricking units | Brick making |
| 11 | Fly Ash from FBC | FBC | 109289 | Reused | Used in own Fly Ash Brick making unit | Brick making |
| 12 | Fluidized Bed Material | | 150 | Reused | Used in Brick making | Brick making |
| 13 | STP Sludge | STP | 30 | Reused | Used for Composting and then applied for Green Belt | Used for greenbelt |
| | **Total** | | **423308** | | | |

## HAZARDOUS WASTE GENERATION

| S. No | Type of Hazardous Waste | Source | H. W. Category (as per HWM Sch. I) | Quantity | Mode of treatment | Disposal | Remarks |
|---|---|---|---|---|---|---|---|
| 1 | Waste Oil/Used Oil | Machinery | 5.1 | 8 KL/annum | Sold to authorized Recycler & reused | Partly used for lubrication and will be stored in covered HDPE | Sold to authorized recycler |

| S. No | Type of Hazardous Waste | Source | H. W. Category (as per HWM Sch. I) | Quantity | Mode of treatment | Disposal | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | | | Drums & will be given to CECB approved vendors/authorized recycler | |
| 2 | ETP Sludge | ETP | 35.3 | 805 TPA | Recycle & reused | Given to Cement Plants or used in Brick making. The sludge will not have any Toxic Chemicals. Mostly will be Calcium; Magnesium; Silica Hardness Salts and Iron Oxide. | Used in brick making |

32.2.14 Public Consultation:

| | |
|---|---|
| Details of advertisement given | • Dainik Bhaskar - Dated 28.02.2022<br>• Punjab Kesari - Dated 28.02.2022 |
| Date of public consultation | 01/04/2022 Time- 10.30 AM |
| Venue | Government Land Khasra No- 480 and 481Gram panchayat Village: Parsada, Tehsil- Tilda and District: Raipur, C.G.- 493114 |
| Presiding Officer | ADM and Additional Collector, District Raipur |
| Major issues raised | • Concern about Conduction of Public Hearing, venue, advertisement<br>• Benefit should be given under CSR to Bilari Village<br>• No development has done under CSR in Parsada Village No Street Light. Solar Light and development of approach road<br>• Impact on forest due to expansion project<br>• Commitment required from construction of hospital, ITI form Sambhv, Mahendra and Hitech Plant otherwise no expansion permission shall be granted<br>• No transparency in adoption of village<br>• Widening of Tilda to Sakra Road<br>• Concern about employment and Employment to local in Parsada village<br>• adverse impact Human Health due to Air Pollution at Sarora |

| | |
|---|---|
| | Village and nearby villages<br>• Sudden rain due to climate change. Adverse Impact on Human Health.<br>• Concern about Construction of Drainage system in Parsada Village |

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

| Sl. No. | Physical Activity and action plan | | Time line & Amount (In Rs.) | | | Total Expend Rs. (In Lakhs) |
|---|---|---|---|---|---|---|
| | Name of the activity | Physical Targets | Year (01.03.2024 to 31.04.2025) | Year 2 (01.03.2025 to 31.04.2026) | Year 3 (01.03.2026 to 31.04.2026) | |
| 1 | Infrastructure: - Strengthening/Construction of village internal roads. | **Location: -**<br>1 -Vill – Parsada, Block – Tilda, Dist – Raipur.<br>2 - Vill – Bilari, Block – Tilda, Dist – Raipur.<br>Length: - Approx. 10 K.M. ; Width : - Minimum 4 meter<br>Quality: - Pavement road or Paver block roads. | 14.0 | 14.0 | 12.0 | 40.00 |
| | b) Drainage System maintenance and Construction | Location: - Parsada Village Entry, Sheetla Mandir Road, Sahu Para, Marghatti Road of Village Parsada, Block – Tilda, Dist – Raipur.<br>Length :- Approx. 2500 Meter<br>Width : - Minimum 65 cm<br>Depth :- Minimum 60 cm<br>Quality:- Pavement Drainage. | 4 | 4 | 2 | 10.00 |
| | c) Rain Water Harvesting | Location: - Panchayat Bhawan, Primary & Secondary school of Parsada, Sankra, Bilari, Sarora Village.<br>Total 6 RWH Structure | 1.5 | 1.5 | 2.00 | 5.00 |

| Sl. No. | Physical Activity and action plan | | Time line & Amount (In Rs.) | | | Total Expend Rs. (In Lakhs) |
|---|---|---|---|---|---|---|
| | Name of the activity | Physical Targets | Year (01.03.2024 to 31.04.2025) | Year 2 (01.03.2025 to 31.04.2026) | Year 3 (01.03.2026 to 31.04.2026) | |
| | | Each Recharge Well (1 meter dia x 3-meter depth) With Moulded Cemented Rings including steel wire, depending upon the availability of water is constructed with the recharge well in the centre. | | | | |
| | d) Provision of solar street lights | Location : - Near - Sheetla Mandir, Panchayat Bhawan & Shiv Mandir, of Parsada & Sarora village<br>Approximate 10 Nos. VLT Solar 36 W Street Light:<br>1. Inbuilt charge controller and dusk to dawn operation.<br>2. Galvanized Pole of M.S. Material and 7-meter height.<br>3. Battery tubular 12V/150 Ah (3 Year Warranty), suitable for 2 days autonomy.<br>4. Solar Panel 200Wp. | 10.0 | 10.0 | 10.0 | 30.00 |
| | e) Construction of Community Hall. | Location: - Vill. – Parsada, Block – Tilda, Dist Raipur.<br>Size of Room: 30x30 = 900 sq. ft<br>No. of Room = 2 Nos. | 8.0 | 8.0 | 7.0 | 23.00 |

| Sl. No. | Physical Activity and action plan | | Time line & Amount (In Rs.) | | | Total Expend Rs. (In Lakhs) |
|---|---|---|---|---|---|---|
| | Name of the activity | Physical Targets | Year (01.03.2024 to 31.04.2025) | Year 2 (01.03.2025 to 31.04.2026) | Year 3 (01.03.2026 to 31.04.2026) | |
| | | Quality = RCC Roof and Floor, Fly Ash Brick wall. | | | | |
| | f) Drinking water facilities Drinking water structure - Bore well including Soak Pit for Water Recharging in Primary & Secondary Schools | Location: Vill – Parsada & Sarora, Block – Tilda, Dist – Raipur (C.G.) Overhead tank 500 litre with water purifier with AMC at both school & 2HP bore well with accessories | 1.0 | 1.0 | 1.0 | 3.00 |
| 2 | Education / Skill Development: - Smart Classes | Location: Vill. - Parsada, Sakra, Bilari, Sarora Block – Tilda, Dist – Raipur (C.G.) Details : Setup for 4 Smart Classes: a) Smart Interactive Board Classroom Projector b) Computer System Class room speaker c) Virtual Classroom Concept | 2.0 | 2.0 | 1.0 | 5.00 |
| 3 | Medical a) Donation of Sanitary Napkin Vending Machines in girls school. b) Fitness Centre in Community Hall | Location : Vill - Parsada, Sakra , Bilari, Sarora, Block – Tilda, Dist – Raipur (C.G.) a) Sanitary Napkin Vending Machines: 4 Nos. b) Fitness Equipment's: i. Pull up bar ii. Barbell's iii. Dumbbells iv. Battle rope | 2.0 | 2.0 | 1.0 | 5.00 |

| Sl. No. | Physical Activity and action plan | | Time line & Amount (In Rs.) | | | Total Expend Rs. (In Lakhs) |
|---|---|---|---|---|---|---|
| | Name of the activity | Physical Targets | Year (01.03.2024 to 31.04.2025) | Year 2 (01.03.2025 to 31.04.2026) | Year 3 (01.03.2026 to 31.04.2026) | |
| | | v. Vertical<br>vi. Battle rope<br>vii. Punching bag<br>viii. Mats | | | | |
| 5 | Plantation<br>Tree plantations nearby villages | Location: Vill. – Parsada & Sarora, Block – Tilda, Dist. – Raipur (C.G.)<br>5000 Nos. Plants On bund of Two talab of Parsada & Both sides of the approach road | 5 | 5 | 5 | 15.00 |
| 6 | Water Shed management | Parsada Nala, Sarora Diversion and Deepening of Tank to increase storage volume | 25.0 | 15.0 | 15.0 | 55.00 |
| 7 | Contribution towards Skill Development Training for employment generation | Contribution to Government ITI<br>Location: Vill – Sarora Block – Tilda, Dist – Raipur (C.G.) | 20 | 10 | 10 | 40.00 |
| 8 | Human Health / Pathology Centre<br>Clinic | Location: Village: Parsada<br>Size of Room: 20 X 30 = 600 Sqft<br>Facility: 1 OPD chamber, 1 Lab room, 1 Patient waiting area, 1 Ambulance etc/.<br>Quality: RCC Roof and Floor, Fly Ash Brick Wall. | 20 | 20 | 10 | 50.00 |
| 10 | Construction of drinking water facility in Biladi forest for wild life animals | Biladi Forest area;<br>Bore well with pump and Pump house and construction of Water | 15 | 5 | 5 | 25.00 |

| Sl. No. | Physical Activity and action plan | | Time line & Amount (In Rs.) | | | Total Expend Rs. (In Lakhs) |
|---|---|---|---|---|---|---|
| | Name of the activity | Physical Targets | Year (01.03.2024 to 31.04.2025) | Year 2 (01.03.2025 to 31.04.2026) | Year 3 (01.03.2026 to 31.04.2026) | |
| | | Pond to facilitate drinking water for Wild animals with permission from DFO wild Life | | | | |
| 9 | Eco Park and Oxyzone | Village- Parsada, Bhursuda, Biladi Work: Leveling and site development of Area. Making walkway, resting chairs and total 500 tree plantation to develop it as Eco park and Oxyzone at each village in 1 Acre. | 15 | 15 | 15 | 45.00 |
| **Total =** | | | | | | **351.00** |

32.2.15 Existing capital cost of the proposed project was Rs. 212.57 Crores. The capital cost of the proposed project is Rs. 209 Crores (excluding budget for socio-economic development). The capital cost for environmental protection measures is proposed as Rs. 39.53 Crores. The annual recurring cost towards the environmental protection measures is proposed is Rs. 1.22 Crores. The employment generation from the expansion project is 483 nos. The details of cost for environmental protection measures is as follows:

**All values in Lakhs Rs**

| S. No. | Description of Items | Existing | | | Proposed | | Final after expansion | |
|---|---|---|---|---|---|---|---|---|
| | | Qty. | Cap. cost | Rec. cost | Cap. cost | Rec. cost | Cap. cost | Rec. cost |
| 1 | Dry ESP for DRI Kilns | 3 | 825 | 24.8 | 550 | 16.5 | 1375 | 41.3 |
| 2 | Bag Houses (PTFE type) for the Sponge Iron Kilns | 4 | 160 | 4.8 | 320 | 9.6 | 480 | 14.4 |
| 3 | Cost of Chimney for SID | 1 | 50 | 1.5 | 75 | 2.3 | 125 | 3.8 |
| 4 | Cost of Bag Houses (PTFE type) and Chimney for Induction Furnaces | 1 | 40 | 1.2 | 80 | 2.4 | 120 | 3.6 |
| 5 | Cost of Chimney for I.F. | 1 | 30 | 0.9 | 15 | 0.5 | 45 | 1.4 |

**All values in Lakhs Rs**

| S. No. | Description of Items | Existing | | | Proposed | | Final after expansion | |
|---|---|---|---|---|---|---|---|---|
| | | Qty. | Cap. cost | Rec. cost | Cap. cost | Rec. cost | Cap. cost | Rec. cost |
| 6 | Cost of Wet Scrubber/ Rotary Vane Wet Scrubber for Rolling Mill for Reheating Furnaces | 1 | 25 | 0.8 | 45 | 1.4 | 70 | 2.2 |
| 7 | Cost of Chimney for RM | 1 | 30 | 0.9 | 15 | 0.5 | 45 | 1.4 |
| 8 | Cost of Bag Houses and Chimney for Ferro Alloys Plant | 0 | 0 | 0.0 | 90 | 2.7 | 90 | 2.7 |
| 9 | Cost of Chimney for SAF | 0 | 0 | 0.0 | 45 | 1.4 | 45 | 1.4 |
| 10 | Cost of Dry ESP for FBC – (4 Fields) | 1 | 275 | 8.3 | 275 | 8.3 | 550 | 16.6 |
| 11 | Cost of Bag Houses for Boiler Furnaces for Power Plant Coal Handling and Ash Handling Area | 4 | 160 | 4.8 | 50 | 1.5 | 210 | 6.3 |
| 12 | Cost of common Chimney for FBC | | 50 | 1.5 | 30 | 0.9 | 80 | 2.4 |
| 13 | Cost of Industrial ETP | | 35 | 1.1 | 40 | 0.5 | 75 | 1.6 |
| 14 | Cost of STP for Domestic Waste | | 25 | 0.8 | 15 | 0.5 | 40 | 1.3 |
| 15 | Oil Trap in the drains system | | 5 | 0.2 | 10 | 0.3 | 15 | 0.5 |
| 16 | Silt Arrestation Pit in Storm Water Drains | | 10 | 0.3 | 10 | 0.3 | 20 | 0.6 |
| 17 | Fugitive dust Control Spray system in Plant (water sprinklers, dry mist fog, etc.) | 3 | 5 | 0.2 | 20 | 0.3 | 25 | 0.5 |
| 18 | Movable Vacuum cleaning system (Mechanical Dust Sweepers) | | 5 | 0.2 | 20 | 0.6 | 25 | 0.8 |
| 19 | Wheel Washing System in Security area | | 5 | 0.2 | 10 | 0.3 | 15 | 0.5 |
| 20 | On Line stack Monitoring three sets in DRI with Power; Induction Furnace and in Rolling mill | | 10 | 0.3 | 20 | 0.6 | 30 | 0.9 |
| 21 | On Line AAQ station | | | 0.0 | 70 | 2.1 | 70 | 2.1 |
| 22 | High Volume sampling and Stack Monitoring Kits | 4 | 4 | 0.2 | 4 | 0.2 | 8 | 0.4 |
| 23 | Weather Monitoring Station | | | 0.0 | 3 | 0.1 | 3 | 0.1 |
| 24 | Internal Road and other construction works | | 50 | 1.5 | 30 | 0.9 | 80 | 2.4 |

**All values in Lakhs Rs**

| S. No. | Description of Items | Existing | | | Proposed | | Final after expansion | |
|---|---|---|---|---|---|---|---|---|
| | | Qty. | Cap. cost | Rec. cost | Cap. cost | Rec. cost | Cap. cost | Rec. cost |
| 25 | Drainage system | | 15 | 0.5 | 15 | 0.3 | 30 | 0.8 |
| 26 | Green belt Development | | 25 | 0.8 | 25 | 0.8 | 50 | 1.6 |
| 27 | Rain Water Harvesting and Recharge system with Roof Harvesting | | 10 | 0.3 | 15 | 0.5 | 25 | 0.8 |
| 28 | Laboratory and equipment | | 35 | 1.1 | 15 | 0.5 | 50 | 1.6 |
| 29 | Environmental Monitoring & Other Misc. cost | | | 2.0 | 0 | 6.0 | 0 | 8.0 |
| 30 | Action Plan with Budgetary Provisions (Capex) Towards Emp For Socio-Economic Development (3 Yrs.) | | - | - | 157 | - | 157 | - |
| | **Total** | | **1884** | **59.2** | **2069** | **62.8** | **3953** | **122** |

32.2.16 Existing green belt has been developed in 9.7 ha area which is about 31.8% of the total project area of 30.457 ha with total of about 28750 saplings out of which at present 20960 Nos. of plants (trees) are surviving. Gap plantation will be taken up to achieve density of 2500 saplinga per ha. Total of 10.053 Ha. land will be developed as greenbelt with plantation of 25132 Trees during the monsoons of 2023 i.e. in June to Septebmer 2023 for which an undertaking has been submitted. A 30 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare.

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

**Certified Compliance Report of EC**

32.2.18 The status of the compliance of earlier EC was obtained from the Integrated Regional Office (IRO), Raipur vide letter no. 18-D-85/2014(SEAC)/1207 dtd. 24.01.2023 (Site inspection conducted on dec. 13, 2022) in the name of M/s. Hi-Tech Steel and Power Ltd. The action taken report regarding the partially/non-complied condition was submitted to IRO, Raipur on 07.02.2023. MoEFCC (IRO, Raipur) evaluated the same and has issued letter dated 85/2014(SEAC)/1316 dtd. 17.03.2023 in response to which PP has further submitted compliance completion letter vide ref no HSPL/2023-24/044'; dated May 5, 2023 as per which all the pending compliance have also been complied. The details of the observations made by IRO, Raipur in the report dated 17.03.2023 along with its present status as furnished by the project proponent is given as below.

| S. No. | Non-Compliance details | Observation of RO (abridged) | Condition no. | | | Re-assessment by IRO / Response by PP |
|---|---|---|---|---|---|---|
| | | | EC date | Specific | General | |
| 1 | **Installation of** online ambient air quality monitoring system for assessment of PM10, PM2.5, SO2 | As per observation no. (iii) : Project authorities are directed to install the online AAQMS as per the consent condition and ATR of the same shall be submitted to this office . (Specific condition-II and Air Quality monitoring and preservation-i):- | **05.11.2020** | (Specific condition-II and Air Quality monitoring and preservation-i):- | | **Complied**<br>PP has procured and installed one no. of online ambient air quality monitoring system for assessment of PM10, PM2.5, SO2 and NOx. The copy of photographs is submitted.<br>In addition to this PP is also getting the AAQ Monitoring done from third party whose report are being submitted regularly to CECB. |
| 2 | **Installation of Bag Leakage detection system** | Project authorities are directed to provide leakage detection system and mechanized bag cleaning facilities for Better maintenance of Bags and ATR shall be submitted to this office<br><br>**Air Quality monitoring and preservation- IV)**: | **05.11.2020** | | Air Quality monitoring and preservation-IV): | **Complied**<br>PP has installed Bag House leakage detection system for leakage detection from Bag House. Photograph submitted.<br>PP is also observing it with pressure monitoring system across the bag house. |
| 3 | **Air quality monitoring and preservation-IX** | Project authorities are directed to submit the progress of compliance of the **Installation of Chemical spraying system to this office** | **05.11.2020** | | Air quality monitoring and preservation-IX | **Complied**<br>PP has procured the water mist fogging system and the same is being used on the coal yard and other fugitive dust emission prone yards. Copy of photographs and bills is submitted**.** |
| 4 | **(water quality monitoring and preservation-I)** :- | . Project authorities are directed to install continuous effluent quality monitoring system as per the stipulated conditions and ATR of the same | **05.11.2020** | | (water quality monitoring and preservation-I) :- | **Complied**<br>PP has procured and installed the online water quality monitoring system and the PTZ camera. Copy of Bills and photos are submitted. |

| S. No. | Non-Compliance details | Observation of RO (abridged) | Condition no. | | | Re-assessment by IRO / Response by PP |
|---|---|---|---|---|---|---|
| | | | EC date | Specific | General | |
| | | shall be submitted to this office | | | | |

**Written representations:**

32.2.19 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 26.05.2023 through email dated 26.05.2023 submitted the following information:

1. **Regarding Declaration of Land Area:**
   The land area in EC dated 05.11.2020 was mentioned as 20.079 Ha./71.8 Acre, (old EC typo mistake) whereas the correct figure is 29.079 Ha./71.8 Acre, this areas has been correctly mentioned in Form-2 during the appraisal of the above referred EC application (a copy of Form-2 submitted is submitted) in which 29.079 hectare was mentioned**.** Now the present EIA consultant Anacon has correctly filed the application this time, please note.

   During appraisal of the above EC dated 05.11.2020 committee had directed to PP (EC Specific condition No. xi) to allot 1.378 Ha. land for truck parking). Thus , the PP has added this 1.378 ha land in 29.079 Hectare land area and now the entire land in total has become 30.457 Ha. (29.079 Ha. + 1.378 Ha Parking). PH was conducted for 30.457 Ha. Area and in Form 1 as well as EIA/EMP report this area is consistent.

   Thus, total land area of the project at present is 30.457 Ha., which is inclusive of 1.378 Ha. land area procured for parking area. The entire land is diverted for industrial use.

2. **Regarding water consumption: -**
   The current industrial water consumption is being kept within 517 KLD in accordance to EC date 05.11.2020, the revised water consumption table is submitted. The undertaking regarding the above is also submitted.

   The surface water has been allotted to the company from Lakhna Anicut by C.G. Government Water Resource Department and PP has paid the water allocation charges for the same. The work of pipe line laying is under progress and will be completed within 4-5 months i.e. November 2023. After this PP will discontinue the ground water utilization and only surface water will be used for industrial operations. (An undertaking regarding laying of pipeline and phasing out of ground water after expansion is submitted).

3. **Regarding Greenbelt:**
   The greenbelt over an area 9.7 Hectare has been planted accordance with previous EC dated 05.11.2020. Till date PP has planted about 28750 saplings out of which at present 20960 Nos. of plants (trees) are surviving which are planted over 9.7 hectare of land**.** PP has committed to complete the greenbelt plantation over 10.053 ha land area in coming monsoon by planting additional 4172 Nos. of additional trees to complete 25312 trees

covering 33% in greenbelt. As per new area statement total 10.053 Ha. land will be developed as greenbelt in which total plantation required is 25132 Trees, PP will complete this by monsoon 2023 i.e. in June to September 2023 for which an undertaking has been submitted.

4. **Regarding Fund for resolution of the concern raised during the public hearing consultation for previous EC date 05.11.2020:**
   As per previous EC date 05.11.2020 an amount of Rs.18.00 Lakhs was supposed to be spent to address the concern raised during the public hearing consultation. Against which company has already spent Rs.42.34 Lakhs, the details of the same is submitted**.**

5. **Regarding PH action plan (EMP for Socio-Economic development) commitment for present expansion proposal:**
   PP herewith undertake to spend Rs. 351.00 Lakhs instead of earlier proposed CER budget of Rs. 157.00 Lakhs towards Socio-economic development of area. The revised plan is updated at para 32.2.14 above.

6. **Regarding Mitigation Measure for controlling fugitive emission:**
   PP has adopted various mitigative measures to control fugitive emission during operation of the plant and also proposed to ensure improvement in the existing mitigation measures.

| **Mitigation measures adopted** | **Improvement proposed during expansion** |
|---|---|
| All the internal road have been made pucca | Periodic maintenance is being carried out and it will continue after expansion |
| 57 Nos. of Water sprinklers have been installed. | New 73 nos, of sprinklers will be installed thus after expansion total 130 sprinklers will be utilized. |
| CAAQM- 1 Nos., and HVS - 4 Nos have been implemented for monitoring of AAQ. | Considering plant size additional one more CAAQM will be implemented along with expansion project. After expansion total CAAQM will be 2 Nos. |
| 1 No. mobile mist fogging machine have been provided` | Additional new 2 Nos, of mist fogging machines will be provided, thus after expansion total 3 mist fogging machines. |
| Mechanized sweeping machine has been provided | This will be continued to be used in future expansion. |
| In addition PP is also implementing Wheel washing system at the entry and exit gate. | |
| Raw Material, Waste etc are being transported in properly covered manner only.<br>PP assures to adopt the best practices for control the fugitive dust. | |

7. **Regarding Compliance Status report for previous EC dated 05.11.2020:**
   Regarding compliance of provided EC dated 05.11.02020 PP wish to submit that
   - Site inspection conducted by the Integrated Regional Office (IRO), Raipur, on December 13, 2022

- Certified Compliance Report received from IRO, MoEFCC, Raipur(CG) vide letter no. 18-D-85/2014(SEAC)/1207 dtd. 24.01.2023
- Action Taken Report submitted by M/s. HSPL in line with IRO, MoEFCC, Raipur(CG) letter dt. 07.02.2023
- Report received from IRO, MoEFCC, Raipur(CG) vide letter no. 18-D-85/2014(SEAC)/1207 dtd. 17.03.2023
- In response to above letter dated 17.03.2023 which PP has further submitted compliance completion letter vide ref no. HSPL/2023-24/044'; Date: May 5, 2023 as per which all the pending compliances have also been complied.
- The details of the observations made by IRO, Raipur in the report dated 17.03.2023 along with its present status as furnished by the PP is updated at para 32.2.18 above.

8. Revised brief note on the proposal has been submitted by the project proponent.

**Deliberations by the Committee**

32.2.20 The Committee noted the following:

1. The instant proposal is for expansion of manufacturing facilities for production of Sponge Iron from 90000 TPA to 350000 TPA, MS Billet from 138000 TPA to 300000 TPA, Steel Rerolled products (through Hot Charging and Reheating Furnace) from 150000 TPA to 300000 TPA, Captive power generation plant comprising of Waste Heat Recovery Boilers (WHRB) from 6 MW to 22 MW and Atmospheric Fluidized Bed Combustion (AFBC) Boiler from 6 MW to 14 MW, Fly Ash Bricks Manufacturing from 99 Lakhs Nos. to 198 Lakhs Nos. and Ferro Alloys 38000 TPA or Pig Iron 76000 TPA.
2. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.
3. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.
4. The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.
5. It is reported that Consent to Establishment was obtained from Chhattisgarh Environment Conservation Board (CECB) for establishment of 1 x 100 TPD DRI Kiln (1st DRI Kiln)

vide Board letter no. 3686/B-292/TC/CECB/2002 Raipur dated 07/10/2002. (does not attract EC as per provisions of EIA Notification 1994 as capital investment was < Rs 100 crores for new projects). Later Consent to Establishment was obtained from Chhattisgarh Environment Conservation Board (CECB) for expansion for establishment of 1 x 100 DRI Kiln (2nd Kiln) along with 10 MW Power Plant (WHRB – 4 MW & FBC - 6 MW), Ingots. / Billets capacity 48,000 TPA and Fly ash brick plant 99,00,000 nos./year vide Board letter no. 4781/TS/CECB/2005, Raipur Dt. 07/10/2005 (does not attract EC as per provisions of EIA Notification 1994 as capital investment was < Rs 50 crores for expansion projects). Subsequently obtained Environmental Clearance for further expansion of steel plant by State Environment Impact Assessment Authority, Chhattisgarh (SEIAA-CG) for establishment of Induction Furnace Unit (3 x 10 MT) to produce Billets of 90,000 TPA, Electric Arc Furnaces to produce Pig Iron -12,000 TPA and Rolling Mill (1 x 500 TPD) to produce Rolled Product of 1,50,000 TPA vide letter no. 1253/SEIAA-CG/EC/Ind/Roll RYP/343 dated 12-12-2013. The existing plant was lastly accorded environmental clearance from MoEF&CC, New Delhi F. No J- 11011/171/2017-IA II (I) dated 05.11.2020 for Sponge Iron- 90000 TPA, WHRB- 6 MW, AFBC- 6 MW, Induction Furnaces - 138000 TPA, Rolling Mill- 150000 TPA. The latest Consent to Operate for the existing unit was accorded by Chhattisgarh Environment Conservation Board vide letter no. 3416 /TS/CECB/2022 Nava Raipur, Atal Nagar, dated: 10.08.2022 and CTO was renewed from 31/05/2023 and 31/05/2024.

6. The total project area is 30.457 which is under the possession of the Company and already diverted for industrial use. The expansion project will be installed on the available land within the existing plant. The EAC also noted the facts reported by the PP that the land area in EC dated 05.11.2020 was mentioned as 20.079 Ha./71.8 Acre, (old EC typographical mistake) whereas the correct figure is 29.079 Ha./71.8 Acre, this areas has been correctly mentioned in Form-2 during the appraisal of the above referred EC application (a copy of Form-2 submitted is submitted) in which 29.079 hectare was mentioned. Now the present EIA consultant Anacon has correctly filed the application this time. During appraisal of the above EC dated 05.11.2020 committee had directed to PP (EC Specific condition No. xi) to allot 1.378 Ha. land for truck parking). Thus PP has added this 1.378 ha land in 29.079 Hectare land area and now the entire land in total has become 30.457 Ha. (29.079 Ha. + 1.378 Ha Parking). PH was conducted for 30.457 Ha. Area and in Form 1 as well as EIA reports this area is consistent. Thus, total land area of the project at present is 30.457 Ha., which is inclusive of 1.378 Ha. land area procured for parking area. The entire land is diverted for industrial use.

7. The Parsada Village is a distance of 1.5 km in SSW direction of the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.

8. The Bilari Reserve Forest - 0.5 Kms/NNW is at a distance of 0.5 Km in the NNW of the project site. The EAC is of the opinion that appropriate measures shall be undertaken to minimise the impact of the project activities on Bilari RF.

9. Bhatapara Branch (Mahanadi Canal) is at a distance of 1.3 km in the ENE of the project site. Also there is a Parsada Reservoir at a distance of 0.5 km in SE of project site and other

water bodies such as various nalla's, ponds and river exists 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.

10. Existing Water requirement is 517 $m^3$/day which is obtained from bore well and permission for the same has been obtained from CGWA vide letter no CGWA/NOC/IND/REN/1/2021/6434. The total water requirement after proposed expansion will be estimated as 2220 $m^3$/day, which will be obtained from the Lakhna Annicut. 457 KLD treated water will be reused/recycled in process. Thus final 1763 KLD fresh water will be needed from surface water source as make up. PP also reported that the existing Ground water requirement will be phased out after expansion in compliance to previous EC condition. The work of pipe line laying is under progress and will be completed within 4-5 months i.e. November 2023. After this PP will discontinue the ground water utilization and only surface water will be used for industrial operations. An undertaking regarding laying of pipeline and phasing out of ground water after expansion is submitted.
11. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
12. The PP has submitted that existing green belt has been developed in 9.7 ha area which is about 31.8% of the total project area of 30.457 ha with total of about 28750 saplings out of which at present 20960 Nos. of plants (trees) are surviving. Gap plantation will be taken up to achieve density of 2500 saplings per ha. Total of 10.053 Ha. land will be developed as greenbelt with plantation of 25132 Trees during the monsoons of 2023 i.e. in June to September 2023 for which an undertaking has been submitted. The EAC deliberated on the revised greenbelt action plan and is of the opinion that as committed complete plantation including the gap plantation shall be completed in the forthcoming monsoons of 2023.
13. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
14. The Committee deliberated on the public hearing issues reported during the appraisal of previous EC along with expenditure incurred to fulfil the action plan and found it 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 deliberated on the Certified Compliance Report of IRO, along with the ATR's submitted by PP and review report of IRO and is of the opinion that all the conditions shall be strictly complied and the status report shall be submitted to IRO.
17. The EAC also deliberated on the submitted written representation of project proponent and found it satisfactory.
18. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

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

20. 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:**

32.2.21 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 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. Parsada Village is a distance of 1.5 km in SSW 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.

iv. Bhatapara Branch (Mahanadi Canal) is at a distance of 1.3 km in the ENE of the project site. Also there is a Parsada Reservoir at a distance of 0.5 kmin SE of project site and other water bodies such as various nalla's, ponds and river exists 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.

v. The total water requirement after proposed expansion estimated as 2220 $m^3$/day. Out of which 1763 KLD fresh water shall be obtained from surface water (Lakhna Annicut) and 457 KLD treated water shall be reused/recycled in process. Necessary water permission shall be obtained from the Competent Authority. As committed, the existing Ground water requirement shall be phased out.

vi. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil as a fuel.

vii. Three tier Green Belt shall be developed in at least 33% of the project area in the forthcoming monsoons of 2023 with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Gap plantation shall be undertaken in the existing greenbelt for meeting density of 2500 plants 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 Parsada Village and Bilari RF. 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 3.51 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

ix. PP shall undertake village adoption programme and shall prepare and implement the action plan to develop them into model villages.

x. PP shall comply with the observations of IRO in the certified compliance report and shall strictly comply with all the conditions of earlier EC.

xi. All dust generated and collected from the plant roads, floors and bag houses/ESPs shall be recycled to the Plant.

xii. 100 % water consumed annually shall be recharged through rain water harvesting.

xiii. 1.378 ha land shall be allotted for truck parking.

xiv. CPP heat rate of 2600 K Cal/KWh shall be achieved and maintained.

xv. Plant CEMS monitoring station shall be in the plant control room and shall be integrated with plant alarm and Emergency Shutdown System (ESD).

xvi. PP shall use Energy Efficient Motors as per NEMA Premium® Efficiency Electric Motor specification or equivalent classifications and shall use VFD for control of electric motors.

xvii. Oily scum and metallic sludge recovered from rolling mills ETP shall be mixed, dried, and briquetted and reused melting Furnaces.

**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. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ 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.

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/$Nm^3$ 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 $4^{th}$ 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/m3 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. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

xxiv. 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.

xxv. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/$m^3$, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xxvi. 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.

xxvii. 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. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
ii. Restrict Gas flaring to < 1%.
iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
iv. Provide LED lights in their offices and residential areas.
v. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
vi. Practice hot charging of slabs and billets/blooms as far as possible.
vii. Ensure installation of regenerative type burners on all reheating furnaces.
viii. The project proponent shall provide waste heat recovery system on the DRI Kilns.
ix. The dolochar generated shall be used for power generation.
x. 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.
xi. 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 No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.

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

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

iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

**X. Miscellaneous**

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented

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

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

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

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

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

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

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

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

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

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

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

xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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## Re-Consideration in Environmental Clearance Proposals

**Agenda No. 32.3**

**32.3 Expansion of Integrated Steel Plant from 0.96 MTPA to 2.1 MTPA by M/s. BMM Ispat Limited, located at Villages- Danapura, Danayakanakere, Nagalapura, Byalakundi and Garga, Tehsil - Hosapete, District–Vijayanagara (Earlier Ballari), Karnataka – Re-Consideration of Environmental Clearance.**

**[Proposal No. IA/KA/IND1/417501/2023; File No. F.No.J-11011/236/2008-IA.II (I)]**
**[Consultant: Pragathi Labs & Consultants Pvt. Ltd., Valid upto 29.10.2024]**

32.3.1 M/s. BMM Ispat Limited has made an online application vide proposal no. IA/KA/IND1/417501/2023 dated 05.04.2023 along with copy of EIA/EMP report, in prescribed format (CAF, Form – I Part A, B &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), 2(b) Cement Plants, 4(b) Coke Oven Plants and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

32.3.2 Name of the EIA consultant: M/s. Pragathi Labs & Consultants Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA 0237; Valid up to 29.10.2024, as on April 20, 2023].

**Details submitted by Project proponent**

32.3.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|
| 02.11.2021 | Standard Terms of Reference issued | Terms of Reference | 05.11.2021 | 04.11.2025 |

32.3.4 The project of M/s. BMM Ispat Limited located in Danapura, Danayakanakere, Nagalapura, Byalakundi and Garaga villages, Hosapete taluk, Vijayanagara (Ballari) district, Karnataka is for expansion of Integrated Steel Plant from 0.96 MTPA to 2.1 MTPA and captive power plant from 235 MW to 345 MW and 1.4 MTPA cement plant.

32.3.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>1413.66 ha [Private: 1413.66 ha].<br>The total land area of 1413.66 ha (3491.7 acres) is under the ownership of the BMMIL and allotted by KIADB and proposed plant site falls under the industrial land use.</td><td>Land use: Industrial land use</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Complete land allotted by KIADB.</td><td></td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement ofR&R, if any.</td><td>No R&R involved in the Project.<br><br>Nearest Habitation:<br>Nagalapura – 0.5 km, SE<br>Hanumanahalli – 0.6, N<br>Mariyammanahalli – 0.5 km, W<br>Danapura – 1.60 km, N</td><td>Status of R&R: Not Applicable</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of <u>all corners</u> of the project site.</td><td><table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>15°10’20.69” N</td><td>76°21’30.32” E</td></tr><tr><td>B</td><td>15°10’56.18” N</td><td>76°23’31.95” E</td></tr><tr><td>C</td><td>15°10’15.30” N</td><td>76°24’00.29” E</td></tr><tr><td>D</td><td>15°09’25.83” N</td><td>76°22’01.02” E</td></tr><tr><td>E</td><td>15°08’29.79” N</td><td>76°23’18.20” E</td></tr><tr><td>F</td><td>15°07’09.02” N</td><td>76°25’12.65” E</td></tr><tr><td>G</td><td>15°05’12.01” N</td><td>76°26’58.23” E</td></tr></table></td><td></td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>506-585 m above mean sea level</td><td></td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No Forest land involved.</td><td></td></tr>
<tr><td>7.</td><td>Water body (Rivers,</td><td><u>Project site:</u></td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>No water bodies within the Project site.<br><br>Study area
<table>
<tr><th>Water body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Danayanakankere Lake</td><td>Adjacent</td><td>SE</td></tr>
<tr><td>Gunda Pond</td><td>0.2 km</td><td>ESE</td></tr>
<tr><td>Nagalapura pond</td><td>0.4 km</td><td>SE</td></tr>
<tr><td>Garga pond</td><td>4.2 km</td><td>SSE</td></tr>
<tr><td>Devalapura pond</td><td>3.5 km</td><td>SW</td></tr>
<tr><td>Nandibanda Pond</td><td>2.8 km</td><td>W</td></tr>
<tr><td>Tungabadra Dam(Backwater)</td><td>2.9 km</td><td>NNW</td></tr>
<tr><td>Tungabadra River (US)</td><td>3.6 km</td><td>N</td></tr>
<tr><td>Tungabadra Canal</td><td>8.1 km</td><td>N</td></tr>
</table></td><td></td></tr>
<tr><td>8.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>Nil</td><td></td></tr>
</table>

32.3.6 The existing project was initially granted EC from Government of Karnataka vide letters dated 06.08.2005, 12.12.2005 and 24.01.2008. The project was then accorded environmental clearance under the provisions of EIA Notification, 2006 from MoEF&CC vide letter no. J-11011/236/2008-IA-II(I) dated 18.05.2010 for Integrated Steel Plant (2.0MTPA), Cement Plant (1.4 MTPA) and Captive Power Plant (230 MW) which was was valid for 5 years i.e. up to 17th May, 2015. As per the provisions of amendment in EIA notification vide SO 1141 (E), dated 29th April, 2015, the validity of EC became 7 years i.e. up to 17th May, 2017. PP obtained extension of validity of EC vide letter dated 17.05.2017 (upto 17.05.2020). Further, amendment to EC was obtained vide letter dated 09.07.2018 w.r.t. Corrigendum of EC extension letter and amendment w.r.t. specific condition pertaining to tailings management. Latest Consent to Operate for the existing unit was accorded by Karnataka Pollution Control Board vide lr. No. Consent for Operation for Stage - I & Stage - II vide letter no: AW-332720 dated 08.08.2022. The validity of CTO is upto 30.06.2027.

