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

*****

Dated: 27th December 2022

Date of Zero Draft MoM sent to EAC: 23.12.2022
Approval by Chairman:27.12.2022
Uploading on PARIVESH:27.12.2022

MINUTES OF THE 19th EXPERT APPRAISAL COMMITTEE (INDUSTRY-1 SECTOR) MEETING HELD ON DECEMBER 16 & 19, 2022

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

Time: **10:30 AM onwards**

DAY-1: DECEMBER 16, 2022 [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 'E' & Member Secretary, EAC (Industry-1 Sector) appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of the Minutes of the 18th Meeting of the EAC (Industry-1 Sector) held during November 28-29, 2022 at MoEF&CC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-1 Sector) members on the minutes of its **18th Meeting of the EAC (Industry-1 Sector) held during November 28-29, 2022** conducted through Video Conferencing, and noted that one request has been received for modifications/factual correction, in the minutes of the 18th EAC meeting for the project/activities.

<u>Correction in the minutes of the EAC meeting w.r.t.</u> Expansion of Crude Steel Production from 2.2 MTPA to 4.5 MTPA and Cold Rolling Mill from 1.6 MTPA to 2.6 MTPA within the existing Steel Plant by M/s Jindal Stainless Limited, located at Kalinganagar Industrial Complex, Jajpur, Odisha– Consideration of Modification/ Bifurcation/ Partial Transfer of Environmental Clearance.

The instant proposal was recommended by the EAC in its 18th meeting of the EAC for Industry-I sector held on 28-29th November, 2022. The Minutes were uploaded on Parivesh Portal on 06.12.2022. Further, PP vide e-mail dated 20.12.2022 requested for factual correction in the para 18.7.8 of the minutes of 18th EAC (Industry-1) meeting w.r.t. coordinates of JSL and JSLFL after the recommended splitting of facilities as follows:

<table>
<tr><th>Page No. of Minutes</th><th>Para / Point No.</th><th>Information as per Minutes of Meeting</th><th>Details to be corrected</th><th>Justification / Remarks</th></tr>
<tr><td>83</td><td>18.7.8</td><td>I. Project Information Matrix (Point 3 of the table)

JSL
<table>
<tr><th>Sl. No.</th><th>Lat (N)</th><th>Long (E)</th></tr>
<tr><td>1</td><td>20.943441°</td><td>86.041976°</td></tr>
<tr><td>2</td><td>20.952971°</td><td>86.038322°</td></tr>
<tr><td>3</td><td>20.956561°</td><td>86.048814°</td></tr>
<tr><td>4</td><td>20.954780°</td><td>86.049820°</td></tr>
<tr><td>5</td><td>20.951177°</td><td>86.045451°</td></tr>
<tr><td>6</td><td>20.946848°</td><td>86.047905°</td></tr>
</table>
JSLFL
<table>
<tr><th>Sl. No.</th><th>Lat (N)</th><th>Long (E)</th></tr>
<tr><td>1</td><td>20.943441°</td><td>86.041976°</td></tr>
<tr><td>2</td><td>20.952971°</td><td>86.038322°</td></tr>
<tr><td>3</td><td>20.956561°</td><td>86.048814°</td></tr>
<tr><td>4</td><td>20.954780°</td><td>86.049820°</td></tr>
<tr><td>5</td><td>20.951177°</td><td>86.045451°</td></tr>
<tr><td>6</td><td>20.946848°</td><td>86.047905°</td></tr>
</table></td><td>I. Project Information Matrix (Point 3 of the table)

JSL
<table>
<tr><th>Point</th><th>Direc-tion</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>N</td><td>20°58'10"N</td><td>86°02'34"E</td></tr>
<tr><td>B</td><td>NE</td><td>20°57'22"N</td><td>86°01'53"E</td></tr>
<tr><td>C</td><td>E</td><td>20°56'23"N</td><td>86°02'21"E</td></tr>
<tr><td>D</td><td>SE</td><td>20°56'59"N</td><td>86°03'43"E</td></tr>
<tr><td>E</td><td>NE</td><td>20°57'59"N</td><td>86°03'26"E</td></tr>
</table>
JSLFL
<table>
<tr><th>Point</th><th>Direc-tion</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td>A</td><td>NW</td><td>20°56'56"N</td><td>86°02'15"E</td></tr>
<tr><td>B</td><td>NNW</td><td>20°57'14"N</td><td>86°02'32"E</td></tr>
<tr><td>C</td><td>NNE</td><td>20°57'22"N</td><td>86°02'55"E</td></tr>
<tr><td>D</td><td>SSE</td><td>20°56'48"N</td><td>86°02'51"E</td></tr>
<tr><td>E</td><td>SW</td><td>20°56'35"N</td><td>86°02'28"E</td></tr>
</table></td><td>Factual correction w.r.t. coordinates of the proposed project site of M/s. JSL and JSLFL after the recommended splitting of facilities.</td></tr>
</table>

<u>Deliberations by the EAC:</u>

It was informed to the Committee members that the Ministry is in receipt of an email dated 20.12.2022 from M/s. Jindal Stainless Limited w.r.t. proposal which was earlier recommended by the EAC in its 18th meeting of the EAC for Industry-I sector held on 28-29th November, 2022.

The EAC based on the submission of PP, noted that the request of PP may be accepted and recommended for the incorporation of the above mentioned corrections/modifications in the minutes of the meeting. Accordingly, coordinates of JSL and JSLFL in 18.7.8 [I. Project Information Matrix (Point 3 of the table)] stands modified in the minutes of 18th EAC (Industry-1) meeting as detailed in table above.

The EAC also noted that no other request has been received for modifications/factual correction, in the minutes of the 18th EAC meeting for the project/activities, and confirmed the same.

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

Consideration of Environmental Clearance Proposals

Agenda No. 19.1

19.1 Expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW) by M/s VRKP Sponge and Power Plant LLP, Located at Halakundi village, Bellary Taluk & district, Karnataka – Consideration of Environmental Clearance.

[Proposal No. IA/KA/IND/288917/2017; File No. J-11011/527/2017-IA-II(I)]
[Consultant: Pioneer Enviro Laboratories & Consultants Private Limited; valid upto 16.12.2022]

19.1.1 M/s. VRKP Sponge & Power Plant LLP has made an online application vide proposal no. IA/KA/IND/288917/2022, dated 30th November, 2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

19.1.2 Name of the EIA consultant: M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. [Sl. No. 63, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0162; valid upto 22.03.2023, Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

19.1.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of Accord
11th October 2017	24th meeting of EAC held on 13th to 15th November 2017	Terms of Reference	29.11.2017

CHRONOLOGY OF EVENTS

- Form I along with PFR for proposed expansion was submitted to MoEF&CC, New Delhi on 11.10.2017 (by ***M/s. Pragathi Labs & Consultants Pvt. Ltd. – EARLIER CONSULTANT***)

- Proposal for proposed expansion for issue of TOR was considered in 24th EAC meeting held on **14.11.2017**
- Terms of Reference (TOR) for the proposed expansion project was issued vide letter no. **J-11011/527/2017-IA II (I)** dated **29.11.2017.**
- Draft EIA report along with Executive Summary submitted to Karnataka Pollution Control Board (KSPCB) for conduct of Public Hearing on **04.06.2018.**
- Public Hearing was conducted by KSPCB on **20.02.2019.**
- Public Hearing minutes was issued by KSPCB on **20.05.2019.**
- Final EIA report along with PH proceeding & reply by management on issues raised in PH submitted to MoEF&CC in Parivesh Portal for EC appraisal on **31.08.2019 (which was before expiry of TOR validity i.e. 28.11.2020 (as per O.M. issued by MoEF&CC dated 29th August 2017).**
- Subsequently EDS # 1 was raised by Hon'ble Ministry on **13.09.2019.**
- Later, due to certain unavoidable circumstances, PP has **dismissed** M/s. Pragathi Labs & Consultants Pvt. Ltd. as their Environment Consultant for proposed expansion project and accordingly obtained NOC from them.
- **M/s. VRKP SP LLP** have submitted reply to EDS # 1, intimating change in consultant on **13.03.2020.**
- EDS # 2 was raised by MoEF&CC with similar points on **27.03.2020.**
- Now, due to change of the Environment Consultant and appointing (M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. Hyderabad) for Revalidating the Final EIA report and duly addressing the points issued vide reference -3 (EDS on 13/09/2019) cited above and Fresh Baseline data for One season i.e. from March 2022 to May 2022.