**Chronology of Permissions obtained:**

| Sr. No | Description | Date of Approval |
|---|---|---|
| 1. | Environment Clearance for the establishment of Sponge Iron Unit from Govt. of Karnataka FEE217 ECO 2005 on sister concern M/s. HKT Mining Pvt Ltd. | 06.08.2005 |
| 2. | Environment Clearance for the establishment of MS Billets and Rolling Mills from Govt. of Karnataka vide no. FEE 299 ECO 2005 on sister concern M/s. HKT Mining Pvt Ltd. | 12.12.2005 |
| 3. | Environment Clearance for the establishment of Beneficiation plant (1.3 MTPA), Palletisation plant (1.2 MTPA) & Captive power plant (25 MW) from Govt. of Karnataka vide no.FEE 44 ECO 2007 issued on M/s. BMM Ispat Limited | 24.01.2008 |
| 4. | Environment Clearance for the Integrated Steel Plant for the Establishment of (2.0 MTPA), Cement Plant (1.4 MTPA) and Captive Power Plant (230 MW) from MoEF Vide No. J-11011/236/2008- IA- II(I) issued on M/s. BMM Ispat Limited. | 18.05.2010 |
| 5. | Environment Clearance for the Extension of Validity for the Integrated Steel Plant for the Establishment of (2.0 MTPA), Cement Plant (1.4 MTPA) and Captive Power Plant (230 MW) from MoEF&CC Vide No. J- 11011/236/2008- IA- II(I) issued on M/s. BMM Ispat Limited. | 17.05.2017 |
| 6. | Environment Clearance for the Amendment and corrigendum for the Integrated Steel Plant for the Establishment of (2.0 MTPA), Cement Plant (1.4 MTPA) and Captive Power Plant (230 MW) from MoEF&CC Vide No. J- 11011/236/2008- IA- II(I) issued on M/s. BMM Ispat Limited. | 09.07.2018 |

32.3.7 Implementation status of the existing EC:

| S. No | Items | Unit | Facilities installed as per 2005 ECs & CFO (A) | Facilities installed as per 2008 EC& CFO (B) | Facilities Proposed as per the EC-2010 (C) | Facilities Installed & Operating as Per EC-2010 and CFO (D) | Combined Installed Facilities (E) (A+B+D) | Balance Facilities to be Installed as per the EC-2010* (F) | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Iron ore Beneficiation plant | MTPA | - | 1.3 | 3.4 | 1.3 | 2.6 | 2.10 | Partially commissioned. Remaining 2.10 MTPA to be installed in the proposed activities |
| 2 | Palletizing Plant | MTPA | -- | 1.2 | 1.2 | 1.2 | 2.4 | - | Fully Commissioned and in Operation |

| S. No | Items | Unit | Facilities installed as per 2005 ECs & CFO (A) | Facilities installed as per 2008 EC& CFO (B) | Facilities Proposed as per the EC-2010 (C) | Facilities Installed & Operating as Per EC-2010 and CFO (D) | Combined Installed Facilities (E) (A+B+D) | Balance Facilities to be Installed as per the EC-2010* (F) | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 3 | DRI Plant | MTPA | 0.06 | -- | 0.70 | 0.70 | 0.76 | - | Fully Commissioned and in Operation |
| 4 | EAF & BOF Steel making | MTPA | -- | -- | 2.30 | 1.10 | 1.10 | 1.20 | Partially commissioned. Remaining 1.20 MTPA to be installed in the proposed activities |
| 5 | Rolling mills:<br>M.S Rolling<br>Hot strip mill<br>Structure's/wire rods | <br>MTPA<br>MTPA<br>MTPA | <br>0.108<br>--<br>-- | <br>--<br>--<br>-- | <br>--<br>1.00<br>1.00 | <br>--<br>--<br>0.85 | 0.108<br>--<br>0.85 | <br>--<br>1.0<br>0.15 | Partially commissioned. Remaining 1.15 MTPA to be installed in the proposed activities. |
| 6 | Oxygen Plant | TPD | -- | -- | 2x500 | 1x500 | 1x500 | 1x500 | Partially commissioned. 1x 1000 TPD (ASP) to be installed in the proposed activities. |
| 7 | Power Plant | MW | -- | 25 | 230 | 210 | 235 | 20 | Totally 110 MW will be installed |
| 8 | CCM:<br>Slab Caster<br>Billet Caster | <br>MTPA<br>MTPA | <br>--<br>0.108 | <br>--<br>-- | <br>1.10<br>1.10 | <br>--<br>1.10 | <br>--<br>1.20 | <br>1.10<br>-- | Partially commissioned. Remaining 1.20 MTPA of Slab caster will be installed |
| 9 | Blast furnace | MTPA | -- | -- | 1.70 | - | -- | 1.70 | To be commissioned |
| 10 | Coke Oven | MTPA | -- | -- | 0.80 | - | -- | 0.80 | To be commissioned |

| S. No | Items | Unit | Facilities installed as per 2005 ECs & CFO (A) | Facilities installed as per 2008 EC& CFO (B) | Facilities Proposed as per the EC-2010 (C) | Facilities Installed & Operating as Per EC-2010 and CFO (D) | Combined Installed Facilities (E) (A+B+D) | Balance Facilities to be Installed as per the EC-2010* (F) | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| 11 | Sinter Plant | MTPA | -- | -- | 2.50 | - | -- | 2.50 | To be commissioned |
| 12 | Calcining | TPD | -- | -- | 1080 | - | -- | 1080 | Decrease in plant production capacity from 1080 to 850 TPD. 1x600 kiln for lime & 1x250 TPD kiln for Calcined Dolomite |
| 13 | Cement Plant | MTPA | -- | -- | 1.40 | - | -- | 1.40 | To be commissioned |

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

| Sr.No | Items | Unit | Existing Facilities | Proposed Facilities | Overall Plant Capacity after Expansion |
|---|---|---|---|---|---|
| 1 | Iron ore Beneficiation plant ## | MTPA | 2.60 | 2.10 | 4.70 |
| 2 | Palletizing Plant | MTPA | 2.4 | - | 2.40 |
| 3 | DRI Plant | MTPA | 0.76 | - | 0.76 |
| 4 | EAF & BOF Steel making | MTPA | 1.10 | 1.20 | 2.30 |
| 5 | Rolling mills:<br>M.S Rolling<br>Hot strip mill<br>Structure's /wire rods | <br>MTPA<br>MTPA<br>MTPA | <br>0.108<br>--<br>0.85 | <br>-<br>1.15<br>- | 2.1 |
| 6 | Oxygen Plant | TPD | 1x500 | 1x1000 | 1500 |
| 7 | Power Plant | MW | 235 | 110 (25+60+25) | 345 |
| 8 | Continuous casting machines:<br>Slab Caster<br>Billet Caster | <br>MTPA<br>MTPA | <br>--<br>1.20 | <br>1.20<br>- | <br>1.20<br>1.20 |
| 9 | Blast furnace | MTPA | -- | 1.70 | 1.70 |
| 10 | Coke Oven | MTPA | -- | 0.80 | 0.80 |
| 11 | Sinter Plant | MTPA | -- | 2.50 | 2.50 |
| 12 | Calcining | TPD | -- | 850 | 850 |
| 13 | Cement Plant | MTPA | -- | 1.40 | 1.40 |
| Note: ##Tailing Recovery Plant (100 TPH) | | | | | |

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

| S. No. | Raw Material | Quantity required per annum | | | Source | Distance from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|---|---|
| | | Existing | Expansion | Total | | | |
| 1 | Iron ore fines (60%) | 3,239,660 | 5,457,800 | 2,218,140 | Ballari-Hosapete-Sandur regions of Karnataka | By Rail /Road :~100km. | Rail cum road |
| 2 | Prime coking coal | - | 517,730 | 517,730 | Mozambique, Australia, and Canada | By ship:~ 9000 km. By Rail from Seaport: Mangalore - 450 km Margao - 350 km Krishnapattanam - 550 km. | Seaport |
| 3 | Semisoft coking coal | - | 632,780 | 632,780 | Mozambique, Australia, and Canada | By ship: ~ 9000 km By Rail from Seaport: Mangalore - 450 km Margao - 350 km Krishnapattanam - 550 km. | Seaport, Rail cum road |
| 4 | Scale | - | 6,220 | 6,220 | In House generation | By road in tipper - 2 km. | Road |
| 5 | Limestone (BF grade) | 22,500 | 262,880 | 240,380 | Bagalkot, Jukehi-Katni-Niwar area in Central India | By Train: From Central India ~1500 km By Road:~ 200 km | Rail cum road |
| 6 | Dolomite (BF grade) | 57,720 | 207,240 | 149,520 | Bagalkot area, Karnataka, middle east countries/Thailand | By ship: ~ 5000 kms. By Rail/Road from Seaport: Mangalore - 450 km Margao - 350 km | Seaport, Rail cum road |

| S. No. | Raw Material | Quantity required per annum | | | Source | Distance from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|---|---|
| | | Existing | Expansion | Total | | | |
| | | | | | | Krishnapattanam - 550 km. | |
| 7 | Calcined lime fines | - | 9,340 | 9,340 | In House generation | Through Conveyors. | - |
| 8 | Calcined dolo fines | - | 2,970 | 2,970 | In House generation | Through Conveyors. | - |
| 9 | Quartzite | - | 67,150 | 67,150 | Karnataka | By Rail / Road: ~500 km | Rail cum road |
| 10 | Coke breeze | - | 72,710 | 72,710 | In House generation | In House - By Road~ 2 km | - |
| 11 | Bentonite | 25,200 | 20,670 | 4,530 | Bhuj Gujarat | By Road:~ 1600 km | Road |
| 12 | SA RB1 Coal | 37,270 | 38,020 | 750 | Indonesia | By ship:~10000 km<br>By Rail /Road from Seaport:<br>Mangalore - 450 km<br>Margao - 350 kms<br>Krishnapattanam - 550 km | Seaport, Rail cum road |
| 13 | Anthracite | 59,910 | 59,920 | 10 | Russia, Imported | By ship:~5000 km<br>By Rail /Road from Seaport:<br>Mangalore - 450 km<br>Margao - 350 km<br>Krishnapattanam - 550 km | Seaport, Rail cum road |
| 14 | RB2/RB3 Coal | 690,310 | 690,310 | - | South Africa | By ship: ~10000 km<br>By Rail /Road from Seaport:<br>Mangalore - 450 km<br>Margao - 350 km<br>Krishnapattanam - 550 km | Seaport, Rail cum road |

| S. No. | Raw Material | Quantity required per annum | | | Source | Distance from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|---|---|
| | | Existing | Expansion | Total | | | |
| 15 | PCI coal | - | 282,840 | 282,840 | Australia, South Africa, and Indonesia | By ship:~10000 kms.<br>By Rail /Road from Seaport:<br>Mangalore - 450 km<br>Margao - 350 km<br>Krishnapattanam - 550 km | Seaport, Rail cum road |
| 16 | Calcined Dolo | 25,310 | 24,070 | 1,240 | In House generation | In House - Conveyors. | - |
| 17 | Calcined Lime | 89,040 | - | 89,040 | In House generation | In House - Conveyors. | - |
| 18 | DRI Lumps | 298,810 | 179,810 | 119,000 | In House generation | In House - Conveyors. | - |
| 19 | Steel Scrap | 223,680 | 21,970 | 201,710 | In House generation | In House - By Tipper~ 2 km | - |
| 20 | Pig iron | 8,400 | 8,400 | - | In House generation | In House - By Tipper ~ 2km | - |
| 21 | Lump Ore | - | 308,970 | 308,970 | Ballari-Hosapete-Sandur regions of Karnataka | By Rail /Road: ~ 100 km | Rail cum road |
| 22 | - FeSi | 7,650 | 17,400 | 9,750 | Hyderabad | By Rail / Road: ~ 450 km | Rail cum road |
| 23 | - SiMn | 7,650 | 17,400 | 9,750 | Kottagudam | By Road: ~ 600 km | Road |
| 24 | Aluminium | 240 | - | 240 | Orissa | By Road: ~ 1000 km | Road |
| 25 | Clinker | - | 817,140 | 817,140 | In House production | In House - Conveyors. | - |
| 26 | Gypsum | - | 47,790 | 47,790 | Gujarat, Rajasthan | By Road: ~1600 kms. | Road |
| 27 | Limestone (SMS grade) | - | 430,660 | 430,660 | Middle East countries (UAE and Oman) | By ship: ~ 2600 kms.<br>By Rail /Road from seaport:<br>Mangalore - 450 km<br>Margao - 350 | Seaport, Rail cum road |

| S. No. | Raw Material | Quantity required per annum | | | Source | Distance from site (Kms) | Mode of Transportation |
|---|---|---|---|---|---|---|---|
| | | Existing | Expansion | Total | | | |
| | | | | | | kms<br>Krishnapattanam - 550 km | |
| 28 | Dolomite (SMS grade) | - | 130,010 | 130,010 | Middle East countries (UAE and Oman) | By ship: ~ 2600 kms.<br>By Rail /Road from seaport:<br>Mangalore - 450 km<br>Margao - 350 kms<br>Krishnapattanam - 550 km | Seaport, Rail cum road |
| 29 | Steam coal (Indonesian 5500 kcal/kg) | 72,980 | 177,510 | 104,530 | Indonesia | By ship: ~10000 km<br>By Rail /Road from seaport:<br>Mangalore - 450 km<br>Margao - 350 km<br>Krishnapattanam - 550 km | Seaport, Rail cum road |
| 30 | Steam coal (G grade) | 1,112,950 | 1,214,180 | 101,230 | Indonesia | By ship:~10000 km<br>By Rail /Road from seaport:<br>Mangalore - 450 km<br>Margao - 350 km<br>Krishnapattanam - 550 km | Seaport, Rail cum road |
| 31 | Indian Coal | 72,000 | -- | 72,000 | Nagpur | By rail: ~1000 km | Rail |

32.3.10 Existing Water requirement is 21783.6 $m^3$/day which is obtained from Water Resource Dept (WRD), Govt. of Karnataka and permission for the same has been obtained from vides letter no. IN-KA25186204877203P dated 31.10.2017. The water requirement for the proposed project is estimated as 22761 $m^3$/day, out of which 19927 $m^3$/day of fresh water requirement will be obtained from the downstream of Tungabhadra River and the remaining requirement of 2,834 $m^3$/day will be met from the recycling water. The permission for drawl of groundwater / surface

water is obtained from TB Dam Vide Lr. No: IN-KA115983395313144J Date:08.09.2011 which is submitted for renewal.

32.3.11 Existing power requirement of 55 MW is obtained from captive power plant. The power requirement for the proposed project is estimated as 345 MW obtained from captive power plant.

32.3.12 Baseline Environmental Studies:

| **Period** | Dec 2021 to Feb 2022 |
|---|---|
| AAQ parameters at 11 locations | • $PM_{2.5}$ = 13.8 to 24.5 µg/$m^3$<br>• $PM_{10}$= 41.2-77.8 µg/$m^3$<br>• $SO_2$= 6.5 – 14.8 µg/$m^3$<br>• $NO_2$ = 11.0 – 21.8 µg/$m^3$<br>• CO = 230 – 450 µg/$m^3$ |
| AAQ MODELLING (Incremental GLCs) | • $PM_{2.5}$ = 0.99 µg/$m^3$<br>• $PM_{10}$ = 2.21 µg/$m^3$<br>• CO = 3.46 µg/$m^3$<br>• $SO_2$ = 1.31 µg/$m^3$<br>• NOx = 1.07 µg/$m^3$ |
| GROUND WATER QUALITY AT 11 LOCATIONS | • pH: 7.62 to 8.41<br>• Total Hardness: 84.1 to 509.2 mg/l<br>• Chlorides: 32.1 to 267.2 mg/l<br>• Fluoride: 0.3 to 1.1 mg/l<br>• The heavy metal content is below detectable limits. |
| SURFACE WATER QUALITY AT 09 LOCATIONS | • pH: 7.96 to 8.34<br>• DO: 4.9 – 5.8 mg/l<br>• BOD: <3 mg/l<br>• COD: <5 mg/l<br>• Any other relevant parameter |
| NOISE LEVELS AT 11 LOCATIONS | 41.3 – 72.4 dBA for day time and<br>31.6 – 68.9 dBA for night time |
| SOIL QUALITY AT 11 LOCATIONS | pH: 6.65 to 8.32<br>Electrical conductivity: 165 – 324µs/cm<br>Available nitrogen: 92.9 – 178.8 kg/ha<br>Available phosphorous 51.4 – 118.5 kg/ha<br>Available potassium 166.5 – 247 kg/ha |
| TRAFFIC ASSESSMENT STUDY FINDINGS | Traffic study has been conducted at NH50 and SH 25 which is approximately 1.0 Km and 3.1 Km (distance) from the plant site.<br><br>Transportation of raw material, fuel & finished product will be done 80% by rail and 20% by road.<br><br>Existing PCU is 36787 PCU/hr on NH50 and existing level of service |

<table>
<tr><td></td><td>(LOS) is: B<br><br><table><tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr><tr><td>NH50</td><td>36787</td><td>35000</td><td>1.05</td><td>B</td></tr><tr><td>SH25</td><td>21206</td><td>15000</td><td>1.41</td><td>B</td></tr></table><br>PCU load after proposed project level of service (LOS) will be:<br><table><tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr><tr><td>NH50</td><td>36847</td><td>35000</td><td>1.05</td><td>B</td></tr><tr><td>SH25</td><td>21236</td><td>15000</td><td>1.41</td><td>B</td></tr></table><br>Note: Capacity as per IRC-2015 Guide line for capacity for roads.<br>Conclusion: The level of service will be B after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>Presence of schedule I fauna and endangered Flora-<ul><li>Pavo cristatus (the Indian Peacock or Indian Peafowl), Psittacula eupatria (Alexandrine Parakeet), Manis crassicaudata (Indian Pangolin), Melursus ursinus (Sloth bear/ Bhalu rich), Panthera pardus (Leopard) are the Schedule I species found in the study area.</li><li>BMM has prepared the management plan with the budget of Rs. 700 Lakhs for the conservation of wildlife in the study area and was approved by the PCCF, Bangalore</li></ul></td></tr>
</table>

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

| Sr. No | Solid Waste | Nature of Solid Waste | Existing | Expansion | Total After Expansion | Total After Expansion in TPA | Proposed Use/ Disposal |
|---|---|---|---|---|---|---|---|
| Rolling Mills (TPD) | | | | | | | |
| 1 | Scrap | Scrap | 54 | 59 | 113.0 | 37290 | Reuse in Steel Melting Shop |
| 2 | Mill Scale | Scale | 42 | 39.0 | 81.0 | 26730 | 100% Reuse in Sinter plant |
| 3. | Gasifier | Coal ash | 1.3 | 0 | 1.3 | 429 | Sold as by product |
| 4 | Broken refractory | Refractory | 1 | 1.2 | 2.2 | 726 | Will be sold to authorized vendors |
| Coke Oven Plant (TPD) | | | | | | | |
| 1 | Dust from bag | Dust | 0 | 31 | 31 | 10230 | Will be used in |

| Sr. No | Solid Waste | Nature of Solid Waste | Existing | Expansion | Total After Expansion | Total After Expansion in TPA | Proposed Use/ Disposal |
|---|---|---|---|---|---|---|---|
| | filters | | | | | | Cement plant |
| 2. | Coke breeze | Coke breeze | 0 | 20 | 20 | 6600 | Reused in sinter plant |
| Captive Power Plant (TPD) | | | | | | | |
| 1 | CPP | Fly Ash | 1250 | 300 | 1550 | 511500 | Reused in Cement plant, road construction and Brick manufacturing |
| 2 | | Bed ash | 400 | 100 | 500 | 165000 | |
| Sintering Plant (TPD) | | | | | | | |
| 1. | Sinter Dust | Dust | 0 | 113 | 113 | 37290 | Will be reused in sinter plant |
| Cement Plant (TPD) | | | | | | | |
| 1. | Dust from ESP | Dust | 0 | 38 | 38 | 12540 | Will be reused in cement plant |
| Sponge Iron (TPD) | | | | | | | |
| 1 | ESP | ESP Dust/Fly Ash | 400 | 0 | 400 | 132000 | Selling to outside and further it will be used in Cement Plant |
| 2 | Bag filters | Bag filter Dust/Coal dust | 180 | 0 | 180 | 59400 | Selling to outside and further it will be used in our Cement Plant |
| 3 | Wet Scrubbers | sludge | 50 | 0 | 50 | 16500 | Sales/Dump Yard |
| 4 | Operation | Dolochar | 350 | 0 | 350 | 115500 | Used in Captive Power Plant |
| 5 | Shutdown | Accretion | 300 | 0 | 300 | 99000 | Sales/Dump Yard |
| 6 | Cooler Discharge | Cooler Oversize | 30 | 0 | 30 | 9900 | Sales/Dump Yard |
| 7 | PH Screen | Oversize Material | 10 | 0 | 10 | 3300 | Sales/Dump Yard |

32.3.14 Public Consultation:

| | |
|---|---|
| Details of advertisement given | 14th August, 2022 |
| Date of public consultation | 15th September, 2022 |
| Venue | BMM Project Site |
| Presiding Officer | Additional District Magistrate, Ballari District (Chairperson) |
| Major issues raised | • Generation of Employment to Locals<br>• Improvement in Health Care Facilities<br>• Improving Educational Facilities<br>• Skill Development programs |

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

| Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|
| | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| Health Related | Primary Medical Facilities through Mobile Van | 7 Villages / Danaura, Hanumanahalli, Gunda, Gunda Thanda Garga, Nagalapura and Galemnagudi | 84 | 8 Villages / Garga, New Graga Byalakundi, Nagalapura, Nagalapura Thanda, Gunda Village, Gunda Thanada and Gollarahalli | 96 | 7 Villages / Danaura, Hanumanahalli, Gunda, Gunda Thanda Garga, Nagalapura and Galemnagudi | 84 | **264** |
| | Organising Medical camps for specialised diseases | 8 Villages / Danapura Village, Hamppinakatte, Venkatapura Ayyanahalli, New Ayyanahalli, Vyasanakere, Galemmanagudi, Hanumanahalli | 60 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, NagalapuraThanda, Gunda Village, Gunda Thanada and Gollarahalli | 60 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, Nagalapura Thanda, Gunda Village, Gunda Thanada and Gollarahalli | 60 | **180** |
| | Infrastructure Improvement in Health Sub-Centers | 6 Villages / Danapura, Hanumanahalli, G Naglapura, Mariyamnahalli A and B and DN Kere | 30 | 6 Villages / Danapura, Hanumanahalli, G Naglapura, Mariyamnahalli A and B and DN Kere | 30 | 4 Villages / Danapura, Hanumanahalli, G Naglapura and Mariyamnahalli | 20 | **80** |
| | Development of facilities at CHC | 2 Villages / Mariyamnahalli and Hanumanhalli | 30 | 2 Villages / Mariyamnahalli and Hanumanhalli | 30 | 2 Villages / Mariyamnahalli and Hanumanhalli | 15 | **75** |
| Education Related | Construction of Classrooms in | 3 Villages / Mariyammanahall | 88 | 3 Villages / New Garga, G | 80 | 4 Villages / Old Garga, | 108 | **276** |

| Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|
| | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | Govt. Schools of nearby area (4 Classrooms in each school) | i, Hanumanhalli and Danapura | | Naglapura and Gunda Thanda | | Devalapura, Galemnagudi and Ayanahalli | | |
| | Ensuring proper Sanitation Facilities at School by building Toilet units for students | 4 Villages / DN Kere, Golarahali Ngalapura and Garga | 40 | 3 Villages / Ayanahalli, Danapura and Hanumanhali | 30 | 4 Villages / Devalapura, Nandi Bandey, Belkindi and Ngalapura Thanda | 40 | **110** |
| | Developing Smart Classrooms in the Govt. Schools to promote digital learning | 3 Villages / Danapura, Hanumanahalli and DN kere | 45 | 4 Villages / Garga, Gunda, Ayanahali and Mariyamnahalli | 60 | 4 Villages / Gollarahalli, Devalapura, Hampinakattey and MM Hali Thanda | 60 | **165** |
| | Boundary wall construction of Govt. Schools | 3 Villages / Hanumanahalli, Mariyamnahali and Ayanahalli | 36 | 3 Villages / Bailkundi Nagalapura and Garga | 36 | 2 Villages / Gollrahalli and DN Kere | 24 | **96** |
| | Renovation & Repairing of Govt. School Buildings | 4 Villages / Danapura, Hanumanahalli, Galemnagudi and Ayanahalli | 80 | 4 Villages / Devalapura, Naglapura Garaga Belkundi and Vesinkere | 80 | 4 Villages / Mariyamnhalli Town, Mariyamnhalli Thanda, Devlapura and Nandibandi | 80 | **240** |
| | Providing basic amenities like Furniture, Boards, water coolers etc. | 6 Villages / Danapura 1 and 2, Hanumanahalli, Devlapura, Old Ayanahalli and Gunda Thanda | 30 | 5 Villages / Gollharahali, Nandi Bandi, Gund Village, New Graga and Byalakundi | 25 | 3 Villages / Hampinakatti Venkatapura and Vyasinkere | 15 | **70** |
| | Plantation Works in Govt. School Premises | All Government Schools | 50 | All Government Schools | 50 | All Government Schools | 50 | **150** |
| Environment Related | Installation of Solar Street Lights for better illumination in the villages | 9 Villages / Danapura, Hamppinakatte, Venkatapura, Ayyanahalli, New Ayyanahalli, Vyasanakere, Galemmanagudi, Hanumanahalli and Gunda Station | 225 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, Nagalapura Thanda, Gunda Village, Gunda Thanada and Gollarahalli | 200 | 5 Villages / Dananayakankere, Devlapura, Nandibandi, Indiranagar, Mariyamnhalli Town and Mariyamnhalli Thanda | 125 | **550** |

| Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|
| | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | Plantation drives with Treeguards | All Core and buffer villages | 100 | All Core and buffer villages | 100 | All Core and buffer villages | 100 | **300** |
| | Plantation in forest area | Study area in consultation with DFO | 100 | Study area in consultation with DFO | 100 | Study area in consultation with DFO | 100 | **300** |
| | Construction of 10 No's of artificial water bodies (100x100x2) adjacent forest patches | 3 No's in study area in consultation with DFO | 80 | 3 No's in study area in consultation with DFO | 80 | 4 No's in study area in consultation with DFO | 80 | **240** |
| | Development of Garden/Parks in the villages | 5 Villages / Ayyanahalli, New Ayyanahalli, Vyasanakere, Dananayakankere and Mariyamnhalli Town | 50 | 4 Villages / Devlapura, Mariyamnhalli Thanda, Nandibandi and Indiranagar | 40 | 6 Villages / Garga, New Graga Nagalapura, Gunda, Gunda Thanada and Gollarahalli | 60 | **150** |
| Water related | Desilting of existing ponds etc. in the nearby villages | 4 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli and Vyasanakere | 60 | 5 Villages / Garga, New Graga, Byalakundi, Nagalapura and Nagalapura Thanda | 75 | 3 Villages / Dananayakankere, Devlapura and Nandibandi | 45 | **180** |
| | Drinking water arrangements for Cattle & Bird by developing troughs | 4 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli and Vyasanakere | 240 | 5 Villages / Garga, New Graga, Byalakundi, Nagalapura and Nagalapura Thanda | 300 | 3 Villages / Dananayakankere, Devlapura and Nandibandi | 180 | **720** |
| | Developing/repairing of water infrastructures in the villages | 4 Villages / Mariyamnhalli Thanda, Dananayakankere, Devlapura and Nandibandi | 40 | 4 Villages / Gollarahalli, Gunda Thanada, Gunda and Nagalapura Thanda | 40 | 6 Villages / Danapura, Hamppinakatte, Venkatapura, Ayyanahalli, New Ayyanahalli and Vyasanakere | 60 | **140** |
| | Providing support for Construction of Rain Water Harvesting Structures (4 | 6 Villages / Dananayakankere, Devlapura, Nandibandi, Garga, New | 90 | 5 Villages / Gunda, Gunda Thanada, Gollarahalli, Vyasanakere | 80 | 5 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli, Nagalapura and | 75 | **245** |

| Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|
| | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | RWH pits in each village) | Graga and Byalakundi | | and Gunda Station | | Nagalapura Thanda | | |
| Infrastructure Related | Construction of CC Roads | 5 Villages / Danapura, Hanumanahalli, Galemmanagudi, Ayyanahalli and Garga | 500 | 5 Villages / Mariyamnhalli Town, Nagalapura Thanda, Gunda Village, Gunda Thanada and Gollarahalli | 500 | 7 Villages / Dananayakankere, Devlapura, Nandibandi, Indiranagar, Garga, New Graga and Byalakundi | 700 | **1700** |
| | Construction of Community Centers for Local community event, SHG meeting, organising functions etc. | Total 4 Community Halls at 4 Villages / Indiranagar, Danapura, Hanumanhalli and Gunda Village | 40 | Total 4 Community Halls at 4 villages / Mariyamnahalli, Devlapura, Gollarahalli and Garga | 40 | Total 4 Community Halls at 4 villages / Naglapura, Ayanhali, Venktapura and Hampinakattey | 40 | **120** |
| | Construction of Bus Stops (2 @ each village) | 4 Villages / Danapura, Hanumanhali, Mariyamnhalli and Hosapete | 24 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, Nagalapura Thanda, Gunda, Gunda Thanada and Gollarahalli | 48 | 6 Villages / Dananayakankere, Devlapura, Nandibandi, Indiranagar, Mariyamnhalli Town and Mariyamnhalli Thanda | 36 | **108** |
| | Development at existing Cremation Ground with boundary walls, water storage facility, covered sheds etc | 2 Villages / Hanumanhalli and Mariyamnahalli | 20 | 7 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli, Vyasanakere, Galemmanagudi, Hanumanahalli and Gunda Station | 70 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, Nagalapura Thanda, Gunda, Gunda Thanada and Gollarahalli | 70 | **160** |
| | Construction of CC road side drains in the villages | 7 Villages / Mariyammanahalli, Danapura, Nagalapura, Danayakanakere, Byalakundi, Gunda and Garaga | 84 | 3 Villages / Dananayakankere, Devlapura and Nandibandi | 36 | 2 Villages / Mariyamnhalli Town and Mariyamnhalli Thanda | 24 | **144** |

| Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|
| | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | Installation of Speed Breakers to ensure road safety | All Core villages | 5 | All buffer villages | 5 | All buffer villages | 5 | **15** |
| | Construction of Drinking Water RO Facility | 7 Villages / Mariyammanahalli, Danapura, Nagalapura, Danayakanakere, Byalakundi, Gunda and Garaga villages | 84 | 2 Villages / Bailkundi and Devlapura | 24 | 1 Village / Gunda | 12 | **120** |
| | Development of Gaushala of nearby villages | 7 Villages / Mariyammanahalli, Danapura, Nagalapura, Danayakanakere, Byalakundi, Gunda and Garaga villages | 14 | 7 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli, Vyasanakere, Galemmanagudi, Hanumanahalli and Gunda Station | 14 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, Nagalapura Thanda, Gunda, Gunda Thanada and Gollarahalli | 16 | **44** |
| Livelihood Related | Establishing Center of Excellence having Skill Development School, Training Center of Women, Library for youths, Open Gym and Classrooms for extra studies. Installation of sewing machines, internet with computer systems, machines for making hand craft items along with necessary raw materials, organizing training program, vocational program etc. | 7 Villages / Mariyammanahalli, Danapura, Nagalapura, Danayakanakere, Byalakundi, Gunda and Garaga villages | 280 | 7 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli, Vyasanakere, Galemmanagudi, Hanumanahalli and Gunda Station | 280 | 8 Villages / Garga, New Graga, Byalakundi, Nagalapura, Nagalapura Thanda, Gunda, Gunda Thanada and Gollarahalli | 320 | **880** |

| Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|
| | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | Promotion of Organic Farming | 7 Villages / Mariyammanahalli, Danapura, Nagalapura, Danayakanakere, Byalakundi, Gunda and Garaga villages | 21 | 4 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli and Vyasanakere | 12 | 4 Villages / Mariyamnhalli Town, Mariyamnhalli Thanda, Devlapura and Nandibandi | 12 | **45** |
| | Veterinary Services in the villages by organising Animal Health Camps | 7 Villages / Mariyammanahalli, Danapura, Nagalapura, Danayakanakere, Byalakundi, Gunda and Garaga villages | 14 | 4 Villages / Venkatapura, Ayyanahalli, New Ayyanahalli and Vyasanakere | 8 | 4 Villages / Mariyamnhalli Town, Mariyamnhalli Thanda, Devlapura and Nandibandi | 8 | **30** |
| Sports related | Development of Playgrounds in the village & School grounds | 2 Villages / Hanumanhalli and Mariyamnahalli | 10 | 2 Villages / Gunda Thanada and Nagalapura Thanda | 5 | 2 Villages / Gollarahalli and Gunda | 10 | **25** |
| | Basketball/volley ball Ground Development at government Schools | 2 Villages / Hanumanhalli and Mariyamnahalli | 6 | 2 Villages / Gunda Thanada and Nagalapura Thanda | 6 | 2 Villages / Gollarahalli and Gunda | 6 | **18** |
| | Boundary wall at Playground | 4 Villages / Indiranagar, Danapura, Hanumanhalli and Gunda Village | 20 | 4 villages / Mariyamnahalli, Devlapura, Gollarahalli and Garga | 20 | 4 villages / Naglapura, Ayanhali, Venktapura and Hampinakattey | 20 | **60** |
| | | **Total** | **2680** | **0** | **2660** | **0** | **2660** | **8000** |
| **Grand Total (Rupees Eight Thousand Lakhs or Eighty Crores only)** | | | | | | | | **8000** |

32.3.15 The existing capital cost of project was about Rs. 6000 Crores. The capital cost of the proposed project is Rs. 10,995 Crores and the capital cost for environmental protection measures is Rs. 636 Crores and annual recurring cost towards the environmental protection measures is proposed as Rs.60 Crores. The employment generation from the proposed project /expansion is12,100 No's (Direct and Indirect). The details of cost for environmental protection measures is as follows:

| S.No | Description | Proposed Expenditure (Rs. Crore) | Recurring cost (Rs. Crore) |
|---|---|---|---|
| 1. | Proposed APC measures | 568.0 | 53.2 |
| 2. | Proposed STP of 100 KLD | 0.5 | 0.05 |
| 3. | Implementation of Rainwater Harvesting scheme | 5.0 | 0.5 |

| S.No | Description | Proposed Expenditure (Rs. Crore) | Recurring cost (Rs. Crore) |
|---|---|---|---|
| 4. | Construction of garland drains, check dams, storm water drains etc., | 2.0 | 0.2 |
| 5. | Environment Monitoring | 0.5 | 0.05 |
| 6. | Development of greenbelt in an area of 104 ha | 21.0 | 2.1 |
| 7. | Solid Waste Management | 9.0 | 0.9 |
| 8. | Miscellaneous | 30.0 | 3.0 |
| **Total** | | **636.0** | **60.0** |

32.3.16 Existing green belt has been developed in 362 ha area which is about 37.1% of the total project area of 975.56 ha (for existing) with total sapling of around 370000 Trees. Proposed greenbelt will be developed in 104.5 ha which is about 33% of the total project area of 438.1 Ha for proposed area. Thus total of 466.5 ha area (33.% of total project area) will be developed as greenbelt. A 7.5m 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 261250 saplings will be planted and nurtured in 104.5. hectares in 3 years i.e. June 2023 to May 2026 within the existing plant premises and proposed plant facility area.

| S.No. | Year | Proposed greenbelt area (in ha) | No. of Trees | % of greenbelt area |
|---|---|---|---|---|
| 1 | 2023-24 | 52.25 | 130625 | 50% |
| 2 | 2024-25 | 26.125 | 65312.5 | 25% |
| 3 | 2025-26 | 26.125 | 65312.5 | 25% |
| **TOTAL** | | **104.50** | **2,61,620** | **100%** |

32.3.17 Summary of court case/show cause/direction related to the project underconsideration:

| SL. NO | CASE NO. & SUBJECT | PARTY DETAILS | PENDING BEFORE | BRIEF NOTE/ SYNOPSIS | CASE DETAILS (AMOUNT INVOLVED, DATE OF HEARING ETC.) | CATEGORY | REMARKS OF PP |
|---|---|---|---|---|---|---|---|
| 1 | WP 64376/2011<br><br>(filed challenging KIADB Land acquisition) | A.Kenchappa Vs. State of Karnataka | High Court, Dharwad Bench | The Petitioner namely A. Kenchappa filed the present Writ Petition challenging the acquisition of his land bearing Sy.No. 18/C/16 measuring 1 acre 95 cents & Sy. No 18/C/17 measuring 1 acre 50 cents situated in D.N Kere Hosapete Taluk. Vide acquisition notification issued by the State under section 1(3), 3(1) & 28(4) of the KIADB Act 1996. The Petitioner's | Matter Pending<br><br>Last dt: 09.02.2021<br><br>Next dt: not given till date. | Land –<br><br>Sy.No. 18/C/16<br><br>Sy. No 18/C/17-D.N Kere | There is no merit in this petition as the validity of final notification has been upheld by the High Court in another matter. |

| SL. NO | CASE NO. & SUBJECT | PARTY DETAILS | PENDING BEFORE | BRIEF NOTE/ SYNOPSIS | CASE DETAILS (AMOUNT INVOLVED, DATE OF HEARING ETC.) | CATEGORY | REMARKS OF PP |
|---|---|---|---|---|---|---|---|
| | | | | contention before the Court was that even though he has filed the objections to the said acquisition, without considering the same, the State has issued the final notification on 19.04.2011 which is impugned herein. | | | Hence there is no implication whatsoever on the existing and proposed expansion project. |
| 2 | OS 304/2018<br><br>(Suit for permanent injunction against industrial acquired land.) | P. Velumani Vs. BMM Ispat Ltd. | Hon'ble Prl. Civil Judge & JMFC, Hosapete. | One Mr. P.Velumani has filed this suit against BMMIL alleging that he is the lawful owner of the suit property measuring 0.66 acres situated at Danapura Village, Hosapete and that the KIADB without his knowledge & consent has proceeded to acquire his land for the purpose of BMMIL. He further alleges that BMMIL has illegally interfered with his suit property and damaged his standing crops and turned it into a parking space for the Company's lorries and other vehicles. Therefore, the said P.Velumani has filed a suit for permanent injunction against the Company. | Matter Pending<br><br>Next dt: 23.05.2023 | Land<br><br>Sy.No. 54/4A 0.65 Acres & 54/4B 0.66 acres in Danapura Village | There is no merit in this suit as the said lands have already been acquired by the KIADB and has been handed over to BMMIL (PP), compensation has been paid to the plaintiff.<br><br>Hence there is no implication whatsoever on the existing and proposed expansion project. |
| 3 | LAC.No. 3/2019<br><br>(Enhancement of compensation for KIADB acquired land.) | P.Velumani Vs. The Special Land Acquisition Officer, KIADB, Davanagere & another<br><br>(BMMIL-Respondent No.2) | 1st Addl. District and Sessions Judge, Ballari | The land of the Petitioner was acquired under the KIADB Act for BMMIL's Project purpose and accordingly an award of Rs.2,62,911/- was granted by the Special Land Acquisition Officer, KIADB, Davanagere under the Land Acquisition Act of 1894. The Award amount not being acceptable as satisfactory to the Petitioner, he has made the instant Application before the Court. | Matter Pending<br><br>Next dt: 22.06.2023 | Land<br><br>Sy.No. 54/4A 0.65 Acres & 54/4B 0.66 acres in Danapura Village | There are Chances of enhancement in the compensation amount if the Court finds merit in the case. PP will abide by the judgment.<br><br>Hence there is no implication whatsoever on the existing and |

| SL. NO | CASE NO. & SUBJECT | PARTY DETAILS | PENDING BEFORE | BRIEF NOTE/ SYNOPSIS | CASE DETAILS (AMOUNT INVOLVED, DATE OF HEARING ETC.) | CATEGORY | REMARKS OF PP |
|---|---|---|---|---|---|---|---|
| | | | | | | | proposed expansion project. |
| 4 | OS 165/2020<br><br>(BMMIL has filed injunction suit against the Defendant not to disturb with the usage of public road) | BMMIL Vs. Dakshayani | Prl.Civil Judge & JMFC, Hosapete | BMM Ispat Limited has filed a suit for Permanent Injunction against one Smt. Dakshayani. The suit property is a public road which is in existence since time immemorial and is being used by the Company for egress and ingress to its Steel Plant and also is being used by other villagers having their lands beyond the Plant. Defendant had got issued a legal notice to the Plaintiff, alleging that 40 cents out of the total land purchased by her, the Plaintiff Company has formed a road by illegal encroachment and called upon the Plaintiff to vacate and hand over the vacant possession of the alleged illegally encroached area, wherein the road was formed. Thus, BMMIL filed the present suit and also an application for ex-parte interim temporary injunction . | Temporary injunction granted vide Order dt; 24.05.2021-<br><br>Matter Pending<br><br>Next dt: 13.06.2023 | Land<br><br>Public road existing over an area of 40 cents out of total extent of 1-94 acres in Sy.No. 186, Danapura Village | The suit schedule land is a public road and we have also obtained a temporary injunction, hence we have a good case on merit.<br><br>Hence there is no implication whatsoever on the existing and proposed expansion project. |
| 5 | OS 84/2021<br><br>(Permanent injunction suit filed against BMMIL to use cart road in the industrial land) | Balaji Singh Vs. BMMIL | Prl.Civil Judge & JMFC, Hosapete | One Mr.A.Balaji Singh(Plaintiff) has filed a civil suit before the Hon'ble III Additional Civil Judge and J.M.F.C, Hosapete for Declaration and for grant of Permanent Injunction against BMM Ispat Limited and its Directors. The Plaintiff claims that there is a cart road by the side of his land Sy.No. 218(p) measuring 0.81 acre that runs from Danapur village to Gunda Village forming part of Hosapete Taluk, Vijayanagara District and that the said Cart Road is used by the Plaintiff to reach his land. The Plaintiff has alleged that at the time of constructing and establishment of the steel factory, BMM Ispat Limited to reach its Factory has widened the Cart Road and has asphalted it. It is alleged that the Plaintiff raised objection at that time but was assured by the Company and its | Matter Pending<br><br>Next dt: 29.05.2023 | Land<br><br>Sy. No. 218/,<br><br>0.81 acres, Danapura Village | No temporary injunction was granted and therefore, prima facie we have a good case on merit.<br><br>Hence there is no implication whatsoever on the existing and proposed expansion project. |

| SL. NO | CASE NO. & SUBJECT | PARTY DETAILS | PENDING BEFORE | BRIEF NOTE/ SYNOPSIS | CASE DETAILS (AMOUNT INVOLVED, DATE OF HEARING ETC.) | CATEGORY | REMARKS OF PP |
|---|---|---|---|---|---|---|---|
| | | | | directors that he shall be allowed to use the said widened Cart Road to reach his land without any interruption. Thus, he has filed this suit against the Company and its directors for declaration and for grant of Permanent Injunction. | | | |
| 6 | LAC.No. 2/2019<br><br>(Enhancement of compensation for KIADB acquired land.) | Srinivas Vs. The Special Land Acquisition Officer, KIADB, Davanagere & another<br><br>(BMMIL-Respondent No.2) | 1st Addl. District and Sessions Judge, Ballari | The land of the Petitioner was acquired under the KIADB Act for BMMIL's Project purpose and accordingly an award of Rs.4,29,601/- was granted by the Special Land Acquisition Officer, KIADB, Davanagere under the Land Acquisition Act of 1894. The Award amount not being acceptable as satisfactory to the Petitioner, he has made the instant Application before the Court | Matter Pending<br><br>Next dt: 08.06.2023 | Land<br><br>Sy.No. 48/A33, 3.52 acres | There are Chances of enhancement in the compensation amount if the Court finds merit in the case. PP will abide by the judgment.<br><br>Hence there is no implication whatsoever on the existing and proposed expansion project. |
| 7 | LAC 102/2023<br><br>(Enhancement of compensation for KIADB acquired land.) | Anand Suresh Kumar<br><br>Vs.<br><br>KIADB & others | CJM @ Ballari | The Applicant not being satisfied by the award amount given to him for the acquisition of his land. | Matter Pending<br><br>Next dt: 06.06.2023 | Land<br><br>Sy. 61/C/4B (1.33 )<br><br>Sy. 61/C/4A (1.34)<br><br>Sy. 62/a/C4 (0.07) | There are Chances of enhancement in the compensation amount if the Court finds merit in the case. PP will abide by the judgment.<br><br>Hence there is no implication whatsoever on the existing and |

| SL. NO | CASE NO. & SUBJECT | PARTY DETAILS | PENDING BEFORE | BRIEF NOTE/ SYNOPSIS | CASE DETAILS (AMOUNT INVOLVED, DATE OF HEARING ETC.) | CATEGORY | REMARKS OF PP |
|---|---|---|---|---|---|---|---|
| | | | | | | Sy. 62/aa/C4(0.06)<br><br>Sy. 62/C/11A (0.15)<br><br>Sy. 62/C/11B (0.15)<br><br>Sy. 62/28 (0.62)<br><br>Total : 3.72 Acres<br><br>Danapura Village | proposed expansion project. |
| 8 | LAC 103/2023<br><br>(Enhancement of compensation for KIADB acquired land.) | Anand Suresh Kumar<br><br>Vs.<br><br>KIADB & others | CJM @ Ballari | The Applicant not being satisfied by the award amount given to him for the acquisition of his land. | Matter Pending<br><br>Next dt: 06.06.2023 | Sy.59/3 (0.46)<br><br>59/5A (0.20)<br><br>59/5B (0.21)<br><br>59/A7 (0.52)<br><br>Total : 1.39 Acres<br><br>Danapura Village | There are Chances of enhancement in the compensation amount if the Court finds merit in the case. PP will abide by the judgment.<br><br>Hence there is no implication whatsoever on the existing and proposed expansion project. |

| SL. NO | CASE NO. & SUBJECT | PARTY DETAILS | PENDING BEFORE | BRIEF NOTE/ SYNOPSIS | CASE DETAILS (AMOUNT INVOLVED, DATE OF HEARING ETC.) | CATEGORY | REMARKS OF PP |
|---|---|---|---|---|---|---|---|
| 9 | OS 198/22<br><br>BMMIL has filed injunction suit against the defendants for not to interfere in industrially acquired lands) | BMMIL<br><br>Vs.<br><br>Sri Rudregouda & others | CJ @ Hosapete | BMMIL has filed a suit for grant of permanent injunction against the Defendants | Matter Pending<br><br>Nxt dt: 03.06.2023 | Sy. 61/C/3(2.96 )<br><br>Sy. 62/C/3 (60 cents)<br><br>Sy. 65/27 (85 cents)<br><br>Danapura village | Temporary injunction was granted in our favour. Hence, prima facie we have a good case on merit.<br><br>Hence there is no implication whatsoever on the existing and proposed expansion project. |

**Certified compliance report from Regional Office:**

32.3.18 The Status of compliance of earlier EC was obtained from Regional Office, Bangalore vide letter no. EP 12.1/2010-11/3/KAR/38 dated 06-04-2023 in the name of M/s. BMM Ispat Limited. As reported there are no non compliances.

32.3.19 The proposal was initially considered in the 26$^{th}$ meeting of the EAC for Industry-I sector held on 12$^{th}$, 13$^{th}$ and 17$^{th}$ April, 2023 wherein the Committee deferred the proposal due to certain deficiencies in the proposal and sought requisite information. The delibertions and recommendations of EAC during 26$^{th}$ EAC is as follows:

**Deliberations by the Committee (EAC during 26$^{th}$ EAC Meeting)**

The Committee noted the following:

1. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020.
2. The EAC also deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form.

3. The Committee deliberated on the baseline data and observed that incremental GLC of CO has not been provided. The EAC if the view that the GLC values for all the parameters shall be revalidated and shall be submitted.

4. The EAC deliberated on the greenbelt development plan and is of the view that maximum greenbelt shall be achieved in the coming monsson. In this regard, PP shall submit a revised greenbelt development plan along with the undertaking by way of affidavit that they will achieve maximum plantation in the coming monsoon.

5. The EAC noted that there are number of litigations against the project. PP shall submit an updated status of each of the cases and shall submit an undertaking by way of affidavit that they will abide by the outcome of the cases.

6. Danayanakankere Lake is adjacent to project site whereas there are number of ponds nearby the project site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.

7. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.

8. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.

9. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

**Recommendations of the Committee (EAC during 26th EAC Meeting)**

In view of the foregoing and after detailed deliberations, the committee recommended to deferred the proposal due to certain deficiencies in the proposal and sought requisite information on the points referred at para above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

32.3.20 Subsequently, the proponent submitted the ADS reply vide letter dated 6th May, 2023 uploaded on PARIVESH on 8th May, 2023. Point-wise reply of ADS is given below:

<table>
<tr><th>S No</th><th>ADS Point</th><th>Reply/Response of PP</th></tr>
<tr><td>1.</td><td>The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020.</td><td>As per the advice of the EAC, PP has addressed the issues raised during the Public hearing and a detailed Action Plan is prepared and allocated a budget of Rs.8000 Lakhs towards PH issues for the next three years.</td></tr>
<tr><td>2.</td><td>The EAC also deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form.</td><td>The Public Consultation was conducted on 17th July, 2009 and based on the inputs received from the Public and responses given, MoEF&CC has accorded Environmental Clearance vide F.No. J-11011/236/2008-IA.II(I) dated 18th May, 2010 for 2 MTPA Integrated Steel Plant.<br><br>PP has submitted the Certified Audit Certificate from Chartered Accountant w.r.t. expenditure incurred for various social welfare activities to enhance the livelihood of the local villagers.</td></tr>
<tr><td>3.</td><td>The Committee deliberated on the baseline data and observed that incremental GLC of CO has not been provided. The EAC if the view that the GLC values for all the parameters shall be revalidated and shall be submitted.</td><td>PP submitted that the Modelling was carried out while preparing the EIA report for $PM_{10}$, $PM_{2.5}$, $SO_2$, NOx and CO. However, as the slide was appeared shabby, PP had removed them and shown the primary pollutants as per CPCB norms $PM_{10}$, $PM_{2.5}$, $SO_2$, and NOx. PP sincerely apologies for that. Now PP has revalidated the baseline data and incremental GLC's of $PM_{10}$, $PM_{2.5}$, $SO_2$, NOx and CO.</td></tr>
<tr><td>4.</td><td>The EAC deliberated on the greenbelt development plan and is of the view that maximum greenbelt shall be achieved in the coming monsoon. In this regard, PP shall submit a revised greenbelt development plan along with the undertaking by way of affidavit that they will achieve maximum plantation in the coming monsoon.</td><td>BMM Ispat Limited has proposed greenbelt area of 104.50 ha and plantation will be developed in next 3 years June 2023 to May 2026. Plantation drive will be started from the upcoming monsoon i.e. June 2023.
<table>
<tr><th>S.No.</th><th>Year</th><th>Proposed greenbelt area (in ha)</th><th>No. of Trees</th><th>% of greenbelt area</th></tr>
<tr><td>1</td><td>2023-24</td><td>52.25</td><td>130625</td><td>50%</td></tr>
<tr><td>2</td><td>2024-25</td><td>26.125</td><td>65312.5</td><td>25%</td></tr>
<tr><td>3</td><td>2025-26</td><td>26.125</td><td>65312.5</td><td>25%</td></tr>
<tr><td colspan="2">TOTAL</td><td>104.50</td><td>2,61,620</td><td>100%</td></tr>
</table>
<br>The revised greenbelt development plan, Greenbelt layout map and an undertaking in the form of an Affidavit is submitted for achieving maximum planation in the coming monsoon i.e. June 2023.</td></tr>
<tr><td>5.</td><td>The EAC noted that there are number of</td><td>BMM Ispat Limited is herewith submitting an Affidavit</td></tr>
</table>

| S No | ADS Point | Reply/Response of PP |
|---|---|---|
| | litigations against the project. PP shall submit an updated status of each of the cases and shall submit an undertaking by way of affidavit that they will abide by the outcome of the cases. | stating that "We will abide by the outcome of the litigations pending against the Project as per the verdict of the Honourable Court." Affidavit is submitted. |
| 6. | Danayanakankere Lake is adjacent to project site whereas there are number of ponds nearby the project site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided. | Danayanakankere Lake, which is adjacent to the Project site is already protected by 3 Nos of Check dams and also a 50 m green belt is developed to protect the Nallah. Thus, this nallah will not be disturbed due to any operation of BMM ISPAT. No wastewater is discharged into the lake as the Plant operates in Zero Liquid Discharge.<br><br>**Conservation plan suggested for the protection of Danayanakankere Lake, Run-off calculations, disposal is given below:**<br>• BMM Ispat Limited has constructed a compound wall all along the plant boundary which will prevent flow of surface runoff to outside area. In addition, storm water drains are already in place and channelizing the storm water into the settling ponds. Filter beds and arrestor wall are provided in the storm drains and these storm drains will be desilted every year before onset of monsoon. The run-off water will be diverted and collected into a Rainwater harvesting pond of approx. 100 x 100 x 4 M dimension proposed in western side of the plant area. The collected rainwater will be used for greenbelt and dust suppression.<br>• All the raw material will be stored in the designated stockyards. All the stockyards will be having impervious flooring and shall also be provided with garland drains to trap the run-off material.<br>• Industrial effluent generated from WHRS will be fully recycled and reused. The effluent will be monitored for the desired parameters prescribed by the SPCB; Periodical surface water quality monitoring will be carried out in the nearby water bodies.<br><br>The drainage disposal along with calculations of rain water harvesting is:<br>Approx. quantity of rainwater to be harvested through rooftop and paved area is estimated to be 1967953.5 m3/annum (based on last 30 years average rainfall data). A rainwater harvesting pond of approx. 100 m x 100 m x 4 m |

| S No | ADS Point | Reply/Response of PP |
|---|---|---|

has been proposed near the south west boundary of the project to collect the rainwater for plant use. The drainage disposal system and drawings with proper indexing including rainwater harvesting details is given in ADS replies.

RAIN WATER HARVESTING

| Sr. No. | Land Use | Area (ha) | Run-off Coefficient | Annual Rainfall (m) | Annual Run-off ($m^3$) | Monsoon Rainfall (m) | Monsoon Run-off ($m^3$) |
|---|---|---|---|---|---|---|---|
| 1 | Roof Top of building/ Shed | 29.79 | 0.85 | 0.500 | 1,26,470.28 | 0.417 | 1,05,531.16 |
| 2 | Other Built-up area in plant | 537.50 | 0.75 | 0.500 | 20,13,611.2 | 0.417 | 16,80,226.56 |
| 3 | Other Built-up area in township | 28.46 | 0.75 | 0.500 | 1,06,625.77 | 0.417 | 88,972.21 |
| 4 | Roads & paved area | 34.41 | 0.65 | 0.500 | 1,11,720.67 | 0.417 | 93,223.57 |
| 5 | Open Land (undisturbed area) | 240.75 | 0.20 | 0.500 | 2,40,511.75 | 0.417 | 2,00,691.28 |
| 6 | Green Belt | 466.40 | 0.15 | 0.500 | 3,49,450.20 | 0.417 | 2,91,593.28 |
| 7 | Stock yard | 42.51 | 0.85 | 0.500 | 1,80,486.83 | 0.417 | 1,50,604.43 |
| 8 | Water body | 33.74 | 0.90 | 0.500 | 1,51,666.93 | 0.417 | 1,26,556.11 |
| **Total/average** | | **1,413.56** | **0.64** | **0.500** | **32,80,543.67** | **0.417** | **27,37,398.60** |

Ref: Manual of Artificial Recharge of Ground Water, (CGWB, 2007)

- No wastewater will be generated from the manufacturing process & "Zero Liquid Discharge" status will be maintained. Wastewater generated from WHRB will be treated in the n-pit and the treated effluent will be utilized in cement mills/ dust suppression inside plant premises.
- Detailed hydrogeological Study along with groundwater modelling is in progress the details will be submitted once the report is completed.

Soil Conservation Measures proposed:

| S No | ADS Point | Reply/Response of PP |
|---|---|---|
| | | • The soil excavated for the installation of proposed units will be used within the proposed plant premises.<br>• As soon as construction is over, the surplus earth will be utilized to fill up the low lying areas; and<br>• Locally available and sustainable species shall only be chosen for plantation.<br><br>Soil Erosion Control Measures<br>The following management measures will be adopted:<br>• Construction of temporary berms, slope drains or other control measures as necessary to control erosion will be implemented;<br>• Greening and paving: 33% of the project area will be developed into green belt. In addition, lawns and gardens are also planned to be constructed besides offices, main gate, admin building etc. All the internal roads will be paved. The vacant area will be stabilized with deep rooted native grasses/ herbs to prevent soil erosion and dust pollution due to exposed surface.<br>• Proper drainage system will be provided to allow proper flow of water.<br>• Plantation will be taken up along with the construction work so that plantation will grow to adequate height by the time of plant commissioning and helps in prevention of soil erosion. |
| 7. | The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages. | PP has prepared a Village Adoption program in the vicinity or core zone of the Plant area. A total of 05 villages are considered for Village Adoption Program and are as follows:<br>1. Gunda village & Thanda<br>2. Gunda Station<br>3. Hanumanahalli<br>4. Danapur and<br>5. Garaga<br>An amount of Rs.3000 Lakhs is allotted for the next three years. Year wise Action plan is submitted. |
| 8. | There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be | Drawing-1: General Layout Plan indicating Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc is enclosed in ADS replies.<br><br>Drawing-2: Layout plan indicating existing Greenbelt and proposed Greenbelt with its % against plot area including |

| S No | ADS Point | Reply/Response of PP |
|---|---|---|
| | abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations. | No. of species WRT 2500 density per ha etc is enclosed in ADS replies.<br><br>Drawing-3: Layout with Contour map, drainage network along roadside with drainage flow etc. is enclosed in ADS replies |
| 9. | In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal. | Noted and clarifications/information sought by EAC team was uploaded in Parivesh portal along with the ADS replies and enclosures. |

32.3.21 Based on the above submission of PP, the proposal was reconsidered during 32nd meeting of the EAC for Industry-I sector held on 26th - 29th May, 2023. The deliberations and recommendations of EAC are as follows:

**Written representations:**

32.3.22 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 27.05.2023 submitted the Re Validated data of Incremental GLCs at 95% of efficiency which is updated at para 32.3.13 above.

**Deliberations by the Committee**

32.3.23 The Committee noted the following:

1. The instant proposal is for expansion of Integrated Steel Plant from 0.96 MTPA to 2.1 MTPA and captive power plant from 235 MW to 345 MW and 1.4 MTPA cement 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 existing project was initially granted EC from Government of Karnataka vide letters dated 06.08.2005, 12.12.2005 and 24.01.2008. The project was then accorded environmental clearance under the provisions of EIA Notification, 2006 from MoEF&CC vide letter no. J-11011/236/2008-IA-II(I) dated 18.05.2010 for Integrated Steel Plant (2.0MTPA), Cement Plant (1.4 MTPA) and Captive Power Plant (230 MW) which was was valid for 5 years i.e. up to 17th May, 2015. As per the provisions of amendment in EIA notification vide SO 1141 (E), dated 29th April, 2015, the validity of EC became 7 years i.e. up to 17$^{th}$ May, 2017. PP obtained extension of validity of EC vide letter dated 17.05.2017 (upto 17.05.2020). Further, amendment to EC was obtained vide letter dated 09.07.2018 w.r.t. Corrigendum of EC extension letter and amendment w.r.t. specific condition pertaining to tailings management. Latest Consent to Operate for the existing unit was accorded by Karnataka Pollution Control Board vide lr. No. Consent for Operation for Stage - I & Stage - II vide letter no: AW-332720 dated 08.08.2022. The validity of CTO is upto 30.06.2027.

6. The EAC noted that there are number of litigations against the project. The EAC deliberated on the submitted status of each of the cases. Also, EAC took into account that the affidavit submitted by BMM Ispat Limited stating that they will abide by the outcome of the litigations pending against the Project as per the verdict of the Honorable Court is submitted.

7. The total project area is 1413.66 ha which allotted by KIADB. The land is an industrial land and is under the possession of the company.

8. Nagalapura – 0.5 km, SE Hanumanahalli – 0.6, N Mariyammanahalli – 0.5 km, W Danapura – 1.60 km, N exists near the project site within 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.

9. Danayanakankere Lake is adjacent to the project site in the SE direction. Also, Gunda Pond (0.2 km, ESE), Nagalapura pond (0.4 km, SE), Garga pond (4.2 km, SSE), Devalapura pond (3.5 km, SW), Nandibanda Pond (2.8 km, W), Tungabadra Dam(Backwater) (2.9 km, NNW) and Tungabadra River (US) (3.6 km, N) falls 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.

10. Existing Water requirement is 21783.6 $m^3$/day which is obtained from Water Resource Dept (WRD), Govt. of Karnataka and permission for the same has been obtained from vides letter no. IN-KA25186204877203P dated 31.10.2017. The water requirement for the proposed

project is estimated as 22761 $m^3$/day, out of which 19927 $m^3$/day of fresh water requirement will be obtained from the downstream of Tungabhadra River and the remaining requirement of 2,834 $m^3$/day will be met from the recycling water. The EAC deliberated on the water balance diagram and found it satisfactory.

11. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.

12. *Pavo cristatus* (the Indian Peacock or Indian Peafowl), *Psittacula eupatria* (Alexandrine Parakeet), *Manis crassicaudata* (Indian Pangolin), *Melursus ursinus* (Sloth bear/ Bhalu rich), *Panthera pardus* (Leopard) are the Schedule I species found in the study area. BMM has prepared the management plan with the budget of Rs. 700 Lakhs for the conservation of wildlife in the study area and was approved by the PCCF, Bangalore.

13. The EAC noted that the existing green belt has been developed in 362 ha area which is about 37.1% of the total project area of 975.56 ha (for existing) with total sapling of around 370000 Trees. Proposed greenbelt will be developed in 104.5 ha which is about 33 % of the total project area of 438.1 Ha for proposed area. Thus total of 466.5 ha area (33.% of total project area) will be developed as greenbelt. Total no. of 261250 saplings will be planted and nurtured in 104.5 hectares in 3 years i.e. June 2023 to May 2026 within the existing plant premises and proposed plant facility area. The Committee deliberated on the revised action plan and budget allocation for green belt development 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 EAC deliberated on the PH issues raised during the earlier EC along with the submitted Certified Audit Certificate from Chartered Accountant w.r.t. expenditure incurred for various social welfare activities to enhance the livelihood of the local villagers and found it satisfactory.

16. 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.

17. The EAC also deliberated on the certified compliance report of earlier EC and its action plan and found it satisfactory.

18. The EAC also deliberated on the other ADS information furnished by the project proponent and found it satisfactory.

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

20. 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.

21. 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.

22. 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:**

32.3.24 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 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. Nagalapura – 0.5 km, SE Hanumanahalli – 0.6, N Mariyammanahalli – 0.5 km, W Danapura – 1.60 km, N exists near the project site within 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 this location in its environmental monitoring programme.

v. Danayanakankere Lake is adjacement to the project site in the SE direction. Also, Gunda Pond (0.2 km, ESE), Nagalapura pond (0.4 km, SE), Garga pond (4.2 km, SSE), Devalapura pond (3.5 km, SW), Nandibanda Pond (2.8 km, W), Tungabadra Dam(Backwater) (2.9 km, NNW) and Tungabadra River (US) (3.6 km, N) falls 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 total water requirement of 22761 $m^3$/day, shall be met from the downstream of Tungabhadra River (19927 $m^3$/day) and recycled water (2,834 $m^3$/day) after obtaining necessary permission from the Competent Authority. No ground water shall be abstracted.

vii. Three tier Green Belt shall be developed in at least 33% of the project area in a stipulated time period being maximum plantation in the 1st 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 Nagalapura, Hanumanahalli, Mariyammanahalli, and Danapura 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. 80 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

ix. As committed PP shall adopt five villages namely Gunda village & Thanda, Gunda Station, Hanumanahalli, Danapur and Garaga and prepare and implement a robust plan to develop them into model villages in next 10 years.

x. The recommendations of the approved Site-Specific Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

**B. General Conditions**

**I. Statutory compliance:**

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

**II. Air quality monitoring and preservation**

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 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. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ 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.

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/$Nm^3$ 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. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke

xx. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility). Land-based APC system shall be installed to control coke pushing emissions.

xxi. Monitor CO, HC and $O_2$ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xxii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

xxiii. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.

xxiv. Provide Low NOx burners as primary measures and SCR /NSCR technologies as secondary measure to control NOx emissions.

xxv. The emission norms applicable for the cement plant shall be adhered to.

xxvi. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.

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

xxviii. Petcoke dosing shall be controlled automatically to control $SO_2$ emission from chimney within the prescribed limits.

xxix. PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.

xxx. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.

xxxi. 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.

xxxii. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/$m^3$, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xxxiii. Basic Oxygen Furnace (BOF) gas shall be cleaned dry.

xxxiv. 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.

xxxv. 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. The project proponent shall provide appropriate ETP for effluents discharged from coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to Coke oven plants) as amended from time to time.

xi. Treated water from ETP of COBP shall not be used for coke quenching.

xii. Air Cooled condensers shall be used in the captive power plant.

xiii. Tailing management plan shall be implemented as included in EIA report.

xiv. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

**IV. Noise monitoring and prevention**

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

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

iii. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

**V. Energy Conservation measures**

i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
ii. Restrict Gas flaring to < 1%.
iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
iv. Provide LED lights in their offices and residential areas.
v. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
vi. Practice hot charging of slabs and billets/blooms as far as possible.
vii. Ensure installation of regenerative type burners on all reheating furnaces.
viii. Blast Furnaces shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
ix. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens.
x. The project proponent shall provide waste heat recovery system on the DRI Kilns.
xi. The dolochar generated shall be used for power generation.
xii. 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.
xiii. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.
xiv. 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.
xv. Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.
xvi. Maximize utilization of alternate fuels and Co-processing to achieve best practice norms.
xvii. 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. 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. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.

viii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

ix. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.

x. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.

xi. Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).

**VII. Green Belt**

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

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

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

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

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

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.

iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

**IX. Environment Management**

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

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

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

iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

**X. Miscellaneous**

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the

projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented

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

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

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

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

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

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

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

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

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

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

xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**Agenda No. 32.4**

**32.4 Proposed Expansion cum Modification of the existing Steel Plant by M/s Bengal Energy Limited, located at Village : Dauka, P.O- Tentulmuri, PS-Narayangarh, Dist.-Paschim Medinipur, West Bengal – Re-Consideration of Environmental Clearance.**

**[Proposal No. IA/WB/IND1/413316/2023; File No. IA-J-11011/28/2008-IA-II(IND-I)]**
**[Consultant: Envirotech East Pvt. Limited; Valid upto 12.09.2025]**

32.4.1 M/s Bengal Energy Ltd. has made an online application vide proposal No-IA/WB/IND1/413316/2023, dated 14.04.2023 along with copy of EIA/EMP report, in prescribed format (CAF, Form – I Part A, B &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), 4(b) Coke Oven Plants and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

32.4.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Limited [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2225/RA 0279; Valid up to 12.09.2025, as on April 29, 2023].

**Details submitted by Project proponent**

32.4.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|
| 01.10.2021 | Standard Terms of Reference issued | Terms of Reference | 03.12.2021 | 02.12.2025 |

32.4.4 The project of M/s Bengal Energy Ltd. located at Village : Dauka, P.O- Tentulmuri, PS-Narayangarh, Dist.-Paschim Medinipur, West Bengal is for Expansion cum Modification of the existing Steel Plant by addition/modification in some of the existing units along with installation of certain new units. The proposed changes are as follows:

i. New installation of Pellet Plant of 2X0.85 MTPA capacity for the production of 17,00,000 TPA of iron ore Pellet.
ii. Reduction in the production capacity of the 1x60 m2 sinter plant from 10,00,000 TPA to 6,50,000 TPA without changing its configuration i.e.1x60 m2.
iii. Capacity reduction of the 2X320 M3 of MBF (5,96,000 TPA of pig iron) by dropping 1X320 M3 of MBF to produce 4,25,000 TPA of pig iron.
iv. Capacity expansion of the IFs of 3X20 T (for the production of 2,92,000 TPA of liquid steel) by installing new 9X20 T IFs for the overall production of 7,92,000 TPA of liquid steel. Total number of IF will be 12x20T.

v. Size of the EAF will be changed from 2X80 T to 2X25T and production capacity to reduce from 8,32,000 TPA to 4,16,000 TPA (under construction stage)

vi. Capacity expansion of the LRF of 1 X 25 T (2,08,000 TPA) capacity by installing another LRF of 1 X 25 T capacity for overall production of refined steel to the tune of 4,16,000 TPA

vii. Capacity expansion of the 1X120 TPD ASU unit (for the production of 120 TPD of gas) by installing another 1X120 TPD capacity of ASU unit for the overall production of 240 TPD of gas.

viii. New installation of Rolling Mill of 2X0.2 MTPA capacity for the production of 4,00,000 TPA of rolled products.

ix. New installation of Ferro Alloy Plant of 4x9 MVA + 1 X18 MVA capacity for the production of 90,000 TPA of Ferro Alloy products (such as Fe-Mn & Fe-Si)

x. Capacity reduction of the BF based CPP from 22 MW to 10 MW.

xi. Modification in the configuration (without changing the ultimate electricity production capacity) of 1X68 MW of CPP-WHRB (DRI) by splitting the unit into 1X28 MW + 1X40 MW, thereby leading to no change in the overall electricity production capacity; i.e. 68 MW.

xii. Modification in the configuration (without changing the ultimate electricity production capacity) of 1X35 MW of AFBC based boiler by splitting the unit into 1X20 MW + 1X15 MW, thereby leading to no change in the overall electricity production capacity; i.e. 35 MW.

32.4.5 Environmental Site Settings:

| S. No. | Particulars | Details | Remarks |
|---|---|---|---|
| i. | Total land | The proposed project will be installed on the available land within the existing plant premises of 190.202 ha (470 acres) | Land use: Industrial land. |
| ii. | Land acquisition details as per MoEF&CC O.M. dated 7/10/2014 | 190.202 ha (470 acres) | The land for the proposed project is already under the possession of the Company. |
| iii. | Existence of habitation & involvement of R&R, if any. | The proposed project will be installed on the available land within the existing plant premises of 190.202 ha (470 acres). | Total land is under the possession of the company. No additional land is involved in the project. Hence, R & R issue is not applicable. |
| iv. | Latitude and Longitude of all corners of the project site. | Latitude: 22°14'17.90"N to 22°15'39.56"N & Longitude: 87°22'51.38"E to 87°23'35.83"E | - |
| v. | Elevation of the project site | Above Mean Sea Level (AMSL): 30 m. (98.43 ft) | - |

| S. No. | Particulars | Details | Remarks |
|---|---|---|---|
| vi. | Involvement of Forest land if any. | No forest land is involved | - |
| vii. | Water body (Rivers,Lakes, Pond,Nala,Natural Drainage,Canal etc.) exists within the project site as well as study area | Project site:<br>No water body exists within the project site<br><br>Study area :<br>Kelighai river – 5.1 km from project site. | - |
| viii. | Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area | Nil | |

32.4.6 M/s BEL had been running 1X0.6 MTPA of non-recovery type Coke Oven Plant (to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP) as per EC obtained from the MoEF&CC vide ref. no. F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009. The company has further obtained another EC form the MoEF&CC vide ref. no. F. No. J-11011/28/2008-IA-II(I) dated 19th July, 2019, for installation of 1X60 $m^2$ sinter plant (to produce 10,00,000 TPA of iron ore sinter), 1x0.6 MTPA of coke oven to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP), 2X320 $m^3$ of Blast Furnace (to produce 5,96,000 TPA of pig iron along with 22 MW WHRB based CPP), EAF of 2 X 80 T capacity to produce 8,32,000 TPA of liquid steel along with LRF (2,08,000 TPA) & CCM (8,15,000 TPA), IF of 3X20 T capacity to produce 2,92,000 TPA of liquid steel along with 2,80,000 TPA of CCM, 1X35 MW of AFBC boiler and 4X500 TPD + 4X350 TPD of DRI Kiln (To Produce 10,88,000 TPA of sponge iron along with 1X68 MW of WHRB) along with auxiliary units such as 1X120 TPD of ASU to produce 1200 M3/hr of gas. Out of these units, Sinter Plant with 7,03,032 TPA capacity, MBF-1X320 M3 with 2,98,000 TPA capacity, Air Separation Unit of 1X120 TPD capacity and 8 MW BF gas based Captive Power Plant are under final trial run after obtaining necessary Consent to Establish and Consent to Operate from West Bengal Pollution Control Board.

32.4.7 Implementation of the existing EC/CTE:

| Sl. No. | Description of the technological Units | Existing Units/ Units under final trial run/ Units to be implemented | | | | |
|---|---|---|---|---|---|---|
| | | Environmental clearance | | Production Capacity as per CTO | Status (under operation/to be implemented/ under modification) | Details of Valid Consent to Operate (CTO) |
| | | Production Capacity as per EC dated 2nd January, 2009 | Production Capacity as per EC dated 19th July, 2019 | | | |
| 1 | Non Recovery Coke Oven Plant | 1x0.6 MTPA | | 600000 TPA | Under operation<br><br>(600000 TPA)<br><br>**(4 nos. Coke Oven Batteries, each battery having production capacity 150000 TPA**) | **Memo No 9200/269-hl-CO-r/ 2022, dated 11/03/2022, valid upto 31.03.2027**<br><br>(600000 TPA)<br><br>**(4 nos. Coke Oven Batteries, each battery having production capacity 150000 TPA**) |
| | | | 1x0.6 MTPA | 600000 TPA | To be implemented | |
| 2 | Sinter Plant | | 1x60 $m^2$ | 10,00,000 TPA | Under final trial run<br><br>(7,03,032 TPA) | **Memo No 94/269-hl-CO-r/ 2022, dated 16/02/2023, valid upto 31.03.2027**<br><br>(7,03,032 TPA) |
| 3 | Mini Blast Furnace along with CDI injection | | 2X320 $M^3$ | 5,96,000 TPA | MBF-1X320 $M^3$ Under final trial run<br>MBF-1X320 $M^3$ Dropped in the proposed expansion<br><br>(2,98,000 TPA) | **Memo No 94/269-hl-CO-r/ 2022, dated 16/02/2023, valid upto 31.03.2027**<br><br>(2,98,000 TPA) |
| 4 | Sponge Iron Plant | | 4 X 500 TPD<br>+<br>4 X 350 TPD | 6,40,000 TPA<br><br>4,48,000 TPA | To be implemented | |
| 5 | Induction Furnace | | 3X20 T | 2,92,000 TPA* | To be implemented with modification | |
| | Continuous Casting Machine | | - | 8,15,000 TPA | To be implemented with modification | |
| 6 | Electric Arc Furnace With LF / LRF | | 2 X 80 T | 8,32,000 | To be implemented with modification | |
| | Ladle Refining Furnace | 1X25 T | | 2,08,000 TPA | To be implemented with modification | |
| | Continuous Casting Machine | | | 2,80,000 TPA | To be implemented with modification | |
| 7 | Air Separation Unit | 1X120 TPD | | 1X120 TPD<br><br>(3500 $m^3$/h) | 1X120 TPD<br><br>Under final trial run<br><br>(Oxygen – 39,600 TPA, | **Memo No 94/269-hl-CO-r/ 2022, dated 16/02/2023, valid upto 31.03.2027**<br><br>1X120 TPD |

| Sl. No. | Description of the technological Units | Existing Units/ Units under final trial run/ Units to be implemented | | | | |
|---|---|---|---|---|---|---|
| | | Environmental clearance | | Production Capacity as per CTO | Status (under operation/to be implemented/ under modification) | Details of Valid Consent to Operate (CTO) |
| | | Production Capacity as per EC dated 2nd January, 2009 | Production Capacity as per EC dated 19th July, 2019 | | | |
| | | | | | Nitrogen – 32,400 TPA, Argon – 1200 TPA) | (Oxygen – 39,600 TPA, Nitrogen – 32,400 TPA, Argon – 1200 TPA) |
| 8 | Captive Power Plant (Coke oven Gas based) | 1X40MW | | 40 MW | Under operation | **Memo No 9200/269-hl-CO-r/ 2022, dated 11/03/2022, valid upto 31.03.2027**<br><br>40 MW |
| | | | 1X40MW | 40 MW | To be implemented | |
| 9 | Captive Power Plant (BF Gas based) | | 1X22 MW | 22 MW | Under final synchronization<br><br>(8 MW) | **Memo No 94/269-hl-CO-r/ 2022, dated 16/02/2023, valid upto 31.03.2027**<br><br>(8 MW) |
| 10 | Captive Power Plant -WHRB (DRI) | | 1X68 MW | 68 MW | To be implemented | |
| 11 | Atmospheric Fluidized Bed Combustion (AFBC) Boiler | | 1X35 MW | 35 MW | To be implemented | |

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

| Sl. No. | Units | Existing units | | | | Proposed units | | Product | Total capacity (existing + proposed) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Environment Clearance | | Capacity | Status (under operation/to be implemented/under modification) | Configuration | Capacity | | | |
| | | F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009 | F.No. J-11011/28/2008-IA-II(I) dated 19th July, 2019 | | | | | | | |
| 1 | Non Recovery Coke Oven Plant | 1x0.6 MTPA | | 600000 TPA | Under operation | - | - | LAM Coke | 12,00000 TPA | No change |
| | | | 1x0.6 MTPA | 600000 TPA | To be implemented | | | | | |
| 2 | Pellet Plant | - | | - | - | 2 X 0.85 MTPA | 17,00,000 TPA | Pellet | 2 X 0.85 MTPA 17,00,000 TPA | New addition |
| 3 | Sinter Plant | | 1x60 $m^2$ | 10,00,000 TPA | Under final trial run | 1x60 $m^2$ | 7,03,032 TPA | Sinter | 7,03,032 TPA | Production capacity reduced to 7,03,032 TPA |
| 4 | Mini Blast Furnace along with CDI injection | | 2X320 $M^3$ | 5,96,000 TPA | MBF-1X320 $M^3$ Under final trial run MBF-1X320 $M^3$ Dropped | 1X320 $M^3$ | 4,25,000 TPA | Pig Iron | 4,25,000 TPA | Capacity reduction by dropping 1X320 $M^3$ of MBF for which EC |

| Sl. No. | Units | Existing units | | | | Proposed units | | Product | Total capacity (existing + proposed) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Environment Clearance | | Capacity | Status (under operation/to be implemented/under modification) | Configuration | Capacity | | | |
| | | F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009 | F.No. J-11011/28/2008-IA-II(I) dated 19th July, 2019 | | | | | | | |
| | | | | | | | | | | & CTE has already been granted |
| 5 | Sponge Iron Plant | | 4 X 500 TPD + 4 X 350 TPD | 6,40,000 TPA<br><br>4,48,000 TPA | To be implemented | - | - | Sponge Iron | 10,88,000 TPA | No change |
| 6 | Induction Furnace | | 3X20 T | 2,92,000 TPA* | To be implemented with modification | 9X20 T | 5,00,000 TPA** | Liquid Steel | 12X20 T<br><br>7,92,000 TPA | 9 X 20 T IF added<br><br>(Expansion) |
| | Continuous Casting Machine | | - | 8,15,000 TPA | To be implemented with modification | - | - | Steel billet | 8,15,000 TPA | No change |
| 7 | Electric Arc Furnace With LF / LRF | | 2 X 80 T | 8,32,000 | To be implemented with modification | 2X25 T | 4,16,000 TPA | Liquid Steel | 4,16,000 TPA | Size of the EAF changed to 2X25T and production capacity |

| Sl. No. | Units | Existing units | | | | Proposed units | | Product | Total capacity (existing + proposed) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Environment Clearance | | Capacity | Status (under operation/to be implemented/under modification) | Configuration | Capacity | | | |
| | | F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009 | F.No. J-11011/28/2008-IA-II(I) dated 19th July, 2019 | | | | | | | |
| | | | | | | | | | | reduced to 4,16,000 TPA |
| | Ladle Refining Furnace | 1X25 T | | 2,08,000 TPA | To be implemented with modification | 1X25 T | 2,08,000 TPA | Refined steel | 2X25 T 4,16,000 TPA | 1 X 25 T added (Expansion) |
| | Continuous Casting Machine | - | | 2,80,000 TPA | To be implemented with modification | - | 4,00,000 TPA | Steel billet | 4,00,000 TPA | Expansion |
| 8 | Air Separation Unit | 1X120 TPD | | 3500 $m^3/h$ | Under final trial run | 1X120 TPD | 120 TPD | Gas | 2X120 TPD 7000 $m^3/h$ | 1 X 120 TPD to be added (Expansion) |
| 9 | Rolling mill | - | | - | - | 2X0.2 MTPA | 4,00,000 TPA | TMT & Structural | 2X 0.2 MTPA 4,00,000 TPA | New addition |
| 10 | Ferro Alloy Plant | - | | - | - | 4x9 MVA +1 X18 MVA | 90,000 TPA | 88,000 TPA Si-Mn or 90,000 | 4x9 MVA + 1 X18 MVA 90,000 | New addition |

| Sl. No. | Units | Existing units | | | | Proposed units | | Product | Total capacity (existing + proposed) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Environment Clearance | | Capacity | Status (under operation/to be implemented/under modification) | Configuration | Capacity | | | |
| | | F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009 | F.No. J-11011/28/2008-IA-II(I) dated 19th July, 2019 | | | | | | | |
| | | | | | | | | TPA Fe-Mn or 45,700 TPA Fe-Si | TPA | |
| 11 | Captive Power Plant (Coke oven Gas based) | 1X40MW **NOC ref.** 635-2N-46/2008 (E) dated 31st July, 2012 | | 40 MW | Under operation | - | - | Electricity | 80 MW | No change |
| | | | 1X40MW | 40 MW | To be implemented | - | - | | | |
| 12 | Captive Power Plant (BF Gas based) | | 1X22 MW | 22 MW | Under final synchronization *** | - | - | Electricity | 10 MW | Due to reduction in capacity of the MBF to 1 x 320 $M^3$, generation of electricity will be |

| Sl. No. | Units | Existing units | | | | Proposed units | | Product | Total capacity (existing + proposed) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Environment Clearance | | Capacity | Status (under operation/to be implemented/under modification) | Configuration | Capacity | | | |
| | | F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009 | F.No. J-11011/28/2008-IA-II(I) dated 19th July, 2019 | | | | | | | |
| | | | | | | | | | | reduced to 10 MW |
| 13 | Captive Power Plant -WHRB (DRI) | | 1X68 MW | 68 MW | To be implemented | - | - | Electricity | 68 MW | No change in production capacity; only bifurcation of unit i.e., 28 MW + 40 MW = 68 MW will take place |
| 14 | Atmospheric Fluidized Bed Combustion (AFBC) Boiler | | 1X35 MW | 35 MW | To be implemented | - | - | Electricity | 35 MW | Bifurcation of unit i.e, 15MW +20 MW = 35 MW |

* 3x20 T x 360 (days) x 13.5 (heat/day) = 2,92,000 T (By using 30% liquid metal, almost 250T liquid from MBF )

** 9x20 T x 347 (days) x 8 (heat/day) = 5,00,000 T, (By using pig iron, lining life is reduced)

*** BF gas based CPP of 8 MW capacity is under synchronization after getting CTE & CTO from WBPCB. There is proposal to enhance its capacity from 8

| Sl. No. | Units | Existing units | | | | Proposed units | | Product | Total capacity (existing + proposed) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Environment Clearance | | Capacity | Status (under operation/to be implemented/under modification) | Configuration | Capacity | | | |
| | | F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009 | F.No. J-11011/28/2008-IA-II(I) dated 19th July, 2019 | | | | | | | |
| MW to 10 MW. | | | | | | | | | | |

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

| Sl. No | Raw Material | Annual Requirement (in TPA) | | | Source | Distance (in km) | Transportation | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Existing | Proposed | Total | | | Internal | Rail | Road |
| **COKE OVEN PLANT** | | | | | | | | | |
| 1 | Coking Coal | 1600000 | - | 1600000 | Imported from Australia via Singapore | 162 (from Dharma Port, Orisssa) | | 1600000 | |
| **PELLET PLANT** | | | | | | | | | |
| 1 | Iron Ore Fines | - | 2040000 | 2040000 | Barbil, Orissa | 208 | | 2040000 | |
| 2 | Limestone | - | 30000 | 30000 | Katni, MP | 738 | | 30000 | |
| 3 | Bentonite | - | 17000 | 17000 | Local Market | 100 | | 17000 | |
| 4 | Coal | - | 22100 | 22100 | Local Market | 100 | | | 22100 |
| **SINTER PLANT** | | | | | | | | | |
| 1 | Iron Ore Fines | - | 650000 | 650000 | Barbil, Orissa | 208 | | 650000 | |
| 2 | Limestone | - | 51941 | 51941 | Katni, MP | 738 | | 51941 | |
| 3 | Quick lime | - | 32464 | 32464 | Local Market | 100 | | | 32464 |
| 4 | Dolomite | - | 60000 | 60000 | Katni, MP | 738 | | 60000 | |
| 5 | Coke breeze | - | 48000 | 48000 | In house production | - | 48000 | | |
| **MINI BLAST FURNACE** | | | | | | | | | |
| 1 | Iron Ore lumps | - | 68000 | 68000 | Barbil, Orissa | 208 | | 68000 | |
| 2 | Nut coke | - | 36025 | 36025 | In house production | - | 36025 | | |
| 3 | Sinter | - | 703032 | 703032 | - | - | 703032 | | |
| 4 | PCI coal | - | 84700 | 84700 | Imported | - | | 84700 | |
| 5 | Limestone | - | 8470 | 8470 | Katni, MP | 738 | | 8470 | |
| 6 | Dolomite | - | 4235 | 4235 | Katni, MP | 738 | | 4235 | |

| Sl. No | Raw Material | Annual Requirement (in TPA) | | | Source | Distance (in km) | Transportation | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Existing | Proposed | Total | | | Internal | Rail | Road |
| 7 | Quartzite | - | 4235 | 4235 | Local Market | 100 | | | 4235 |
| 8 | Coke | - | 211750 | 211750 | In house production | - | 211750 | | |
| **SPONGE IRON PLANT** | | | | | | | | | |
| 1 | Iron Ore Pellet | - | 1700000 | 1700000 | In house production | - | 1700000 | | |
| 2 | Coal | - | 1184832 | 1184832 | Imported from Australia via Singapore | 162 (from Dharma Port, Orisssa) | | 1184832 | |
| 3 | Dolomite | - | 646224 | 646224 | Katni, MP | 738 | | 646224 | |
| **INDUCTION FURNACE** | | | | | | | | | |
| 1 | Sponge Iron | - | 792894 | 792894 | In house production | - | 792894 | | |
| 2 | Pig Iron | - | 140746 | 140746 | Imported | 100 | 140746 | - | |
| 3 | Scrap | - | 39724 | 39724 | Local Market | 100 | | | 39724 |
| 4 | CCM end cuts+Mill Scale | - | 115468 | 115468 | In house production | - | 115468 | | |
| **ELECTRIC ARC FURNACE** | | | | | | | | | |
| 1 | P12 ig Iron | - | 188737 | 188737 | In house production | - | 188737 | | |
| 2 | DRI | - | 295106 | 295106 | In house production | - | 295106 | | |
| 3 | Scrap | - | 49031 | 49031 | Local Market | 100 | | | 49031 |
| 4 | Ferro | - | 750 | 750 | In house production | - | 750 | | |
| 5 | Lime | - | 34228 | 34228 | Katni, MP | 738 | | 34228 | |
| **ROLLING MILL** | | | | | | | | | |
| 1 | Billet | - | 402468 | 402468 | In house production | - | 402468 | | |
| **FERRO ALLOYS** | | | | | | | | | |
| 1 | Manganese Ore | - | 207407 | 207407 | Barbil, Orissa | 208 | | 207407 | |

| Sl. No | Raw Material | Annual Requirement (in TPA) | | | Source | Distance (in km) | Transportation | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Existing | Proposed | Total | | | Internal | Rail | Road |
| 3 | Coke | - | 40000 | 40000 | In house production | - | 40000 | | |
| 4 | Coal | - | 40000 | 40000 | Imported from Australia via Singapore | 162 (from Dharma Port, Orisssa) | | 40000 | |
| 5 | Magnasite | - | 10000 | 10000 | Local Market | 100 | | | 10000 |
| 6 | Quartz | - | 30000 | 30000 | Local Market | 100 | | | 30000 |
| **CAPTIVE POWER PLANT (AFBC)** | | | | | | | | | |
| 1 | Coal | - | 172125 | 172125 | Imported from Australia via Singapore | 162 (from Dharma Port, Orisssa) | | 172125 | |
| 2 | Dolochar | - | 200000 | 200000 | In house production | - | 200000 | | |
| **TOTAL** | | **1600000** | **10361692** | **11961692** | | | **4874976** | **6899162** | **187554** |
| **Percentage (%)** | | | | | | | | | |
| **No. of Rakes / Trucks / Dumpers per Year** | | | | | | | **41%** | **57%** | **2%** |
| | | | | | | | | **(4-5 Rakes per Day)** | **(11 Trucks/ Dumpers per Day)** |

32.4.10 After implementation of the proposed project, daily make up water requirement for the total project will be around 15,715 $m^3$/day (Existing Units: 1,648 $m^3$/day, Proposed Units + Units to be implemented/modified: 14,067 $m^3$/day), out of which 4645 m3/day will be recycled after treatment of the effluents and the balance 11070 $m^3$/day (fresh water) will be sourced from Kangsabati river. The permission for drawl of 600 $m^3$/hr. has already been taken from Irrigation and Waterways Department, Govt. of West Bengal as per recommendation of WBIDC, vide letter no. 17/1-4 m-26(06)Pt, dated 23/03/2010. Further, it may be noted that the office of the Executive Engineer (I&W Dte), Government of West Bengal vide their Memo No. 185 dated 17.02.2009 issued "No Objection" memo against the request letter for drawl of 10 MGD from same location.