19.1.4 The project of M/s. VRKP Sponge & Power Plant LLP located in Halakundi village, Bellary Taluk & district, Karnataka is for proposed expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW.

19.1.5 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>88.15 Ha. (217.82 Acres) [Private Land]</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 earmarked for the project is 88.15 Ha. (217.82 Acres) i.e. partly in Existing Land area of 35.6 Ha. (87.97 Acres) & adjoining Additional Land of 52.55 Ha. (129.85 Acres].

183.64 Ac. of land is in possession of the management and Agreement of sale entered for the remaining 34.18 Ac. Of Land between M/s. Hothur Steels & M/s. VRKP Sponge & Power Plant LLP</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 in the plant site

Study Area<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr></table></td><td>--</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>Halakundi | 1.4 km | NNE</td><td></td></tr>
<tr><td>4.</td><td>Latitude and Longitude of all corners of the project site</td><td>The following are the Coordinates of the Plant site
<table><tr><th>S. No.</th><th>Point</th><th>Coordinates</th></tr><tr><td>1.</td><td>Point # 1</td><td>15° 4'19.37"N, 76°52'15.03"E</td></tr><tr><td>2.</td><td>Point # 2</td><td>15° 4'11.65"N, 76°52'07.43"E</td></tr><tr><td>3.</td><td>Point # 3</td><td>15° 4'06.07"N, 76°52'02.17"E</td></tr><tr><td>4.</td><td>Point # 4</td><td>15° 4'00.72"N, 76°51'59.86"E</td></tr><tr><td>5.</td><td>Point # 5</td><td>15° 3'56.12"N, 76°51'56.62"E</td></tr><tr><td>6.</td><td>Point # 6</td><td>15° 3'56.41"N; 76°51'55.93"E</td></tr><tr><td>7.</td><td>Point # 7</td><td>15° 3'50.25"N, 76°51'53.48"E</td></tr><tr><td>8.</td><td>Point # 8</td><td>15° 3'52.36"N, 76°52'00.57"E</td></tr><tr><td>9.</td><td>Point # 9</td><td>15° 3'48.40"N, 76°52'00.77"E</td></tr><tr><td>10.</td><td>Point # 10</td><td>15° 3'48.58"N, 76°52'04.54"E</td></tr><tr><td>11.</td><td>Point # 11</td><td>15° 3'45.55"N, 76°52'11.49"E</td></tr><tr><td>12.</td><td>Point # 12</td><td>15° 3'52.39"N, 76°52'13.64"E</td></tr><tr><td>13.</td><td>Point # 13</td><td>15° 3'50.19"N, 76°52'21.53"E</td></tr><tr><td>14.</td><td>Point # 14</td><td>15° 3'55.58"N, 76°52'23.17"E</td></tr><tr><td>15.</td><td>Point # 15</td><td>15° 3'55.15"N, 76°52'25.10"E</td></tr><tr><td>16.</td><td>Point # 16</td><td>15° 3'49.79"N, 76°52'23.65"E</td></tr><tr><td>17.</td><td>Point # 17</td><td>15° 3'43.50"N, 76°52'21.44"E</td></tr><tr><td>18.</td><td>Point # 18</td><td>15° 3'40.89"N, 76°52'19.62"E</td></tr><tr><td>19.</td><td>Point # 19</td><td>15° 3'38.81"N, 76°52'24.91"E</td></tr><tr><td>20.</td><td>Point # 20</td><td>15° 4'01.77"N, 76°52'35.77"E</td></tr><tr><td>21.</td><td>Point # 21</td><td>15° 4'03.29"N, 76°52'34.94"E</td></tr><tr><td>22.</td><td>Point # 22</td><td>15° 4'04.68"N, 76°52'29.75"E</td></tr><tr><td>23.</td><td>Point # 23</td><td>15° 4'10.77"N, 76°52'31.44"E</td></tr><tr><td>24.</td><td>Point # 24</td><td>15° 4'14.01"N; 76°52'33.22"E</td></tr><tr><td>25.</td><td>Point # 25</td><td>15° 4'11.93"N; 76°52'40.70"E</td></tr><tr><td>26.</td><td>Point # 26</td><td>15° 4'12.89"N; 76°52'41.17"E</td></tr><tr><td>27.</td><td>Point # 27</td><td>15° 4'14.68"N, 76°52'38.18"E</td></tr><tr><td>28.</td><td>Point # 28</td><td>15° 4'21.80"N, 76°52'40.20"E</td></tr><tr><td>29.</td><td>Point # 29</td><td>15° 4'22.21"N, 76°52'38.69"E</td></tr><tr><td>30.</td><td>Point # 30</td><td>15° 4'14.99"N, 76°52'36.56"E</td></tr><tr><td>31.</td><td>Point # 31</td><td>15° 4'15.80"N, 76°52'32.78"E</td></tr><tr><td>32.</td><td>Point # 32</td><td>15° 4'21.68"N, 76°52'33.89"E</td></tr><tr><td>33.</td><td>Point # 33</td><td>15° 4'22.76"N, 76°52'29.47"E</td></tr><tr><td>34.</td><td>Point # 34</td><td>15° 4'18.05"N, 76°52'25.68"E</td></tr><tr><td>35.</td><td>Point # 35</td><td>15° 4'17.16"N, 76°52'22.17"E</td></tr></table></td><td>--</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>88.40 m to 101.85 m</td><td>--</td></tr>
<tr><td>6.</td><td>Involvement of Forest Land, if any</td><td>Nil</td><td>--</td></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural</td><td><u>Project Site:</u> Seasonal Nala is Passing through the site from North to South direction.

<u>Study area:</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>Drianage, Canal etc.,) exists within the project site as well as study area</td><td>
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Tungabhadra High level Canal</td><td>4.8 Km</td><td>***</td></tr>
<tr><td>Allipur Kere Reservoir</td><td>9.0 km</td><td>***</td></tr>
<tr><td>Seasonal Nala is Passing through the site</td><td></td><td>North to South direction</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.

<u>List of Reserved Forest:</u>
Bellary RF at 0.6 km (W)
Mincheri RF at 2.7 km (SE)</td><td>--</td></tr>
</table>

19.1.6 The existing project was accorded environmental clearance vide lr.no. SEIAA: 31: IND: 2007 dated 01.01.2009 for establishment of 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill in the name of M/s. Hothur Steels. EC has been transferred from M/s. Hothur Steels to M/s. VRKP Sponge & Power Plant LLP vide letter no. SEIAA 31 IND 2007 dated 23.12.2016. Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide lr. No. AW-326208 dated 16.08.2021. The validity of CTO is up to 30.06.2026.

CHRONOLOGY OF EXISTING PERMISSIONS	
Hothur Steels	
1	E.C. issued by Forest, Ecology and Environment Department, Govt. of Karnataka for production of 30,000 TPA Sponge Iron with vide No. FEE 49 ECO 2004 dated 07.08.2004.
2	EC issued by Forest, Ecology and Environment Department, Govt. of Karnataka for increased production from 30,000 to 90,000 TPA with Ref. No. FEE 9 ECO 2006 dated 04.07.2008.
3	EC issued by SEIAA, Karnataka to establish 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill, with vide order no. SEIAA: 31: IND: 2007 dated 01.01.2009.
4	CFE issued by KSPCB vide order No. KSPCB/SEO/MINES/CFE/2010-11/292 dated 13.01.2011.
5	The plant was shut down from 2011 to 2015.
VRKP Sponge & Power Plant LLP	
1	M/s. VRKP Sponge & Power Plant LLP has taken over M/s. Hothur Steel plant in July 2015

CHRONOLOGY OF EXISTING PERMISSIONS	
2	M/s. VRKP has received combined consent order in November 2015 for a period of 1 year
3	EC has been transferred from M/s. Hothur Steels Pvt. Ltd. to M/s. VRKP Sponge & Power Plant LLP on 23.12.2016
4	Current CFO obtained with vide order: AW-326208 dated 16.08.2021 and valid up to 30.06.2026