32.4.11 After the implementation of the proposed project, power requirement for the overall project will be around 240 MW (Existing Units: 5 MW, Proposed Units + Units under implementation / to be implemented: 235 MW), which will be sourced from 193 MW from CPP and balance 47 MW from state grid.

32.4.12 Baseline Environmental Studies:

| **Period** | **December, 2021 –February, 2022** |
|---|---|
| AAQ parameters at 8 locations | • $PM_{2.5}$ = 16 - 44 µg/$m^3$<br>• $PM_{10}$ = 53 - 89 µg/$m^3$<br>• $SO_2$ = 4 - 17 µg/$m^3$<br>• $NO_2$ = 10 - 34 µg/$m^3$<br>• CO = 0.164 - 0.758 mg/$m^3$ |
| AAQ Modelling (Incremental GLCs) Model Used : ISCST3 | • PM = 5.51 µg/$m^3$ (0.3 km in SSW)<br>• $SO_2$ = 2.95 µg/$m^3$ (1.0 km in WSW)<br>• NOx = 2.88 µg/$m^3$ (1.0 km in WSW)<br>• CO = 0.69 mg/$m^3$ (0.3 km in SSW) |
| Ground water quality at 9 locations | • pH: 7.41 – 7.81,<br>• Total Hardness: 137– 241mg/l,<br>• Chlorides: 47 – 109 mg/l,<br>• Fluoride: 0.19 - 0.36 mg/l,<br>• Iron: 0.33 – 0.54 mg/l,<br>• TDS: 254 – 543 mg/l |
| Surface Water Quality at 12 Locations<br><br>(2 locations at Kelighai River & 10 locations for pond water) | **River Water**<br>pH: 6.83 & 7.33,<br>DO: 7.1- 7.2 mg/l,<br>BOD: 2 & 2 mg/l,<br>COD: 6 – 8 mg/l,<br>Fe: 0.16 - 0.18 mg/l,<br>Coliform: 1400 - 1700 MPN/100ml,<br>TDS: 236 – 245 mg/l,<br>Total Hardness: 127 – 135 mg/l,<br>Chloride: 36 – 39 mg/l |

<table>
<tr><td></td><td><u>Pond Water</u><br>pH: 6.88 – 7.48,<br>DO: 6.2 – 6.8 mg/l,<br>BOD: 3 - 8 mg/l,<br>COD: 12 - 26 mg/l,<br>Fe: 0.11 – 0.21 mg/l,<br>Coliform: 1100 - 2200 MPN/100ml,<br>TDS: 232 – 379 mg/l,<br>Total Hardness: 135 – 176 mg/l,<br>Chloride: 42 – 89 mg/l</td></tr>
<tr><td>Noise Levels at 10 Locations</td><td>54.1 - 67.8 dBA for day time and 43.4 - 52.9 dBA for night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>A Traffic density was monitored at :<ul><li>Location T1: NH-60 near Gobindpur Sasa More</li><li>Location T2: NH-60 near IOCL gate Bus Stop</li><li>Location T3: Near Ramnagar More</li><li>Existing PCU is 17271 per day at Location T1, 14861 per day at Location T2 & 5255 per day at Location T3 and existing level of service (LOS) for all the three Locations are presented below:</li></ul>
<table>
<tr><th>Road (Location)</th><th>Volume PCU/day</th><th>Capacity</th><th>Existing V/C</th><th>LoS</th></tr>
<tr><td>T1: On NH-60 near Gobindpur Sasa More</td><td>17271</td><td>86,400</td><td>0.199</td><td>A</td></tr>
<tr><td>Location T2: On NH-60 near IOCL gate Bus Stop</td><td>14861</td><td>86,400</td><td>0.172</td><td>A</td></tr>
<tr><td>Location T3: Near Ramnagar More</td><td>5255</td><td>36,000</td><td>0.146</td><td>A</td></tr>
</table>
<ul><li>Incremental PCU Load per day for the proposed project is 1308. PCU load per day after proposed project will be 18580 at Location T1, 16169 at Location T2 & 6563 at Location T3 (Existing + Additional) PCU/day and level of service (LOS) at 3 Locations are presented below:</li></ul></td></tr>
</table>

| | |
|---|---|
| | <table><tr><th>Road (Location)</th><th>Volume PCU/day</th><th>Capacity</th><th>V/C</th><th>LoS</th></tr><tr><td>T1: On NH-60 near Gobindpur Sasa More</td><td>18580</td><td>86,400</td><td>0.215</td><td>B</td></tr><tr><td>Location T2: On NH-60 near IOCL gate Bus Stop</td><td>16169</td><td>86,400</td><td>0.187</td><td>A</td></tr><tr><td>Location T3: Near Ramnagar More</td><td>6563</td><td>36,000</td><td>0.182</td><td>A</td></tr></table><br>• Conclusion: The level of service will be B" in Location T1, "A" in Location T2 and "A" in Location T3 including additional traffic due to proposed project.<br><table><tr><th>V/C ratio</th><th>LOS</th><th>Performance</th></tr><tr><td>0.0-0.2</td><td>A</td><td>Excellent</td></tr><tr><td>0.2-0.4</td><td>B</td><td>Very Good</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</td><td>F</td><td>Very Poor</td></tr></table> |
| Flora and fauna | No schedule I fauna and endangered species found within the study area. |

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

| Sl. No. | Type | Total solid waste production (TPA) | Utilization |
|---|---|---|---|
| 1. | Coke Breeze from Coke Oven Plant | 48,000 | To be used in Sinter plant |
| 2. | Dolo Char from DRI Plant | 2,00,000 | To be used in AFBC Boiler for power generation. |
| 3. | Dust from DRI | 10,000 | To be used in Sinter Plant |
| 4. | Slag from BF | 1,50,000 | To be sold to cement plant. |
| 5. | Slag from EAF & IF | 2,19,000 | After metal recovery about 10% metal is recovered from the total slag and the balance 1,97,100 TPA (as stone chips / road construction |

| Sl. No. | Type | Total solid waste production (TPA) | Utilization |
|---|---|---|---|
| | | | materials) will be used for road construction & repairing / land filling purposes.<br><br>Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 3.5 ton/cum, 7875 T slag may be consumed for 1.0 km stretch. Therefore, the entire quantity of slag generated in a year (1,97,100) can be utilized for the construction of around 5.7 km roads out of which around 2.3 km are internal roads i.e., within the plant site.<br><br>As per an estimate, it was found that around 25 km undeveloped (Kuchha) road is existing in the surrounding villages in the 10 km radius area. Hence, there is lot of potential of slag utilisation during construction of these roads. |
| 6. | IF & EAF flue dust | 12,000 | To be used in Sinter Plant |
| 7. | Ferro Manganese Slag<br><br>Silico Manganese Slag | 90,000<br><br>79,200 | Used as a raw material for Silico Manganese Production<br><br>The maximum slag generation shall be 79,200 TPA considering 100% production. After metal recovery about 10% metal is recovered from the total slag and the balance 71,280 TPA (as stone chips / road construction materials) shall be used for road construction & repairing / land filling purposes.<br><br>Considering 3 m width & depth 30 inch (0.75 m) of the road and density of the slag as 2.5 ton/cum, 5625 T slag shall be consumed for 1.0 km |

| Sl. No. | Type | Total solid waste production (TPA) | Utilization |
|---|---|---|---|
| | Ferro Silicon Slag | 3,660 | stretch. Therefore, the entire quantity of slag generated in a year will be utilized for the construction of around 13 km roads. Besides, significant amount of slag will also be used for landfilling purposes both inside & outside the project site.<br>Used for cement industries as a raw material & used for medium carbon silico manganese production purpose. |
| 8. | Scale, end cuts etc. from SMS & Rolling Mill | 67,500 | To be used in Induction Furnaces and Ferro Alloy Plant. |
| 9. | Fly Ash from CPP | 92,200 | To be sold to Cement Plants / Brick Manufacturers |
| 10. | Bottom Ash from CPP | 22,130 | To be used for Land filling / Road Construction Purpose |

32.4.14 **Public Consultation:**

| | |
|---|---|
| Details of advertisement given | 16th May, 2022 in Bengali newspaper "Ajkal" and English newspaper "Millenium Post" |
| Date of Public Consultation | 17th June, 2022 at 12.00 hrs. |
| Venue | At the premises of M/s Bengal Energy Ltd. at Village : Dauka, P.O-Tentulmuri, PS-Narayangarh, Dist.-Paschim Medinipur, West Bengal, Pin-721437 |
| Presiding Officer | Sri. Suman Sourav Mohanty , Additional District Magistrate, Paschim Medinipur |
| Major issues raised | • To maintain the environmental norms, to take adequate measures for pollution control and to operate the air pollution control devices |

| | |
|---|---|
| | regularly<br>• Generation of employment for the local people<br>• To develop the local infrastructure and school building in the nearby villages, specially the school building of Makrampur<br>• To develop adequate green belt<br>• To look after the health care facilities of the area<br>• To facilitate the local villagers for COVID-19 vaccination<br>• To repair the local connecting road to NH and and to repair the local road of Dauka<br>• To construct a culvert for drainage of storm water during monsoon |

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

| Concerns raised during Public Hearing | Physical Activity and Action Plan | Particulars | YEAR OF IMPLEMENTATION | | | Total Expenditure (Rs. in Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| • To maintain the environmental norms, to take adequate measures for pollution control and to operate the air pollution control devices regularly | • Adequate control measures like installation of ESP, Bag Filters comprising of PTFE membrane bags, dust suppression system, fume extraction system, sprinklers & stacks of adequate height at relevant places will be installed.<br>• Air borne dust shall be controlled by mobile water tanker inside the plant premises.<br>• Maintenance of air pollution control equipment shall be done at regular intervals.<br>• All roads shall be paved on which movement of raw materials or products will take place inside the plant premises.<br>• No waste water will be discharged outside the plant area. The plant is designed as a zero-discharge plant. The entire wastewater will be recirculated and recycled.<br>• The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction | Physical Target | The physical Target for the entire activities shall be achieved in 3 years. | | | - |
| | | Budget in Lakhs | Included in the EMP Cost. | | | |

| Concerns raised during Public Hearing | Physical Activity and Action Plan | Particulars | YEAR OF IMPLEMENTATION | | | Total Expenditure (Rs. in Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| | Systems will be provided. | | | | | |
| • Generation of employment for the local people | In the proposed project, top most priority will be given to the local people specially of Dauka village based on their academic qualification.<br><br>Skill development to unemployed local youths through National Skill Development Corporation, Govt. of India Scheme. Construction of a building along with the necessary infrastructures for this purpose like different machineries for industries. | Physical Target (3 Years) | Construction of a 2 – room building (total carpet area: 1200 sq.ft.) with infrastructure development like installation of 4 sewing machines, 4 computer systems & 2 machines for making hand craft items along with necessary raw materials for training purpose. | | | 43 |
| | | Budget in Lakhs | 15 | 15 | 13 | |
| • To develop the local infrastructure and school building in the nearby villages, specially the school building of Makrampur | Development of building infrastructure, playground, class rooms, library facilities and providing computers in the schools of the nearby villages and Local Makrampur School. | Physical Target | Renovation & repairing of school building and constructing 4 extra classrooms in the school | Supplying desks, benches, chairs, blackboards to the nearby schools | Development of library and providing books and Providing 10 nos. of computers to the school | 35 |
| | | Budget in Lakhs | 15 | 10 | 10 | |
| • To develop adequate green belt | M/s Bengal Energy Limited has earmarked total 62.76 hectares (155.1 acres) land (33% of 190.202 hectares (470 acres)) within its existing and proposed plant site at Village: Dauka, P.O- Tentulmuri, PS-Narayangarh, Dist.-Paschim Medinipur, West Bengal, Pin-721437. Out of which 31.15 hectares (76.97 acres) of greenbelt has already been developed all around the plant boundary area within the plant premises where around 77,875 number of trees (@2500 trees per hectares) have been planted. Plantation for the remaining 79,025 number of trees (for 31.61 hectares | Physical Target | The physical Target for the entire activities shall be achieved in 3 years. | | | - |
| | | Budget | Greenbelt development inside the plant included in the EMP Cost. | | | |

| Concerns raised during Public Hearing | Physical Activity and Action Plan | Particulars | YEAR OF IMPLEMENTATION | | | Total Expenditure (Rs. in Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| | (78.11acres) considering @2500 trees per hectares) has also been started and it will be completed before the commissioning of the project | | | | | |
| | Development of Parks and Tree Plantation Programme (3500 nos) in the nearby villages will be done and distribution of saplings will be done at Dauka and school students in consultsation with local civic bodies. | Physical Target | The physical Target for the entire activities shall be achieved in 3 years | | | 35 |
| | | Budget in Lakhs | Development of 1 no. park along with 1500 nos. tree plantation & distribution of saplings. | Development of 1 no. park along with 1000 nos. tree plantation & distribution of saplings. | Development of 1 no. park along with 1000 nos. tree plantation & distribution of saplings. | |
| | | | 15 | 10 | 10 | |
| • To look after the health care facilities of the area | Periodic health check-up programme will be conducted by arranging camps through Primary Health Care Centers at Dauka and medicines will be distributed to the economically needy people. | Physical Target : every year | Health checkup camps shall be organized on half-yearly basis, in 5 nearby villages for general body, eyes, blood test and donation along with mass vaccination for polio, dengue, typhoid, malaria, etc. For this purpose, one doctor along with 2 – 3 assistants shall be deputed. This will come under CSR activities of the company. | | | - |
| | | Budget | Shall be included in the CSR budget of the company | | | |
| • To facilitate the local villagers for COVID-19 vaccination | COVID vaccination will also be done to the local people of nearby villages | Physical Target: every year | COVID vaccination will also be done to the local people of nearby villages | | | - |
| | | Budget | Shall be included in the CSR budget of the company | | | |
| • To repair the local connecting road to NH and to repair the local road of Dauka | Repairing of the local connecting road to NH and repairment of road with land (6 km) at Dauka village (@Rs. 18,00,000/- per Km) in the nearby villages | Physical Target | Repairing of the 2 km local connecting road to NH | 2 km road with land at Dauka village | 2 km road with land at Dauka village | 108 |
| | | Budget in Lakhs | 36 | 36 | 36 | |
| • To construct a culvert for drainage of | • Culvert with Hume Pipe (1000 m dia) of length 5 mts x 4.5 mts will be made for | Physical Target | Construction of Culvert with Hume Pipe | Construction of another Culvert | - | 4 |

| Concerns raised during Public Hearing | Physical Activity and Action Plan | Particulars | YEAR OF IMPLEMENTATION | | | Total Expenditure (Rs. in Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| storm water during monsoon | drainage of storm water during monsoon<br>● Another Culvert will be made of Length – 6.5 Meters X 4.5 Meters (Width) | Budget in Lakhs | 2.5 | 1.5 | - | |
| **Total Budget - Public Hearing related: Rs. 225 Lakhs** | | | | | | |

| Need based Activities | Particulars | Year of Implementation | | | Total Expenditure (Rs. in Lakhs) |
|---|---|---|---|---|---|
| | | 1st Year | 2nd Year | 3rd Year | |
| Providing Dustbins (300 nos @Rs. 1000/- per unit) in nearby villages (under Swachh Bharat Scheme) for waste segregation and handling | Physical Target: | 100 nos. Dustbins | 100 nos. Dustbins | 100 nos. Dustbins | 3 |
| | Budget : in Lakhs | 1 | 1 | 1 | |
| Rain Water Harvesting ponds in nearby villages (5 nos. @ Rs. 5 Lakhs per pond). | Physical Target: | 2 Rain Water Harvesting Ponds | 2 Rain Water Harvesting Ponds | 1 Rain Water Harvesting Pond | 25 |
| | Budget : in Lakhs | 10 | 10 | 5 | |
| Construction of 10 nos. of ground water Recharging system for rainwater in nearby villages (@2.5 lakhs per system). | Physical Target: | 4 nos. of ground water Recharging system | 4 nos. of ground water Recharging system | 2 nos. of ground water Recharging system | 25 |
| | Budget : in Lakhs | 10 | 10 | 5 | |
| Development of Drinking Water Infrastructure - 12 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump). | Physical Target: | 4 nos. Tube well | 4 nos. Tube well | 4 nos. Tube well | 6 |
| | Budget: in Lakhs | 2 | 2 | 2 | |
| Street Lighting (Solar) provision at suitable public places in and around Dauka village (90 numbers, @ Rs. 20,000/- per LED Light) | Physical Target: | Providing 30 nos. Solar light | Providing 30 nos. Solar light | Providing 30 nos. Solar light | 18 |
| | Budget: in Lakhs | 6 | 6 | 6 | |
| **Total Budget - Need based activities : Rs. 77 Lakhs** | | | | | |
| **Overall Budget (Pubic Hearing related + Need based Activities): Rs. 302 Lakhs** | | | | | |
| **It has been decided to develop 7 number of villages (named as Tetulmuri, Dauka, Kharigaria, Jinsahar, Balihati, Narsinghpur and Batitaki) and Rs. 19 Crores by Financial Year 2024-2025 by addressing the socio-economic needs of the villagers** | | | | | |

32.4.15 The capital cost of the project is Rs. 4943 Crores and the capital cost for environmental protection measures is proposed as Rs. 695.02 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 68.1 Crores. The employment generation from the expansion is 1855. The details of cost for environmental protection measures is as follows:

| Items | Capital Cost (in Crores) | Recurring Cost (in Crores) |
|---|---|---|
| Cost of Air Pollution Control Systems | 450.72 | 45.0 |
| Cost of Water conservation & Pollution Control | 50.0 | 5.0 |
| Cost of Solid /Hazardous Waste Management System | 32.0 | 3.2 |
| Green belt development | 9.48* | -* |
| Noise Reduction Systems | 36.2 | 3.6 |
| Occupational Health Management | 36.5 | 3.6 |
| Risk Mitigation & Safety Plan | 41.1 | 4.1 |
| Environmental Management Department | 36.0 | 3.6 |
| Total Budget - Public Hearing related | 3.02 | - |
| **GRAND TOTAL** | **695.02** | **68.1** |
| ***(considering 3 lakhs/hectare with 10 years maintenance cost)** | | |

32.4.16 M/s Bengal Energy Limited has earmarked total 62.76 hectares (155.1 acres) land (33% of 190.202 hactares (470 acres)) within its existing plant site at Village: Dauka, P.O- Tentulmuri, PS-Narayangarh, Dist.-Paschim Medinipur, West Bengal, Pin-721437, out of which 31.15 hectares (76.97 acres) of greenbelt has already been developed all around the plant boundary area within the plant premises where around 77,875 number of trees (@2500 trees per hectares) have been planted. Plantation for the remaining 79,025 number of trees (for 31.61 hectares (78.11acres) considering @2500 trees per hectare) has also been started and it will be completed before the commissioning of the project. Thus, finally total 1,56,900 number of trees come under greenbelt in the plant premises. The proponent states that they will complete the maximum part of remaining greenbelt in the coming monsoon of 2023.

**Time Schedule and Approximate Capital Cost of the Proposed Green Belt**

| Year of establishment / formation | Area to be planted | Expenditure on Formation/ Establishment @Rs. 3,00,000/hectare |
|---|---|---|
| 1st Year | 11 ha | Rs. 33,00,000 |
| 2nd Year | 10.53 ha | Rs. 3,159,000 |
| 3rd Year | 10.08 ha | Rs. 3,024,000 |
| **Total Initial Cost** | **31.61 ha** | **Rs. 9,483,000** |

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

**Certified Compliance report from Regional Office:**

32.4.18 Initially, monitoring report was prepared & submitted by Integrated Regional Office (IRO), Kolkata vide Memo no 102-279/08/EPE/469 dated 22.11.2022 on the conditions of the existing Environmental Clearances (F. No. J-11011/28/2008-IA II (I)), dated 02.01.2009 & 19.07.2019 issued by MoEF&CC. Out of all the conditions, 6 conditions of EC dated 02.01.2009 and 8

conditions of EC dated 19.07.2019 were observed as Not complied/partially complied. Subsequently, project proponent submitted action taken report on the respective non-complied/partially complied conditions vide their letter no 102-279/08/EPE/524 dated 23.12.2022. Accordingly, Integrated Regional Office, Kolkata further examined the project on the basis of the Action Taken Report, submitted by the Project Proponent. All the EC conditions were complied except one condition, which project proponent assured to comply. Ultimately, the project proponent complied this particular EC condition and requested IRO, Kolkata to visit their plant site vide their letter dated 23.03.2023. Accordingly, IRO, Kolkata issued the Closure Report with full compliance for all the EC conditions vide Memo no 102-279/08/EPE/124 dated 03.04.2023.

| **J-11011/28/2008-IA II (dated 02.01.2009)** | |
|---|---|
| 1. | **Observation made during monitoring on 12.10.2022:** It is observed that PA's have not installed online ambient air quality monitoring system. The same needs to be installed immediately. (Specific condition I)<br><br>**Action taken report submitted by the project proponent on 01.12.2022:**<br>Purchase order for four (4) sets "On - line ambient air quality monitoring stations" has already been issued to vendors and they will be installed within May-June, 2023 as per our purchase orders.<br>Purchase order for the same are attached as Annexure-I.<br>The re-confirmation letter from M/s Adarsh udog Pvt ltd, the supplier for supply & installation of 4 sets of air quality monitoring system as per given technical specification and supply & installation of Laser Dust Monitor, continuous emission gas analyzer (for $So_2$,$No_x$), Flue gas analyzer (for CO) etc along with all accessories, data logging and uploading software complete in all sense is enclosed herewith. They are going to complete the commissioning & performance trial run within May,2023.<br><br>**Review of Action Taken Report : Assured to comply.** |
| 2. | **Observation made during monitoring on 12.10.2022** : PA's have not submitted the approval letter from W R I & Development, Govt. Of West Bengal. The same may be submitted to the Integrated Regional Office. (Specific condition xi)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022 :** The Hon'ble Governor of West Bengal through their Additional Secretary, Govt of West Bengal vide their :ORDER" number 3731/PHE/-99/39/2022-SCHM CELL - Dept of PHE dated 20.10.2022 directed the concern Public Health Engineering (PHE), West Bengal to implement "water supply project" based on sub surface water of Kansai river abstracting through infiltration gallery for Bengal Energy Ltd at village Jinsar & Uttar Simla under Kharagpur - II<br><br>PHE has published their tender and allotted the work to their Approved vendor. The project /scheme shall be funded by Bengal Energy Ltd (owner of the project). The copy of the "ORDER" has been circulated to 18 (eighteen) department, who are concern. Copy of the "ORDER" dated 20.10.2022 is enclosed. Tender published by PHE already submited to MoEF& CC, Regional office. Site work is going on. |

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| | Further to our letter BEL/MoeF-Kol/22-23/06 dated 1st December,2022 vide which we had submitted the copy of the "ORDER" dated - 20.10.2022 issued by Hon'ble Governor,West Bengal.<br><br>Now, please find enclosed the copy of the Memo no. 703 dated 29.11.2022 issued by office of the Superintending Engineer, Western circle, PHED to M/s. Concord Enginering & confirming the works order to execute 2X5 MGD water project for Bengal Energy Ltd. The works order on M/s. Concord is self explanatory. The water project shall be funded by us (Bengal Energy Ltd). Project cost Rs.21,10,50,000/- including GST & LWS.<br><br>**The copy of the ORDER issued by Hon'ble Governor of West Bengal through Additional Secretary is submitted.**<br><br>**Review of Action Taken Report: Being complied.** |
| 3. | **Observation made during monitoring on 12.10.2022 :** PA's as need to develop more green belt to reach at least 121 acres (33%), out of 364.90 acre area in and around the plant premises as per the EC stipulation. (Specific condition xx)<br><br>**Action Taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** BEL has earmarked 121 acres (33% of the total 364.90 acres) of the land for green belt development within the plant site considering the up-coming EC. This is to inform that around 79 acres out of 121 acres, of green belt has already been developed all around the plant boundary area as well within the project site.<br>We are going slowly because of ongoing new project construction. We have the reserve of 79,500 new plants/trees in our stock for plantation. Green belt development programme for rest of the approx.. 42 acres are under develop simultaneously within commissioning period of the proposed project as per the CPCB guideline in consultation with DFO (Divisional Forest Officer).<br><br>**Review of action taken report: Assured to comply.** |
| 4. | **Observation made during monitoring on 12.10.2022 :** It is observed that online ambient air quality monitoring system has not been installed. The same may be installed at the project site immediately. (specific condition xxi)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022 :** kindly refer SI.No.1 (above)<br><br>**Review of action Taken Report: Assured to comply.** |
| 5. | **Observation made during monitoring on 12.10.2022 :** It is observed that monitoring report do not mention whether the noise monitoring data is from day time or monitored during night. Ambient noise monitoring data should be reported from both day time and night time. The same needs to be submitted to the Integrated Regional Office. (General condition iv,v) |

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| | **Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022 :** Day time noise data has been submitted to Hon'ble MoEF&CC. For our own record, our Environmental Cell Monitoring the noise level data (day time & night times as well) on regular basis for their own records. In general, officials from Hon'ble SPCB, requesting to measure sound level during their presence, where ever they visit plant at fixed internal, hence, it is the general practice of industries to submit, day time noise data. Please find enclosed the noise level data recorded in night time.<br><br>**Review of action Taken Report: Being complied.** |
| 6. | **Observation made during monitoring on 12.10.2022 :** PA's have informed that the advertisement copies could not be located. It is required to provide the copies of the advertisement of EC dated 2009 to the integrated Regional Office. (General condition xv)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022 :** We are trying to collect the copies of advertisements made in the newspapers regarding grant of EC to the project. Please allow some time for submission.<br><br>English paper cutting 2009 & 2019 are enclosed.<br><br>We have submitted our request letters at the office of M/s. Sanmarg Pvt Ltd & M/s. Aajkal publishers Pvt Ltd for obtaining the copies of their news papers dated (publish date) 09.01.2009 & 26.07.2019 on chargeable basis. The copies of the submitted letters are enclosed herewith of your kind reference.<br><br>**Review of action Taken Report: Assured to comply.** |
| | |
| **J-11011/28/2008-IA II (I) dated 19.07.2019** | |
| 1 | **Observation made during monitoring on 12.10.2022:** PAs are yet to install continuous ambient air quality monitoring system. (Air quality monitoring and prevention condition iii)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** Purchase order for four (4) sets on-line ambient air quality monitoring stations has already been issued to vendors and they will be installed within April-May, 2023.<br>Purchase order for the same are submitted.<br><br>The re-confirmation letter from M/s Adarsh Udog Pvt. Ltd., the supplier for supply & installation of 4 sets of air Quality Monitoring System as per given technical specification and Supply & Installation of Laser Dust Monitor, continuous emission gas analyzer (for $SO_2$, $NO_x$), Flue gas analyzer (For CO) etc. along with all accessories, data logging and uploading software complete in all sense is enclosed herewith. They are going to complete the commissioning & performance trial run within May, 2023.<br>**Review of Action Taken Report : Assured to comply** |
| 2. | **Observation made during monitoring on 12.10.2022:** No ground water quality monitoring has been conducted at adjacent areas. It is required to areas. It is required to conduct ground water |

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| | quality at more locations both within the plant and adjacent areas. (Water quality monitoring and prevention condition ii)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** Our utility department and Environmental Cell has the practice to conduct ground water testing for PHE (Public Health Engg. Dept). Few test reports were submitted; however, please find enclosed the ground water test reports. We have conducted ground water at various villages are enclosed herewith. Test conducted inside the plant in recent days are submitted.<br><br>**Review of Action Taken Report: Being complied.** |
| 3. | **Observation made during monitoring on 12.10.2022:** It is observed that monitoring report do not mention whether the noise monitoring data is from day time or monitored during night time. Ambient noise monitoring data should be reported from both day time and night time. The same should be provided to the Integrated Regional Office. (Noise monitoring and prevention condition I & ii)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** Day time noise data has been submitted to Hon'ble MoEF&CC. For our own record, our Environmental Cell monitoring the noise level data (day time & night times as well) on regular basis for their own records. In general, officials from Hon'ble SPCB, requesting to measure sound level during their presence, wherever they visit plant at fixed internal, hence, it is general practice of industries to submit, daytime noise data. Please find enclosed the noise level data recorded in night time.<br><br>**Review of Action Taken Report: Being complied.** |
| 4. | **Observation made during monitoring on 12.10.2022:** PAs need to develop more green belt to reach at least 121 acres (33%), out of 364.90 acre area in and around the plant premises as per the EC stipulation. (Green Belt condition i)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** BEL has earmarked 121 acres (33% of the total 364.90 acres) of the land for green belt development within the plant site considering the up-coming EC. We inform that around 79 acres out of 121 acres, of green belt has already been developed around the plant boundary area & within the project site. We have the stock of 79,500 new plants/ trees in our stock for plantation in our stock for plantation. Green belt development programme for rest of the approx.. 42 acres are under develop. Targeting within the commissioning period of the proposed project as per the CPCB guidelines in consultation with DFO (Divisional Forest Officer).<br><br>**Review of Action Taken Report: Assured to comply.** |
| 5. | **Observation made during monitoring on 12.10.2022:** It is observed that online ambient air quality monitoring system has not been installed. The same may be installed at the project site immediately. (Corporate Environment Responsibility condition vi) |

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| | **Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** Purchase order for four (4) sets online ambient air quality monitoring stations has already been issued to vendors and they will be installed within April-May, 2023.<br>Purchase order for the same are submitted.<br><br>The re-confirmation letter from M/s Adarsh Udog Pvt. Ltd, the supplier for supply & installation of 4 sets of air Quality Monitoring System as per given technical specification and Supply & Installation of Laser Dust Monitor, continuous emission gas analyzer (for $SO_2$, $NO_x$), Flue gas analyzer (For CO) etc along with all accessories, data logging and uploading software complete in all sense is enclosed herewith. They are going to complete the commissioning & performance trial run within May, 2023.<br><br>**Review of Action Taken Report : Assured to comply.** |
| 6. | **Observation made during monitoring on 12.10.2022:** They have not submitted the advertisement copy of the EC dated 2019 advertised in two local newspapers. The same needs to be submitted to the Integrated Regional Office. Further, they have not uploaded their EC in their website https://bengalenergy.in//. (Miscellaneous condition i)<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** We are trying to collect the copies of advertisements made in the newspapers regarding grant of EC to the project. EC uploaded.<br><br>English Paper cutting 2009 & 2019 are enclosed.<br><br>We have submitted our request letters at the office of M/s Sanmarg Pvt. Ltd. & M/s Aajkaal publishers Pvt. Ltd., for obtaining the copies of their newspapers dated (Publish date) 09.01.2009 & 26.07.2019 on chargeable basis. The copies of the submitted letters are enclosed herewith for your kind reference.<br><br>**Review of Action Taken Report: Assured to comply.** |
| 7. | **Observation made during monitoring on 12.10.2022:** PAs have not uploaded the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website in their website https://bengalenergy.in/. The same needs to be complied with immediately. (Miscellaneous condition iii).<br><br>**Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** We had uploaded the monitoring data on our website. Humbly like to inform that design of our website is under Re-design. Sorry for inconvenience. We are going to set right the website at the earliest.<br><br>**Review of Action Taken Report: Assured to comply.** |
| 8. | **Observation made during monitoring on 12.10.2022:** However, they have not uploaded the criteria pollutant levels in their website https://bengalenergy.in/. The same needs to be complied with immediately. (Miscellaneous condition iv). |

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| | **Action taken report submitted by the project proponent on 01.12.2022 & 15.12.2022:** Henceforth we are going to follow your instructions. Our website is under re-design/ constructive design. We are going to upload data as per your inspection very soon.<br><br>**Review of Action Taken Report : Assured to comply.** |
| Conclusion: The PAs have complied or are in the process of complying the conditions stipulated by the Ministry. | |

**Closure Report vide Memo no 102-279/08/EPE/124 dated 03.04.2023**

**Point raised by Ministry dated 21.02.2023:** PP has not installed the CAAOM. First, PP to compile the condition and submit the closure report from IRO, MoEF&CC.

**Observation made during inspection on 31.03.2023:** Being complied. During inspection, it was observed that CAAQMS have been installed at two locations, which are functioning well and another two are under installation. PAs have also submitted the monitoring data of the ambient air quality monitoring stations and data indicated that all the parameters were under the stipulated standard limits.

32.4.19 The proposal was initially considered in the 27th meeting of the EAC for Industry-I sector held on 27th April, 2023 wherein the Committee deferred the proposal due to certain deficiencies in the proposal and sought requisite information. The deliberations and recommendations of EAC during 27th EAC is as follows:

**Deliberations by the Committee (EAC during 27th April, 2023)**

The Committee noted the following:

1. The EAC noted that M/s BEL had been running 1X0.6 MTPA of non-recovery type Coke Oven Plant (to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP) as per EC obtained from the MoEF&CC vide ref. no. F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009. The company has further obtained another EC form the MoEF&CC vide ref. no. F. No. J-11011/28/2008-IA-II(I) dated 19th July, 2019, for installation of 1X60 $m^2$ sinter plant (to produce 10,00,000 TPA of iron ore sinter), 1x0.6 MTPA of coke oven to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP), 2X320 $m^3$ of Blast Furnace (to produce 5,96,000 TPA of pig iron along with 22 MW WHRB based CPP), EAF of 2 X 80 T capacity to produce 8,32,000 TPA of liquid steel along with LRF (2,08,000 TPA) & CCM (8,15,000 TPA), IF of 3X20 T capacity to produce 2,92,000 TPA of liquid steel along with 2,80,000 TPA of CCM, 1X35 MW of AFBC boiler and 4X500 TPD + 4X350 TPD of DRI Kiln (To Produce 10,88,000 TPA of sponge iron along with 1X68 MW of WHRB) along with auxiliary units such as 1X120 TPD of ASU to produce 1200 M3/hr of gas. The EAC further noted that out of these units, Sinter Plant with 7,03,032 TPA capacity, MBF-1X320 M3 with

2,98,000 TPA capacity, Air Separation Unit of 1X120 TPD capacity and 8 MW BF gas based Captive Power Plant are under final trial run after obtaining necessary Consent to Establish and Consent to Operate from West Bengal Pollution Control Board. The EAC is of the view that PP shall submit the revised implementation status in a tabular form clearly mentioning the status of the facilities envisaged in the EC dated 19th July, 2019 along with proper justification for delay in implementation of the said facilities and the timelines for completion of the said project. PP shall also justify the reasons for applying for expansion / modernisation of the units when they have not been able to implement the facilities as per EC dated 19th July, 2019.

2. The EAC noted that the PP was asked the implementation status of Continuous Ambient Air Quality Monitoring Station (CAAQMS). In this regard, the PP has reported that IRO during inspection on 31.03.2023 has made an observation that that CAAQMS have been installed at two locations, which are functioning well and another two are under installation. PP/consultant shall submit the status of the implementation of remaining two CAAQMS with supporting documents. PP shall also submit the status of connecting the CAAMQS to CPCB server.

3. The EAC deliberated on the compliance to the ToR conditions and found them inadequate. The PP/Consultant is advised to revise the compliance of the TOR condition and submit the revised information.

4. The EAC noted that as reported M/s Bengal Energy Limited has earmarked total 62.76 hectares (155.1 acres) land (33% of 190.202 hectares (470 acres)) within its existing plant site for greenbelt, out of which only 31.15 hectares (76.97 acres) of greenbelt has been developed all around the plant boundary area within the plant premises where around 77,875 number of trees (@2500 trees per hectares) have been planted. Plantation for the remaining 79,025 number of trees (for 31.61 hectares (78.11acres) considering @2500 trees per hectare) has also been started and it will be completed before the commissioning of the project. The EAC opined that PP shall submit a revised greenbelt development plan along with the undertaking by way of affidavit that they will complete the maximum part of remaining greenbelt in the coming monsoon of 2023.

5. The Committee deliberated on the baseline data and observed that the $PM_{10}$ and $PM_{2.5}$ recorded at higher side. PP shall submit the justification along with the mitigation measures that will be undertaken to minimise the same.

6. The Committee deliberated on the baseline data and observed that incremental GLC of CO has not been provided. The EAC if the view that the GLC values for all the parameters shall be submitted.

7. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020.

8. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.

9. The EAC observed that PP has submitted the complete Public Hearing proceedings in the application form on PARIVESH portal. PP shall submit the entire PH proceedings inter-alia including advertisements given for PH, SPCB cover letter, actual proceedings, attendance sheet, written representations & the response submitted by PP, Authenticated English translation of the PH proceedings if any, shall be uploaded.

10. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.

11. The EAC has advised that Consultant shall read all the documents properly before submitting the application on Parivesh portal, as the whole process is online on Portal.

12. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

**Recommendations of the Committee (EAC during 27th April, 2023):**

In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

32.4.20 Subsequently, the proponent submitted the ADS reply vide letter dated 6th May, 2023 uploaded on PARIVESH on 8th May, 2023. Point-wise reply of ADS is given below:

| Sl. No. | Point raised by EAC | Reply of Project Proponent |
|---|---|---|
| 1. | The EAC noted that M/s BEL had been running 1X0.6 MTPA of non-recovery type Coke Oven Plant (to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP) as per EC obtained from the MoEF&CC vide ref. no. F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009. The company has further obtained another EC form the MoEF&CC vide ref. no. F. No. J-11011/28/2008-IA-II(I) dated 19th July, 2019, for installation of 1X60 $m^2$ sinter plant (to produce 10,00,000 TPA of iron ore | The revised implementation status in a tabular form clearly mentioning the status of the facilities envisaged in the EC dated 19th July, 2019 has been submitted and updated at para 32.2.6 above. The justification for applying for expansion / modernisation of the units when they have not been able to implement the facilities as per EC dated 19th July, 2019 is submitted. |

| Sl. No. | Point raised by EAC | Reply of Project Proponent |
|---|---|---|
| | sinter), 1x0.6 MTPA of coke oven to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP), 2X320 $m^3$ of Blast Furnace (to produce 5,96,000 TPA of pig iron along with 22 MW WHRB based CPP), EAF of 2 X 80 T capacity to produce 8,32,000 TPA of liquid steel along with LRF (2,08,000 TPA) & CCM (8,15,000 TPA), IF of 3X20 T capacity to produce 2,92,000 TPA of liquid steel along with 2,80,000 TPA of CCM, 1X35 MW of AFBC boiler and 4X500 TPD + 4X350 TPD of DRI Kiln (To Produce 10,88,000 TPA of sponge iron along with 1X68 MW of WHRB) along with auxiliary units such as 1X120 TPD of ASU to produce 1200 M3/hr of gas. The EAC further noted that out of these units, Sinter Plant with 7,03,032 TPA capacity, MBF-1X320 M3 with 2,98,000 TPA capacity, Air Separation Unit of 1X120 TPD capacity and 8 MW BF gas based Captive Power Plant are under final trial run after obtaining necessary Consent to Establish and Consent to Operate from West Bengal Pollution Control Board. The EAC is of the view that PP shall submit the revised implementation status in a tabular form clearly mentioning the status of the facilities envisaged in the EC dated 19th July, 2019 along with proper justification for delay in implementation of the said facilities and the timelines for completion of the said project. PP shall also justify the reasons for applying for expansion / modernisation of the units when they have not been able to implement the facilities as per EC dated 19th July, 2019. | |
| 2. | The EAC noted that the PP was asked the implementation status of Continuous Ambient Air Quality Monitoring Station (CAAQMS). In this regard, the PP has reported that IRO during inspection on 31.03.2023 has made an observation that that CAAQMS have been installed at two locations, which are functioning well and another two are under | With respect to status of the implementation of the remaining two Continuous Ambient Air Quality Monitoring System (CAAQMS) and the status of connecting the CAAMQS to CPCB server, PP has submitted the undertaking by way of affidavits stating that "On Line Continuous Ambient Air Quality Stations (CAAQMS)" has been installed & another two sets are under |

<table>
<tr><th>Sl. No.</th><th>Point raised by EAC</th><th>Reply of Project Proponent</th></tr>
<tr><td></td><td>installation. PP/consultant shall submit the status of the implementation of remaining two CAAQMS with supporting documents. PP shall also submit the status of connecting the CAAMQS to CPCB server.</td><td>installation. These units shall be completed & commissioned within month of May, 2023 and thereafter, PP will apply for Registration at CPCB for online synchronization.”</td></tr>
<tr><td>3.</td><td>The EAC deliberated on the compliance to the ToR conditions and found them inadequate. The PP/Consultant is advised to revise the compliance of the TOR condition and submit the revised information.</td><td>The compliance of the revised TOR condition is submitted.</td></tr>
<tr><td>4.</td><td>The EAC noted that as reported M/s Bengal Energy Limited has earmarked total 62.76 hectares (155.1 acres) land (33% of 190.202 hectares (470 acres)) within its existing plant site for greenbelt, out of which only 31.15 hectares (76.97 acres) of greenbelt has been developed all around the plant boundary area within the plant premises where around 77,875 number of trees (@2500 trees per hectares) have been planted. Plantation for the remaining 79,025 number of trees (for 31.61 hectares (78.11acres) considering @2500 trees per hectare) has also been started and it will be completed before the commissioning of the project. The EAC opined that PP shall submit a revised greenbelt development plan along with the undertaking by way of affidavit that they will complete the maximum part of remaining greenbelt in the coming monsoon of 2023.</td><td>Time Schedule and Approximate Capital Cost of the Proposed Green Belt<br><table><tr><th>Year of establishment / formation</th><th>Area to be planted</th><th>Expenditure on Formation/ Establishment @Rs. 3,00,000/hectare</th></tr><tr><td>1st Year</td><td>11 ha</td><td>Rs. 33,00,000</td></tr><tr><td>2nd Year</td><td>10.53 ha</td><td>Rs. 3,159,000</td></tr><tr><td>3rd Year</td><td>10.08 ha</td><td>Rs. 3,024,000</td></tr><tr><td>Total Initial Cost</td><td>31.61 ha</td><td>Rs. 9,483,000</td></tr></table><br>The undertaking by way of affidavit stating that they Remaining 31,231 ha plantation @2500 trees per ha will be developed by December 2024.</td></tr>
<tr><td>5.</td><td>The Committee deliberated on the baseline data and observed that the $PM_{10}$ and $PM_{2.5}$ recorded at higher side. PP shall submit the justification along with the mitigation measures that will be undertaken to minimise the same.</td><td>The value of $PM_{10}$ in the core Zone is well within the limit of (100 µg/$m^3$) National Ambient Air Quality Standards, 2009. The maximum value of $PM_{10}$ is 89 µg/$m^3$. The value of PM2.5 in the core Zone is also well within the limit of (60 µg/$m^3$) National Ambient Air Quality Standards, 2009. The maximum value of $PM_{2.5}$ is 44 µg/$m^3$. Kolaghat-Pansila-Cuttack Road is also passing adjacent to the Eastern side of the project boundary.<br><br><u>Mitigation measures that will be undertaken to reduce the $PM_{10}$ & $PM_{2.5}$ levels</u></td></tr>
</table>

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| | | There is no major industries found within the 10 km radius study area around the project site except Mat Found Industry Pvt. Ltd. and RM Industry Pvt. Ltd. which is around 4.2 and 7.4 kms. In N & NE directions respectively from the project site. Kolaghat-Pansila-Cuttack Road is also passing adjacent to the Eastern side of the project boundary. All these factors may be attributed to the slight higher level of $PM_{10}$ concentration, but all values are well within the stipulated limit of National Ambient Air Quality Standards, 2009.<br><br>**<u>During Construction Phase:</u>**<br>• For the suppression of fugitive dust, sprinkling of water from tankers or other suitable means would be undertaken at the construction sites.<br>• The traffic and use of machinery will generate undesirable gaseous pollutants. The expected emission level would be insignificant.<br>• It would be ensured that all the vehicles plying during construction are properly tuned and maintained to keep emissions within the permissible limits.<br>• Proper greenbelt development and plantation inside and outside the plant premises.<br>• A separate storage area will be demarcated for construction material to confine the dust dispersion.<br>• Proper PPEs will be provided to workers to avoid accumulation of dust in respiratory tracts and prevent air borne diseases.<br><br>**<u>During Operation Phase:</u>**<br>• It would be ensured that all the vehicles plying in the working zone are properly tuned and maintained to keep emissions within the permissible limits.<br>• Speed Limit/ humper will be imposed to regulate vehicle speed.<br>• Transportation will be through covered trucks.<br>• Truck shall be parked in designated parking area only; |

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| | | • Minimize use of roads at any particular time by planning vehicles movements.<br>• Road crossings to be used will be well marked.<br>• With strict traffic management system and various environmental management practices, contribution of pollutants in the ambient air will be kept under control so as to create minimum disturbances in the neighbourhood.<br>• Adequate and planned road network will be set up in the project for smooth movement of the goods vehicles.<br>• At loading and unloading points, arrangement for Water sprinkling will be made so that dust generation during transportation of materials will be minimized further. |
| 6. | The Committee deliberated on the baseline data and observed that incremental GLC of CO has not been provided. The EAC if the view that the GLC values for all the parameters shall be submitted. | Incremental GLC of CO has been calculated for the respective units of the proposed project and the same is reflected in the baseline data. |
| 7. | The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. | The revised action plan as per Ministry's O.M. dated 30.09.2020 is submitted and updated at para 32.2.14 above. |
| 8. | The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages. | 7 number of villages (named as Tetulmuri, Dauka, Kharigaria, Jinsahar, Balihati, Narsinghpur and Batitaki) have been adopted. Undertaking for the same by way of affidavit is submitted. |
| 9. | The EAC observed that PP has submitted the complete Public Hearing proceedings in the application form on PARIVESH portal. PP shall submit the entire PH proceedings inter-alia including advertisements given for PH, SPCB cover letter, actual proceedings, attendance sheet, written representations & the response submitted by PP, Authenticated English translation of the PH proceedings if any, shall be uploaded. | The entire PH proceedings is submitted and also uploaded in the portal. |

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| 10. | There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations. | The revised Plant lay out, Contour plan and Road & Drainage Network have been submitted. |
| 11. | The EAC has advised that Consultant shall read all the documents properly before submitting the application on Parivesh portal, as the whole process is online on Portal. | As per the recommendations and suggestions of the honourable committee all the necessary information have been uploaded in the portal. |

32.4.21 Based on the above submission of PP, the proposal was reconsidered during 32nd meeting of the EAC for Industry-I sector held on 26th - 29th May, 2023. The deliberations and recommendations of EAC are as follows:

**Written representations:**

32.4.22 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 29.05.2023 submitted the following information:

1. Affidavit on non-judicial stamp paper regarding completion of remaining green belt by December 2023
2. Affidavit on non-judicial stamp paper regarding completion of commissioning of balanced two nos. CAAQMS within June 2023.

**Deliberations by the Committee**

32.4.23 The Committee noted the following:

1. The instant proposal is for Expansion cum Modification of the existing Steel Plant by addition/modification in some of the existing units along with installation of certain new units. The proposed changes are as follows:

   i. New installation of Pellet Plant of 2X0.85 MTPA capacity for the production of 17,00,000 TPA of iron ore Pellet.
   ii. Reduction in the production capacity of the 1x60 m2 sinter plant from 10,00,000 TPA to 6,50,000 TPA without changing its configuration i.e.1x60 m2.
   iii. Capacity reduction of the 2X320 M3 of MBF (5,96,000 TPA of pig iron) by dropping 1X320 M3 of MBF to produce 4,25,000 TPA of pig iron.
   iv. Capacity expansion of the IFs of 3X20 T (for the production of 2,92,000 TPA of liquid steel) by installing new 9X20 T IFs for the overall production of 7,92,000 TPA of liquid steel. Total number of IF will be 12x20T.
   v. Size of the EAF will be changed from 2X80 T to 2X25T and production capacity to reduce from 8,32,000 TPA to 4,16,000 TPA (under construction stage)
   vi. Capacity expansion of the LRF of 1 X 25 T (2,08,000 TPA) capacity by installing another LRF of 1 X 25 T capacity for overall production of refined steel to the tune of 4,16,000 TPA
   vii. Capacity expansion of the 1X120 TPD ASU unit (for the production of 120 TPD of gas) by installing another 1X120 TPD capacity of ASU unit for the overall production of 240 TPD of gas.
   viii. New installation of Rolling Mill of 2X0.2 MTPA capacity for the production of 4,00,000 TPA of rolled products.
   ix. New installation of Ferro Alloy Plant of 4x9 MVA + 1 X18 MVA capacity for the production of 90,000 TPA of Ferro Alloy products (such as Fe-Mn & Fe-Si)
   x. Capacity reduction of the BF based CPP from 22 MW to 10 MW.
   xi. Modification in the configuration (without changing the ultimate electricity production capacity) of 1X68 MW of CPP-WHRB (DRI) by splitting the unit into 1X28 MW + 1X40 MW, thereby leading to no change in the overall electricity production capacity; i.e. 68 MW.
   xii. Modification in the configuration (without changing the ultimate electricity production capacity) of 1X35 MW of AFBC based boiler by splitting the unit into 1X20 MW + 1X15 MW, thereby leading to no change in the overall electricity production capacity; i.e. 35 MW.

2. M/s BEL had been running 1X0.6 MTPA of non-recovery type Coke Oven Plant (to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP) as per EC obtained from the MoEF&CC vide ref. no. F.No. J-11011/28/2008-IA II (I) dated 2nd January, 2009. The company has further obtained another EC form the MoEF&CC vide ref. no. F. No. J-11011/28/2008-IA-II(I) dated 19th July, 2019, for installation of 1X60 $m^2$ sinter plant (to produce 10,00,000 TPA of iron ore sinter), 1x0.6 MTPA of coke oven to produce 6,00,000 TPA of LAM Coke along with 1X40 MW WHRB based CPP), 2X320 $m^3$ of Blast Furnace (to produce 5,96,000 TPA of pig iron along with 22 MW WHRB based CPP), EAF of 2 X 80 T capacity to produce 8,32,000 TPA of liquid steel along with LRF (2,08,000 TPA) & CCM (8,15,000 TPA), IF of 3X20 T capacity to produce 2,92,000 TPA of liquid steel along with 2,80,000 TPA of CCM, 1X35 MW of AFBC boiler and 4X500 TPD + 4X350 TPD of

DRI Kiln (To Produce 10,88,000 TPA of sponge iron along with 1X68 MW of WHRB) along with auxiliary units such as 1X120 TPD of ASU to produce 1200 M3/hr of gas. Out of these units, Sinter Plant with 7,03,032 TPA capacity, MBF-1X320 M3 with 2,98,000 TPA capacity, Air Separation Unit of 1X120 TPD capacity and 8 MW BF gas based Captive Power Plant are under final trial run after obtaining necessary Consent to Establish and Consent to Operate from West Bengal Pollution Control Board.

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

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

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

6. The total project area is 190.202 ha (470 acres) which is an industrial land and is completely under the possession of the company. The proposed project will be installed on the available land within the existing plant premises.

7. After implementation of the proposed project, daily make up water requirement for the total project will be around 15,715 $m^3$/day (Existing Units: 1,648 $m^3$/day, Proposed Units + Units to be implemented/modified: 14,067 $m^3$/day), out of which 4645 $m^3$/day will be recycled after treatment of the effluents and the balance 11070 $m^3$/day (fresh water) will be sourced from Kangsabati river. The EAC is of the opinion that necessary water permission shall be obtained from the Competent Authority.

8. The Committee deliberated on the revised baseline data and incremental GLC due to the proposed project along with submitted mitigation measures that will be undertaken to reduce the $PM_{10}$ & $PM_{2.5}$ levels and is of the opinion that PP shall strictly implement the mitigation measures as committed.

9. The PP has submitted that M/s Bengal Energy Limited has earmarked total 62.76 hectares (155.1 acres) land (33% of 190.202 hactares (470 acres)) within its existing plant site, out of which 31.15 hectares (76.97 acres) of greenbelt has already been developed all around the plant boundary area within the plant premises where around 77,875 number of trees (@2500 trees per hectares) have been planted. Plantation for the remaining 79,025 number of trees (for 31.61 hectares (78.11acres) considering @2500 trees per hectare) has also been started and it will be completed before the commissioning of the project. Thus, finally total

1,56,900 number of trees come under greenbelt in the plant premises. The proponent states that they will complete the maximum part of remaining greenbelt in the coming monsoon of 2023. Further, PP submitted an affidavit regarding completion of remaining green belt by December 2023. The EAC deliberated on the revised 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 deliberated upon the certified compliance report of IRO and also noted the observation of IRO during inspection on 31.03.2023 that CAAQMS have been installed at two locations, which are functioning well and another two are under installation. Further EAC also took into account the undertaking by way of affidavit submitted by project proponent stating that "On Line Continuous Ambient Air Quality Stations (CAAQMS)" has been installed & another two sets are under installation. These units shall be completed & commissioned within month of June, 2023 and thereafter, PP will apply for Registration at CPCB for online synchronization." In this regard, EAC is of the view that PP shall strictly comply with their action plan and complete the process as committed.

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 along and found it satisfactory.

13. The EAC noted that PP has reported to develop 7 number of villages (named as Tetulmuri, Dauka, Kharigaria, Jinsahar, Balihati, Narsinghpur and Batitaki) and Rs. 19 Crores by Financial Year 2024-2025 by addressing the socio-economic needs of the villagers. PP has submitted an undertaking in this regard.

14. The EAC also deliberated on the other ADS information furnished by the project proponent and found it satisfactory.

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

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

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

18. The EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously

recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

**Recommendations of the Committee:**

32.4.24 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. Total Water requirement of 15715 $m^3$/day (Existing Units: 1,648 $m^3$/day, Proposed Units + Units to be implemented/modified: 14,067 $m^3$/day), shall be sourced from from Kangsabati river [(11070 $m^3$/day (fresh water)] and recycled water (4645 $m^3$/day). Necessary permission shall be obtained from the Competent Authority. No groundwater abstraction is permitted.

iv. Three tier Green Belt shall be developed in at least 33% of the project area with maximum part of remaining greenbelt in the coming monsoon of 2023 with completion of total green belt by December 2023 as committed with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

v. 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. 3.02 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

vi. As committed PP shall adopt seven villages namely Tetulmuri, Dauka, Kharigaria, Jinsahar, Balihati, Narsinghpur and Batitaki and prepare and implement a robust plan to develop them into model villages in next 10 years.

vii. The remaining two CAAQMS units shall be completed & commissioned within month of June, 2023 and shall be connected to SPCB/CPCB server as committed. The report needs to submitted to IRO, MoEFCC in this regard.

viii. The PP shall strictly implement the mitigation measures as committed to reduce the $PM_{10}$ & $PM_{2.5}$ levels.

**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. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ 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.

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/$Nm^3$ 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 $4^{th}$ 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/m3 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. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

xxiv. Dry quenching (CDQ) system shall be installed along with power generation facility from waste heat recovery from hot coke

xxv. Facilities for spillage collection shall be provided for coal and coke on wharf of coke oven batteries (Chain conveyors, land based industrial vacuum cleaning facility). Land-based APC system shall be installed to control coke pushing emissions.

xxvi. Monitor CO, HC and $O_2$ in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xxvii. Vapor absorption system shall be provided in place of vapour compression system for cooling of coke oven gas in case of recovery type coke ovens.

xxviii. The coke oven gas shall be subjected to desulphurization if the sulphur content in the coal exceeds 1%.

xxix. 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.

xxx. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 $mg/m^3$, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xxxi. 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.

xxxii. 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 and Coke oven plants) as amended from time to time.

x. Treated water from ETP of COBP shall not be used for coke quenching.

xi. Air Cooled condensers shall be used in the captive power plant.

**IV. Noise monitoring and prevention**

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

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

iii. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

**V. Energy Conservation measures**

i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.

ii. Restrict Gas flaring to < 1%.

iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;

iv. Provide LED lights in their offices and residential areas.

v. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.

vi. Practice hot charging of slabs and billets/blooms as far as possible.

vii. Ensure installation of regenerative type burners on all reheating furnaces.

viii. Blast Furnaces shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.

ix. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens.

x. The project proponent shall provide waste heat recovery system on the DRI Kilns.

xi. The dolochar generated shall be used for power generation.

xii. 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.

xiii. 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. Oil collection trays shall be provided under coils on saddles in cold rolled coil storage area.
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. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.
viii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
ix. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.
x. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.

**VII. Green Belt**

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration by trees.
ii. Project proponent shall submit a study report on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and offsetting strategies.

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

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

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

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

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.

iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

**IX. Environment Management**

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

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

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

iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

**X. Miscellaneous**

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently

advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented

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

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

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

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

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

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

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

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

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

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

xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**Consideration in TOR Proposals**

**Agenda No. 32.5**

**32.5 Proposed Ferro Alloys Plant for Production of Silico Manganese/Ferro Silicon/ Ferro Manganese/ Ferro Chrome by Installation of 2 x 9 MVA Submerged Arc Furnaces. & Manufacturing of Ferro Moly/ Ferro titanium/ LC or MC Ferro Manganese. & Sinter Plant and Processing Unit for Utilizing by Product and Waste Dust by M/s SMO Ferro Ltd., located at SY. NO. 32/1 & 33/1, Gram Shivgadh, Kuajhagar, Tehsil-Sailana, District-Ratlam, Madhya Pradesh – Consideration of TOR.**

**[Proposal No. IA/MP/IND1/404738/2022; File No. IA-J-11011/486/2022-IA-II(IND-I)]**

32.5.1 M/s. SMO Ferro Alloys Private Limited has made an application online vide proposal No. IA/MP/IND1/404738/2022 dated 30.01.2023 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 Industry (Ferrous & Non-Ferrous), under Category 'A' of the schedule of the EIA Notification, 2006 and being appraised at the Central Level.

32.5.2 Name of the EIA consultant: M/s. Shree Green Consultants [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/IA 0072; Valid up to 24.02.2024, as on May 31, 2023].

**Details submitted by Project proponent**

32.5.3 The project of M/s SMO Ferro Alloys Private Limited located in Sy. No. 32/1 & 33/1, village-Gram Shivgadh, Kuajhagar, Tehsil-Sailana, District-Ratlam, Madhya Pradesh is for setting up of a new Proposed Ferro Alloys Plant for production of Silico Manganese/Ferro Silicon/ Ferro Manganese/ Ferro Chrome by installation of 2 x 9 MVA Submerged Arc Furnaces & Manufacturing of Ferro Moly/ Ferro titanium/ LC or MC Ferro Manganese. Sinter plant and Processing unit for utilizing by Product and Waste Dust. Total proposed project production capacity is 2,48,404 TPA.

**Deliberation by the Committee**

32.5.4 The Committee noted the following:

i. The EAC observed that PP has not presented the Drone survey of the project site during the appraisal of the project although the same has been clearly mentioned in the agenda of the meeting. In view of the same, the EAC advised PP/ Consultant to present the drone survey during appraisal of the proposal. The EAC advised the Consultant to read the instructions given in the Agenda before coming to the EAC meeting.

ii. On perusal of kml file, the EAC observed that there is already some construction made on the proposed project site however, the proposal has been submitted as a greenfield project.

iii. The Committee noted that PP/Consultant are not prepared to present the proposal and therefore advised them to come prepared next time before the EAC with all the requisite information and documents.

**Recommendations of the Committee**

32.5.5 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. 32.5.5 above and submit the revised application as per the provisions of EIA Notification, 2006.

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# DAY-2: MAY 29, 2023 [MONDAY]

## Consideration of Environmental Clearance Proposals

**Agenda No. 32.6**

**32.6 Proposed installation of Iron Ore Beneficiation Plant (1x1.0 MTPA), Pelletization Plant (1x0.6 MTPA) with Coal Gasifier (5x7000 m3/hr), Sponge Iron Plant (2x350 TPD DRI Kilns), Induction Furnaces (3x20T) with matching LRF & CCM, Hot Rolling Mill (0.2 MTPA) with 1x15 TPH oil fired Re-heating Furnace (optional) along with 34 MW Capacity Captive Power Plant (16 MW WHRB based + 18 MW AFBC based) by M/s CPCBL Steels & Power Pvt. Ltd., located at Village Newra, Mouza : Takhatpur, Dist.: Bilaspur, Chhattisgarh– Consideration of Environmental Clearance.**

**[Proposal No. IA/CG/IND1/413242/2023; File No. IA-J-11011/28/2022-IA-II(IND-I)]**
**[Consultant: Envirotech East Pvt. Ltd.; Valid upto 12.09.2025]**

32.6.1 M/s CPCBL Steels & Power Pvt. Ltd. has made an online EC application vide proposal no. IA/CG/IND1/413242/2023 dated 12th May, 2023 along with copy of EIA report and Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous), 2(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.

32.6.2 Name of the EIA consultant: M/s. Envirotech East Pvt. Limited [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2225/RA 0279; valid upto 12.09.2025, as on May 31, 2023].

**Details submitted by Project proponent**

32.6.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|
| 22nd April, 2022 | 5th meeting of EAC, held on 12thMay, 2022 | Terms of Reference | 03.06.2022 | 02.06.2026 |

32.6.4 The project of M/s CPCBL Steels & Power Pvt. Ltd. located at Village Newra, Mouza: Takhatpur, District Bilaspur, Chhattisgarh is for setting up of a new project for production of 0.2 Million Tons Per Annum (MTPA)TMT Bars, Rods, Structural.

**Deliberations by the Committee**

32.6.5 The Committee noted the following:

1. The PP reported that the proposed project will be installed on the total 24.28 hectares (60 acres) of land which is an agricultural land (single crop) and is in the name of the project proponent. The application for conversion of land for industrial purpose is submitted to the State Government which is under process. The EAC noted that earlier the proposed land was granted by the Competent Authority for a Residential project which was later dropped and the said land is now proposed to be diverted for industrial land for the proposed project. The EAC also noted that there is no approach road to the project site and project [proponent has claimed that they will be constructing the road. The EAC is of the view that there is no clarity on the availability of proposed land for industrial use as the proposed land is agricultural land which was previously granted for residential project and conversion of land for industrial purpose is still pending. Also since there is no approach road to the project site and on the basis of submission of PP that they will be constructing the road, it is not clear who will be authorised for road construction as the same falls under the purview of State Administration.
2. In view of the above, the EAC opined that clarity on the proposed site for industrial use and construction of approach road to the project site is essential and project proponent shall obtain the necessary credible documents/permission from the Competent Authority defining the purpose and present the same with complete details in pursuance to Ministry's O.M. vide F. No. 22-76/2014-IA-III dated 07.10.2014.
3. The EAC also warned the consultant [M/s. Envirotech East Pvt. Limited] for not guiding the project proponent properly.
4. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

**Recommendations of the Committee:**

32.6.6 In view of the aforementioned discrepancies, the Committee **recommended to return the proposal in its present form** due to the shortcomings mentioned in para 32.6.5 above and submit the revised application as per the provisions of EIA Notification, 2006.

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**Agenda No. 32.7**

**32.7 Expansion in Ferro Alloy (24,000 TPA to 28,800 TPA) & Billet Production (36,000 TPA) by M/s Aryavarta Khanija Private Limited, located at Village & Post - Hat Ashuria, Mauza – Basudevpur, P.S. - Barjora, District - Bankura, Pin - 722204, State-West Bengal, India. – Consideration of Environmental Clearance**

**[Proposal No. IA/WB/IND1/411238/2022; File No. IA-J-11011/410/2019-IA-II(IND-I)] [Consultant: Chandigarh Pollution Testing Laboratory –EIA Division; Valid upto 12.02.2025]**

32.7.1 M/s Aryavarta Khanija Private Limited has made an online application vide proposal No-IA/WB/IND1/411238/2022 dated 21st May, 2022 along with copy of EIA/EMP report, in prescribed format (CAF, Form – I Part A, B &C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

32.7.2 Name of the EIA consultant: M/s. Chandigarh Pollution Testing Laboratory –EIA Division [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2225/RA 0250; Valid up to 12.02.2025, as on May 31, 2023].

**Details submitted by Project proponent**

32.7.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|
| 26.11.2019 | Reconstitute Expert Appraisal Committee (Industry-I) during its 14th meeting held on 23-24th December, 2019. | Terms of Reference | 21.01.2020 | 20.02.2024 |

32.7.4 The project of M/s. Aryavarta Khanija Private Limited located at Village & Post - Hat Ashuria, Mauza – Basudevpur, P.S. - Barjora, District - Bankura, West Bengal is for expansion in Ferro Alloy from 24,000 TPA to 28,800 TPA Product Mix of Silico Manganese, Ferro Manganese and Ferro Silicon with 2 nos. of Submerged Arc Furnace (2 x 9 MVA) and 36,000 TPA Billets with 1 no. of Induction Furnace of 15 Ton Capacity.

**Deliberations by the Committee**

32.7.5 The Committee noted the following:

1. The EAC noted that PP/Consultant were unable to present their proposal due to their unpreparedness. Therefore, the technical deliberations on the proposal could not be made by the EAC.

2. The EAC further advised that PP/Consultant shall read all the documents properly before appearing before the EAC for appraisal of the proposal.

3. In view of above, the PP/ Consultant accepted the mistake and requested for one more opportunity for presenting the proposal before the EAC meeting.

**Recommendations of the Committee**

32.7.6 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** and is of the view that the proposal shall be considered once the PP/Consultant are fully prepared and only after receiving the formal request of the project proponent, the proposal shall be placed before the EAC.

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**Re-Consideration in Environmental Clearance Proposals**

**Agenda No. 32.8**

**32.8 Expansion of Shakambhari Ispat & Power Limited plant for production of 0.7875 million tons per annum Crude Steel/Stainless Steel, 0.214272 million tons per annum Ferro-Alloys (maximum) along with allied facilities by M/s Shakambhari Ispat and Power Ltd., located at Village: Parvatpur, Madandih, Radhamadabpur, P.O.: Bortoria, Tehsil: Raghunathpur, District: Purulia, West Bengal- Re-Consideration of EC Proposal.**

**[Proposal No. IA/WB/IND1/411013/2022; File No. IA-J-11011/282/2021-IA-II(1)]**
**[Consultant: Vardan Environet; Valid upto 05.04.2026]**

32.8.1 M/s Shakambhari Ispat & Power Limited has made online application vide proposal no. IA/WB/IND1/411013/2022 dated 24.03.2023 along with copy of EIA/EMP report, in prescribed format (CAF, Form – I Part A, B &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), 2(a) Coal Washeries, 2(b) Mineral Beneficiation and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

32.8.2 Name of the EIA consultant: M/s. Vardan Environet [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0284; Valid up to 05.04.2026, as on May 31, 2023].

**Details submitted by Project proponent**

32.8.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord | ToR Validity |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 12.07.2021 | Standard Terms of Reference granted | Terms of Reference | 15.08.2021 | 14.08.2025 |
| 23.11.2021 | 49th meeting of REAC (Industry-1) held on 16-17th December 2021. | Amendment to ToR | 10.01.2022 | |

32.8.4 The project of M/s Shakambhari Ispat & Power Limited (SIPL) located in the Villages: Parvatpur, Radhamadhabpur, Madandih, P.O.: Bortoria, Tehsil: Raghunathpur, District Purulia, West Bengal is for enhancement of Crude Steel Production from 0.5236 MTPA MS Billets to 0.7875 MTPA MS/ SS Billets, Long Steel Production from 0.3MTPA MS products to 0.66MTPA MS/ SS long products, Ferro Alloys production from 0.0632 MTPA to 0.2143 MTPA and Captive Power Generation from 99 MW to 126 MW, along with allied facilities.

32.8.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>1.</td><td>Total land</td><td>81.103 Ha (200.41Acres) [Private: 71.71Ha]</td><td>Landuse: Industrial</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>A total land area of 81.103Ha (200.41 Acres) is under possession of SIPL. The Expansion Unit will be setup in Existing as well as Proposed land.<br>Out of the total land, 46.95 Ha has been converted for industrial purpose. Remaining land will also be converted for industrial use prior to commencement of the project.</td><td>--</td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>R&R is not applicable<br><br>Existence of Habitation<br>Project Site – Nil<br>Study Area
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Madandih</td><td>0.05Kms</td><td>East</td></tr>
</table>
Environment Sensitive Areas near the plant premises are village Madandih at 50meters, Gopalganj Primary school at 0.70km and Harmadih Rural Hospital at 0.58km in East direction form the plant boundary (Ferro Division).</td><td>--</td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site.</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>1</td><td>23°37’37.899”N</td><td>86°47’29.202”E</td></tr>
<tr><td>2</td><td>23°37’41.569”N</td><td>86°47’29.031”E</td></tr>
<tr><td>3</td><td>23°37’42.829”N</td><td>86°47’19.000”E</td></tr>
</table>
</td><td>--</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th colspan="3">Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td colspan="3"><table>
<tr><td>4</td><td>23º37’34.580”N</td><td>86º47’15.498”E</td></tr>
<tr><td>5</td><td>23º37’29.049”N</td><td>86º47’20.148”E</td></tr>
<tr><td>6</td><td>23º37’22.363”N</td><td>86º47’20.284”E</td></tr>
<tr><td>7</td><td>23º37’9.251”N</td><td>86º47’21.786”E</td></tr>
<tr><td>8</td><td>23º37’4.938”N</td><td>86º47’17.689”E</td></tr>
<tr><td>9</td><td>23º36’57.878”N</td><td>86º47’14.693”E</td></tr>
<tr><td>10</td><td>23º36’47.412”N</td><td>86º47’10.438”E</td></tr>
<tr><td>11</td><td>23º36’43.398”N</td><td>86º47’17.694”E</td></tr>
<tr><td>12</td><td>23º36’38.246”N</td><td>86º47’19.755”E</td></tr>
<tr><td>13</td><td>23º36’20.087”N</td><td>86º47’24.490”E</td></tr>
<tr><td>14</td><td>23º36’44.871”N</td><td>86º47’30.640”E</td></tr>
<tr><td>15</td><td>23º36’51.666”N</td><td>86º47’30.704”E</td></tr>
<tr><td>16</td><td>23º36’57.043”N</td><td>86º47’32.690”E</td></tr>
<tr><td>17</td><td>23º37’10.700”N</td><td>86º47’32.539”E</td></tr>
<tr><td>18</td><td>23º37’18.895”N</td><td>86º47’32.569”E</td></tr>
<tr><td>19</td><td>23º37’24.314”N</td><td>86º47’29.900”E</td></tr>
<tr><td>20</td><td>23º37’29.717”N</td><td>86º47’31.515”E</td></tr>
<tr><td>21</td><td>23º37’35.187”N</td><td>86º47’29.311”E</td></tr>
<tr><td>22</td><td>23º37’35.485”N</td><td>86º47’20.161”E</td></tr>
<tr><td>23</td><td>23º37’38.608”N</td><td>86º47’20.161”E</td></tr>
<tr><td>24</td><td>23º36’18.708”N</td><td>86º47’34.719”E</td></tr>
<tr><td>25</td><td>23º36’11.938”N</td><td>86º47’31.451”E</td></tr>
<tr><td>26</td><td>23º36’12.491”N</td><td>86º47’38.815”E</td></tr>
<tr><td>27</td><td>23º36’15.512”N</td><td>86º47’43.456”E</td></tr>
<tr><td>28</td><td>23º36’21.019”N</td><td>86º47’38.540”E</td></tr>
<tr><td>29</td><td>23º36’23.137”N</td><td>86º47’32.735”E</td></tr>
</table></td><td></td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td colspan="3">183 m above mean sea level</td><td>--</td></tr>
<tr><td>6.</td><td>Involvement of Forest land, if any</td><td colspan="3">No involvement of Forest Land</td><td>--</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td colspan="3">Project Site: No water bodies within the project site<br>Study area<table>
<tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Uttala Nadi</td><td>5.10km</td><td>West</td></tr>
<tr><td>Panchet Reservoir</td><td>5.8km</td><td>West</td></tr>
<tr><td>Ramchandrapur Reservoir</td><td>5.5km</td><td>SE</td></tr>
<tr><td>Damodar River</td><td>6.0km</td><td>North</td></tr>
<tr><td>Panchet Dam</td><td>7.15km</td><td>NW</td></tr>
</table></td><td>--</td></tr>
</table>

| S. No. | Particulars | Details | Remarks |
|---|---|---|---|
| 8. | Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area | No ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. within the study area<br>List of Reserved and Protected Forest in Study area:<br>1. Panchet RF<br>2. Senara RF<br>3. Brindabanpur PF<br>4. Muktipur PF<br>5. Behti PF<br>6. Dubrajpur PF<br>7. Dandahit PF<br>8. Ledium PF<br>9. Nimtikuri PF<br>10. Indra Pahari PF | -- |

32.8.6 The existing project was accorded environmental clearance vide lr no. J-11011/201/2013-IA.II(I) on 21st December, 2016 amendment to it was issued on 29th April, 2020. Consent to Operate has been issued by West Bengal Pollution Control Board Vide Consent Letter No. CO110135 dated 09.08.2018, CO107584 dated 06.12.2018, CO113782 dated 06.09.2019, CO128922 dated 13.02.2020, CO128973 dated 14.08.2020, CO128998 dated 13.11.2020, CO131924 dated 10.03.2021 and CO132113 dated 22.12.2021. The validity of CTOs are up to 31.07.2023.

32.8.7 Implementation status of the existing EC:

| Sl. No | Facilities | Units | As per EC dated 21.12.2016 & amended on 29.04.2020 | Implementation Status 31.03.2023 | Production as per CTO |
|---|---|---|---|---|---|
| 1. | Coal Washery | 740,000TPA | As per EC dated 21.12.2016 & amended on 29.04.2020 | Shall be Implemented | -- |
| 2. | Iron Ore Beneficiation Plant | 630,000 TPA | | Shall be implemented under the proposed expansion with changed configuration | -- |
| 3. | Pellet Plant | 1x1870TPA | | | |
| 4. | Sponge Iron Plant | 4x100TPD<br>2x350TPD<br>1x600TPD | | Implemented | 544,000 |
| 5. | Sinter Plant | 1x20$m^2$ | | Shall be implemented under the proposed expansion with changed configuration | -- |
| 6. | Mini Blast Furnace | 1x350$m^3$ | | | |

| Sl. No | Facilities | Units | As per EC dated 21.12.2016 & amended on 29.04.2020 | Implementation Status 31.03.2023 | Production as per CTO |
|---|---|---|---|---|---|
| 7. | Induction Furnace with LRF/ VOD | 9x25Ton IF LRF 1x30T & CCM 3x6/11m | | 7x25 Ton IF & CCM 3x6/11m implemented and 2x25T is under implementation and LRF 1x30T shall be implemented | 3,97,420 |
| 8. | Rolling Mill | 1,000TPD | | Implemented | 300,000 |
| 9. | Lime Plant | 80,000TPA | | Shall be Implemented | -- |
| 10. | Oxygen Plant | 225TPD | | Shall be Implemented | -- |
| 11. | Ferro Alloy Plant | 4x9MVA | | Implemented | FeMn/SiMn/ FeCr/FeSi/ Pig Iron- 63,150 TPA |
| 12. | AFBC/ CFBC | 62MW | | AFBC - 8.5MW and CFBC – 25MW implemented and CFBC – 28.5MW will be implemented | 33.5MW |
| 13 | WHRB | 37MW | | Implemented | 37MW |

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

| Sl. No. | Plant Equipment/ Facility | Existing Facility as per EC dated 21.12.2016 & amended on 29.04.2020 | | | | | | | | Proposed Unit | | Final | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | Implemented | | Un implemented | | As per CTO | | | | | |
| | | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | | |
| 1. | Pellet Plant | 1x1870TPD | 582,000 | -- | -- | 1x1870TPD | 582,000 | -- | -- | Capacity enhancement | 268,000 | 850,000 | -- |
| 2. | Producer Gas Plant | -- | -- | -- | -- | -- | -- | -- | -- | 6x4000 $Nm^3/hr$ | 24,000 $Nm^3/hr$ | 24,000 $Nm^3/hr$ | -- |
| 3. | Sponge Iron Plant | DRI Kiln 4x100TPD + 2x350TPD + 1x600TPD | 544,000 | DRI Kiln 4x100TPD + 2x350TPD + 1x600TPD | 544,000 | -- | -- | DRI Kiln 4x100TPD + 2x350TPD + 1x600TPD | 544,000 | Capacity enhancement of 4x100TPD+ 2x350TPD+ 1x600TPD | 30,400 (additional) 53,200 (additional) 45,600 (additional) | 910,800 | -- |
| | | | | | | | | | | 1x600TPD (additional DRI | 237,600 | | |
| 4. | Blast Furnace | Mini Blast Furnace: 1x350m3 Pig casting Machine: 1x1500TPD | 249,900 | -- | -- | Mini Blast Furnace: 1x350m3 Pig casting Machine: 1x1500TPD | 249,900 | -- | -- | Capacity enhancement of Mini Blast Furnace: 1x350$m^3$ | 166,600 (additional) | 416,500 | -- |
| 5. | Sinter Plant | 1x20$m^3$ | 198,000 | -- | -- | 1x20$m^3$ | 198,000 | -- | -- | Sinter Plant of changed configuration 1x90$m^2$ will be installed | 597,600 (additional) | 795,600 | -- |
| 6. | SMS | 9x25T Induction Furnace LRF: 1x30T & CCM: 3x6/11 | 523,950 | 7x25 Ton IF & CCM 3x6/11m | 400,720 | 2x25T and LRF 1x30T | 123,230 | 7x25 Ton IF & CCM 3x6/11m | 400,720 | Capacity enhancement/ Product Modification+ 1x25 Ton AOD | 263,550 MS/SS Billets (additional) | 787,500 | -- |

| Sl. No. | Plant Equipment/ Facility | Existing Facility as per EC dated 21.12.2016 & amended on 29.04.2020 | | | | | | | | Proposed Unit | | Final | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | Implemented | | Un implemented | | As per CTO | | | | | |
| | | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | | |
| 7. | Rolling Mill along with wire drawing facility | 1000TPD | 300,000 | 1000TPD | 300,000 | -- | -- | 1000TPD | 300,000 | 1000TPD | 360,000 MS/SS Long Products | 660,000 | |
| 8. | Reheating Furnace | -- | -- | -- | -- | -- | -- | -- | -- | 2x40TPH | -- | 2x40TPH | -- |
| 9. | Oxygen Plant | -- | 225TPD | -- | -- | -- | 225TPD | -- | 225TPD | -- | -- | 225TPD | - |
| 10. | Captive Power Plant | AFBC - 36 TPH | 8.5 MW | AFBC - 36 TPH | 8.5 MW | -- | -- | AFBC - 36 TPH | 8.5 MW | -- | -- | 8.5MW | -- |
| | | CFBC - 100 TPH | 25 MW | CFBC - 100 TPH | 25 MW | -- | -- | CFBC - 100 TPH | 25 MW | -- | -- | 25MW | -- |
| | | CFBC - 120 TPH | 28.5 MW | -- | -- | CFBC - 120 TPH | 28.5 MW | -- | -- | -- | -- | 28.5MW | -- |
| | | WHRB @4x100TPD DRI - 40 TPH | 8 MW | WHRB @4x100TPD DRI - 40 TPH | 8 MW | -- | -- | WHRB @4x100TPD DRI - 40 TPH | 8 MW | -- | -- | 8MW | -- |
| | | WHRB @2x 350TPD DRI- 71 TPH | 15 MW | WHRB @2x 350TPD DRI- 71 TPH | 15 MW | -- | -- | WHRB @2x 350TPD DRI- 71 TPH | 15 MW | -- | -- | 15MW | -- |
| | | WHRB @1x 600TPD DRI - 64TPH | 14 MW | WHRB @1x 600TPD DRI - 64TPH | 14 MW | -- | -- | WHRB @1x 600TPD DRI - 64TPH | 14 MW | -- | 2MW | 16MW | -- |
| | | -- | -- | -- | -- | -- | -- | -- | -- | WHRB @1x 600TPD DRI - 64TPH | 16 MW | 16MW | -- |
| | | -- | -- | -- | -- | -- | -- | -- | -- | BF Gas Based | 9 MW | 9MW | |

| Sl. No. | Plant Equipment/ Facility | Existing Facility as per EC dated 21.12.2016 & amended on 29.04.2020 | | | | | | | | Proposed Unit | | Final | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | Implemented | | Un implemented | | As per CTO | | | | | |
| | | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | | |
| | | | | | | | | | | | | **126MW** | |
| 11. | Iron Ore Beneficiation | -- | 0.63 MTPA | -- | -- | -- | 0.63 MTPA | -- | -- | Change in Configuration from 0.63MTPA to 1.0 MTPA | 0.37 MTPA (additional) | 1.0MTPA | -- |
| 12. | Coal Washery | -- | 0.74 MTPA | -- | -- | -- | 0.74 MTPA | -- | -- | -- | -- | 0.74MTPA | -- |
| 13. | Lime Plant | 250TPD | 80,000 TPA | -- | -- | 250TPD | 80,000 TPA | -- | -- | -- | -- | 80,000 TPA | -- |
| 14. | Ferro Alloy Plant with Metal recovery Plant | 4x9MVA SAF with metal recovery Plant | 63,150 TPA Fe-Mn or Si. Mn or Fe Si or High Carbon Ferro Chrome, or Pig Iron, or in combination of any | 4x9MVA SAF with metal recovery Plant | 63,150 TPA Fe-Mn or Si. Mn or Fe Si or High Carbon Ferro Chrome, or Pig Iron, or in combination of any | -- | -- | 4x9MVA SAF with metal recovery Plant | 63,150 TPA Fe-Mn or Si. Mn or Fe Si or High Carbon Ferro Chrome, or Pig Iron, or in combination of any | Capacity enhancement of 4x9MVA SAF + Additional installation of 4x9MVA SAF | Fe-Mn- 194,058 or Si. Mn-142,848 or Fe Si –64,282 or High Carbon Ferro Chrome – 135,330, or Ferro Silico Chrome – 88,664, or Pig Iron-214,272, or in combination of any | Fe-Mn-194,058, or Si. Mn-142,848 or Fe Si – 64,282 or High Carbon Ferro Chrome – 135,330, or Ferro Silico Chrome – 88,664, or Pig Iron-214,272, or in combination of any | -- |
| 15. | Briquette Plant | -- | -- | -- | -- | -- | -- | -- | -- | 1x 50 TPH | 300,000 | 300,000 | -- |

| Sl. No. | Plant Equipment/ Facility | Existing Facility as per EC dated 21.12.2016 & amended on 29.04.2020 | | | | | | | | Proposed Unit | | Final | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | Implemented | | Un implemented | | As per CTO | | | | | |
| | | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | Configuration | Capacity(TPA) | | |
| 16. | Sinter Plant | -- | -- | -- | -- | -- | -- | -- | -- | 1x600 TPD | 216,000 | 216,000 | -- |

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

| Sl. No. | Raw Material | Quantity (TPA) | | | Source | Distance (km) | Mode of Transport |
|---|---|---|---|---|---|---|---|
| | | Existing | Expansion | Total | | | |
| **A** | **Steel Making Division** | | | | | | |
| A-01 | Iron Ore | 533,880 | 19,182 | 553,062 | Odisha/ Jharkhand | 500 | **Rail** Will brought by trucks into the plant from Chaurasi Railway siding at distance of 0.15km plant |
| A-02 | Iron Ore fines | 1,016,805 | 10,51,545 | 2,068,350 | Odisha/ Jharkhand | 500 | |
| A-03 | PCI Coal | 32,485 | 21,660 | 54,145 | West Bengal | 300 | |
| A-04 | Non-Coking Coal | 1,609,683 | 3,77,010 | 1,986,693 | West Bengal | 300 | |
| A-04 | Limestone | 135,928 | 85,012 | 220,940 | Birmitrapur, Odisha | 350 | |
| A-05 | Dolomite | 45,694 | 79,158 | 124,852 | Imported (Haldia Port) | 300 | |
| A-06 | Quick Lime | 9,010 | 27,190 | 36,200 | Local Market | 50 | Road |
| A-07 | Coke Breeze | 18,018 | 50,495 | 68,513 | Local Market | 50 | |
| A-08 | Coke | 112,455 | 74,970 | 187,425 | Local Market | 50 | |
| A-09 | Purchased + Return Scrap | 54,500 | 27,400 | 81,900 | Local Market | 50 | |
| A-10 | Scrap for AOD | -- | 2,29,320 | 229,320 | Local market/ Import | 50 | |
| A-11 | Bentonite | 6,000 | 2,500 | 8,500 | Kutch, Gujarat | 2100 | |
| A-12 | Ferro-alloys | 6,866 | 3,453 | 10,319 | In-House | -- | In-House |
| A-13 | Ferro-alloys for AOD | -- | 2,07,207 | 207,207 | Internal/ Local Market | 50 | In-House/ Road |
| A-14 | Calcined Lime for AOD | -- | 40,950 | 40,950 | Internal | -- | In-House |
| A-15 | Calcined Dolomite for AOD | -- | 40,950 | 40,950 | Internal | -- | |
| **B** | **Ferro Alloys Division** | | | | | | |
| B-01 | Mn Ore | 137,262 | 3,28,477 | 465,739 | Imported/ Domestic | 300 | **Rail** Will brought by trucks into |
| B-02 | Coke | 25,737 | 61,589 | 87,326 | Imported/ Domestic | 300 | |

| Sl. No. | Raw Material | Quantity (TPA) | | | Source | Distance (km) | Mode of Transport |
|---|---|---|---|---|---|---|---|
| | | Existing | Expansion | Total | | | |
| B-03 | Limestone | 15,788 | 37,780 | 53,568 | Birmitrapur, Odisha | 350 | the plant from Chaurasi Railway siding at distance of 0.15km plant |
| B-04 | Chrome Ore (Friable) | 13,162 | 31,497 | 44,659 | Odisha | 500 | |
| B-05 | Ferro-chrome chips | -- | 49,652 | 49,652 | Odisha | 500 | |
| B-06 | Iron ore / Mn Ore Fines | -- | 282,839 | 282,839 | Odisha/ Jharkhand | 500 | |
| B-07 | Magnesite | 1,994 | 4,773 | 6,767 | Imported | 300 | |
| B-08 | Dolomite | 5,719 | 35,287 | 41,006 | Imported | 300 | |
| B-09 | Charcoal | 18,945 | 45,337 | 64,282 | Local Market | 50 | Road |
| B-10 | Steam Coal | 13,893 | 33,247 | 47,140 | Local Market | 50 | |
| B-11 | Quartz | 33,343 | 79,793 | 113,136 | Local Market | 50 | |
| B-12 | Electrode Paste | 972 | 3,461 | 4,433 | Local Market | -- | |
| B-13 | Hydrated Lime | -- | 9,900 | 9,900 | Local Market | 50 | |
| B-14 | Molasses | -- | 15,840 | 15,840 | Local Market | 50 | |
| B-15 | Briquettes | 75,780 | 1,81,347 | 257,127 | Internal | -- | In-House |
| B-16 | Sinter | 83,358 | 1,99,481 | 282,839 | Internal | -- | |
| B-17 | Fe-Mn Slag | 25,260 | 60,449 | 85,709 | Internal | -- | |
| B-18 | Mill Scale | 17,682 | 42,314 | 59,996 | Internal | -- | |
| B-19 | Coke Breeze | -- | 17,280 | 17280 | Internal | -- | |

32.8.10 Existing water requirement is 8,745 $m^3$/day, water requirement is obtained through surface water from Panchet Dam and permission for the 1.69 MGD has been obtained from DVC vide letter no. MRO/Tariff Cell/SIPL/246 dated 15.11.2022. The water requirement after the proposed expansion is estimated as 15,139m3/day, out of which 13,735 $m^3$/day of fresh water requirement will be obtained from the DVC and remaining will be recycled water. The permission of drawl of additional water requirement will be obtained from DVC with implementation of the project.

32.8.11 Existing power requirement of 128.9MW, out of which 99 MW is being obtained from CPP and 29.9 MW is obtained from DVC vide agreement dt. 09.11.2015. The power requirement after the proposed expansion is estimated as 209.5MW, out of which 126bMW will be sourced from CPP and 83.5MW will be obtained from DVC.

32.8.12 Baseline Environmental Studies:

<table>
<tr><th>Period</th><th>December 2019 to February 2020</th><th>Additional study (if any)</th></tr>
<tr><td>AAQ parameters at 8 Locations (min and max)</td><td>• $PM_{2.5}$: 20.4 µg/$m^3$ to 43.3µg/$m^3$<br>• $PM_{10}$: 47.4µg/$m^3$ to 81.7µg/$m^3$<br>• $SO_2$: 10.0µg/$m^3$ to 19.5µg/$m^3$<br>• $NO_2$: 16.2µg/$m^3$ to 34.2µg/$m^3$<br>• CO: 0.59mg/$m^3$ to 1.00mg/$m^3$</td><td>--</td></tr>
<tr><td>Incremental GLC level</td><td>• $PM_{10}$ – 4.0097 µg/$m^3$<br>• $PM_{2.5}$ – 2.4048 µg/$m^3$<br>• $SO_2$ – 3.1981 µg/$m^3$<br>• NOx – 2.9676 µg/$m^3$<br>• CO – 0.000179 mg/$m^3$<br>(All maximum incremental values are at Village Radhamadhabpur at a distance of 0.42Km)</td><td>--</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH -7.49 to 7.84, Total Hardness -189.65 to 297mg/l, Total Dissolved Solids – 384 to 585 mg/l, Chlorides - 62.44 to 93.49 mg/l, Fluoride- 0.31 to 0.58 mg/l, Zinc – 0.96 to 1.65 mg/l, Fe – 0.21 to 0.3 mg/l</td><td>--</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH – 7.48 to 7.78, Dissolved Oxygen – 5.56 to 6.4 mg/l, BOD – 8.00 to 19.00 mg/l, COD – 23.0 to 45.08 mg/l, TSS- 48.0 to 94.0 mg/l</td><td>--</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>48.7 to 68.1 dB(A) for day time and 34.8 to 56.8 dB(A) for night time</td><td>--</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at SH-5 which is at 700m from the project site.<br>• Transportation of Raw material, Fuel and Finished product will be done 15% by Road<br>• Existing PCU is 161.81PCU/hr on SH-5 and existing level of service (LOS) is B
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH-5</td><td>161.81</td><td>625</td><td>0.26</td><td>B</td></tr>
</table>
• PCU load after proposed project will be 207.77 PCU/hr. (Existing 161.81 + Addl. 45.96) for SH-5 and level of service (LOS) will be;</td><td>Capacity of Roads as per IRC 64 is 15000 PCU/day i.e 625PCU/hr</td></tr>
</table>

<table>
<tr><th>Period</th><th colspan="5">December 2019 to February 2020</th><th>Additional study (if any)</th></tr>
<tr><td></td><td colspan="5"><table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH-5</td><td>207.77</td><td>625</td><td>0.33</td><td>B</td></tr>
</table>
**Note: Capacity as per IRC 64: 1990, Guide line for capacity for roads in Rural Areas*<br>Level of Service will be “B” i.e. Very Good for SH-5 including additional traffic due to proposed project.</td><td></td></tr>
<tr><td>Flora and fauna</td><td colspan="5">Schedule – 1 species in the study area are Grey Mongoose, Jungle Cat, Hyaena, Jackal, Russel Viper, Indian Cobra and Common Rat Snake.<br>WLCP has been prepared and submitted to Chief Wildlife Warden, Kolkata, West Bengal for approval.</td><td>--</td></tr>
</table>

32.8.13 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 |
|---|---|---|---|---|---|
| 1. | Slag | Induction Furnace | 114,250 (After metal recovery) | Will be Collected and conveyed to slag crushing unit for recovery of metals | Total Slag generation shall be 126945 TPA, however after recovery of 12695 TPA of metal, remaining slag of approx. 114251 TPA will be used as aggregates |
| 2. | Bag Filter Dust | Induction Furnace | 24,570 | -- | Will be reused in Sinter Plant/Pellet Plant |
| 3. | Slag | AOD | 23,760 | Will be processed in the Jiggling Plant for metal recovery | After processing in Jigging Plant for metal recovery, the remaining slag, after TCLP test, 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 aggregate |

| Sl. No. | Type of Waste | Source | Quantity Generated (TPA) | Mode of Treatment | Disposal |
|---|---|---|---|---|---|
| 4. | Bag Filter Dust | AOD | 3,960 | -- | Shall be recycled after briquetting in Briquetting Plant. |
| 5. | Scale - CCM | SMS | 9,830 | -- | MS Scale shall be used for production of Fe-Si or Fe- Si-Cr. Or will be used in Sinter Plant.<br>SS scale will be recycled in the Induction furnace |
| 6. | Mill Scale | Rolling Mill | 9,900 | -- | MS scale will be reused in Sinter Plant<br>SS scale will be recycled in the Induction Furnace. |
| 7. | Dolochar | Sponge Iron Plant | 182,160 | -- | Will be used in AFBC/CFBC Boiler for power generation |
| 8. | Wet Scrapper Sludge | Sponge Iron Plant | 23,354 | -- | Will be used in CPP for power generation |
| 9. | ESP Dust | Sponge Iron Plant | 107,428 | -- | Will be given to Cement manufacturing and Brick making Units. Excess dust will be given to ECL for mine stowing of abandoned mines. |
| 10. | Rejects | Coal Washery | 50,000 | -- | Will be used in CPP along with Coal |
| 11. | Tailings | Beneficiation Plant | 375,000 | -- | Will be sold to tile manufacturing company |
| 12. | Dust | Pellet Plant | 43,350 | -- | Will be Reused in Pellet Plant |
| 13. | Tar | Producer Gas Plant | 1,782 | -- | Will be given to nearby Coke Oven plant and/ or will be used as alternative fuel in Pellet Plant and/ or shall be used for road making and may also be sold to the authorized vendor. |
| 14. | Ash (Cinder) | Producer Gas Plant | 16,038 | -- | Will be given to the brick manufacturing plants |
| 15. | Slag | Blast Furnace | 162,435 | -- | Will be used in the nearby Cement Plant |
| 16. | Flue Dust | Blast Furnace | 6,250 | -- | Will be used in the Sinter Plant |
| 17. | ESP Dust | Sinter Plant | 43,758 | -- | Recycled in Sinter Plant |
| 18. | Return Sinter | Sinter Plant | 69,500 | -- | Recycled in Sinter plant |

| Sl. No. | Type of Waste | Source | Quantity Generated (TPA) | Mode of Treatment | Disposal |
|---|---|---|---|---|---|
| 19. | Fly-ash from | CFBC & AFBC | 272,450 | -- | Will be given to nearby Cement plant or Brick manufacturing Unit |
| 20. | Bottom ash | CFBC & AFBC | 68,110 | -- | Will be given to the nearby brick plants, to be used as fuel in the brick kilns due to presence of unburnt carbon |
| 21. | Fe-Mn Slag | Submerged Arc Furnace | 174,662 | -- | Will be used for production of Si-Mn |
| 22. | Fe-Mn Bag Filter Dust | Submerged Arc Furnace | 4,463 | -- | Will be used in Ferro-alloys Sinter Plant Will be recycled back to the process. |
| 23. | Si-Mn Slag | Submerged Arc Furnace | 121,421 | -- | Slag is non-hazardous and will be used for construction of roads or filling of low-lying area |
| 24. | Si-Mn Bag Filter Dust | Submerged Arc Furnace | 1,143 | -- | Will be used in Ferro-alloys Sinter Plant Will be recycled back to the process |
| 25. | Fe-Cr Slag | Submerged Arc Furnace | 121,797 | -- | Slag shall be further processed in grinding and Metal Recovery Plant and shall be used for construction purpose after TCLP test |
| 26. | Fe-Cr. Dust | Submerged Arc Furnace | 2,710 | -- | Will be used in Briquette Plant |
| 27. | Fe-Si. Slag | Submerged Arc Furnace | 3,214 | -- | Ferro Silicon Slag will be used for cement manufacturing/ industries as a raw material & Used for medium carbon silico manganese production purpose |
| 28. | Fe-Si-Cr Slag | Submerged Arc Furnace | 4,433 | -- | Slag is non-hazardous and will be used in cement manufacturing industries as a raw material as well as for construction and Road filling material after undergoing TCLP Test. |
| 29. | Pig Iron Slag | Submerged Arc Furnace | 107,136 | -- | Pig Iron Slag will be used for cement manufacturing as a raw material |
| 30. | Briquette Plant Dust | Briquette Plant | 15,300 | -- | Recycled in the plant |

32.8.14 Public Consultation:

| | |
|---|---|
| Details of advertisement given | 18.06.2022 |
| Date of public consultation | 22.07.2022 |
| Venue | Sampriti Sadan, Sarbari, Neturia, Dist: Purulia, West Bengal |
| Presiding Officer | Additional District Magistrate, Purulia, West Bengal |
| Major issues raised | • Employment for the local and physically challenged people,<br>• Prevention of Pollution,<br>• Development of Schools & Roads,<br>• Development of Surrounding Villages and<br>• Sports development |

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

| Sl. No | Activities | Physical Targets | Year of Implementation and Cost (in Rs Lakhs) | | | Total Expenditure (Rs. In Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| **1.0** | **Adoption of village Madandih for Socio-economic development** | | | | | |
| 1.1 | Road Development | Construction of Pucca road (Paver Blocks) for the approx. 1km along with need based pucca drain connecting village up to Shakambhari plant. | 45.0 | -- | -- | 45.0 |
| 1.2 | Public Bus Stand with Shelter | Construction of One (1) Public Bus Stand with shelter near Madandih village at SH-5. *(Platform construction and Installation of Pre-Fabricated Shelter)* | 6.0 | -- | -- | 6.0 |
| 1.3 | Installation of Solar Street Lights | Installation of Thirty (30) nos. of solar lights in the village. *(Solar light with GI pipe and installation)* | 12.0 | -- | -- | 12.0 |
| 1.4 | Renovation of pond | First time shaping with excavation and slide slope stabilization, Construction of Bathing Ghat on one side with changing area, pair of toilets with septic tank and Beautification of pond by plantation of 100 tress along boundary of pond along with Yearly Cleaning/Desilting of Pond | 13.0 | 0.50 | 0.50 | 14.0 |
| 1.5 | Construction of Community Hall | Construction of one (1) Community Hall in the village along with installation of | -- | 30.0 | -- | 30.0 |

| Sl. No | Activities | Physical Targets | Year of Implementation and Cost (in Rs Lakhs) | | | Total Expenditure (Rs. In Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| | | coolers, fans & lights and construction of 4 pair of toilets with septic tank | | | | |
| 1.6 | Construction of Model Anganwari Centre | Construction of One (1) Model Anganwari Centre in the village. *(construction of Two rooms, installation of cooler, fans & lights, furniture and other necessary furniture)* | -- | 30.0 | -- | 30.0 |
| 1.8 | Establishment of Skill Development Centre | Construction of One (1) Skill Development Centre near the village *(Construction of Building and installation of appropriate devices & Machines)* | -- | -- | 85.0 | 85.0 |
| 1.9 | Installation of Hand Pumps | Installation of Ten (10) nos. of Mark-2 Hand Pumps | -- | 5.5 | -- | 5.5 |
| 1.10 | Development of Primary School | Development of Primary School of Gopalganj near Madandih *(construction of one (1) classroom & along with maintenance of other classrooms, providing furniture & white boards in all classrooms, construction of separate Two (2) pair of toilets for boys & girls, development of playground in the school and installation of drinking water system (submersible pump and Water Cooler) in school)* | -- | 30.0 | -- | 30.0 |
| **2.0** | **Adoption of village Radhamadhabpur for Socio-economic development** | | | | | |
| 2.1 | Road Development | Construction of Pucca road (Paver Blocks) for the approx. 1.5km along with Pucca drain/culvert required connecting village to SH-5. | 70.0 | -- | -- | 70.0 |
| 2.2 | Installation of Solar Street Lights | Installation of Twenty (20) nos. of solar lights in the village. *(Solar light with GI pipe and installation)* | 8.0 | -- | -- | 8.0 |
| 2.3 | Renovation of pond | First time shaping with excavation and slide slope stabilization, Construction of Bathing Ghat on one side with changing area, pair of toilets with septic tank and | 13.0 | 0.50 | 0.50 | 14.0 |

| Sl. No | Activities | Physical Targets | Year of Implementation and Cost (in Rs Lakhs) | | | Total Expenditure (Rs. In Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| | | Beautification of pond by plantation of 100 tress along boundary of pond along with Yearly Cleaning/Desilting of Pond | | | | |
| 2.4 | Installation of Hand Pumps | Installation of Ten (10) nos. of Mark-2 Hand Pumps | -- | 5.5 | -- | 5.5 |
| **3.0** | **Adoption of village Parvatpur for Socio-economic development** | | | | | |
| 3.1 | Road Development | Construction of need based pucca drainage in the village streets | 10.0 | -- | -- | 10.0 |
| 3.2 | Installation of Solar Street Lights | Installation of Ten (10) nos. of solar lights in the village. *(Solar light with GI pipe and installation)* | 4.0 | -- | -- | 4.0 |
| 3.3 | Renovation of pond | First time shaping with excavation and slide slope stablization, Construction of Bathing Ghat on one side with changing area, pair of toilets with septic tank and Beautification of pond by plantation of 100 tress along boundary of pond along with Yearly Cleaning/Desilting of Pond | 13.0 | 0.50 | 0.50 | 14.0 |
| 3.4 | Installation of Hand Pump | Installation of Ten (10) nos. of Mark-2 Hand Pumps | -- | 5.5 | -- | 5.5 |
| **4.0** | Installation of Hand Pumps | Installation of Ten (10) of Mark-2 Hand Pumps each in village Erakusum and Harmadih | -- | 11.0 | -- | 11.0 |
| **5.0** | Installation of Solar Street Lights | Installation of Five (5) nos. of solar lights each in the village Erakusum & Harmadih. *(Solar light with GI pipe and installation)* | 4.0 | -- | -- | 4.0 |
| **6.0** | Renovation of pond in village Erakusum | First time shaping with excavation and slide slope stabilization, Construction of Bathing Ghat on one side with changing area, pair of toilets with septic tank and Beautification of pond by plantation of 100 tress along boundary of pond along with Yearly Cleaning/Desilting of Pond | 13.0 | 0.50 | 0.50 | 14.0 |
| **7.0** | Sports Promotion | Organizing the sports tournament in the area once in every year (Cricket Tournament) | 5.0 | 5.0 | 5.0 | 15.0 |

| Sl. No | Activities | Physical Targets | Year of Implementation and Cost (in Rs Lakhs) | | | Total Expenditure (Rs. In Lakhs) |
|---|---|---|---|---|---|---|
| | | | 1st Year | 2nd Year | 3rd Year | |
| **8.0** | Skill Development and Empowerment of Women | Distributing knitting machines for making cotton hand gloves etc. in local village of Harmadih, Madandih, Radhamadhabpur, Parvatpur, Erakusum. This will be an earning source for women in village by their skill development | 10.0 | -- | -- | 10.0 |
| **9.0** | Providing Medical Facility | Providing Two (2) nos. of ICU Ambulances under Harmadih Hospital covering villages Harmadih, Madandih, Radhamadhabpur, Parvatpur, Erakusum and Goplaganj | -- | 16.0 | -- | 16.0 |
| **10.0** | Establishment of Cultural Centre | Construction of Sri Biranchidham Cultural Centre | -- | 40.0 | -- | 40.0 |
| **Grand Total in Rs.** | | | **226** | **180.5** | **92** | **498.5** |
| **Note:** M/s SIPL has proposed to adopt nearby three villages namely: Madandih at 50 meters, Radhamadhabpur at 350 meters and Parvatpur at 220 meters in East direction. A total budget of Rs. 3.885 Crores has been envisaged for carrying out various developmental activities under adoption of these villages, in three-year time duration. | | | | | | |

32.8.15 Existing capital cost of the project was Rs. 1001 Crores. The capital cost of the proposed project is Rs. 320 Crores. and the capital cost for the environmental protection measures is proposed as Rs.36.5350 Crores (including the cost to address the issues raised in Public Hearing). The annual recurring cost towards the environment protection measures is proposed as Rs. 0.7128 Crores. The employment generation form the proposed expansion is 1250. The detail of the cost of 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 | 3,980.25 | 39.0 | 2835.0 | 32.0 |
| 2. | Water Pollution Control Measures and Rainwater Harvesting | 335.00 | 20.0 | 520.0 | 7.0 |
| 3. | Storage and Solid Waste Management | 350.00 | 4 | 30.0 | 1.5 |
| 4. | Environmental Monitoring Program | 120.0 | 11.0 | 95.0 | 18.58 |
| 5. | Greenbelt Development and OH&S | 180.00 | 40.0 | 173.5 | 64.40 |
| **Sub Total** | | **4965.25** | **114.0** | **3653.50** | **123.48** |

| 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 |
| **Total cost to address the issues raised during the Public Hearing** | | 1875.00 | -- | 498.5 | -- |
| **Total EMP Budget** | | **6,840.25** | **114.0** | **4,152.00** | **123.48** |

32.8.16 Existing greenbelt has been developed in 23.66Ha which is about 33% of the existing project area of 71.71Ha with total plantation of 36,000trees. Under proposed expansion, additional 34,000 numbers of trees will be planted and nurtured in total 26.766Ha area (i.e. 33% of the total project area of 81.103Ha after expansion). Budget of Rs. 136.0 Lakhs and Yearly budget for maintenance of Rs 45.0 Lakhs has been allocated for greenbelt development. PP has submitted an undertaking dated 29.05.2023 committing that greenbelt development will be completed on 33% of the total project area maintaining tree density of 2500 trees / ha in the monsoon of year 2023.

32.8.17 It is reported that there is no violation of EIA Notification 1994 or EIA Notification 2006 or court case/show cause/direction against project.

**Certified Compliance report from IRO**

32.8.18 The Status of compliance of earlier EC was obtained from Regional Office, Kolkata file no. 102-463/14/EPE/387c dt. 12.09.2022 in the name of M/s Shakambhari Ispat & Power Limited. There were no Non-Compliance detected and no further action is required.

32.8.19 The proposal was initially considered in the 26$^{th}$ meeting of the EAC for Industry-I sector held on 12$^{th}$, 13$^{th}$ and 17$^{th}$ April, 2023 wherein the Committee deferred the proposal due to certain deficiencies in the proposal and sought requisite information. The delibertions and recommendations of EAC during 26$^{th}$ EAC is as follows:

**Deliberations by the Committee (EAC during 26$^{th}$ EAC Meeting)**

The Committee noted the following:

1. The EAC noted that existing greenbelt has been developed in 23.66 Ha which is about 29.17% of the total project area of 81.103 Ha with total plantation of 36,000 trees. The EAC observed that existing project dates back to 2016 and PP has still not completed the greenbelt in 33% of the project area. Also, the green belt density is very less and not as per 2500 trees/ha. PP has failed to comply with the ToR condition and therefore shall provide justification in this regard and prepare a plan for effective implementation of greenbelt development and gap filling in the existing plantation.
2. The Committee deliberated on the baseline data and incremental GLC due to the proposed project and suggested to re-verify the incremental GLC values. PP shall also submit the mitigation measures that will be undertaken to minimise the $PM_{10}$ values.

3. The EAC deliberated on the project cost and EMP cost of the existing and proposed project. The EAC is of the view that EMP cost do not commensurate with the project cost and PP shall revise the EMP cost. PP shall provide the EMP expenditure made with respect to the existing project.

4. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. Also, the EAC advised to quantify the written and oral representation received during the public hearing. EAC is of the view that the PP has made a vague plan.

5. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.

6. The EAC deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form.

7. PP reported that there is no Schedule-1 Species of Fauna in the Study area. The EAC is of the view that PP shall obtain certificate from the State Forest Department certifying the same.

8. The EAC noted that there is Madandih Village at a distance of 0.05 km from the project site. Also there are other ESA's like school and hospital within the study area. PP shall submit the specific mitigation measures that will be undertaken to minimise the impact of project activities on these ESA's.

9. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.

10. The proposed project area is observed to be in multiple patches. The EAC is of the opinion that PP/Consultant shall submit the coordinates of project area patch wise.

11. Total land area is 81.103 ha which is under the possession of the company. PP shall submit the status of conversion of land for industrial purpose along with the requisite documents.

12. The EAC noted that the existing project was accorded environmental clearance vide lr no. J-11011/201/2013-IA.II(I) on 21st December, 2016 and the complete project is still not implemented. PP shall submit the justification for the same.

13. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

**Recommendations of the Committee (EAC during 26th EAC Meeting)**

In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

32.8.20 The proponent submitted the ADS reply vide letter dated 15.05.2023 was uploaded on PARIVESH on 16.05.2023. Point wise reply of ADS is given as below:

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| 1. | The EAC noted that existing greenbelt has been developed in 23.66 Ha which is about 29.17% of the total project area of 81.103 Ha with total plantation of 36,000 trees. The EAC observed that existing project dates back to 2016 and PP has still not completed the greenbelt in 33% of the project area. Also, the green belt density is very less and not as per 2500 trees/ha. PP has failed to comply with the ToR condition and therefore shall provide justification in this regard and prepare a plan for effective implementation of greenbelt development and gap filling in the existing plantation. | Existing plant area is 71.71 Ha out of which area under greenbelt is 23.66Ha (i.e. 33% of the existing plant area of 71.71Ha) having 36,000 trees till 31.10.2022 (maintaining trees density of Approx.1500 trees/ha., as per EC dated 21.12.2016).<br>TOR issued for the expansion project vide F.No. IA-J-11011/282/2021-IA-II(I) dated 15th August-2021 has condition of maintaining tree density of 1500 trees per ha. However, we proposed plantation of 7,765 trees in 33% of additional acquired area of 9.393ha by maintaining tree density of 2500 trees/ha.<br>In compliance with the observation of Hon'ble Committee of the EAC (Industry-1), company is hereby submitting the revised Greenbelt Development plan for maintaining tree density of 2500 trees per ha in the 33% of the total 81.103 Ha plant area after expansion. For which additional 34,000 trees will be planted, involving the capital investment of Rs. 136.0 lakhs and Rs. 45.0 Lakhs per year recurring budget.<br>Revised greenbelt development plan is given as an ADS Reply and also given in aforementioned point no. 15. |
| 2. | The Committee deliberated on the baseline data and incremental GLC due to the proposed project and suggested to re-verify the incremental GLC values. PP shall also submit the mitigation measures that will be undertaken to minimize the PM10 values. | Re-verification of incremental GLC values has been done by running the air quality dispersion model again with same scenario and input parameters, no variation in values of predicted incremental GLC at the receptors was observed. The GLC predicted in the study area shows that the value of PM10 and PM2.5 has a higher spike in the AAQM Location (A2) Village Radhamadhabpur which is at a distance of 0.42Km in East Direction from the project site. Proximity of |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| | | village Radhamadhabpur with the project site may be the reason for higher GLC values at this location.<br>Company has already installed/proposed following adequate measures to reduce impact of the project on the nearby areas:<br>1. To minimize the Emission of Particulate matter pollution control equipment like ESP, Spark Arrester with Bag Filter and Bag Filter with FDC are/will be installed.<br>2. 132 numbers of water sprinklers have been installed at various locations in the plant premises for the dust suppression.<br>3. Road sweeping machines, all pucca internal roads and Greenbelt development are some of the measures undertaken by the company for control of dust emissions in the plant premises<br>However, in addition to this, M/s SIPL has proposed following additional measures to reduce the impact of the project on the Radhamadhabpur village:<br>I. **Stringent Emission Norms**: Emission from all stack will be kept below 30 mg/Nm3 for which adequate pollution control systems like ESP, Bag Filter etc. have been proposed<br>II. **Wind Barrier Sheet**: Sheet of height 15ft has been installed on the plant masonry boundary of 10ft height towards village Radhamadhabpur. The sheet acts as a barrier for noise movement outside the premises.<br>III. **Fixed Type Mist Cannon:** 1 no. of fixed type mist cannon near the East side boundary wall of Sponge Iron Division shall be deployed.<br>IV. **Fixed Type Rain gun / Water Sprinklers:** Installation of 37nos. of fixed type rain gun/ water sprinklers along the boundary wall to be erected on the East Side wall of Sponge Iron Division.<br>V. **Width of Greenbelt along Plant Boundary**: The width of the Greenbelt along the plant boundary will be increased to achieve thick canopy which shall act as effective barrier against fugitive emission towards the East Direction.<br>VI. **Additional Greenbelt at periphery of Radhamadhabpur**: Additional plantation of 1500 trees will be done on the periphery of the village |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| | | Radhamadhabpur that acts as barrier to the emissions and will also increase the aesthetics of village.<br>VII. **Adoption of Village Radhamadhabpur**: M/s SIPL has committed to adopt Village Radhamadhabpur, Following activities will be carried out to address the issues raised in during the public hearing. Developmental activities like<br>– Road Development<br>– Solar Street Lights<br>– Renovation of pond<br>– Hand Pump<br>EMP cost has been revised considering cost for the implementation of these additional mitigation measures. Details about the additional measures is attached in the ADS Reply. |
| 3. | The EAC deliberated on the project cost and EMP cost of the existing and proposed project. The EAC is of the view that EMP cost do not commensurate with the project cost and PP shall revise the EMP cost. PP shall provide the EMP expenditure made with respect to the existing project. | Estimated cost of the project under the previous EC dated 21.12.2016 was Rs. 1001Crs. and proposed EMP cost as Rs. 40.80 Crs. Out of all the proposed units under the previous EC, only Sponge Iron Plant, Rolling Mill, Ferro Alloys plant are completely implemented and Steel Melting Shop & CPP are partially implemented. M/s SIPL has spent total of Rs. 49.65Crs on Environment Management Plan (EMP) for the units implemented till date completely & partially.<br><br>However, few units (Iron Ore Beneficiation, Coal washery, Pellet Plant, Sinter Plant, MBF, Lime Plant and Oxygen Plant) from previous EC dated 21.12.2016 are yet to be implemented. Company estimated EMP cost of Rs. 28.65Crs during the previous EC, for the units which are unimplemented (Iron Ore Beneficiation, Coal washery, Pellet Plant, Sinter Plant, MBF, Lime Plant and Oxygen Plant). This estimated EMP cost will be spent when these units will be implemented. However, few units (Iron Ore Beneficiation, Pellet Plant, Sinter Plant and MBF) will now be implemented with enhanced capacity under the proposed expansion. The EMP cost (in addition to the unspent budget) associated with this modification is accounted in the EMP of proposed expansion project, under augmentation of facilities. Therefore, for the existing project cost of Rs. 1001 Crs, the company will invest Rs 78.3Crs as capital investment towards EMP. |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| | | The cost of proposed expansion project is estimated to be Rs. 320.0Crs (which includes only additional cost associated with capacity enhancement of unimplemented units). Company has now prepared EMP of Rs. 36.53Crs (11.42% of the cost) that includes the cost of EMP for the additional units to be installed and the cost of augmentation for the unit implemented/unimplemented but proposed for capacity enhancement.<br><br>Therefore, after implementation of the complete project (previous EC + proposed expansion) total cost of project will be Rs. 1321Crs and the total expenditure on EMP will be Rs. 114.84Crs.<br><br>Detailed breakup of the expenditure done till date on EMP and the proposed budget to be spent on EMP is given in the ADS Reply and updated at para 32.8.15 above. |
| 4. | The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. Also, the EAC advised to quantify the written and oral representation received during the public hearing. EAC is of the view that the PP has made a vague plan. | Total budget to address the issues raised during the public hearing is increased from Rs. 1.73 crores to Rs. 4.985 crores (approx. 1.56% of the project cost).<br>This amount will primarily be utilized in implementation of the activities to address issues raised during the Public Hearing as per Ministry's OM dated 30.09.2020 and development of three Villages (Madandih, Radhamadhabpur and Paravatpur) being adopted by Shakambhari Ispat & Power Ltd.<br>Revised Public Hearing Action Plan is given in the ADS Reply and updated at para 32.8.14 above. |
| 5. | The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages. | M/s SIPL has proposed to adopt nearby three villages namely: Madandih at 50 meters, Radhamadhabpur at 350 meters and Parvatpur at 220 meters in East direction. A total budget of Rs. 3.885 Crs has been envisaged for carrying out various developmental activities under adoption of these villages, in three-year time duration.<br>Details of the developmental activities planned under village adoption along with budget with time frame is given in ADS Reply and and updated at para 32.8.15 above. |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| 6. | The EAC deliberated on the PH issues raised during the earlier EC and is of the view that PP shall submit the status of implementation of the action plan of the commitment made by the PP during the existing ECs in tabular form. | Major issues raised during public hearing held for the previous project for which EC was granted by MoEFCC to M/s SIPL on 21.12.2016 were to;<br>a) provide employment to locals,<br>b) to carryout Socio-Economic Development in the nearby villages,<br>c) to ensure safety of workers, to fulfil the commitments under CSR,<br>d) to setup a vocational training institute of skill development of local youths,<br>e) depleting ground water levels in the area,<br>f) to provide drinking water facility and<br>g) to continuously keep pollution control devices ON.<br>From the F.Y. 2016-17 till the F.Y. 2022-23, M/s SIPL has spent Rs. 1875.00 Lakhs on the carrying out activities as per commitments made during the public hearing.<br>Details of the public hearing and the yearly expenditure done till date on the various activities undertaken is given in the ADS Reply. |
| 7. | PP reported that there is no Schedule-1 Species of Fauna in the Study area. The EAC is of the view that PP shall obtain certificate from the State Forest Department certifying the same. | Letter issued by Forest Department to M/s Shakambhari Ispat & Power Ltd. on 03.09.2022 mentioning that there is no Wildlife Sanctuary/National Park & Biosphere Reserve with the study area, except one Conservation Reserve. Along with this letter list of flora & fauna in the study area was attached. The list obtained was not having any Schedule-1 species present as per Wild Life (Protection) Amendment Act, 1972.<br>Also, based on the primary EB survey of Panchet Hill and interviews with local people during the baseline studies conducted for the proposed expansion project from 1st October 2021 to 31st December, 2021, a list of faunal species was provided in the EIA report. No Schedule-1 species were present in the area, as per Wild Life (Protection) Amendment Act, 1972.<br>However, Wild Life (Protection) Amendment Act, 2022 was introduced on 19.12.2022, which came into force from April 1, 2023. Under this amendment revised list of Schedule-I species is published. The species reported in the Biological Survey in EIA report and those mentioned in the Forest Officer Letter were crosschecked and it was found that few |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| | | species which earlier falls under Schedule-II category are now listed under Schedule-I category.<br>Subsequently, Wildlife Conservation Plan for Schedule-1 faunal species (Grey Mongoose, Jungle Cat, Hyaena, Jackal, Russel Viper, Indian Cobra and Common Rat Sanke) has been prepared along with budgetary provisions for its conservation. M/s SIPL submitted Wildlife Conservation Plan (WLCP) to Chief Wildlife Warden, Kolkata, West Bengal on 03.05.2023.<br>Letter from Range Officer, Raghunathpur prepared WLCP and Receiving for its submission is given in the ADS Reply. |
| 8. | The EAC noted that there is Madandih Village at a distance of 0.05 km from the project site. Also there are other ESA's like school and hospital within the study area. PP shall submit the specific mitigation measures that will be undertaken to minimise the impact of project activities on these ESA's. | Environment Sensitive Areas near the plant premises are village Madandih at 50meters, Gopalganj Primary school at 0.70km and Harmadih Rural Hospital at 0.58km in East direction form the plant boundary (Ferro Division).<br>Nearest facility in the plant is Ferro Alloy Division towards village Madandih (nearest ESA). The distance between battery point of Ferro Alloy division and village Madandih is 205meters. The distance between Hamradih Rural Hospital and Battery point is 610mteres. All these ESAs are in the cross wind direction.<br>M/s SIPL has proposed to undertake adequate measures to control the impact of the proposed expansion on the nearby area, under Environmental Management Plan in the EIA report. However, some additional mitigation measures as mentioned below will be undertaken to further minimize the impact of project activities on these ESA's.<br>1. Wind Barrier Sheet<br>2. Fixed Type Mist Cannon<br>3. Fixed Type Rain gun / Water Sprinklers<br>4. Width of Greenbelt along Plant Boundary:.<br>5. Adoption of village Madamdih for carrying out activities like road development, construction of public bus stand with shelter, installation of solar street lights, hand pumps, renovation of village pond, construction of community hall, skill development centre, model Anganwadi centre. Apart from this additional plantation of 1500 trees will be done on the periphery of the village towards the project site. |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| | | 6. Development of Gopalganj Primary School and doing additional plantation of 1500 trees will be done on the periphery of the village towards the project site<br>7. M/s SIPL will providing Two (2) nos. of ICU Ambulances under Harmadih Hospital and will be doing additional plantation of 1500 trees will be done on the periphery of the village towards the project site. Also, free medical health checkup and medicine distrbution camps shall be organed on yearly basis and under CSR activitiesEMP cost has been revised considering cost for the implementation of additional mitigation measures<br>Details of the activies is provided in the ADS Reply. |
| 9. | There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating<br>road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations. | As per the requirement the three drawing for the proposed expansion project was provided with the ADS Reply. |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| 10. | The proposed project area is observed to be in multiple patches. The EAC is of the opinion that PP/Consultant shall submit the coordinates of project area patch wise. | Map indicating all the coordinate points of each plots of the project site along with plot-wise coordinates in tabular form has been provided with the ADS Reply. Plot wise coordinates are also given in aforementioned point no. 4. |
| 11. | Total land area is 81.103 ha which is under the possession of the company. PP shall submit the status of conversion of land for industrial purpose along with the requisite documents. | Out of the total land, 46.95 Ha has been converted for industrial purpose. Remaining land will also be converted for industrial use prior to commencement of the project. |
| 12. | The EAC noted that the existing project was accorded environmental clearance vide lr no. J-11011/201/2013-IA.II(I) on 21st December, 2016 and the complete project is still not implemented. PP shall submit the justification for the same. | Shakambhari Ispat & Power Limited has obtained EC from MoEF&CC vide F. No. J-11011/201/2013-IA.II(I) on 21st December, 2016 for expansion of the existing steel plant. The EC was subsequently amended by MoEF&CC on 29th April, 2020. Company has implemented all the facilities pertaining to Sponge Iron Division along with 70.5MW out of 99MW CPP, SMS division, Rolling Mill Division and Ferro division.<br>Only Iron making divisions units *(Iron Ore Beneficiation, Coal washery, Pellet Plant, Sinter Plant, MBF, Lime Plant and Oxygen Plant)* are yet to be implemented.<br>The three main reasons for not fully implementing the units, as per previous EC are:<br>I. **Configuration change**: During planning for implementation of project after obtaining EC vide F. No. J-11011/201/2013-IA II (I) dated on 21.12.2016, it was observed that configuration of certain units needs to change for betterment of project & environment. Subsequently, M/s SIPL submitted for amendment in EC vide online application dated 30.11.2018. Consequently, amendment in the EC was granted by MoEF&CC vide letter dated 29.04.2020.<br>II. **Pandemic**: Implementation of project activities became slow due to COVID-19 situation in the start of year 2020 and uncertain market conditions almost up to the end of 2021.<br>III. **Productivity**: After pandemic, M/s SIPL revitalized the project activities and approached various technology providers and learnt about technological upgradation |

| S. No. | ADS Point | Reply/ Response of PP |
|---|---|---|
| | | with enhanced productivity. Further considerable change in selection of raw material was also suggested such as increased use of prepared burden like sinter and pellet in Blast furnace. Hence, company decided to install the unimplemented units with changed configuration under the present proposal.<br>Table for implementation status of units under previous EC is given in the ADS Reply and in aforementioned point no. 6. |

32.8.21 Based on the above submission of PP, the proposal was reconsidered during 32nd meeting of the EAC for Industry-I sector held on 26th - 29th May, 2023. The deliberations and recommendations of EAC are as follows:

**Written representations:**

32.8.22 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 29.05.2023 and 30.05.2023 submitted the following:

| Sl. No. | Point raised by EAC | Reply of PP |
|---|---|---|
| 1. | Details of PH Issues Raised during the Earlier EC & Status of Implementation of the Action Plan of the Commitment | Major issues raised during public hearing for the previous EC issued by MoEFCC to M/s Shakambhari Ispat & Power Ltd (SIPL) on 21.12.2016 were to provide; (i) employment to locals, (ii) to carryout Socio-Economic Development in the nearby villages, (iii) to ensure safety of workers, (iv) to fulfil the commitments under CSR, (v) to setup a vocational training institute of skill development of local youths, (vi) depleting ground water levels in the area, (vii) to provide drinking water facility and (viii) to continuously keep pollution control devices ON.<br>From the F.Y. 2016-17 till the F.Y. 2022-23, M/s SIPL has spent Rs. 1875.00 Lakhs on the carrying out activities as per commitment during public hearing and as per need based assessment. |
| 2. | Undertaking on Greenbelt Development | PP has submitted an undertaking dated 29.05.2023 commiting that greenbelt development will be complted on 33% of the total project area maintaining tree density of 2500 trees / ha in the monsoon of year 2023. |

**Deliberations by the Committee**

32.8.23 The Committee noted the following:

1. The instant proposal is for enhancement of Crude Steel Production from 0.5236 MTPA MS Billets to 0.7875 MTPA MS/ SS Billets, Long Steel Production from 0.3MTPA MS products to 0.66MTPA MS/ SS long products, Ferro Alloys production from 0.0632 MTPA to 0.2143 MTPA and Captive Power Generation from 99 MW to 126 MW, along with allied facilities.

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 existing project was accorded environmental clearance vide lr no. J-11011/201/2013-IA.II(I) on 21st December, 2016 amendment to it was issued on 29th April, 2020. Consent to Operate has been issued by West Bengal Pollution Control Board Vide Consent Letter No. CO110135 dated 09.08.2018, CO107584 dated 06.12.2018, CO113782 dated 06.09.2019, CO128922 dated 13.02.2020, CO128973 dated 14.08.2020, CO128998 dated 13.11.2020, CO131924 dated 10.03.2021 and CO132113 dated 22.12.2021. The validity of CTOs are up to 31.07.2023.

6. The total project area is 81.103 Ha (200.41Acres) which is under possession of SIPL. The Expansion Unit will be setup in existing as well as proposed land. Out of the total land, 46.95 Ha has been converted for industrial purpose. Remaining land will also be converted for industrial use prior to commencement of the project.

7. Environment Sensitive Areas near the plant premises are village Madandih at 50meters, Gopalganj Primary school at 0.70km and Harmadih Rural Hospital at 0.58km in East direction form the plant boundary (Ferro Division) within 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.