19.1.7 Implementation status of the existing EC

S. No.	Facilities	Product	As per E.C dated 01.01.2009	Implementation Status as on 12.12.2022	Current status of operation as per CTO
1	DRI Plant	Sponge Iron	90,000 TPA (3x100 TPD)	90,000 TPA (3x100 TPD)	90,000 TPA (3x100 TPD)
2	Induction Furnace with CCM	Hot Billets / Steel Billets	47,000 TPA (1x12 T)	47,000 TPA (1x12 T)	47,000 TPA (1x12 T)
3	Rolling Mill (85 % Hot charging with Hot Billets & remaining 15% through RHF with LDO/ LSHS as fuel)	Rolled Products / TMT Bars/ Hot Strips / Coils	72,000 TPA	72,000 TPA	72,000 TPA
4	Captive Power Plant	Electricity	10 MW (WHRB: 6 MW & AFBC: 4 MW)	10 MW (WHRB: 6 MW & AFBC: 4 MW)	10 MW (WHRB: 6 MW & AFBC: 4 MW)

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

S. No.	Product	Product	Existing capacity As per E.C issued on 01.01.2009	Current status of operation as per CTO	Proposed capacity as part of Expansion capacity	Total capacity After expansion capacity
1	DRI Plant	Sponge Iron	90,000 TPA* (3x100 TPD)	90,000 TPA* (3x100 TPD)	3,50,000 TPA (3x350 TPD)	4,40,000 TPA (3x100 TOD + 3x350 TPD)
2	Induction Furnace with CCM	Hot Billets / Steel Billets	47,000 TPA (1x12 T)	47,000 TPA (1x12 T)	4,95,000 TPA (3x40 T)	5,42,000 TPA (1x12 T + 3x40 T)
3	Rolling Mill (85 % Hot charging with Hot Billets &remaining 15% through	Rolled products / TMT Bars/ Hot Strips / Coils	72,000 TPA	72,000 TPA	3,30,000 TPA	4,02,000 TPA

S. No.	Product	Product	Existing capacity As per E.C issued on 01.01.2009	Current status of operation as per CTO	Proposed capacity as part of Expansion capacity	Total capacity After expansion capacity
	RHF with LDO/LSHS as fuel)					
4	Captive Power Plant	Electricity	10 MW (WHRB: 6 MW & AFBC: 4 MW)	10 MW (WHRB: 6 MW & AFBC: 4 MW)	24 MW (WHRB)	34 MW (WHRB: 30 MW & AFBC: 4 MW)
Note: In the ToR application the capacity of Sponge iron was mentioned as 1,00,000 TPA, which is Typographical Error. The capacity is 90,000,TPA only. Hence the Total Capacity of Sponge iron production after expansion will become 4,40,000 TPA.						

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

S.No.	Raw Material		Quantity	Source	Distance from Site (Kms)	Mode of Transport
For manufacturing Sponge Iron) of 3,50,000 TPA						
1	Iron Ore (OR) Iron Ore Pellets		7,00,000 TPA (OR) 4,90,000 TPA	NMDC Ltd. Donimalai, BMM Ispat Ltd. Bellary	~100 Kms.	By Rail & By road (through covered trucks)
2	Coal	Indian Coal	4,55,000 TPA	Open Market	~300 Kms.	By road (through covered trucks)
		Imported Coal	2,91,200 TPA	Indonesian (Krishnapatnam Port)/ South Africa (Mangaloreport)	~500 Kms.	Through sea route Rail & Road
3	Dolomite		17,500 TPA	Local Area	~100 Kms.	By road (through covered trucks)
For manufacturing MS Billets) – 4,95,000 TPA						
1	Sponge Iron		4,00,000 TPA	Own generation	---	----
2	Sponge Iron		70,250 TPA	Nearby plants in Bellary	~100 Kms.	By road (through covered trucks)
3	Scrap/ end cuttings		70,000 TPA	(Purchased from Local Area + in-house)	~100 Kms.	By road (through covered trucks)
4	Pig Iron		50,000 TPA	Local Area	~100 Kms.	By road (through covered trucks)
For manufacturing Rolled Products– 3,30,000 TPA						
1	Hot Billets / MS Billets		3,60,000 TPA	Own generation	----	By Conveyor
2	LDO / LSHS		8320 KL	Local Market	~100 Kms.	By road (through covered trucks)

19.1.10 The existing Water requirement is 491 m^3/day, which is obtained from ground water and permission for the same has been obtained from KGWA, Govt. of Karnataka vide letter no. KGWA/GW/NOC/13/2020-21/2467 dated 07.12.2021. The water requirement for the proposed expansion project is estimated as 1779 m^3/day, which will be obtained from the Ballari Muncipal Corporation (for supply of treated Sewage from Sewage Treatment Plant). The permission for supply of Treated Sewage water is obtained from Ballari Municipal Corporation Vide Lr. dated 07.12.2022.

19.1.11 Power required for the existing plant & CTO permitted units is 7.6 MW and is being sourced Captive Power. Power required for the proposed expansion project will be 53.9 MW. Total Power Requirement after proposed expansion will be 61.5 MW and same will be sourced from 34 MW Captive Power Plant & remaining 27.5 MW is from State Grid.

19.1.12 Baseline Environmental Studies:

<table>
<tr><td>Period</td><td>• Baseline data collection for the proposed project has been collected from 1st December, 2017 to 28th February, 2018 by M/s. Pragathi Labs & Consultants Pvt. Ltd. (NABET accredited) Hyderabad.
• Subsequently the baseline data has been collected for further period of One season i.e. from i.e. from 1st March, 2022 to 31st May 2022 for Re-validation of Baseline data for preparation of EIA report.</td></tr>
<tr><td>AAQ parameters at 8 locations</td><td>
<table>
<tr><th>Parameter</th><th>Concentration (during 1st December 2017 to 28th February 2018)</th><th>Concentration (during 1st March, 2022 to 31st May 2022)</th></tr>
<tr><td>$PM_{2.5}$</td><td>17 to 48 µg/m^3</td><td>22.9 to 42.9 µg/m^3</td></tr>
<tr><td>PM_{10}</td><td>45 to 80 µg/m^3</td><td>40.6 to 75.3 µg/m^3</td></tr>
<tr><td>SO_2</td><td>12 to 36 µg/m^3</td><td>12.4 to 28.9 µg/m^3</td></tr>
<tr><td>NO_2</td><td>13 to 30 µg/m^3</td><td>12.8 to 25.6 µg/m^3</td></tr>
<tr><td>CO</td><td>650 to 1130 µg/m^3</td><td>514 to 1028 µg/m^3</td></tr>
</table>
</td></tr>
<tr><td>AAQ modelling</td><td>• PM_{10} = 0.74 µg/m^3(1300 m in NW) PM_{10}(vehicular)=0.80 µg/m^3
• SO_2 =7.37 µg/m^3 (2000 m in NE)
• NO_x=4.73 µg/m^3 (1300 m in NE)NO_x= 5.5 µg/m^3
• CO= 3.56 µg/m^3</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>• pH :7.28 to 8.22
• TSS : 0.3 to 0.72 mg/l
• TDS :586 to 889 mg/l
• Total Hardness :279 to 458 mg/l
• Chlorides :322 to 458 mg/l
• Fluoride :0.85 to 1.2 mg/l
• Heavy metals (Iron -Fe): 0.11 to 0.25 mg/l</td></tr>
<tr><td>Surface water quality at 5 locations</td><td>pH :7.2 to 7.7, DO (in mg/l) : 3.9 to 5.1, BOD (in mg/I) : 2.6 to 3.3, COD (in mg/I) : 10.4 to 16.5, TDS (in mg/l) : 177 to 342, Chlorides (in mg/l) : 67 to 185; Sulphates (in mg/l) : 39 to 106</td></tr>
<tr><td>Noise levels</td><td>The equivalent day-night noise levels in the study zone are ranging from 45.85 dBA to 70.96 dBA.</td></tr>
<tr><td>Traffic assessment study findings</td><td>Traffic study has been conducted at National Highway # 150A which is Adjacent. from the plant site.</td></tr>
</table>