8. Existing water requirement is 8,745 $m^3$/day which is obtained through surface water from Panchet Dam. The water requirement after the proposed expansion is estimated as 15,139 $m^3$/day, out of which 13,735 $m^3$/day of fresh water requirement will be obtained from the DVC and remaining will be recycled water. The permission of drawl of additional water

requirement will be obtained from DVC with implementation of the project. The EAC deliberated on the water balance diagram and found it satisfactory. The EAC also opined that permission for drawl of additional water requirement shall be obtained for Competent Authority prior to commencement of operations.

9. The Committee has deliberated on the baseline data and revalidated incremental GLC due to the proposed project along with the mitigation measures that will be undertaken to minimise the $PM_{10}$ values and is of the view that measures shall be strictly implemented.

10. Schedule – 1 species in the study area are Grey Mongoose, Jungle Cat, Hyaena, Jackal, Russel Viper, Indian Cobra and Common Rat Snake found in the study area. Wildlife Conservation Plan for Schedule-1 faunal species (Grey Mongoose, Jungle Cat, Hyaena, Jackal, Russel Viper, Indian Cobra and Common Rat Sanke) has been prepared along with budgetary provisions for its conservation. M/s SIPL submitted Wildlife Conservation Plan (WLCP) to Chief Wildlife Warden, Kolkata, West Bengal on 03.05.2023.

11. The EAC noted that the existing greenbelt has been developed in 23.66 Ha which is about 33% of the existing project area of 71.71Ha with total plantation of 36,000trees. Under proposed expansion, additional 34,000 numbers of trees will be planted and nurtured in total 26.766Ha area (i.e. 33% of the total project area of 81.103Ha after expansion). Budget of Rs. 136.0 Lakhs and Yearly budget for maintenance of Rs 45.0 Lakhs has been allocated for greenbelt development. PP has submitted an undertaking dated 29.05.2023 commiting that greenbelt development will be completed on 33% of the total project area maintaining tree density of 2500 trees / ha in the monsoon of year 2023. The Committee deliberated on the revised action plan and budget allocation for green belt development and found it satisfactory.

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 EAC deliberated on the certified compliance report of earlier EC and its Action Plan and found it satisfactory.

14. The EAC deliberated on the PH issues raised during the earlier EC along with the status of implementation of the action plan of the commitment made by the PP and found it 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. M/s SIPL has proposed to adopt nearby three villages namely: Madandih at 50 meters, Radhamadhabpur at 350 meters and Parvatpur at 220 meters in East direction. A total budget of Rs. 3.885 Crs has been envisaged for carrying out various developmental activities under adoption of these villages, in three-year time duration.

17. The Committed deliberated on the revised EMP cost submitted by the project proponent pertaining to cost of EMP for the additional units to be installed and the cost of augmentation for the unit implemented/unimplemented but proposed for capacity enhancement and found it satisfactory.

18. The EAC also deliberated on the other ADS information furnished by the project proponent and found it satisfactory.

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

20. 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.

21. 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.

22. 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:**

32.8.24 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 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 total proposed project land shall be converted for industrial use prior to commencement of the project.

v. Environment Sensitive Areas near the plant premises are village Madandih at 50meters, Gopalganj Primary school at 0.70 km and Harmadih Rural Hospital at 0.58 km in East direction form the plant boundary (Ferro Division) within 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 these locations in its environmental monitoring programme.

vi. The total water requirement of 15,139 $m^3$/day, shall be met from the DVC (13,735 $m^3$/day) and recycled water (1,404 $m^3$/day) after obtaining necessary permission from the Competent Authority. No ground water shall be abstrated. Efforts shall further be made to use maximum water from the rain water harvesting sources.

vii. The project proponent shall strictly implement the mitigation measures proposed to minimise the $PM_{10}$ values.

viii. Three tier Green Belt shall be developed in at least 33% of the project area in the forthcoming monsoons of 2023 (as committed) 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 Madandih, Radhamadhabpur and Parvatpur Villages, Gopalganj Primary School and Harmadih Rural Hospital. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

ix. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads. Facilities for parking of trucks carrying raw coal from the linked coalmines shall be created within the Unit.

x. All the commitments made towards socio-economic development of the nearby villages including the commitments made during the previous EC 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. 4.985 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

xi. As committed PP shall adopt three villages namely: Madandih, Radhamadhabpur and Parvatpur in East direction and prepare and implement a robust plan to develop them into model villages in next three years.

xii. 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.

xiii. The ETP for Mini Blast Furnace effluent should be designed to meet Cyanide standard as notified by the MoEFCC.

xiv. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed. The Standards issued by the Ministry vide G.S.R. No. 277(E) dated 31st March, 2012 regarding integrated iron and steel plant shall be followed.

**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 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. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ 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.

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/$Nm^3$ 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 $4^{th}$ 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/m3 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. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

xxiv. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.

xxv. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.

xxvi. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.

xxvii. 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.

xxviii. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 $mg/m^3$, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.

xxix. 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.

xxx. 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. The project proponent shall provide appropriate ETP for effluents discharged from coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to Coke oven plants) as amended from time to time.

xi. Treated water from ETP of COBP shall not be used for coke quenching.

xii. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.

xiii. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.

xiv. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run of from reject dumping sites.

xv. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.

xvi. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.

xvii. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.

xviii. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 $m^3$/tonne of raw coal.

xix. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.

xx. The project proponent shall take all precautionary measures to ensure riverine/ riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government

xxi. Air Cooled condensers shall be used in the captive power plant.
xxii. Tailing management plan shall be implemented as included in EIA report.
xxxi. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

**IV. Noise monitoring and prevention**

i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.
iii. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

**V. Energy Conservation measures**

i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
ii. Restrict Gas flaring to < 1%.
iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
iv. Provide LED lights in their offices and residential areas.
v. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
vi. Practice hot charging of slabs and billets/blooms as far as possible.
vii. Ensure installation of regenerative type burners on all reheating furnaces.
viii. Blast Furnaces shall be equipped with Top Recovery Turbine, dry gas cleaning plant, stove waste heat recovery, cast house and stock house ventilation system and slag granulation facility.
ix. Coke Dry Quenching (CDQ) shall be provided for coke quenching for both recovery and non-recovery type coke ovens.
x. The project proponent shall provide waste heat recovery system on the DRI Kilns.
xi. The dolochar generated shall be used for power generation.
xii. 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.
xiii. 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. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.

viii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.

ix. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.

x. In case of Non-Recovery coke ovens, the gas main carrying hot flue gases to the boiler, shall be insulated to conserve heat and to maximise heat recovery.

xi. Tar Sludge and waste oil shall be blended with coal charged in coke ovens (applicable only to recovery type coke ovens).

xii. Rejects from coal washery shall only be used either in the captive power plant (or) in the Thermal Power Plants meeting emission standards.

**VII. Green Belt**

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

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

able with defined time frames.

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

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

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

ii. The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.

iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

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

**IX. Environment Management**

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

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

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

iv. Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEF&CC.

**X. Miscellaneous**

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

ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented

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

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

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

ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.

x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

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

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

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

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

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

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

xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

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**Agenda No. 32.9**

**32.9 Expansion of Integrated Cement Project - Clinker (1.48 to 4.38 MTPA), Cement (2.28 to 6.14 MTPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW) by M/s. Nirma Limited [Now M/s Nuvoco Vistas Corp. Ltd.] located at Villages - Nimbol and Sinla, Tehsil - Jaitaran, District Pali, Rajasthan-Reconsideration of EC proposal.**

**[Proposal No. IA/RJ/IND/56521/2011; MoEF&CC File No. J-11011/01/2010-IA.II(I)]**
**[Consultant: J.M. EnviroNet Pvt. Ltd. ; Valid upto : 07.08.2023]**

32.9.1 M/s. Nirma Limited (Now M/s. Nuvoco Vistas Corporation Limited) has made an online application vide Proposal No. IA/RJ/IND/56521/2011 dated 05.02.2020 along with copy of EIA/EMP report, in prescribed Form 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(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.

32.9.2 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0172; Valid up to 07.08.2023, as on May 31, 2023].

**Details submitted by Project proponent**

32.9.3 The details of the ToR are furnished as below:

| Date of Application | Consideration | Details | Date of Accord |
|---|---|---|---|
| 11.11.2016 | 12th Meeting of EAC held on 23rd Nov., 2016 | Terms of Reference | 04.08.2017 |

32.9.4 The project of M/s. Nirma Limited (Now M/s. Nuvoco Vistas Corporation Limited) is located in Nimbol and Sinla Villages, Jaitaran Tehsil, Pali District, Rajasthan state is proposing Expansion of Integrated Cement Project (Clinker - 1.48 to 4.38 Million TPA), Cement (2.28 to 6.14 Million TPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW).

32.9.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Total Plant area is 95.764 ha (which includes 70.0 ha existing plant area and 25.764 ha additional area).</td><td>Land use: Industrial land</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land is under the possession of the company.</td><td>-</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Plant Site: No habitation exists within the plant site.<br>Study Area:
<table>
<tr><th>Habitation</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Sinla</td><td>0.5</td><td>WNW</td></tr>
<tr><td>Rajputon ki Dhani</td><td>2.5</td><td>NE</td></tr>
<tr><td>Nimbol</td><td>2.5</td><td>South</td></tr>
<tr><td>Litariya</td><td>2.5</td><td>East</td></tr>
<tr><td>Bogasani</td><td>3.5</td><td>SW</td></tr>
</table>
There are approx. 24 villages in the study area.</td><td>R&R is not applicable</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site</td><td>
<table>
<tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>26°20’11.25” N</td><td>73°50’22.81” E</td></tr>
<tr><td>B</td><td>26°20’9.79” N</td><td>73°50’31.76” E</td></tr>
<tr><td>C</td><td>26°20’9.24” N</td><td>73°50’37.50” E</td></tr>
<tr><td>D</td><td>26°20’2.03” N</td><td>73°51’16.29” E</td></tr>
<tr><td>E</td><td>26°19’48.33” N</td><td>73°51’17.78” E</td></tr>
<tr><td>F</td><td>26°19’43.24” N</td><td>73°51’17.61” E</td></tr>
<tr><td>G</td><td>26°19’31.29” N</td><td>73°51’5.97” E</td></tr>
<tr><td>H</td><td>26°19’31.30” N</td><td>73°51’3.16” E</td></tr>
<tr><td>I</td><td>26°19’36.59” N</td><td>73°50’39.10” E</td></tr>
<tr><td>J</td><td>26°19’59.90” N</td><td>73°50’18.94” E</td></tr>
</table>
</td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>290 m to 300 m above mean sea level.</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No Forest Land is involved in the plant site.</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study</td><td>Plant site: No water body exists within the plant site.<br>Study area: Following water bodies are falling in the study area
<table>
<tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr>
</table>
</td><td>-</td></tr>
</table>

| S. No. | Particulars | Details | Remarks |
|---|---|---|---|
| | area | Dukliyan Nadi ~ 1.2 North<br>Hathi Bala ~ 1.5 West<br>Luni Nadi ~ 3.0 SE<br>Lilri Nadi ~ 4.0 South | |
| viii. | Existence of ESZ/ESA/national park/wildlife sanctuary/biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area. | No National Park / ESZ / ESA / Wildlife Sanctuary / Biosphere Reserve / Reserve Forests/ Protected Forests / Tiger Reserve / Elephant Reserve etc. fall within 10 km study area. | - |

32.9.6 The existing project was initially accorded environmental clearance *vide* Letter No. J-11011/01/2010-IA-II(I) dated 29th March, 2011 in the name of M/s. Siddhi Vinayak Cement Limited. Thereafter, M/s. Nirma Ltd. has acquired M/s. Siddhi Vinayak Cement Ltd. and subsequently, transfer of existing EC Letter in the name of M/s. Nirma Limited from M/s. Siddhi Vinayak Cement Ltd. under clause 11 of EIA Notification, 2006, as amended from time to time has also been obtained from MoEFCC, New Delhi vide letter no. J-11011/01/2010-IA-II(I) dated 31st July, 2017. Thereafter, the cement division of M/s. Nirma Ltd. demerged and merged in Nuvoco Vistas Corporation Ltd. by the way of scheme of arrangement approved by Hon'ble National Company Law Tribunal at Mumbai Bench. Then, transfer of EC in the name of M/s. Nuvoco Vistas Corporation Limited from M/s. Nirma Limited has also been obtained from MoEF&CC, New Delhi *vide* Letter No. J-11011/01/2010-IA-II(I) dated 10th Aug., 2020. Consent to Operate for Clinker (1.48 Million TPA) and Cement (2.28 Million TPA) was accorded by RSPCB *vide* Letter No. F(CPM)/Pali(Jaitaran)/2683(1)/2016-2017/5248-5250 dated 23rd Dec., 2022 which is valid up to 31st Aug., 2027. Consent to Operate for D.G. Set of 4.8 MW and CPP of 25 MW was accorded by RSPCB *vide* Letter No. F(CPM)/Pali(Jaitaran)/1(1)2011-2012/1199-1201 dated 25th June, 2019 which is valid up to 31st Oct., 2023. Consent to Operate for Waste Heat Recovery System of 4.7 MW was accorded by RSPCB *vide* Letter F(CPM)/Pali(Jaitaran)/2683(1)/2016-2017/1702-1704 dated 10th Aug., 2021 which is valid up to 31st July, 2026.

32.9.7 Implementation status of the existing EC:

| S. No. | Facilities | Units | As per EC dated 29th March, 2011, Transferred on 31st July, 2017 and 10th Aug., 2020 | Implementation Status as on date | Production as per CTO |
|---|---|---|---|---|---|
| 1. | Clinker | MTPA | 1.48 | Implemented | 1.48 |
| 2. | Cement | MTPA | 2.28 | Implemented | 2.28 |

| | | | | | |
|---|---|---|---|---|---|
| 3. | Captive Power Plant | MW | 25 | Implemented | 25 |
| 4. | Waste Heat Recovery Boiler | MW | 4.7 | Implemented | 4.7 |
| 5. | D.G. Set | MW | 4.8 | Implemented | 4.8 |

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

| S. No. | Plant Equipment / Facility | Existing Facilities as per EC dated 29th March, 2011, Transferred on 31st July, 2017 and 10th Aug., 2020 | | | | | | | | Proposed Unit | | Final (Existing + Proposed) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total (A + B) | | Implemented (A) | | Un - implemented (B) | | As per CTO | | | | | |
| | | Configuration | Capacity | Configuration | Capacity | Configuration | Capacity | Configuration | Capacity | Configuration | Capacity | Configuration | Capacity |
| 1. | Kiln for Clinker | 4100 TPD | 1.48 MTPA | 4100 TPD | 1.48MTPA | Nil | Nil | 4100 TPD | 1.48 MTPA | 6000 TPD | 2.9MTPA | 4100 +6000 TPD | 4.38 Million TPA |
| 2. | Cement Mill | 355 TPH | 2.28 MTPA | 355 TPH | 2.28 MTPA | Nil | Nil | 355 TPH | 2.28MTPA | 350 TPH | 3.86 MTPA | 355 + 350 TPH | 6.14 Million TPA |
| 3. | CPP Boiler | 140 TPH | 25 MW | 140 TPH | 25 MW | Nil | Nil | 140 TPH | 25 MW | 170 TPH | 35 MW | 140 + 170 | 60 MW |
| 4. | WHRB | 4.7 MW | 4.7 MW | 4.7 MW | 4.7 MW | Nil | Nil | 4.7 MW | 4.7 MW | 10.3 MW | 10.3 MW | 4.7 + 10.3 MW | 15 MW |
| 5. | D.G. Set | 4.8 MW | 4.8 MW | 4.8 MW | 4.8 MW | Nil | Nil | 4.8 MW | 4.8 MW | Nil | Nil | 4.8 MW | 4.8 MW |

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

| S. No. | Raw Material | Quantity (Million TPA) | | | Source | Distance | Mode of Transportation |
|---|---|---|---|---|---|---|---|
| | | Existing | Additional | Total | | | |
| 1. | Limestone | 2.22 | 4.35 | 6.57 | Limestone Mines | Adjacent to 10 Km | Road |
| 2. | Gypsum | 0.11 | 0.19 | 0.3 | Bhavnagar, Gujarat; RSSM & FCI, Rajasthan | 670 Km | Road |
| 3. | Fly ash | 0.68 | 1.16 | 1.84 | CPP, Suratgarh, Kota Thermal & Barmer (JSW) | 450 Km | Road |
| | | | | | | 370 Km | Road |
| 4. | Clay | 0.125 | 0.245 | 0.37 | Nearby market | 10 Km | Road |
| 5. | Red Ochre/ Iron Ore | 0.15 | 0.29 | 0.44 | Chhoti Sadri, Bhilwara, Chittorgarh and nearby market | 375 Km | Road |
| 6. | Silica Sand | 0.09 | 0.18 | 0.27 | Nearby Market | 10 Km | Road |

32.9.10 Existing total water requirement for the plant is 1123 KLD, additional water requirement for the expansion project will be 1377 KLD. Thus, the total water requirement after expansion will be 2500 KLD; which is being/ will be sourced from Ground Water. Permission for withdrawal of 1123 KLD (Existing requirement) of ground water has already been obtained from CGWA *vide* Letter No. 21-4(493)/WR/CGWA/2011-4952 dated 10th December 2012 in the name of M/s. Nirma Ltd. The company has obtained CGWA NOC renewal for the existing water requirement i.e., 1123 KLD *vide* NOC No. CGWA/NOC/IND/REN/1/2022/7105 dated 10th Dec., 2022, valid up to 09th Dec., 2024. The name change from M/s. Nirma Ltd. to M/s. Nuvoco Vistas Corporation Ltd. in the existing CGWA NOC has been applied on 20th Jan., 2023; which is under process. The additional water requirement for the expansion project is 1377 KLD for which application has been submitted to CGWB and the same has been forwarded to CGWA, New Delhi on 12th Jan., 2023. The email received from CGWB for forwarding the application to CGWA is submitted.

32.9.11 Existing power requirement for the plant is 28.0 MW. Additional requirement for proposed expansion project will be 40.5 MW. Thus, the total power requirement after proposed expansion will be 68.5 MW; which is being / will be sourced from Captive Power Plant, RSEB, WHRB & D.G. Set (for back-up).

32.9.12 Baseline Environmental Studies:

| Period | Winter Season (Dec., 2016 to Feb., 2017) | 15th April to 15th May, 2023 |
|---|---|---|

<table>
<tr><td>AAQ parameters at 09 locations (Min and Max)</td><td>• $PM_{10}$ - 68.7 to 89.3 µg/$m^3$<br>• $PM_{2.5}$ - 34.1 to 48.4 µg/$m^3$<br>• $SO_2$ - 9.7 to 12.9 µg/$m^3$<br>• $NO_2$ - 9.7 to 26.9 µg/$m^3$</td><td>• $PM_{10}$ - 69.5 to 87.5 µg/$m^3$<br>• $PM_{2.5}$ - 35.6 to 49.5 µg/$m^3$<br>• $SO_2$ - 8.5 to 12.4 µg/$m^3$<br>• $NO_2$ - 9.9 to 25.8 µg/$m^3$</td></tr>
<tr><td>Incremental GLC level</td><td>PM - 1.52 µg/$m^3$ (Level at ~984.81 m in East Direction)<br>$SO_2$ - 0.65 µg/$m^3$ (Level at ~2000 m in East Direction)<br>$NO_x$ - 0.71 µg/$m^3$ (Level at ~1800 m in East Direction)</td><td>-</td></tr>
<tr><td>Ground water quality at 08 locations</td><td>pH - 7.06 to 7.31<br>Total Hardness – 288 to 480.7 mg/l<br>Chlorides - 272.26 to 474.71 mg/l<br>Fluoride - 0.58 to 0.85 mg/l<br>Iron as Fe - 0.08 to 0.13 mg/l</td><td>pH - 7.1 to 7.32<br>Total Hardness - 267.3 to 466.8 mg/l<br>Chlorides - 274.63 to 490.23 mg/l<br>Fluoride - 0.58 to 0.88 mg/l<br>Iron as Fe - 0.11 to 0.72 mg/l</td></tr>
<tr><td>Surface water quality at 0 locations</td><td>04 surface water bodies are present within 10 km radius of the plant site: Surface water samples were not collected from the said locations as all the water bodies are seasonal and were found dry during the study period.</td><td>-</td></tr>
<tr><td>Noise levels (Day and Night)</td><td>Noise Level During Day Time - 52.1 to 67.1 Leq dB (A)<br>Noise Level During Night time - 42.2 to 57.3 Leq dB (A)</td><td>Noise Level During Day Time - 51.2 to 68.9 Leq dB (A)<br>Noise Level During Night time - 41.9 to 58.1 Leq dB (A)</td></tr>
<tr><td>Traffic assessment study findings</td><td colspan="2">✓ Traffic study has been conducted at NH - 65A (Ambala to Jodhpur) which is approximately 11.0 km in SE direction and it is connected with NH - 112 (Bar to Jodhpur).<br>✓ Transportation of raw material, fuel & finished product will be done 100% by road.<br>✓ Existing PCU is 150.45 PCU/hr. on NH - 65A and existing level of service (LOS) is B.
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH - 65A</td><td>150.45</td><td>625</td><td>0.24</td><td>B</td></tr>
</table>
* Capacity as per IRC- 64-1990 Guidelines.</td></tr>
</table>

<table>
<tr><td></td><td>✓ PCU load after proposed expansion project will be 150.45 (Existing) + 131.87 (Additional) PCU/hr. and level of service (LOS) will be C (Considering 100% Transportation by road).
<table>
<tr><th>Road</th><th>Increased PCU / hr.</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH - 65 A</td><td>3165/ 24 = 131.87</td><td>150.45 + 131.87 = 282.32</td><td>625</td><td>0.45</td><td>C</td></tr>
</table>
* Capacity as per IRC- 64-1990 Guidelines.<br>Conclusion: The level of service will be “C” after including the additional traffic due to the proposed expansion.</td></tr>
<tr><td>Flora and fauna</td><td>Two schedule - I species viz. Indian Monitor lizard (Varanus bengalensis) & Indian Peafowl (Pavo cristatus) were recorded in the study area during field survey as per (IWPA) Indian Wildlife Protection Act, 1972.<br>Wildlife Conservation Plan for above mentioned Schedule - I species has been prepared and submitted. The same has been recommended for authentication by the Chief Regional Forest Conservation Officer, Jodhpur.</td></tr>
</table>

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

| S. No. | Type of Waste | Source | Quantity generated | Treatment / Disposal |
|---|---|---|---|---|
| 1. | Dust | Cement Plant | 504 TPD | Dust collected from various APCEs will be totally recycled into the process. |
| 2. | Fly ash | CPP | 20.962 Tonnes / Hr. | Used in manufacturing of PPC grade cement. |
| 3. | STP Sludge | STP | 20 Kg/ day | Used as manure for greenbelt development / plantation. |
| 4. | Used Oil | Plant Maintenance | 30.9 KL/ Annum | Sold to CPCB registered recycler |

32.9.14 Public Consultation:

| | |
|---|---|
| Details of advertisement given | Public Hearing Notice published in “Times of India” and “Danik Bhaskar” dated 04th May, 2018. |
| Date of Public Consultation | 08th June, 2018 at 11 AM |
| Venue | Government Upper Primary School, Sinla, Gram Panchayat - Digrana, Tehsil - Jaitaran, District - Pali (Rajasthan). |
| Presiding Officer | District Collector, Pali (Rajasthan) |
| Major issues raised | Employment, Environment & Pollution, Education, CSR Activities Related, Plantation, Other. |

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

| S. No. | Concern raised during Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| 1. | **Health Related** | Providing Healthcare Facilities and Infra support for health equipment for PHC, CHC, etc. | Nimbol PHC, Digarna PHC | 15 | Jaitaran CHC | 15 | Sub center Sinla, Kharadi, Latoti, Lithria, Kanecha | 15 | 45 |
| | | Health and Medical support initiatives - Providing Ambulance services | 09 Villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat of Jaitaran block | 10 | 09 Villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat of Jaitaran block | 5 | 09 Villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat of Jaitaran block | 5 | 20 |
| | | Develop Veterinary facility for Livestock Care & Health related Initiatives | 09 Villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat of Jaitaran block | 10 | 09 Villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat of Jaitaran block | 10 | 09 Villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat of Jaitaran block | 10 | 30 |
| | | Construction / Support / Refurbishment of Govt. Medical Centres / Anganwadis, Distribution of toys | 10 AWC of Nimbol, Sinla, Kharadi, Digarna, Lithria, Kanecha, Latoti | 10 | 10 AWC of Nimbol, Sinla, Kharadi, Digarna, Lithria, Kanecha, Latoti | 10 | 06 AWC of Nimbol, Bogasini, Kharadi, Digarna, Dungarnagar, Latoti | 3 | 23 |
| | | **Total** | | **45** | | **40** | | **33** | **118** |
| 2. | **Education Related** | Renovation / Infrastructure development of school with primary focus on Girl's Schools / Educational institutions | 5 Schools of Nimbol, Digarna, Kharadi, Latoti, and Kanecha Panchayats | 50 | 5 Schools of Nimbol, Digarna, Kharadi, Latoti, and Kanecha Panchayats | 50 | 2 Schools of Nimbol, and Digarna panchayat | 20 | 120 |

| S. No. | Concern raised during Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | | Providing furniture and sports material and Renovation of Government Schools / Offices | 5 Schools of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 10 | 5 Schools of Nimbol, Digarna, Latoti, and Kanecha panchayat | 10 | 2 Schools of Nimbol, and Digarna panchayat | 5 | 25 |
| | | Improvement in education facility, providing facilities for digital classroom, CCTV, etc. in government school. | 5 Schools of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 20 | 3 Schools of Nimbol, Digarna, Latoti, and Kanecha panchayat | 12 | 2 Schools of Nimbol, and Digarna panchayat | 8 | 40 |
| | | Construction/ renovation of Toilets in schools. | 5 Schools of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 10 | 5 Schools of Nimbol, Digarna, Latoti, and Kanecha panchayat | 10 | 2 Schools of Nimbol, and Digarna panchayat | 4 | 24 |
| | | Establishing GYAN Kendra (Community library at panchayat level) for competitive examinations for youth | - | - | 03 Centre in Kharadi and Nimbol, Digarna panchayat | 15 | 02 Centre in Kanecha and Latoti panchayat | 10 | 25 |
| | | Setting up of Library | 5 Schools of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 15 | 5 Schools of Nimbol, Digarna, Latoti, and Kanecha panchayat | 15 | 2 Schools of Nimbol, and Digarna panchayat | 6 | 36 |
| | | **Total** | | **105** | | **112** | | **53** | **270** |

| S. No. | Concern raised during Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| 3. | **Water Related** | Deepening / desilting of ponds etc.<br>Development of new and maintenance of existing water conservation structures like water tank | Village of Nimbol, Digarna, Kharadi | 36 | Village of Sinla, Bogasini, Dungarnagar, Lithria | 48 | Village of Latoti, and Kanecha | 24 | 108 |
| | | Maintenance / renovation of existing tube well, borewell & handpump | Village of Nimbol, Digarna, Kharadi | 6 | Village of Sinla, Bogasini, Dungarnagar, Lithria | 8 | Village of Latoti, and Kanecha | 4 | 18 |
| | | Installation of RO filters in the Government / Municipal / other public schools, hospitals and Dispensaries in nearby villages | 04 / Covering 3 villages, and one government institutions | 10 | 04 / Covering 3 villages, and one government institutions | 10 | 04 / Covering 3 villages, and one government institutions | 10 | 30 |
| | | Installation, Training & Promotion of New Irrigation methods such as solar pumps, drip irrigation, etc. | Installation, training - Village of Nimbol, Digarna, Kharadi, Latoti, and Kanecha | 85 | Installation, training - Village of Sinla, Bogasini, Dungarnagar, Lithria | 80 | Training only in all villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 10 | 175 |
| | | Construction of water troughs for cattle | Village of Nimbol, Digarna, Kharadi, Latoti, and Kanecha | 5 | Village of Sinla, Bogasini, Dungarnagar, Lithria | 4 | - | - | 9 |
| | | **Total** | | **142** | | **150** | | **48** | **340** |
| 4. | **Socio - Economic** | Skill Development Centre and activities in the area | 100 participants (Nimbol, Digarna, | 30 | 100 participants (Nimbol, Digarna, | 30 | 100 participants (Nimbol, Digarna, | 30 | 90 |

| S. No. | Concern raised during Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | | | Kharadi, Latoti, and Kanecha panchayat) | | Kharadi, Latoti, and Kanecha panchayat) | | Kharadi, Latoti, and Kanecha panchayat) | | |
| | | Provision of facilities like drinking water storage etc. in government school & Anganwadi | Village Nimbol, Kharadi, Digarna | 20 | Village Sinla, Lithria, Kanecha | 20 | Village Latoti, Bogasini, Dungarnagar | 10 | 50 |
| | | Road repair and Levelling work | 1.5 km (Village Digarna) | 50 | 2 km (Village Nimbol) | 80 | 1.5 km (Village Lithria & Kharadi) | 60 | 190 |
| | | Installation of solar lights | - | - | 240 lights in Village of Sinla, Bogasini, Dungarnagar, Lithria | 40 | 500 lights in Village of Nimbol, Digarna, Kharadi, Latoti, and Kanecha | 80 | 120 |
| | | Construction / Renovation of Cow-shed (Gaushala) | 02 Nos. (Village Sinla) | 25 | 02 Nos. (Village Digarna, Latoti) | 20 | 02 Nos. (Village Kharadi, Kanecha) | 20 | 65 |
| | | Construction / Renovation of Community Hall / Center For. e.g., Ambedkar Bhavan | - | - | Village Kharadi, Digarna | 10 | Village Nimbol | 5 | 15 |
| | | Provision of Solar Panels in the Government / Municipal / other public schools, hospitals and Dispensaries in nearby villages | 20 KW / Covering all HS of Kharadi, Digarna, Nimbol, and two government offices. | 30 | 20 KW / Covering all HS of Kanecha, Latoti, and three government offices. | 30 | 14 KW/ Covering PHC Nimbol, Digarna, and 5 panchayat Bhawan of Nimbol, Digarna, Kharadi, Kanecha, Latoti | 20 | 80 |

| S. No. | Concern raised during Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | | Installation of CCTV cameras for security purpose at places of major gatherings | 9 locations Covering all 9 villages | 10 | 9 locations Covering all 9 villages | 10 | 9 locations Covering all 9 villages | 10 | 30 |
| | | Installation of dustbins at schools, parks, hospitals & other places of worship & community centers, e rickshaw for house hold waste collection in year 1 | 90 / Covering all 9 villages, 3 e-rickshaw for house hold waste collection in three panchayats | 8 | 90 / Covering all 9 villages, 2 e-rickshaw for house hold waste collection in two panchayats | 5 | 90 / Covering all 9 villages | 2 | 15 |
| | | **Total** | | **173** | | **245** | | **237** | **655** |
| 5. | **Plantation** | Plantation in nearby area (Road Side) | 9 villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 40 | 9 villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 40 | 9 villages of Nimbol, Digarna, Kharadi, Latoti, and Kanecha panchayat | 40 | 120 |
| | | **Total** | | **40** | | **40** | | **40** | **120** |
| **GRAND TOTAL** | | | | **505** | | **587** | | **411** | **1503** |

Further, Company is going to adopt five villages i.e., Digarna, Nimbol, Sinla, Lithria, Bogasini for need - based community development activities. The village adoption program is as follows:

| S. No. | Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| 1. | Skill Development | Job oriented skills development training to unemployed youth | | | | | | | |
| | | Capacity building of farmers to reduce input cost and enhance income/productivity and to improve agri-crop yield and social forestry | Digarna, Nimbol, Sinla, Lithria, Bogasini | 5 | Digarna, Nimbol, Sinla, Lithria, Bogasini | 5 | Digarna, Nimbol, Sinla, Lithria, Bogasini | 5 | 15 |
| | | Establishment of training cum production center for women | Digarna, Nimbol | 10 | Sinla, Lithria, | 10 | Bogasini | 5 | 25 |
| | | Creating Model Anganwadi | | | | | | | |
| | | Development of drainage system, Installation of dustbins at schools, parks, hospitals & other places of worship & community centers to make village visibly clean and plastic free model village | Digarna, Nimbol | 10 | Sinla, Lithria, | 10 | Bogasini | 5 | 25 |
| 2. | Pond Beautification | Plantation around Ponds/Check Dams | Nimbol | 4 | Sinla | 4 | Digarna | 4 | 12 |
| 3. | Safe Drinking Water | Installation of Water huts with Water Coolers | Digarna, | 2 | Nimbol, | 2 | Sinla, Lithria, | 2 | 6 |
| 4. | Education | Strengthening of school infrastructure (Construction of school shed and others) (providing furniture's and quality study materials) | Digarna, Nimbol | 10 | Sinla, Lithria, | 10 | Bogasini | 5 | 25 |
| 4. | Education | Supply of Technical Equipment to existing Computer Labs | Digarna, Nimbol | 3 | Sinla, Lithria, | 3 | Bogasini | 3 | 9 |
| | | Developing play ground and Providing Sports Kit to schools (Cricket kit / Table Tennis / basketball / badminton kit etc.) | Digarna, Nimbol | 5 | Sinla, Lithria, | 5 | Bogasini | 2 | 12 |
| 5. | *Health* | Renovation/ Construction (in consultation with local authority) of dispensary Centre and providing first aid kits in schools & community centers | | | | | | | |

| S. No. | Concerns raised during the Public Hearing | Physical activity to be done | Unit of Measurement | | | | | | Tentative Budget (Rs. in lacs) |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1st Year | | 2nd Year | | 3rd Year | | |
| | | | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | Location / Area | Budget in Lakhs | |
| | | Installation of various public boards & posters to create awareness regarding communicable diseases & public hygiene | Digarna, Nimbol, Sinla, Lithria, Bogasini | 5 | Digarna, Nimbol, Sinla, Lithria, Bogasini | 2 | Digarna, Nimbol, Sinla, Lithria, Bogasini | 2 | 9 |
| | | Preventive health programme for women & Children | Digarna, Nimbol, Sinla, Lithria, Bogasini | 10 | Digarna, Nimbol, Sinla, Lithria, Bogasini | 10 | Digarna, Nimbol, Sinla, Lithria, Bogasini | 10 | 30 |
| | | **Total** | | **64** | | **61** | | **43** | **168** |
| *NOTE: Nature of the activities & village can be interchanged from village to village may vary based on the outcome of need base analysis during the execution phase in coordination with local Gram Panchayat within the overall budget proposed here for Socio- Economic Development Plan.* | | | | | | | | | |

32.9.15 The existing capital cost of the project was Rs. 1308.14 Crores. The capital cost of the proposed expansion project is Rs. 950 Crores and the capital cost for Environmental Protection Measures is proposed as Rs. 40 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5.0 Crores/ annum. The employment generation from the expansion project is about 375 persons. The details of cost for environmental protection measures are as follows:

| | Existing (Rs. In Crores) | | Proposed (Rs. In Crores) | |
|---|---|---|---|---|
| **Particular** | **Capital Cost** | **Recurring Cost/ annum** | **Capital Cost** | **Recurring Cost/ annum** |
| Air Pollution Control | 78.26 | 3.91 | 38 | 4.0 |
| Water Pollution Control and Rain Water Harvesting Measures | 3.50 | 0.18 | 1.25 | 0.5 |
| Greenbelt Development | 0.25 | 0.01 | 0.25 | 0.25 |
| Environment Monitoring and management | 1.95 | 0.10 | 0.50 | 0.25 |
| **Total** | **83.96** | **4.20** | **40** | **5.0** |

32.9.16 Existing greenbelt has been developed in 24.4 ha area which is about 35 % of the total existing Plant area i.e., 70 ha with total saplings of 52000 trees and gap fill will also be done with 9000 trees to maintain the density 2500 trees/ha. Gap filling will be undertaken in the existing plant and maximum plantation will be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. Proposed greenbelt will be developed in 8.5 ha which

is about 33% of the total additional area i.e., 25.764 ha. Thus, a total of 32.9 ha (34.35 % of total project area i.e., 95.764 ha) will be developed as greenbelt with total saplings of 82,250 trees. A 10 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare.

32.9.17 It is reported that there is no violation of EIA Notification 1994 or EIA Notification 2006 or court case/show cause/direction against project.

**Certified Compliance report from IRO**

32.9.18 The status of compliance of earlier EC was obtained from Integrated Regional Office, MoEF&CC, Jaipur *vide* Letter No. IV/ENV/R/Ind-130/820/2011, dated 09th May, 2023, in the name of M/s. Nirma Limited (Now M/s. Nuvoco Vistas Corporation Limited). All the conditions stipulated in the EC are complied.

32.9.19 The proposal was initially considered in the 16th meeting of the previous Reconstituted EAC (Industry-I) sector held during 24-25th February, 2020 wherein the Committee deferred the proposal for want of permission required for abstraction of ground water from CGWA.

32.9.20 Subsequently, the proponent submitted the ADS reply vide Letter dated 24th March, 2023 uploaded on PARIVESH on 24th March, 2023. Point-wise reply of ADS is given below:

| S. No. | ADS Point | Reply / Response of PP |
|---|---|---|
| 1. | ***ADS dated 30th March, 2020***<br>The project was appraised for grant of Environmental Clearance in the 16th meeting of the Re-constituted EAC (Industry - I) held on 25th February, 2020 and the committee deferred the proposal for **"want of permission required for abstraction of groundwater from CGWA."** | • Existing total water requirement for the plant is 1123 KLD which is being/ will be sourced from Ground Water and additional water requirement for the expansion project will be 1377 KLD. Thus, the total water requirement after expansion will be 2500 KLD.<br>• The permission for drawl of 1123 KLD groundwater (Existing requirement) has been obtained from CGWA *vide* Letter No. 21-4(493)/WR/CGWA/2011-4952 dated 10th December, 2012 in the name of M/s. Nirma Ltd.<br>• The company has obtained CGWA NOC renewal for the existing water requirement i.e., 1123 KLD *vide* NOC No. CGWA/NOC/IND/REN/1/2022/7105 dated 10th Dec., 2022, valid up to 09th Dec., 2024.<br>• The name change from M/s. Nirma Ltd. to M/s. Nuvoco Vistas Corporation Ltd. in the existing CGWA NOC has been applied on 20th Jan., 2023, which is under process.<br>• The additional water requirement for the expansion project is 1377 KLD for which application has been submitted to CGWB and the same has been forwarded to CGWA, New Delhi on 12th Jan., 2023. |

| S. No. | ADS Point | Reply / Response of PP |
|---|---|---|
| 2. | ***ADS dated 02nd Feb., 2023***<br>Dear Sir, the name of project is M/s. Siddhi Vinayak Cement Pvt. Ltd.; however, the name of PP is M/s Nirma Ltd. Please confirm which is correct and revise your application on portal as the whole process is online on parivesh and EC is also being generated digitally from the System. | • Initially, Environment Clearance for the above project was obtained from MoEFCC, New Delhi *vide* Letter No. J-11011/01/2010-IA-II(I) dated 29th March, 2011 in the name of M/s. Siddhi Vinayak Cement Ltd.<br>• M/s. Nirma Ltd. has acquired M/s. Siddhi Vinayak Cement Ltd. and subsequently, transfer of existing EC Letter in the name of M/s. Nirma Limited from M/s. Siddhi Vinayak Cement Ltd. under clause 11 of EIA Notification, 2006, as amended from time to time has also been obtained from MoEFCC, New Delhi vide letter no. J-11011/01/2010-IA-II(I) dated 31st July, 2017.<br>• Thereafter, the cement division of M/s. Nirma Ltd. demerged and merged in Nuvoco Vistas Corporation Ltd. by the way of scheme of arrangement approved by Hon'ble National Company Law Tribunal at Mumbai Bench.<br>• Name change in Existing Environmental Clearance has also been obtained from MoEFCC from Nirma Ltd. to M/s. Nuvoco Vistas Corporation Ltd. on dated 10th Aug., 2020. |
| 3. | ***ADS dated 06th Feb., 2023***<br>Dear Sir, On perusal it is noted that PP has still not revised the name of PP and Project. Since the whole process is online on portal, the digital EC is being granted through portal so PP is requested to correct the name of PP and Project as we asked question earlier on portal. However, PP has not revised the project name and again submitted the application without change of the name of PP and project | • In compliance of the ADS raised, PP has mailed Director, NIC on 11th Feb., 2023 and 06th March, 2023 *to correct the name of PP and Project.*<br>• In the same context and in compliance of the ADS raised, kindly grant the Environmental Clearance in the name of M/s. Nirma Ltd. itself. |

32.9.21 Based on the above submission of PP, the proposal was reconsidered during 26th meeting of the EAC for Industry-I sector held on 12th, 13th and 17th April, 2023 wherein the Committee deferred the proposal due to certain deficiencies in the proposal and sought requisite information. The deliberations and recommendations of EAC during 26th EAC is as follows:

**Deliberations by the Committee (EAC during 26th EAC Meeting)**

The Committee noted the following:

1. The EAC noted that the total water requirement after expansion will be 2500 KLD; which is being/ will be sourced from Ground Water. Permission for withdrawal of 1123 KLD (Existing requirement) of ground water has already been obtained from CGWA vide NOC No. CGWA/NOC/IND/REN/1/2022/7105 dated 10th December, 2022, valid up to 9th December, 2024. The name change from M/s. Nirma Ltd. to M/s. Nuvoco Vistas Corporation Ltd. in the existing CGWA NOC has been applied on 20th January, 2023; which is under process. The additional water requirement for the expansion project is 1377 KLD for which application has been submitted to CGWB and the same has been forwarded to CGWA, New Delhi on 12th January, 2023. The EAC deliberated that previous Committee had deferred the instant proposal for want of permission required for abstraction of ground water from CGWA. PP has still not obtained the required permission for the additional water required for the expansion project. In view of the same, the EAC advised PP to submit the desired water permission from the Competent Authority for further consideration of the project.

2. PP shall further explore the possibility of meeting its requirement from treated municipal water so that dependence on the ground water is reduced in a phased manner.

3. PP needs to submit an undertaking by way of affidavit that they have not made any violation pertaining to expansion or production after obtaining Environment Clearance.

4. The EAC noted that as reported existing greenbelt has been developed in 24.4 ha area which is about 35% of the total existing Plant area i.e. 70 ha with total saplings of 52000 trees and gap fill will also be done with 9000 trees to maintain the density 2500 trees/ha. Proposed greenbelt will be developed in 8.5 ha which is about 33% of the total additional area i.e. 25.764 ha. Thus, a total of 32.9 ha (34.35 % of total project area i.e. 95.764 ha) will be developed as greenbelt with total saplings of 21500 trees. Total no. of 61000 saplings will be planted and nurtured in 32.9 ha in next 03 years. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.

5. The PP shall prepare 3 different drawings. Drawing No 1 should include a layout with Road Networking, Traffic channelization, All Plant structures, Parking with a detailed area statement for each element, Indexing with proper color code and Naming at Bottom right corner. Drawing No 2 include a layout with road networking, Existing and proposed Green belt with calculations and indexing with proper color code along with nos of trees in existence and proposed trees. Drawing No 3 includes a layout with road networking, contour drawing and drainage disposal system and rain water harvesting system with calculations, Further the disposal of storm drain point with invert level. Drawing include indexing with color code for drainage pipe lines.

6. The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020.

7. The baseline data has been collected during December 2016 to February 2017 which is more than 3 years old. PP shall submit the comparison of the baseline data with the monitoring data as submitted in the latest six monthly compliance report for revalidation.

8. The EAC deliberated on the certified compliance report of IRO dated 09.04.2019 which is more than 3 years old. In pursuance to the Ministry's OM dated 08.06.2022, the EAC is of the opinion that PP shall obtain fresh certified compliance report of IRO along with closure report for any non-compliances, if any.

9. The EAC deliberated on the raw material requirement of the plant and is of the view that source of gypsum for cement plant shall be elaborated in detail.

10. The project proponent shall also provide details of carbon foot prints and carbon sequestration study w.r.t. proposed project and also propose the mitigation measures.

11. The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages.

12. The EAC noted that there is Sinla Village at a distance of 0.5 km from the project site. Also there are other ESA's like school and hospital within the study area. PP shall submit the specific mitigation measures that will be undertaken to minimise the impact of project activities on these ESA's.

13. Dukliya Nadi is at a distance of 1.2 km (N) and Hathi Bala at 1.5 km (W) of the project site within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided.

14. There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations.

15. In view of above, the PP requested the Committee to allow to reappear with the revised information/ clarification to the points deliberated during appraisal.

**Recommendations of the Committee (EAC during 26th EAC Meeting)**

In view of the foregoing and after detailed deliberations, the committee recommended to defer the proposal due to certain deficiencies in the proposal and sought requisite information on the

points referred above. The proposal shall be considered after submission of requisite information and updating the Report on Parivesh Portal.

32.9.22 The proponent submitted the ADS reply *vide* Letter dated 16th May, 2023 uploaded on PARIVESH on 17th May, 2023. Point-wise reply of ADS is given below:

| S. No. | ADS Point | Reply |
|---|---|---|
| 1. | The EAC noted that the total water requirement after expansion will be 2500 KLD; which is being/ will be sourced from Ground Water. Permission for withdrawal of 1123 KLD (Existing requirement) of ground water has already been obtained from CGWA *vide* NOC No. CGWA/NOC/IND/REN/1/2022/7105 dated 10th December, 2022, valid up to 9th December, 2024. The name change from M/s. Nirma Ltd. to Mis. Nuvoco Vistas Corporation Ltd. in the existing CGWA NOC has been applied on 20th January, 2023; which is under process. The additional water requirement for the expansion project is 1377 KLD for which application has been submitted to CGWB and the same has been forwarded to CGWA, New Delhi on 12th January, 2023. The EAC deliberated that previous Committee had deferred the instant proposal for want of permission required for abstraction of ground water from CGWA. PP has still not obtained the required permission for the additional water required for the expansion project. In view of the same, the EAC advised PP to submit the desired water permission from the Competent Authority for further consideration of the project. | Existing total water requirement for the plant is 1123 KLD which is being/ will be sourced from Ground Water. The permission for drawl of 1123 KLD groundwater has been obtained from CGWA *vide* Letter No. 21-4(493)/WR/CGWA/2011-4952 dated 10th December, 2012.<br>The company has obtained CGWA NOC renewal for the existing water requirement i.e., 1123 KLD *vide* NOC No. CGWA/NOC/IND/REN/1/2022/7105 dated 10th Dec., 2022 in the name of M/s. Nirma Ltd. which is valid up to 09th Dec., 2024. The copy of CGWA NOC renewal is submitted.<br>The name change from M/s. Nirma Ltd. to M/s. Nuvoco Vistas Corporation Ltd. in the existing CGWA NOC has been applied on 20th Jan., 2023 which is under process. The additional water requirement for the expansion project is 1377 KLD for which application has been submitted to CGWB and the same has been forwarded to CGWA, New Delhi ON 12th Jan., 2023. The email received from CGWB for forwarding the application to CGWA is submitted. |
| 2. | PP shall further explore the possibility of meeting its requirement from treated municipal water so that dependence on the ground water is reduced in a phased manner. | In the view of Sustainable development, the company has given its consent to use intended quantity of treated sewage water from the sewage treatment plant in the town of Jaitaran, Pali District to RTI (Research Triangle Institute) international.<br>The RTI (Research Triangle Institute) and ADB (Asian Development Bank), being the implementation partners for Water for Women ("WfW's") in India, agreed to collaborate, vide a Memorandum of understanding. |

<table>
<tr><th>S. No.</th><th>ADS Point</th><th>Reply</th></tr>
<tr><td></td><td></td><td>As part of this MoU, RTI International would help to identify potential industrial consumers for treated sewage water, facilitate commercial discussions between such potential consumers and participating Urban Local Bodies on this basis.<br>The Rajasthan Urban Infrastructure Development project (“RUIDP”) agreed to support RTIS study vide letter #F3 (301) (77)/ RUIDP PMU Ph IV/TA/14677, dated 18th March, 2021 with the support of Government of India (“GOI”) and Asian Development Bank (“ADB”). The State Policy’s vision for sustainable, resource-efficient, and private sector-led utilization of treated sewage water is aligned with the goals of the Water for Women (“WfW”) Fund.<br>Apart from above Nuvoco Vistas Corporation Limited is continuously in search of the other possibilities to fulfil our Water requirement through Sustainable methods.</td></tr>
<tr><td>3.</td><td>PP needs to submit an undertaking by way of affidavit that they have not made any violation pertaining to expansion or production after obtaining Environment Clearance.</td><td>Affidavit regarding no any violation pertaining to expansion or production after obtaining Environment Clearance is submitted.</td></tr>
<tr><td>4.</td><td>The EAC noted that as reported existing greenbelt has been developed in 24.4 ha area which is about 35% of the total existing Plant area i.e., 70 ha with total saplings of 52000 trees and gap fill will also be done with 9000 trees to maintain the density 2500 trees/ha. Proposed greenbelt will be developed in 8.5 ha which is about 33% of the total additional area i.e., 25.764 ha. Thus, a total of 32.9 ha (34.35 % of total project area i.e., 95.764 ha) will be developed as greenbelt with total saplings of 21500 trees. Total no. of 61000 saplings will be planted and nurtured in 32.9 ha in next 03 years. The EAC opined that gap filling shall be undertaken and maximum plantation shall be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. PP shall submit a revised greenbelt development plan along with an undertaking in this regard.</td><td>Gap filling will be undertaken in the existing plant and maximum plantation will be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur.<br>The revised greenbelt development plan is given below -
<table>
<tr><th>S. No.</th><th>Plantation details</th><th>Area (ha)</th><th>No. of saplings</th><th>Gap filling proposed</th></tr>
<tr><td>1.</td><td>Existing</td><td>24.4</td><td>52000</td><td>9000</td></tr>
<tr><td>2.</td><td>Proposed</td><td>8.5</td><td>21250</td><td>-</td></tr>
<tr><td></td><td></td><td></td><td>73,250</td><td>9000</td></tr>
<tr><td colspan="3">Total no. of saplings</td><td colspan="2">82,250</td></tr>
</table>
Undertaking in this regard is submitted.</td></tr>
</table>

| S. No. | ADS Point | Reply |
|---|---|---|
| 5. | The PP shall prepare 3 different drawings. Drawing No. 1 should include a layout with Road Networking, Traffic channelization, All Plant structures, Parking with a detailed area statement for each element, Indexing with proper color code and Naming at Bottom right corner. Drawing No. 2 include a layout with road networking, existing and proposed Green belt with calculations and indexing with proper color code along with nos of trees in existence and proposed trees. Drawing No. 3 includes a layout with road networking, contour drawing and drainage disposal system and rainwater harvesting system with calculations, Further the disposal of storm drain point with invert level. Drawing includes indexing with color code for drainage pipe lines. | Company has prepared three different layouts i.e., showing plant machinery and road network, Greenbelt development / plantation showing the area calculation of each patch and drainage & contour map showing road networking, contour drawing and drainage disposal system and rainwater harvesting system with calculations is submitted. |
| 6. | The Committee deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and is of the view that the submitted action is not sufficient to address all the issues. The EAC advised PP to revise the action plan as per Ministry's O.M. dated 30.09.2020. | Earlier, company has allocated Rs. 9.78 Crores to address the Public hearing issues as Socio-economic developmental activities. Now, company has revised the budget and prepared an action plan for the physical targets to address the Public hearing issues raising during the PH. Company has allocated Rs. 15 Crores to address to issues raised during the Public hearing as per Ministry's O.M. dated 30$^{th}$ Sept., 2022 which is submitted. |
| 7. | The baseline data has been collected during December 2016 to February 2017 which is more than 3 years old. PP shall submit the comparison of the baseline data with the monitoring data as submitted in the latest six-monthly compliance report for revalidation. | The Baseline Study and data collected for the project was done during the Winter Season (Dec., 2016 to Feb., 2017) which is more than three years old.<br>In this regard, PP has collected Baseline data of one month from 15$^{th}$ April, 2023 to 15$^{th}$ May, 2023.<br>The comparison of the earlier Baseline Data & recent baseline data of Ambient Noise level, Ground water and Soil sampling is submitted. |
| 8. | The EAC deliberated on the certified compliance report of IRO dated 09.04.2019 which is more than 3 years old. In pursuance to the Ministry's OM dated 08.06.2022, the EAC is of the opinion that PP shall obtain fresh certified compliance report of IRO | The certified compliance of the existing Environmental Clearance has been obtained from Integrated Regional Office, MoEFCC, Jaipur on 09$^{th}$ May, 2023. The copy of the same is submitted. |

| S. No. | ADS Point | Reply |
|---|---|---|
| | along with closure report for any non-compliances, if any. | |
| 9. | The EAC deliberated on the raw material requirement of the plant and is of the view that source of gypsum for cement plant shall be elaborated in detail. | Company is utilizing various types of gypsum i.e., Marine Gypsum, Calcium Sulphate, Flue gas desulfurization Gypsum (FGDG), Mineral Gypsum, at our plant. Company in process to explore the possibility to utilize ETP gypsum as well as Jerosite which will be supplied from the Gujrat and Rajasthan. A Note on gypsum sources and type is submitted. |
| 10. | The project proponent shall also provide details of carbon foot prints and carbon sequestration study w.r.t. proposed project and also propose the mitigation measures. | The commitments of Honourable Prime Minister and to achieve the desired targets for Net Zero Carbon, Nuvoco have the strategy to reduce CO2 emission aligning to National ambition of becoming net zero by 2070. As Nuvoco, we are targeting to reduce CO2 emission by 2% on year-to-year basis. Various levers have been identified to reduce CO2 emissions. Presently Nuvoco net CO2 is 470 kg CO2/ton of cementatious materials. The Decarbonization and Carbon Sequestration Initiatives along with mitigation measures will be taken by Nuvoco Vistas Corporation Ltd. is submitted. |
| 11. | The PP shall prepare a Village Adoption program consisting of need - based community development activities and submit an undertaking for adoption of villages including the name of villages. | Company is going to adopt five villages i.e., Digarna, Nimbol, Sinla, Lithria, Bogasini for need - based community development activities. The village adoption program is submitted. |
| 12. | The EAC noted that there is Sinla Village at a distance of 0.5 km from the project site. Also, there are other ESA's like school and hospital within the study area. PP shall submit the specific mitigation measures that will be undertaken to minimize the impact of project activities on these ESA's. | Village Sinla is at a distance of 0.5 km from the plant site. The specific mitigation measures that will be undertaken to minimize the impact of the plant activities on the nearby habitation/school / hospital is is submitted. |
| 13. | Dukliya Nadi is at a distance of 1.2 km (N) and Hathi Bala at 1.5 km (W) of the project site within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be provided. | The Dukliya Nadi is a seasonal river and located more than 1.0 km away from the plant site.<br>Since the Dukliya Nadi is a seasonal river and located more than 1.0 km away from the plant site and not located in upstream & downstream of the Dukliya Nadi, therefore the requirement of drainage conservation plan is not applicable in our project proposal. |

| S. No. | ADS Point | Reply |
|---|---|---|
| | | Whereas, the cement manufacturing is dry process and there will not be any effluent generation from the process, domestic waste generated from the office toilet & canteen is / will be treated in STP & treated water is / will be utilized in Greenbelt & Plantation. Apart from this, we have planned the storm water drainage system in such a way to accumulate the entire rainfall runoff within the site. |
| 14. | There is no proper Engineering drawing of a layout. It missing area statement, index etc. The PP shall prepare 3 separate drawings as a layout details. In Drg 1 PP shall cover Road networking, Plan Layout, Parking along with area statement showing % of all ingredients i.e. roads, Buildings, Parking, with indexing, scale of drawing etc. In no case road shall be abruptly terminated at any point. It shall have proper looping. PP also to show traffic flow in the drawing along road with entry and exit. In drg 2 PP shall show a layout indicating road networking, Existing Green belt and proposed Green Belt with its % against plot area including no of species WRT 2500 density per ha. In drg3 PP shall show contour map with Bench mark, Road network and drainage network along road side with drainage flow, disposal of drainage flow at lowest point with invert level etc. Further PP to show RWH details in the same drawing with calculations. | Company has prepared three different layouts i.e., showing plant machinery and road network, Greenbelt development / plantation showing the area calculation of each patch and drainage & contour map showing road networking, contour drawing and drainage disposal system and rainwater harvesting system with calculations is submitted. |

32.9.23 Based on the above submission of PP, the proposal was reconsidered during 32nd meeting of the EAC for Industry-I sector held on 26th - 29th May, 2023. The deliberations and recommendations of EAC are as follows:

**Written representations:**

32.9.24 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 29.05.2023 submitted the following:

| Sl. No. | Point raised by EAC | Reply of PP |
|---|---|---|
| 1. | Note for Plant doesn't fall in the Critically Polluted area of Pali District. | As per the office order of Rajasthan State Pollution Control Board dated 26th December, 2019 in compliance to Hon'ble NGT Order dated 23rd August, 2019, existing plant site does not fall in the Critically Polluted Area of Pali district. There are four existing industrial areas which falls under Critically Polluted Area in Pali district. The distance of the plant site from the existing industrial areas as per the NGT Order dated 10th July, 2019 are given below:<br>1. Pali Town at 81.24 km<br>2. Punayata Road at 82. 35 km<br>3. Mandia Road at 82.22 km<br>4. Sumerpur at 151 km<br>The copy of the circular of Rajasthan State Pollution Control Board and map showing the distance of the above industrial area from the plant site is submitted. |
| 2. | Sustainability Report of last financial year (2021-22) of the company. | Sustainability Report of last financial year (2021 - 22) of the company is submitted. |

**Deliberations by the Committee**

32.9.25 The Committee noted the following:

1. The instant proposal is for expansion of Integrated Cement Project (Clinker - 1.48 to 4.38 Million TPA), Cement (2.28 to 6.14 Million TPA), CPP (25 to 60 MW) and WHRB (4.7 to 15 MW).
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 existing project was initially accorded environmental clearance *vide* Letter No. J-11011/01/2010-IA-II(I) dated 29th March, 2011 in the name of M/s. Siddhi Vinayak Cement Limited. Thereafter, M/s. Nirma Ltd. has acquired M/s. Siddhi Vinayak Cement Ltd. and subsequently, transfer of existing EC Letter in the name of M/s. Nirma Limited from M/s. Siddhi Vinayak Cement Ltd. under clause 11 of EIA Notification, 2006, as amended from time to time has also been obtained from MoEFCC, New Delhi vide letter no. J-11011/01/2010-IA-II(I) dated 31st July, 2017. Thereafter, the cement division of M/s. Nirma Ltd. demerged and merged in Nuvoco Vistas Corporation Ltd. by the way of scheme of arrangement approved by Hon'ble National Company Law Tribunal at Mumbai Bench. Then, transfer of EC in the name of M/s. Nuvoco Vistas Corporation Limited from M/s. Nirma Limited has also been obtained from MoEF&CC, New Delhi *vide* Letter No. J-11011/01/2010-IA-II(I) dated 10th Aug., 2020. Consent to Operate for Clinker (1.48 Million TPA) and Cement (2.28 Million TPA) was accorded by RSPCB *vide* Letter No. F(CPM)/Pali(Jaitaran)/2683(1)/2016-2017/5248-5250 dated 23rd Dec., 2022 which is valid up to 31st Aug., 2027. Consent to Operate for D.G. Set of 4.8 MW and CPP of 25 MW was accorded by RSPCB *vide* Letter No. F(CPM)/Pali(Jaitaran)/1(1)2011-2012/1199-1201 dated 25th June, 2019 which is valid up to 31st Oct., 2023. Consent to Operate for Waste Heat Recovery System of 4.7 MW was accorded by RSPCB *vide* Letter F(CPM)/Pali(Jaitaran)/2683(1)/2016-2017/1702-1704 dated 10th Aug., 2021 which is valid up to 31st July, 2026.

6. The total project area is 95.764 ha (which includes 70.0 ha existing plant area and 25.764 ha additional area). Total land is under the possession of the company.

7. The EAC noted that there is Sinla Village at a distance of 0.5 km from the project site. Also there are other ESA's like school and hospital within the 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.

8. Dukliya Nadi is at a distance of 1.2 km (N) and Hathi Bala at 1.5 km (W) of the project site within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

9. Existing total water requirement for the plant is 1123 KLD, additional water requirement for the expansion project will be 1377 KLD. Thus, the total water requirement after expansion will be 2500 KLD; which is being/ will be sourced from Ground Water. The company has obtained CGWA NOC renewal for the existing water requirement i.e., 1123 KLD *vide* NOC No. CGWA/NOC/IND/REN/1/2022/7105 dated 10th Dec., 2022, valid up to 09th Dec., 2024. The name change from M/s. Nirma Ltd. to M/s. Nuvoco Vistas Corporation Ltd. in the existing CGWA NOC has been applied on 20th Jan., 2023; which is under process. The additional water requirement for the expansion project is 1377 KLD for which application has been submitted to CGWB and the same has been forwarded to CGWA, New Delhi on 12th Jan., 2023. The email received from CGWB for forwarding the

application to CGWA is submitted. The EAC deliberated on the water balance diagram and found it satisfactory. The EAC also opined that permission for drawl of additional water requirement shall be obtained for Competent Authority prior to commencement of operations.

10. The Committee has deliberated on the revalidated baseline data and incremental GLC due to the proposed project and found it satisfactory.

11. Two schedule - I species viz. Indian Monitor lizard (Varanus bengalensis) & Indian Peafowl (Pavo cristatus) were recorded in the study area during field survey as per (IWPA) Indian Wildlife Protection Act, 1972. Wildlife Conservation Plan for above mentioned Schedule - I species has been prepared and submitted. The same has been recommended for authentication by the Chief Regional Forest Conservation Officer, Jodhpur.

12. The EAC noted that the existing greenbelt has been developed in 24.4 ha area which is about 35 % of the total existing Plant area i.e., 70 ha with total saplings of 52000 trees and gap fill will also be done with 9000 trees to maintain the density 2500 trees/ha. Gap filling will be undertaken in the existing plant and maximum plantation will be completed within 1$^{st}$ year in consultation with institutes like Arid Forest Research Institute, Jodhpur. Proposed greenbelt will be developed in 8.5 ha which is about 33% of the total additional area i.e., 25.764 ha. Thus, a total of 32.9 ha (34.35 % of total project area i.e., 95.764 ha) will be developed as greenbelt with total saplings of 82,250 trees. The Committee deliberated on the revised action plan and budget allocation for green belt development and found it satisfactory.

13. The EAC deliberated on the Certified Compliance Report of IRO MoEFCC and based on the observations of IRO, the EAC is of the opinion that the conditions shall be strictly complied and compliance report is found in order.

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. PP has committed to adopt five villages i.e., Digarna, Nimbol, Sinla, Lithria, Bogasini for need - based community development activities..

17. The EAC also deliberated on the other ADS information furnished by the project proponent 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:**

32.9.26 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 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 total proposed project land shall be converted for industrial use prior to commencement of the project.

v. The EAC noted that there is Sinla Village at a distance of 0.5 km from the project site. Also there are other ESA's like school and hospital within the 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 these locations in its environmental monitoring programme.

vi. Dukliya Nadi is at a distance of 1.2 km (N) and Hathi Bala at 1.5 km (W) of the project site within 10 Km. radius of the plant site. The EAC is of the opinion that a robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

vii. The total water requirement of 2500 $m^3$/day, as proposed to be met from ground water is permitted only after obtaining necessary permission from the Competent Authority. Efforts shall further be made to use maximum water from the rain water harvesting sources.

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 and tree density shall not be less than 2500 per ha. Gap filling shall be undertaken in the existing plant and maximum plantation shall be completed within 1st year in consultation with institutes like Arid Forest Research Institute, Jodhpur. 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 Sinla Village. 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 including the commitments made during the previous EC 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. 15.03 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

x. As committed PP shall adopt five villages i.e., Digarna, Nimbol, Sinla, Lithria, Bogasini and prepare and implement a robust plan to develop them into model villages in next three years.

xi. 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. 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**

xxiv. 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.

xxv. The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. $PM_{10}$ and $PM_{2.5}$ in reference to PM emission, and $SO_2$ and NOx in reference to $SO_2$ 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.

xxvi. 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.

xxvii. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.

xxviii. 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.

xxix. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

xxx. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.

xxxi. 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.

xxxii. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.

xxxiii. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

xxxiv. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

xxxv. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.

xxxvi. 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.

xxxvii. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.

xxxviii. 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.

xxxix. The particulate matter emissions from the process stacks shall be less than 30 mg/$Nm^3$ and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.

xl. 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.

xli. Provide Low NOx burners as primary measures and SCR /NSCR technologies as secondary measure to control NOx emissions.

xlii. The emission norms applicable for the cement plant shall be adhered to.

xliii. Dioxin and Furan monitoring shall be carried out once in six months at cement kiln stack.

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

xlv. Petcoke dosing shall be controlled automatically to control $SO_2$ emission from chimney within the prescribed limits.

xlvi. PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.

xlvii. Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.

xlviii. 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.

xlix. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/$m^3$, 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**

iii. 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.
iv. 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. 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.

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.

***

## Consideration of Modification in Environmental Clearance

**Agenda No. 32.10**

**32.10 Capacity Expansion of Visakhapatnam Steel Plant from 6.3 MTPA to 7.3 MTPA by revamping and Augmentation of existing facilities by M/s Rashtriya Ispat Nigam Limited, located at Tehsil Gajuwaka, District Visakhapatnam, Andhra Pradesh – Consideration of Modification in Environmental Clearance**

**[Proposal No. IA/AP/IND/73713/2018; File No. J-11011/196/2005-IA-II(I)]**

32.10.1 M/s. Rashtriya Ispat Nigam Limited has made an online application vide proposal no. IA/AP/IND/73713/2018 dated 06.05.2023 along with Form 4 and addendum EIA repoprt sought for amendment in Environment Clearance accorded by the Ministry vide letter no. J-11011/196/2005/IA.II(I) dated 03/06/2019, and subsequent amendment dated 06/07/2020 and 23.06.2021 w.r.t. extension of time for implementation of Remediation plan and Natural and Community resources augmentation plan and CER upto May, 2024.

**Details submitted by Project proponent**

32.10.2 M/s. Rashtriya Ispat Nigam Limited was accorded Environment Clearance by the Ministry on 03/06/2019. Subsequently, EC amendment was accorded on 06/07/2020. As per specific condition no. i of the said EC, "An amount of 14.0 crore towards Remediation plan and Natural and Community resources augmentation plan to be spend within a span of three years i.e. up to 2nd June 2022. Further, as per specific condition no.iv of the EC dated 03/06/2019, the fund allocation of Corporate Environment Responsibility (CER) of Rs.17 crores. The timelines were extended upto 31.05.2023 vide EC amendment dated 23.06.2021.

32.10.3 The instant proposal is for seeking further extension of time for implementation of Remediation plan and Natural and Community resources augmentation plan and CER upto May, 2024. The details of extension of time sought is furnished as below:

| Reference of approved EC dated 03.06.2019 | Description as per approved EC dated 03.06.2019 | | | | | | Request for Amendment | Remarks |
|---|---|---|---|---|---|---|---|---|
| | S. No. | Env. Attribute | Year-wise implementation | | | Total (in Lacs) | | |
| | | | 2019-20 | 2020-21 | 2021-22 | | | |
| Point 23 (i) | 1 | Remediation Plan | 241 | 261 | 173 | 675 | Extension of time period for completion of all env. attributes by May'24 and | RP, NRAP and CRAP completed till Dec'22 is Rs 9.6 Crores (68.5% target completion) |
| | 2 | Natural Resource Augmentation Plan | 77 | 77 | 89 | 243 | | |
| | 3 | Community Resource | 145 | 171 | 166 | 482 | | |

| Reference of approved EC dated 03.06.2019 | Description as per approved EC dated 03.06.2019 | | | | | | Request for Amendment | Remarks |
|---|---|---|---|---|---|---|---|---|
| | S. No. | Env. Attribute | Year-wise implementation | | | Total (in Lacs) | | |
| | | | 2019-20 | 2020-21 | 2021-22 | | | |
| | | Augmentation Plan | | | | | change in activity. | |
| | | **Total** | 463 | 509 | 428 | 1400 | | |
| Point 23(iv) | Corporate Environment Responsibility | | 1700 | | | 1700 | Extension of time period for completion of CER plan by Mar'24 and change in activity. | CER plan completed till Dec'22 is Rs 16.05 Crores (94.4% target completion) |

Note:

- Timeline as given in EC for completion of RP, NRAP, CRAP, CER: Mar'22
- Amendment awarded for completion of RP, NRAP, CRAP, CER: May'23
- Amendment Sought for completion of RP, NRAP, CRAP: May'24
- Amendment Sought for completion of CER: Mar'24
- Amendment Sought for merger of Activities RP-14, RP-03, RP-06, RP-09, RP-10, CER-20 to: RP 07

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

32.10.5 **Justification for Amendment:**

RINL reported that they have made best possible efforts in completion of all these activities as a result of which many activities mentioned in the CER, Remediation Plan, Natural and Community Resources augmentation plans are either completed or on the verge of completion, but still some more time is being required for completion of all these activities as because of covid-19 many of the works which were awarded during 2020-21 could only get started after Jan-21 with a delay of nearly 8-10 months as the concerned agencies were unable to take up the work during this time because of Covid-19 related restrictions and other issues. In view of the constraints faced by RJNL regarding implementation of RP,N&CRAP and CER plans, amendment is sought in respect of time period of implementation.

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

**Deliberation by the Committee**

32.10.7 The Committee noted the following:

i. M/s. Rashtriya Ispat Nigam Limited was accorded Environment Clearance by the Ministry on 03/06/2019. Subsequently, EC amendment was accorded on 06/07/2020. As per

specific condition no. i of the said EC, "An amount of 14.0 crore towards Remediation plan and Natural and Community resources augmentation plan to be spend within a span of three years i.e. up to 2nd June 2022. Further, as per specific condition no.iv of the EC dated 03/06/2019, the fund allocation of Corporate Environment Responsibility (CER) of Rs.17 crores. The timelines were extended upto 31.05.2023 vide EC amendment dated 23.06.2021.

ii. The instant proposal is for seeking amendment in Environment Clearance accorded by the Ministry vide letter no. J-11011/196/2005/IA.II(I) dated 03/06/2019, and amendment dated 06/07/2020 and 23.06.2021 w.r.t. extension of time for implementation of Remediation plan and Natural and Community resources augmentation plan and CER upto May, 2024 as detailed in para 32.10.3 above.

iii. The EAC deliberated on the justification provided by the project proponent and found it satisfactory in the instant case.

iv. The EAC noted that there is no change in configuration & capacity of units in granted EC.

**Recommendations of the Committee**

32.10.8 After deliberations, the Committee **recommended** the proposal for amendment in EC granted vide letter no. J-11011/196/2005/IA.II(I) dated 03/06/2019 and subsequent amendments dated 06/07/2020 and 23.06.2021 w.r.t. extension of time for implementation of Remediation plan and Natural and Community resources augmentation plan and CER as detailed in para 32.10.3 above. The EAC also **recommended** that the PP shall explore and implement the following activities under its CER/CSR budget in consultation with the District Authorities.

a) The PP shall take up considerable stretch of Sea beach adoption, up keeping and maintenance at Visakhapatnam. The PP may utilize sea beach cleaning equipment for this purpose.
b) The PP shall provide sufficient number of environment friendly Battery operated vehicles at the King George Government Hospital for transporting of patients and other needy people within the said hospital premises.

The meeting ended with thanks to the Chair.

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**ANNEXURE –1**

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

**Preliminary requirements:**

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

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

**Structure of EIA/EMP report**

**Executive Summary**

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

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

iii. Executive Summary

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

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

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

IV. Anticipated impacts

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

V. Alternative analysis
VI. Environmental Monitoring program
i. Ambient air, noise, water and soil quality
ii. Emission and discharge from the plant
iii. Green belt
iv. Social parameters

VII. Additional studies
i. Risk assessment
ii. Public consultation
iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020

VIII. Project benefits
IX. Environment management plan
i. Air quality management plan
ii. Noise quality management plan
iii. Solid and hazardous waste management plan
iv. Effluent management plan
v. Storm water management plan
vi. Occupational health and safety management plan
vii. Green belt development plan
viii. Socio-economic management plan
ix. Project cost and EMP implementation budget.

**EIA/EMP Report**

**1. Introduction**

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

**2. Project description**

**A. Site Details**

i. Location of the project site covering village, Taluka/Tehsil, District and State.
ii. Site accessibility
iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).

iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.

v. Environment settings of the site and its surrounding along with map.

vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.

vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.

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

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

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

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

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

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

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

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

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

i. Status of Forest Clearance for the use of forest land shall be submitted.
ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

**C. Salient features of the project**

i. Products with capacities in **Tons per Annum** for the proposed project.
ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
iii. Site preparatory activities.
iv. List of raw materials required and their source along with mode of transportation.
v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
vi. Manufacturing process details along with process flow diagram of proposed units.
vii. Consolidated materials and energy balance for the project.
viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
ix. Water balance diagram
x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
xi. Man-power requirement.
xii. Cost of project and scheduled time of completion.
xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
xiv. Brief on present status of compliance (Expansion/modernization proposals)
    a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
    b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
    c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM

No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

**3. Description of the Environment**

i. Study period

ii. Approach and methodology for data collection as furnished below.

| Attributes | Sampling | | Remarks |
|---|---|---|---|
| | Network | Frequency | |
| **A. Air Environment** | | | |
| **Micro-Meteorological**<br>• Wind speed (Hourly)<br>• Wind direction<br>• Dry bulb temperature<br>• Wet bulb temperature<br>• Relative humidity<br>• Rainfall<br>• Solar radiation<br>• Cloud cover<br>• Environmental Lapse Rate | Minimum 1 site in the project impact area | 1 hourly continuous | • IS 5182 Part 1-20<br>• Site specific primary data is essential<br>• Secondary data from IMD, New Delhi<br>• CPCB guidelines to be considered. |
| **Pollutants**<br>• $PM_{2.5}$ | At least 8-12 locations | As per National Ambient Air Quality Standards, CPCB Notification. | • Sampling as per CPCB guidelines<br>• Collection of AAQ data (except in monsoon season)<br>• Locations of various stations for different |
| • $PM_{10}$ | | | |
| • $SO_2$ | | | |
| • NOx | | | |
| • CO | | | |
| • HC | | | |

| Attributes | Sampling | | Remarks |
|---|---|---|---|
| | Network | Frequency | |
| • Other parameters relevant to the project and topography of the area | | | parameters should be related to the characteristic properties of the parameters.<br>• 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,<br>• Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report. |
| **B. Noise** | | | |
| • Hourly equivalent noise levels | At least 8-12 locations | As per CPCB norms | - |
| **C. Water** | | | |

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

| Attributes | Sampling | | Remarks |
|---|---|---|---|
| | Network | Frequency | |
| • Additional traffic due to proposed project<br>• Parking arrangement | | | |
| **E. Land Environment** | | | |
| **Soil**<br>• Particle size distribution<br>• Texture<br>• pH<br>• Electrical conductivity<br>• Cation exchange capacity<br>• Alkali metals<br>• Sodium Absorption Ratio (SAR)<br>• Permeability<br>• Water holding capacity<br>• Porosity | Soil samples be collected as per BIS specifications | | |
| **Land use/Landscape**<br>• Location code<br>• Total project area<br>• Topography<br>• Drainage (natural)<br>• Cultivated, forest, plantations, water bodies, roads and settlements | - | | |
| **E. Biological Environment** | | | |
| **Aquatic**<br>• Primary productivity<br>• Aquatic weeds<br>• Enumeration of phyto plankton, zoo plankton and benthos<br>• Fisheries<br>• Diversity indices<br>• Trophic levels<br>• Rare and endangered species<br>• Marine Parks/ Sanctuaries/ closed | • 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.<br>• Samples to collect from upstream and downstream of discharge point, nearby tributaries at downstream, and also from dug wells close to activity site.<br>• For forest studies, direction of wind should be considered while selecting forests. | | |

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

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

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

4. **Anticipated Environment Impacts and mitigation measures (In case of expansion, cumulative impact assessment shall be carried out)**
    i. Identification of potential impacts in the form of a **matrix** for the construction and operation phase for all the environment components

| Activity | Environment | Ecological | Socio-economic |
|---|---|---|---|
| Construction phase | | | |
| Operation phase | | | |

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

b. Operation phase

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

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

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

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

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

**6. Environmental Monitoring Program**

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

iv. Action plan for **post-project environment monitoring matrix**:

| Activity | Aspect | Monitoring Parameter | Location | Frequency | Responsibility |
|---|---|---|---|---|---|
| Construction phase | | | | | |
| | | | | | |
| Operation phase | | | | | |
| | | | | | |

**7. Additional Studies**

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

ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.

iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.

iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.

v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).

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

vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

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

viii. Risk assessment

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

ix. Emergency response and preparedness plan

**8. Project Benefits**

i. Environment benefits

ii. Social infrastructure

iii. Employment and business opportunity
iv. Other tangible benefits

**9. Environment Cost Benefit Analysis**

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

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

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

**11. Conclusion of the EIA study**

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

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**ANNEXURE-2**

## Standard ToRs FOR CEMENT INDUSTRY [3(b)]

1. Limestone and coal linkage documents along with the status of environment clearance of limestone and coal mines.
2. Quantum of production of coal and limestone from coal & limestone mines and the projects they cater to;
3. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
4. If the raw materials used have trace elements, an environment management plan shall also be included.
5. Plan for the implementation of the recommendations made for the cement plants in the Corporate Responsibility for Environmental Protection (CREP) guidelines shall be prepared.
6. Energy consumption per ton of clinker and cement grinding
7. Provision of waste heat recovery boiler
8. Arrangement for co-processing of hazardous waste in cement plant.
9. Provision of Alternate fuels.
10. Details of Implementation of Fly Ash Management Rules
11. Emission/Effluent norms as per GSR 496 (E) dated 9/5/2016 [EPA Rules 1986].
12. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
13. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
14. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.
15. Action plan for 100 % solid waste utilization shall be submitted.
16. PM ($PM_{10}$ and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of $PM_{10}$ to be carried over.

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

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

5. PM ($PM_{10}$ and $PM_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of $PM_{10}$ to be carried over.
6. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
7. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines.
8. Plan for slag utilization
9. Plan for utilization of energy in off gases (coke oven, blast furnace)
10. System of coke quenching adopted with justification.
11. Trace metals Mercury, arsenic and fluoride emissions in the raw material.
12. Trace metals in waste material specially in slag.
13. Trace metals in water
14. Details of proposed layout clearly demarcating various units within the plant.
15. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
16. Details on design and manufacturing process for all the units.
17. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
18. Details on requirement of energy and water along with its source and authorization from the concerned department. Location of water intake and outfall points (with coordinates).
19. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
20. Details on toxic content (TCLP), composition and end use of slag.
21. Fourth Hole fume extraction system shall be provided for submerged Arc Furnace (SAF). Waste heat recovery (WHR) system shall be installed to recover the sensible heat from flue gases of electric arc furnace (EAF).
22. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
23. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
24. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
25. Action plan for 100 % solid waste utilization shall be submitted.
26. PP shall explore the possibility of plastic waste utilization in the Plant/Unit process.

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

1. A 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. MRL details of project site and RL of nearby sources of water shall be indicated.
2. Plan for the implementation of the recommendations made for the proposed Unit in the Corporate Responsibility for Environmental Protection (CREP) guidelines.
3. Plan for solid wastes utilization.

4. Plan for utilization of energy in off gases (coke oven, blast furnace)
5. System of coke quenching adopted with full justification.
6. Details on environmentally sound technologies for recycling of hazardous materials, as per CPCB Guidelines, may be mentioned in case of handling scrap and other recycled materials.
7. Details on toxic metal content in the waste material and its composition and end use (particularly of slag).
8. Details on toxic content using Toxicity Characteristic Leaching Procedure (TCLP), composition and end use of slag.
9. 100 % dolo char generated in the plant shall be used to generate power.
10. Fourth Hole fume extraction system shall be provided for SAF.WHR system shall be installed to recover sensible heat from flue gases of EAF. Provision for installation of jigging and briquetting plant to utilise the fines generated in the process.
11. No tailing pond is permitted for Iron ore slimes. Dewatering and filtration system shall be provided.
12. Emission/effluent norms as per G.S.R 894 (E) dated 4/12/2019 [EPA Rules 1986].
13. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
14. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be submitted.
15. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
16. Action plan for 100 % solid waste utilization shall be submitted.
17. PM ($PM_{10}$ and $P_{2.5}$) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements) of $PM_{10}$ to be carried over.

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

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

4. Commitment that only elemental Chlorine-free technology will be used for the manufacture of paper and existing plant without chemical recovery plant will be closed within 2 years of issue of environment clearance.
5. A commitment that no extra chlorine base bleaching chemicals (more than being used now) will be employed and AOx will remain within limits as per CREP for used based mills. Plan for reduction of water consumption.
6. Undertaking to comply with the norms stipulated in the S.O. 3187 (E) dated 7/10/2016 for the projects located in Ganga basin.
7. Action plan for the stock piles with impervious floor, provision of garland drains and catch pits to trap run off material shall be submitted.
8. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
9. Action plan for 100 % waste utilization shall be submitted.

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

1. Justification for engaging a particular type of process (raw hide/skin into semi finishing or finished leather, semi-finished leather to finished leather, dry finishing operations, chrome/vegetable tanning, etc.).
2. Details regarding complete leather/ skin/ hide processing including the usage of sulphides, nitrogen compounds, chromium or other tanning agents, post-tanning chemicals, biocides, etc., along with the material balance shall be provided.
3. In case of chrome tanning, details of the chrome recovery plant, management of shavings/solid waste including safe disposal.
4. Details on reuse of soak liquor / saline stream from membrane system, if applicable, to the extent possible in pickling activity after required treatment. Also, mention the salt recovery measures.
5. Action plan to limit the particulate matter emission from all the stacks below 30 mg/Nm3 shall be furnished.
6. Action plan for 100 % waste utilization shall be submitted.

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

1. Justification for selecting recovery/non-recovery (beehive) type batteries with the proposed unit size.
2. Details of proposed layout clearly demarcating various facilities such as coal storages, coke making, by-product recovery area, etc within the plant.
3. Details of coke oven plant (recovery/non-recovery type) including coal handling, coke oven battery operations, coke handling and preparation.
4. Scheme for coal changing, charging emission centre, Coke quenching technology, pushing emission control.

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

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

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

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

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

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

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## Executive Summary

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

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

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**ANNEXURE-3**

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

| S. No. | Name | Position | 26.05.2023 | 29.05.2023 |
|---|---|---|---|---|
| 1. | Shri Rajive Kumar | Chairman | ***Present*** | ***Present*** |
| 2. | Dr. Dipankar Shome | Vice Chairman | ***Present*** | ***Present*** |
| 3. | Dr. S. Ranganathan | Member | ***Present*** | ***Present*** |
| 4. | Dr. Ranjit Prasad | Member | ***Present*** | ***Present*** |
| 5. | Dr. S. K. Singh | Member | ***Present*** | ***Present*** |
| 6. | Dr. Tejaswini Ananthkumar | Member | ***Absent*** | ***Absent*** |
| 7. | Dr. Hemant Sahasrabuddhe | Member | ***Present*** | ***Present*** |
| 8. | Dr. Jai Krishna Pandey | Member | ***Present*** | ***Present*** |
| 9. | Dr. E V R Raju | Member | ***Present*** | ***Present*** |
| 10. | Dr. S K Chaturvedi, Actg. DG, (Representatives of NCCBM) | Member | ***Present*** | ***Present*** |
| 11. | Shri Nazimuddin, Scientist 'F' (Representative of CPCB) | Member | ***Present*** | ***Present*** |
| *12.* | Dr. S. Raghavan, Scientist 'D'(Representative of National Institute of Occupational Health (NIOH) | Member | ***Present*** | ***Present*** |
| 13. | Dr. Sanjay Bist, Scientist 'E' (Representative of Indian Meteorological Department) | Member | ***Present*** | ***Present*** |
| 14. | Dr. R.B. Lal, Scientist F, MoEFCC | Member Secretary | ***Present*** | ***Present*** |
| ***MoEFCC*** | | | | |
| 15. | Dr R P Rastogi | Scientist C | ***Present*** | ***Present*** |
| 16. | Dr Sandeepan BS | Scientist B | ***Present*** | ***Present*** |

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**ANNEXURE-4**

# Approval of EAC Chairman

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

**Re: Draft minutes of the 32nd EAC Meeting held on 26th & 29th May, 2023 for approval of the Chairman-Regarding**

**From :** chairman eac ind 1 <chairman.eac.ind.1@gmail.com> Sat, Jun 03, 2023 07:01 PM

**Subject :** Re: Draft minutes of the 32nd EAC Meeting held on 26th & 29th May, 2023 for approval of the Chairman-Regarding

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

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

Dear Dr Lal,
The draft minutes of 32 EAC meeting are approved.
Kindly do the needful.

With best wishes
Rajive Kumar
Chairman-EAC-Industry-1

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