<table>
<tr><td></td><td>Transportation of raw material, fuel& finished product will be done 100 % by road.
Existing PCU is 1085 PCU/hr on NH#150A and existing Level of Service(LOS) is :
<table>
<tr><th>Road</th><th>V(Volume in PCU/hr)</th><th>C(Capacity in PCU/hr)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>Ballari to Hiriyur (NH # 150 A)</td><td>1085</td><td>2400</td><td>0.45</td><td>C</td></tr>
</table>
PCU load after proposed project will be 15270 PCU/day +1097 PCU/day and Level of Service (LOS) will be
<table>
<tr><th>Road</th><th>V(Volume in PCU/hr)</th><th>C (Capacity in PCU/hr)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>Ballari to Hiriyur (NH # 150 A)</td><td>1255</td><td>2400</td><td>0.52</td><td>C</td></tr>
</table>
Level of Service (LOS) of the Road as per IRC 73: 1980
<table>
<tr><td>V/C</td><td>LOS</td><td>Performance</td></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 &Above</td><td>F</td><td>Very Poor</td></tr>
</table>
As per the above the LOS of the ROAD is categorised under ‘C’, which implies “GOOD”.
Hence the existing road is capable of taking the additional vehicular traffic due to the proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>No of schedule -1 fauna found.</td></tr>
</table>

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

S.No.	**Waste**	**Quantity (TPA)**		**Method of disposal**
		Existing	**Proposed**	
1	Ash from DRI	18,000 (54 TPD)	63,000 (189 TPD)	Is being / will be used in proposed Fly Ash Brick making unit.
2	Dolochar	20,000 (60 TPD)	70,000 (210 TPD)	Partly will be utilized in captive AFBC boiler based power plant& remaining will be given to nearby FBC based power plants.
3	Kiln Accretion Slag	900 (3.0TPD)	3,150 (9.0 TPD)	Will be used in proposed Fly Ash Brick making unit
4	Wet Scraper Sludge	4,600 (14 TPD)	16,100 (48 TPD)	Will be used in proposed Fly Ash Brick making unit.
5	SMS Slag	4,700 (14 TPD)	49,500 (143 TPD)	Slag from SMS will be crushed and iron will be recovered & remaining non –magnetic inert

S.No.	Waste	Quantity (TPA)		Method of disposal
		Existing	Proposed	
				material will be used in proposed Fly Ash Brick making unit / road construction /will be given to Road contractors.
6	Mill scales from Rolling Mill	1440 (4.5 TPD)	6,600 (20 TPD)	Will be given to nearby Sinter Plants / Ferro Alloy units.
7	End cuttings from Rolling mill	2160 (6.5 TPD)	9,900 (30 TPD)	Will be recycled back to Induction Furnace as a rawmaterial
8	STP sludge	70 kg/day	166 Kg/day	Will be used as manure for Greenbelt development
8	Ash from CPP indian Coal	18,315 (55 TPD)	---	Will be used in proposed Fly Ash Brick making unit

NOTE:

1. It is proposed to install a Fly Ash brick making plant of 50,000 Bricks/day within the premises to utilize the entire Fly Ash, accretion slag, SMS slag etc. This was not proposed earlier.

2. Solid wastes such as dolochar, accretion slag, SMS slag will be stored in designated storage yard. Ash generated will be stored in silos only. There will not be any open storage of fly ash. All other storage yards will be on top of stable liner to avoid leaching of material to ground water.

Hazardous waste generation, storage & disposal:

1. Waste oil: 3.0 KL / Annum

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

2. Used Batteries

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

19.1.14 Public Consultation:

Date of advertisement	20th January 2019
Name of newspapers	Vijaya Karnataka & Deccan Herald
Date on which Public Hearing conducted	20thFebruary 2018
Venue	Public Hearing was conducted at proposed expansion project site of M/s. VRKP Sponge & Power Plant LLP, Sy. No. 229, 288 & 289, Halakundi village, Bellary Taluk & District, Karnataka.
Chaired by	Additional District Magistrate, Ballari
Issues are	• Employment to local people in Existing Plant & proposed expansion. • Dust pollution caused by the industry. • Suffering from water problem • Air pollution and water pollution. • Ground water level is decreasing • Crop compensation to the farmers.

	• Social welfare work and infrastructure work • Proper plantation in and around the industry • Suffering from breathing problems, health problems • Employment to land losers • Concreting the road • Stone pitching to the new water tank • Construct new school building etc. Relaying of Road

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

M/s. VRKPSPP LLP is also proposing to adopt the following 4 nos. of Villages as a part of Social welfare development and has earmarked Rs. 3.33 Crores for Social & Infrastructure developmental activities based on Social Impact Assessment (SIA) after completion of Public Hearing.

1. Halakundi; 2. Honnahalli; 3. Mincheri; 4. Obulapuram villages

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
A). Based on Need Based & SIA Study						
1	**Community & Infrastructure Development Programmes**					
	i) Providing LED Street lighting with solar panels	Physical Nos. & village	10 nos. in Halakundi (v) & 10 Nos. in Mincheri (v)	10 nos. in Honahalii (v)	10 nos. in Obulapuram (v)	6
		Budget in Lakhs	3	1.5	1.5	
	iii) Mineral water plants	Physical Nos. & village	2 nos. in Honahalli (v)& 2 nos. in Mincheri (v)	3 nos. in Halakundi (v)	2 nos. in Obulapuram (v)	27
		Budget in Lakhs	12	9	6	
					Total	**33**
2	**Education**					
	i) Providing Sport kits for schools	Physical Nos. & village	5 nos. in Halakundi (v)& 5 Nos. in Mincheri (v)	5 nos. in Obulapuram (v)	5 nos. in Honnahalli (v)	2
		Budget in Lakhs	1	0.5	0.5	
	ii) Construction of class rooms in schools of size 8m x 5m x3 m	Physical Nos. & village	2 rooms in Honnahalli (v)	2 rooms in Mincheri (V)	--	20
		Budget Rs in Lakhs	10	10	--	
	iii)Providing support to Model Anganwadi Centre in consultation with State Women and Child Development Department	Physical Nos. & village	Halakundi (v) -1 no.	Obulapuram (v) – 1 no.	Honnahalli (v) -1 no.	30
		Budget Rs in Lakhs	10	10	10	
					Total	**52**

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
					TOTAL (A)	**85**
B). Based on Public Consultation/Hearing						
1	Impart training to the local villagers for skill development. a)DISHA Centre" along with necessary infrastructure for various vocational training program for employment generation in association with National Skill Development Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	Physical Nos. & village	One DISHA centre			110
		Budget in Lakhs	40	35	35	
2	RWH pits in the surrounding villages & De-siltation of ponds	Physical Nos. & village	2 nos. in Honnahalli (v) &2 nos. in Micheri (v)	2 nos. in Halakundi (v)	2 nos. in Obulapuram (v)	6
		Budget in Lakhs	3.0	1.50	1.50	
3	Industry should do stone pitching to the new water tank constructed at Sy. No.55 to hold the water.	Physical Nos. & village	Halakundi (v)	---	---	2
		Budget in Lakhs	6	---	---	
4	Providing drinking water supply along with the surrounding industries by laying pipeline from Tungabhadra High Level Canal to Halakundi village	Physical Nos. & village	Halakundi (v)	---	---	15
		Budget in Lakhs	15	---	---	
5	Construction of water storage tank in Halakundi village	Physical Nos. & village	--	--	1 no. in Halakundi (v)	20
		Budget in Lakhs	--	--	20	
6	Construction of 25 bedded hospital building building in association with other Industries	Physical Nos. & village	Halakundi (v)	---	---	5
		Budget in Lakhs	25	---	---	
7	Construction of class rooms in	Physical Nos.&village	2 rooms in Halakundi (v)	---	---	10

S.NO.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION			TOTAL EXPENDITURE (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
	schools of size 8m x 5m x3 m	Budget in Lakhs	10	--	--	
8	Construction of Toilets in schools	Physical Nos.&village	2 no.s in Honnahalli (v) & 2 no.s in Halakundi (v)	--	--	10
		Budget in Lakhs	10	--	--	
9	Construction of concrete road from railway gate to the proposed industry.	Physical Nos.&village	--			30
		Budget in Lakhs		30		
10	Construction of Library in Halakundi village	Physical Nos.&village	---	1 no. in Halakundi (v)	--	5
		Budget in Lakhs	---	5	--	
11	Providing books, pens, scholarships to the poor children in near villages.	Physical Nos.&village	Honnahalli (v), Halakundi (v),Obulapuram (v) &Mincheri	--	--	5
		Budget in Lakhs	5			
12	Plantation in nearby villages & along the Roads	Physical Nos. & village	2000 nos. in Honnahalli (v) &	2000 nos. in Halakundi (v)	2000 nos. in Micheri (v)	6
		Budget in Lakhs	2.0	2.0	2.0	
					Total B	**248**
		TOTAL	**152**	**114.5**	**96.5**	
					Grand Total(A+B)	**333**

Recurring expenditures under CSR as per companies Act 2014

- Health checkup will be carried out periodically in surrounding villages i.e. Halakundi, Honnahalli, Mincheri & Obulapuram villages @ Rs 5.0Lakhs every year
- Rs. 2 Lakhs for regular maintenance of Road
- Rs. 1.0 Lakh per annum for maintenance of Library

19.1.15 The capital cost of the expansion project is Rs.570 Crores and the capital cost for environmental protection measures is proposed as Rs.45.7 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs.5.55Crores. The employment generation from the proposed expansion project is 505 direct & 325 Indirect. The details of cost for environmental protection measures is as follows:

S. No	Particulars	Capital Cost (Rs.in Crores)			Recurring Cost / Annum (Rs.in Crores)
1	**Air Emission Management**	**2022-24**	**2024-26**	**Total**	
	• Electro Static Precipitators (ESP)	18.0	---	18.0	1.8
	• Fume Extraction system with bag filters	4.5	4.5	9.0	0.9
	• other APCS & Conveyor systems	1.50	0.5	2.0	0.2
	• Stacks	1.8	0.6	2.4	0.072

	• Mechanical Dust sweepers	0.15	0.15	0.3	0.03
	• Water Sprinklers	0.05	0.05	0.10	0.005
2	**Wastewater Management**				
	• for New ETP	1.50	---	1.50	0.3
	• for STP	0.40	---	0.40	0.1
	• for Garland drains	0.15	0.15	0.30	0.03
	• for Settling ponds	0.01	0.01	0.02	0.002
3	**Solid waste Management**				
	• Fly Ash Handling & disposal	1.50	---	1.50	0.45
	• Slag Handling & Disposal	0.1	0.1	0.20	0.05
	• Hazardous waste storage & disposal	0.05	0.05	0.10	0.05
	• Municipal solid waste storage & disposal	0.03	0.02	0.05	0.025
4	Greenbelt development, Land scaping	0.40	0.20	0.60	0.36
5	Land scaping along Nallah & Canal	0.05	0.05	0.10	0.02
6	Noise Management	0.15	0.05	0.20	0.1
7	RWH in Plant	0.10	0.05	0.15	0.015
8	Storm water management	0.50	0.22	0.72	0.07
9	Fire Safety Systems	2.00	0.50	2.50	0.25
10	**Environmental Monitoring**				
	• CEMS	0.40	0.30	0.70	0.07
	• CAAQMS	0.40	0.40	0.80	0.16
	• Environment Monitoring	0.00	0.00	0.00	0.09
	• Performance monitoring of APCS	0.00	0.00	0.00	0.01
11	**Occupational Health & Safety**				
	• Occupational Health centre with Ambulance	0.30	0.20	0.50	0.15
	• Personal Protective Equipment's (PPEs)	0.20	0.05	0.25	0.25
	Sub Total	**34.24**	**8.15**	**42.39**	**5.489**
12	Budget for SID (Social Infrastructure Development)	**2.665**	**0.965**	**3.33**	**----**
	TOTAL	**36.905**	**9.115**	**45.72**	**5.559**

19.1.16 Existing green belt has been developed in 11.7 ha area which is about 33% of the existing plant area of 35.6 ha with total sapling of 14,225 Trees. Proposed greenbelt will be developed in 17.68 Ha. which is about 33% of the additional land area of 52.55 Ha. Thus total of 29.38 Ha. area (33.3 % of total project area i.e. 88.15 Ha.) will be developed as greenbelt. A 10 m to 85 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, New Delhi guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 74,225 saplings will be planted and nurtured in 29.38 hectares in 2 years.

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

Certified Compliance report from Regional office, MoEFCC

19.1.18 The status of the compliance report of conditions in earlier E.C. was issued by IRO, BANGALORE Vide No. 12.1/SEIAA/143/Kar/856 Dated 31st October 2022 in the name of M/s. VRKP Sponge & Power Plant LLP.

Deliberations by the Committee

19.1.19 The Committee noted the following:

1. The instant proposal is for expansion of Sponge Iron Plant from 90,000 TPA to 4,40,000 TPA, Steel Melting Shop from 47,000 TPA to 5,42,000 TPA, Rolling Mill from 72,000 TPA to 4,02,000 TPA, Captive Power Plant from 10 MW to 34 MW.
2. The existing project was accorded environmental clearance vide lr.no. SEIAA: 31: IND: 2007 dated 01.01.2009 for establishment of 10 MW CPP, 12 T Induction Furnace with CCM & 72,000 TPA Rolling Mill in the name of M/s. Hothur Steels. EC has been transferred from M/s. Hothur Steels to M/s. VRKP Sponge & Power Plant LLP vide letter no. SEIAA 31 IND 2007 dated 23.12.2016. Consent to Operate for the existing unit was accorded by Karnataka State Pollution Control Board vide lr. No. AW-326208 dated 16.08.2021. The validity of CTO is up to 30.06.2026.
3. The EAC noted the following with respect to the instant proposal:
    - Form I along with PFR for proposed expansion was submitted to MoEF&CC, New Delhi on 11.10.2017 (by *M/s. Pragathi Labs & Consultants Pvt. Ltd. – Earlier Consultant*)
    - Proposal for proposed expansion for issue of TOR was considered in 24th EAC meeting held on 14.11.2017.
    - Terms of Reference (TOR) for the proposed expansion project was issued vide letter no. J-11011/527/2017-IA II (I) dated 29.11.2017.
    - Draft EIA report along with Executive Summary submitted to Karnataka Pollution Control Board (KSPCB) for conduct of Public Hearing on 04.06.2018.
    - Public Hearing was conducted by KSPCB on 20.02.2019.
    - Public Hearing minutes was issued by KSPCB on 20.05.2019.
    - Final EIA report along with PH proceeding & reply by management on issues raised in PH submitted to MoEF&CC in PARIVESH Portal for EC appraisal on 31.08.2019 (which was before expiry of TOR validity i.e. 28.11.2020 (as per O.M. issued by MoEF&CC dated 29th August 2017).
    - Subsequently EDS # 1 was raised by Ministry on 13.09.2019 as the Report is incomplete and having shortcomings.
    - Later, due to certain unavoidable circumstances, PP has dismissed M/s. Pragathi Labs & Consultants Pvt. Ltd. as their Environment Consultant for proposed expansion project and accordingly obtained NOC from them.

- M/s. VRKP SP LLP have submitted reply to EDS # 1, intimating change in consultant on 13.03.2020.
- EDS # 2 was raised by MoEF&CC on 27.03.2020.

Now, due to change of the Environment Consultant and appointing (M/s. Pioneer Enviro Laboratories & Consultants Pvt. Ltd. Hyderabad) for Revalidating the Final EIA report and duly addressing the points issued vide reference -3 (EDS on 13/09/2019) cited above and Fresh Baseline data for One season i.e. from March 2022 to May 2022.

The matter has been examined and EAC noted that Even PP has only obtained CCR on 31.10.2022. As per TOR dated 29.11.2017, PP has to submit the latest CCR of MoEFCC within validity period of TOR.

4. The EAC further noted that ToR for the proposed expansion project was granted on 29.11.2017 valid for a period of three years i.e., upto 28.11.2020. Further, Project Proponent/Consultant has reported that since final application for EC was submitted to MoEF&CC in PARIVESH Portal on 31.08.2019 (i.e. before expiry of TOR validity i.e. 28.11.2020), therefore, they have not applied for extension of ToR validity in pursuance to Ministry's O.M. dated 29.08.2017. However, the EAC noted that the PP submitted incomplete application without the complete TOR compliances.

5. The EAC also argued that since the EC proposal submitted on 31.08.2019 was not complete as per the EIA Notification, 2006, an EDS was raised by the Ministry for furnishing all the details for appraisal by the EAC. The PP/Consultant could not reply to the EDS for the reasons reported in point 3 above and has now applied again for EC on 30.11.2022 after obtaining CCR from IRO on 31.10.2022.

6. In view of above facts, the EAC recorded that as per the instant application the TOR validity has expired as per the Ministry's provision of maximum 4 years of ToR validity . In pursuance to Ministry's O.M. dated 08.06.2022 pertaining to standardising the validity of baseline data and public consultation, para 6 of said OM states that the baseline data and Public Hearing shall not be more than three years old at the time of submission of application for consideration of EC. In the instant case, though PP has recollected the baseline data (March 2022 to May 2022), but the PH (20.02.2019) is now more than 3 years old.

7. Therefore, the EAC is of the opinion that it is imperative that comments of the Policy Sector of IA Division may be obtained prior to appraisal of the instant proposal w.r.t. ToR and PH validity to clarify whether the instant proposal qualifies to be appraised in pursuance to the Ministry's O.M. issued from time to time under the provisions of EIA Notification, 2006 or not.

8. The PP/Consultant also agreed to the suggestions of EAC to obtain the comments of the Policy Division of MoEF&CC.

Recommendations of the Committee

19.1.20 In view of the foregoing and after detailed deliberations, the Committee recommended to **defer the proposal** and advised the Ministry/ PP to first obtain the comments of the Policy Sector of

IA Division due to complexity of the timelines for submission of the proposal w.r.t. validity of ToR and validity of PH to clarify whether the instant proposal qualifies to be appraised in pursuance to the Ministry's O.M. issued from time to time under the provisions of EIA Notification, 2006 or not due to the facts referred in para no. 19.1.19 above. The proposal shall be considered after obtaining the requisite information.

***

Agenda No. 19.2

19.2 Setting up of Integrated stainless-steel plant comprising of steel melting shop of 2,08,400 TPA and rolling mill of 2,00,000 TPA by M/s Ambica Steels India Limited, located at Mokhana Village, Bhuj Tehsil, Kachchh District, Gujarat- Consideration of Environmental Clearance.

[Proposal No. IA/GJ/IND1/405311/2022; File No. IA-J-11011/508/2021-IA-II(IND-I)]
[Consultant: M/s Greencindia Consulting Private Limited; Valid upto 22.02.2023]

19.2.1 M/s. Ambica Steel India Limited has made an online application vide proposal no. IA/GJ/IND1/405311/2022 Dated 30th November 2022 along with copy of EIA/EMP report, Form – 2 and certified compliance report seeking Environmental Clearance under EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

19.2.2 Name of the EIA consultant: M/s Greencindia Consulting Private Limited [Sl. No. 162, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0155; valid upto 22.02.2023, Rev. 25, Sept 05, 2022].

19.2.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
21st December 2021	51st meeting of the Re-Constituted Expert Appraisal Committee of Industry-1 sector project to be held on 11-12th January 2022	Terms of Reference	24th January 2022	23rd January 2025

Details submitted by the project proponent

19.2.4 The project of M/s. Ambica Steel India Limited located in Mokhana Village, Taluka Bhuj, District Kutch, Gujarat is for setting up of green field Steel Melting Shop of 2,08,400 TPA and Rolling Mill of 2,00,000 TPA.

19.2.5 Environmental site settings

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by PP</th><th>Remarks</th></tr>
<tr><td>1</td><td>Total land</td><td>27.25 ha (Private land)</td><td>Land use- Agriculture land</td></tr>
<tr><td>2</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>• Entire land 27.25 ha (67.4 acre) is under possession of proponent
• Conversion already done 8.77 ha (21.675 acre)
• Under Process 18.5 ha (45.725 acre)</td><td>-</td></tr>
<tr><td>3</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Project Site</u>: Nil

<u>Study Area</u>:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Kaniyabe</td><td>1.65km</td><td>West</td></tr><tr><td>Mokhana</td><td>1.6 km</td><td>NNW</td></tr></table></td><td>No R&R is involved</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>23°17'10.42"N</td><td>70°0'19.78"E</td></tr><tr><td>B</td><td>23°17'10.96"N</td><td>70°0'22.25"E</td></tr><tr><td>C</td><td>23°17'10.55"N</td><td>70°0'24.70"E</td></tr><tr><td>D</td><td>23°17'11.51"N</td><td>70°0'28.68"E</td></tr><tr><td>E</td><td>23°17'10.35"N</td><td>70°0'31.08"E</td></tr><tr><td>F</td><td>23°17'11.08"N</td><td>70°0'37.04"E</td></tr><tr><td>G</td><td>23°17'03.45"N</td><td>70°0'41.05"E</td></tr><tr><td>H</td><td>23°17'03.02"N</td><td>70°0'39.76"E</td></tr><tr><td>I</td><td>23°16'53.46"N</td><td>70°0'43.79"E</td></tr><tr><td>J</td><td>23°16'53.26"N</td><td>70°0'40.63"E</td></tr><tr><td>K</td><td>23°17'0.15"N</td><td>70°0'38.51"E</td></tr><tr><td>L</td><td>23°16'59.65"N</td><td>70°0'34.45"E</td></tr><tr><td>M</td><td>23°16'52.99"N</td><td>70°0'36.38"E</td></tr><tr><td>N</td><td>23°16'52.52"N</td><td>70°0'31.00"E</td></tr><tr><td>O</td><td>23°16'59.36"N</td><td>70°0'29.81"E</td></tr><tr><td>P</td><td>23°16'59.26"N</td><td>70°0'23.99"E</td></tr><tr><td>Q</td><td>23°16'52.37"N</td><td>70°0'25.75"E</td></tr><tr><td>R</td><td>23°16'51.88"N</td><td>70°0'18.33"E</td></tr><tr><td>S</td><td>23°16'55.65"N</td><td>70°0'17.22"E</td></tr><tr><td>T</td><td>23°16'56.74"N</td><td>70°0'20.96"E</td></tr><tr><td>U</td><td>23°17'04.06"N</td><td>70°0'19.22"E</td></tr><tr><td>V</td><td>23°17'04.64"N</td><td>70°0'21.91"E</td></tr></table></td><td></td></tr>
<tr><td>5</td><td>Elevation of the project site</td><td>73 m above mean sea level</td><td>-</td></tr>
<tr><td>6</td><td>Involvement of Forest land if any.</td><td>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><u>Project Site</u>: Nil

<u>Study Area:</u><table><tr><th>Water body</th><th>Distance km</th><th>Direction</th></tr><tr><td>Sang Nadi</td><td>0.60</td><td>N</td></tr><tr><td>Nihwara Nala</td><td>6.1</td><td>NNW</td></tr><tr><td>SakraNadi</td><td>6.3</td><td>E</td></tr></table></td><td>Details regarding the HFL of nearby Sang nadi are asked from Government of Gujarat and Government has replied in negative as no data is available with them.</td></tr>
</table>

S. No.	Particulars	Details submitted by PP			Remarks
		Tappar Reservoir	10.0	ESE	According to the Google earth the elevation of Sang Nadi is 69m whereas the elevation of the project site is 73m and there is a State Highway between Sang Nadi and Project site with an elevation of 74m.
		Talav	3.0	S	
		Talav	8.8	WSW	
		Talav	6.8	SE	
		Hothisar Lake	5.6	ENE	
		Rann (Salt Waste-Dry)	10.0	NNE	
8	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	Nil			
		List of Reserved & Protected Forest			
		Forest	**Distance**	**Direction**	
		Naliyeri Timbo RF	8.0km	NW	
		Modsar RF	4.3km	NNW	
		Jawaharnagar RF	6.5km	NNE	

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

S No	Name of Facility	Configuration	Total Capacity
1	SMS	IF: 1x3 T + 1x40 T	2,08,400 TPA
2	Rolling Mill (RM)		2,00,000 TPA

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

S. No	Raw Material	Quantity (TPA)	Source	Distance from Site (km)	Mode of Transportation
1	Stainless Steel Scrap	166,720	Purchased 80% Imported 20% Local	Imported 75 Km & Locally 400 km approximately.	By Road
2	M.S. Scrap	20,840	Purchased Locally	200 km approximately.	By Road
3	Nickel	2,084	Imported	75 Km	In sealed bags by road
4	Ferro- Silicon	10,420	Imported	75 Km	In sealed bags by road
5	Ferro Manganese	14,588	Purchased Locally	200 Km approximately.	In sealed bags by road
6	Ferro-Chrome	22,924	Purchased Locally	350 Km approximately.	In sealed bags by road
7	Burnt Dolomite and lime	35,845	Purchased Locally/ Imported	Imported 75 Km & Locally 900 Km approximately.	In sealed bags by road

S. No	Raw Material	Quantity (TPA)	Source	Distance from Site (km)	Mode of Transportation
8	Fluorspar	1,042	Purchased Locally	100 Km approximately.	In sealed bags by road
9	Calcined Petroleum Coke (CPC)	1,667	Purchased Locally	Imported 75 Km & Locally 2200 Km approximately.	In sealed bags by road

19.2.8 The water requirement for the proposed project is estimated as 1130 m^3/day which will be obtained from the Gujarat Water Infrastructure Ltd. (GWIL) (Surface water - Narmada River). The permission for drawl of water is obtained from Gujarat Water Infrastructure Limited Vide Lr. No. GWIL/Anjar/Ambica Steels/622 Dated 25/02/2022.

19.2.9 The power requirement for the proposed project is estimated as 30MW, which will be obtained from the Paschim Gujarat Vij Company limited (PGVCL).

19.2.10 Baseline Environmental Studies

<table>
<tr><td>Period</td><td>December 2021 to February 2022</td></tr>
<tr><td>AAQ parameters at 10 Locations (min and max)</td><td>• $PM_{2.5}$= 29.9 to 39.2 µg/m^3
• PM_{10} = 67.1 to 90.8 µg/m^3
• SO_2 = 18.1 to 22.3 µg/m^3
• NOx = 15.3 to 26.9 µg/m^3
• CO = 500 to 620 µg/m^3</td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} = 0.44 µg/m^3 (Level at 8 km in NE Direction)
• SO_2= BDL
• NOx = 2.23 µg/m^3 (Level at 7.7 km in NW Direction)
• CO = BDL</td></tr>
<tr><td>Ground water quality at 8 locations</td><td>pH: 7.1 to 7.4, Total Hardness: 209.1 to 261.2 mg/l, Chlorides: 52.8 to 90.5 mg/l, Fluoride: 0.42 to 0.58 mg/l. Heavy metals Iron 0.11 to 0.38 mg/l, Zinc: 0.14 to 0.49 mg/l, rest heavy metals were detected below detection limit.</td></tr>
<tr><td>Surface water quality at 8 locations</td><td>pH: 7.2 to 7.6; DO: 5.1 to 6.4 mg/l and BOD: 2.0 to 2.9 mg/l. COD from 14.8 to 25.8 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>54.1 to 58.4 dB for the day time and 41.7 to 50.4 dB for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at SH 42 which is approximately 0.2 m (distance) from the plant site.
• Transportation of raw material, fuel & finished product will be done 100 % by road.
• Existing PCU is 1748PCU/hr on SH 42 and existing level of service (LOS) is C:
<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 42</td><td>1748</td><td>3600</td><td>0.48</td><td>C</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td>
PCU load after proposed project will be 1748 (Existing) + 232 (Additional) PCU/hr and level of service (LOS) will be:C
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>SH 42</td><td>1980</td><td>3600</td><td>0.55</td><td>C</td></tr>
</table>
** Note: Capacity as per IRC-106-1990 Guide line for capacity for roads.*

Conclusion: The level of service will not change due to the proposed project.
</td></tr>
<tr><td>Flora and fauna</td><td>No schedule 1 fauna or endangered flora are seen in the study area, but due to the queries raised in public hearing about the presence of peacock in the region a conservation plan for peafowl has been made and submitted to the chief wildlife warden for approval. The acknowledgement letter for the same is submitted.</td></tr>
</table>

19.2.11 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 (TPA)	Mode of Treatment	Disposal
1.	Slag	Induction Furnace Melting and LRF (18kg/ tonne of billets)	3,752 tonnes	This is non-hazardous Solid Waste. Slag will be crushed to recover metal for re-melting	After re-melting the slag shall be processed and rejects shall be tested as per TCLP Decision to used slag for construction or sending it to TSDF shall be based on TCLP test results.
2.	Slag	AOD and VOD (300kg/ tonne of billets)	62,520 tonnes	This is non-hazardous Solid Waste. Slag will be crushed to recover metal for re-melting	After re-melting the slag shall be processed and rejects shall be tested as per TCLP Decision to used slag for construction or sending it to TSDF shall be based on TCLP test results.
3.	Dust	Air Pollution Control System	2704 tonnes		To be disposed off to Authorized Dealer as per HWMR [(Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016)]
4.	MSW	Staff and Visitors	64 tonnes		To be disposed off as per Solid Waste

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
					Management Rules, 2016.
5.	Mill Scale	Process	1100 tonnes		Disposed off for use in Sinter Plants
6.	E-waste	Process	500 kg		To be disposed off to Authorized Dealer as per E-Waste (Management) Rules, 2016.
7.	Used Hand Gloves	Plant	1000 kg		To be disposed off to Authorized Dealer as per HWMR
8.	Used oil	Process	1500 kg		To be disposed off to Authorized Dealer as per HWMR
9.	Used filter	Process	100 nos.		To be disposed off to Authorized Dealer as per HWMR
10.	Used Empty-Bottles	Plant	300 nos.		To be disposed off to Authorized Dealer as per Plastic Waste Management Rules, 2016.
11.	Used PVC Bags	plant	200 kg		To be disposed off to Authorized Dealer as per Plastic Waste Management Rules.
12.	Used Tubes & Bulbs	plant	20 kg		To be disposed off to Authorized Dealer as per E-Waste (Management) Rules, 2016.
13.	Used Batteries	plant	5000 kg		To be disposed off to Authorized Dealer as per Batteries (Management and Handling) Rules, 2001.
14.	Other material like cotton waste, refractory waste, construction waste, replacement parts of metal & rubber.	plant	1,601 tonnes		To be collected on a daily basis by an authorized Contractor who takes this waste outside the plant for further recycling
15.	Sludge and Hazardous Waste from heat	plant	2,175 tonnes		To be disposed off to Authorized Dealer as per HWMR

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal
	treatment & Bright Bar (comprising Sludge from neutralization of waste pickling solution)				
Total			**73,924 tonnes**	-	-

19.2.12 Public Consultation:

Details of advertisement given	The public hearing advertisement was published in local News Papers "Kutch Mitra dated 04.07.2022 (Gujarati) and "Times of India" dated 04.07.2022 (English).
Date of public consultation	05.08.2022
Venue	ASIL Site, Opposite HP Petrol Pump Namely Jai Valinath Petroleum, Survey No. 51,52,53,54, Village Mokhana, Bhuj – Bhachau Road, Taluka Bhuj, District Kutch, Gujarat.
Presiding Officer	Sub Divisional Magistrate
Major issues raised	Issues were related to water pollution, dust, soil pollution, employment and CSR activity.

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

PP has submitted that Rs. 53.7 Lakh per year will be spent to address the PH issues including the development of two villages - Mokhana & Kanyabe, which will be adopted by ASIL

For the development, PP shall contribute in the following fields:

1) Education
2) Health
3) Infrastructure development in terms of buildings, street lights, drinking water, community centres etc.
4) Training and skill development.

Sl. No.	Activity	Year wise implementation and Budgetary provision during operation phase (INR)					Total budgetary provision (Rs.)
		1st year	2nd year	3rd year	4th year	5th year	
1	Construction of drinking water and sanitation facilities (toilet) in schools in Kaniyabe and Mokhana villages	570000	570000	570000	570000	570000	2850000
2	Infrastructure for Periodic medical check-up camp by appointing specialist doctor for	600000	600000	600000	600000	600000	3000000

Sl. No.	Activity	Year wise implementation and Budgetary provision during operation phase (INR)					Total budgetary provision (Rs.)
		1st year	2nd year	3rd year	4th year	5th year	
	eyes, skin, heart and dental in a year for community						
3	Facilities for solid waste management in Kaniyabe and Mokhana villages	200000	200000	200000	200000	200000	1000000
4	Training to the farmers related to healthcare and crop production in adjacent villages	400000	400000	400000	400000	400000	2000000
5	Infrastructure for development of technical skills and training to the local persons	400000	400000	400000	400000	400000	2000000
6	Assistance in providing study materials, uniform, books to the poor students located in Kaniyabe and Mokhana villages	200000	200000	200000	200000	200000	1000000
7	Construction of roads and storm water drainage facility in Kaniyabe and Mokhana villages	400000	400000	400000	400000	400000	2000000
8	Provision of solar lanterns and street lights in Kaniyabe and Mokhana villages	600000	600000	600000	600000	600000	3000000
9	Distribution of saplings among villagers to be planted in the open and degraded areas	400000	400000	400000	400000	400000	2000000
10	Facility for rain water harvesting by desilting nearby village ponds	400000	400000	400000	400000	400000	2000000
11	Construction of school building, adding rooms in existing schools & community center in Kaniyabe and Mokhana villages	1000000	1000000	1000000	1000000	1000000	5000000
12	Compensation for injuries to animals entering plant area accidentally.	100000	100000	100000	100000	100000	500000
13	Peafowl Conservation	100000	100000	100000	100000	100000	500000
		5370000					
Total							**26850000**

19.2.13 The capital cost of the proposed project is Rs 535 Crores and the capital cost for environmental protection measures is proposed as Rs 30.81 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 6.63 Crores. The employment generation from the proposed project is 837. The details of cost for environmental protection measures is as follows:

Sl. No.	Environment/Social Control Measure	Cost of EMP (in Lakhs)	
		Total	
		Capital	Recurring (per annum)
1	Installing of dedicated Fume Extraction System and bag filter system	1100	452.00
2	Installation of ventilation systems and Garland drains & catch pits at raw material handling and material transfer areas	198.15	19.81
3	Various fugitive dust control systems such as dry fog system, water sprinkler, road dust vacuum cleaning systems etc.	198.15	27.74
4	Installation of internal pipe network for recycling water within the plant	99.07	19.81
5	Developing greenbelt within the facility	189.63	7.93
6	Continuous emission monitoring and ambient air quality monitoring system	396.3	15.85
7	Domestic waste management programs as per MSW Rules 2016	9.91	1.98
8	Noise abatement programs	1.78	0.4
9	Rain water harvesting programs	198.15	7.93
10	Installation of piezometric wells and water flow meters as per CGWB guidelines	39.63	1.98
11	Sewage Treatment Plant & Effluent Treatment Plant	297.22	7.93
12	Occupational Health & Safety	------	39.63
13	Environmental Monitoring cost	104.00	40.07
14	Energy savings including solar	250.00	20.00
	Total	**3081.99**	**663.06**

19.2.14 Proposed greenbelt will be developed in 9.2 ha which is about 34% of the total project area. 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. Total no. of 23000 saplings will be planted and nurtured in 9.2 hectares in 5 years.

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

Written representations:

19.2.16 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 16.12.2022 through email dated 16.12.2022 submitted the following information:

S. No.	Questions sought by the EAC during the meeting	Gist of Reply submitted by the PP
1.	Submit the CER cost for the project.	Regarding CER Activities, Rs. 53.7 Lakh per year will be spent on CER including the development of two villages - Mokhana & Kanyabe, which will be adopted by ASIL For the development, contribution shall be done in the fields like Education, Health, Infrastructure development in terms of buildings, street lights, drinking water, community centres etc. and Training and skill development. The details are updated at 19.2.12 above.
2.	Submit the revised EMP cost for the project.	Earlier EMP cost provided in the EIA report was Rs 27.63 crores (capital: 23.74 crores & Recurring: 3.89 crores) which was 5.1 % Now PP has revisited the cost and revised to Rs 34.91 crores (capital: 30.81 crores & Recurring: 6.63 crores) which is 6.5 %. The revised details are updated at 19.2.13 above.
3.	Status of Land acquisition and conversion details to be submitted	Total land of 27.25 ha is under the possession of the project proponent. Within which 8.77 ha of land has been converted into industrial and the remaining 18.5 ha conversion is under process. The details and land documents are submitted.
4.	Re-examine the predicted GLC value of PM10.	Excluding line source, the maximum GLC from point sources is coming out to be 0.44 $\mu g/m^3$ at a distance of 8000 m in the NE direction. Considering point sources and line sources together the maximum GLC of PM10 likely to be generated is 10.99 μg/m3 occurring at a distance of 100 m ENE from the centre of the project site. Hence the maximum GLC of PM10 is occurring within the project site. Details and Isopleth are submitted.
5.	Show the existing drainage and erosion control mechanism	The existing drainage of the study area and a super-imposed map of contour on drainage within a 1 km radius of the project site is shown. The erosion control mechanism like stock piles, garland drains, catch pits, greenbelt development and rain water harvesting are proposed and details are submitted.
6.	Write-up on the protection of the nearest school with respect to wind direction	The nearest school is located in Kanyabe village which is 3.5 km in W direction and the second nearest school is in Mokhana village is at 8 km in NW direction. Two predominant wind directions are either from South west to North east and second is from North east to South west. This wind pattern is typical of coastal region. Both the nearest schools do not fall in the either of the predominant wind directions.

S. No.	Questions sought by the EAC during the meeting	Gist of Reply submitted by the PP
		A 30 m wide greenbelt will be developed within the project area towards Kanyabi village. Details are submitted.
7.	Revised Environment Policy including the social commitment	A draft revised proposed environmental policy including the social commitment is made and it shall be discussed during the next board meeting. A copy of the same is submitted.
8.	Signed copy of the EDS point-wise reply	A Signed copy of the EDS point-wise reply is submitted.
9.	Information on the correct site elevation of the project.	PP stand corrected on-site elevation which is varying between 72 to 73 m, which was wrongly mentioned in PFR as 89 m during the ToR stage. Requests to consider this as final. The same is updated at para 19.2.5 above.

In addition to above, PP has also submitted point-wise reply to the objections raised against the project and have been received by the EAC/Ministry as follows:

1) <u>Reply to the Representation 1</u>

Objection raised	Reply from Project Proponent
Point A: Construction initiated before environment clearance is accorded for the project is a violation of the EIA notification and will lead to creating of a fait accompli situation. Company has already construction plan in addition land, We wish to state that as per Google Earth images and Maps submitted by the proponent too, construction has already taken place (Google earth images and maps submitted by the proponent attached as Annexure 1) the EIA Notification clearly states that "activities shall require prior environmental clearance". The NGT, while dealing with construction agencies which had not received ECs before proceeding with construction, has recently held in O.A. 49 of 2019 dated 16.01.2020 "As per the EIA Notification, 2006, the project cannot proceed without getting 7 prior Environmental Clearance except to the extent of construction of temporary fencing and some temporary sheds for the guards" (Order attached as Annexure 2). Therefore, the	No construction activity has been started on the proposed project site. The google earth image attached in Annexure 1 of the objection letter is showing the wooden structure which was already present on the land at the time of purchase of land the same has been mentioned in the panchnama is submitted**. (The complainant** was himself present at the time of signing the panchnama & signed the same- attached Panchnama in the Gujarati language) **.** The same issue has been raised by Shri Rajesh Ahir during Public Hearing of ASIL conducted on 5th August 2022, mentioned in serial no. 12 of the action plan for public hearing. A relevant reply was given during the public hearing itself that no construction activity has been started in the proposed project site and later the GPCB and revenue team visited the site for inspection and as per statement recorded by them no construction activity has been started in the proposed project site. The statement given by them is submitted**.** (Statement is in Gujarati language)

Objection raised	Reply from Project Proponent
company was bound to take prior EC before initiation of construction work. Further, not only does the initiation of work prior to EC is a violation of the EIA Notification which mandates the requirement of a prior EC before commencement of construction, it will also lead to the creation of a fait accompli situation in favor of the company. Once the construction is completed, the EC will hold no value and the situation will be irreversible. Therefore, the situation requires immediate intervention by the EAC to hold the company liable for violations and to ensure that there is no further misuse of mandatory safeguard legal procedures. We have already raised serious concerns regarding this in the public hearing of the company dated 18-1-2022 (Minutes of the public hearing meeting attached as Annexure 3) However, there has been no satisfactory response by the company regarding the without EC construction Therefore, the EAC should reject the proposal by the company for false and misleading information.	Moreover, as per the **OM dated 29.03.2022,** the project proponent is allowed to do the following activities for securing the land. (i) Fencing of the project site by boundary wall using civil construction, barbed wire or precast/ prefabricated components. (ii) Construction of temporary sheds using pre-fabricated/ modular structure, for site office/guards and storing materials and machinery. (iii) Provision of temporary electricity and water supply for site office/ guards only. On above grounds objection raised have no merits under EIA notification.
Point B: Incomplete information in the EC application form The EC application submitted by the company misleads the authorities. The company has failed to disclose the mandatory requirement of the cumulative impacts by the project. Nearest area may plant project like, MRK company However, the company in its Form 1 against the column of cumulative impact entry "have cumulative effects due to proximity to other existing or planned projects with similar effects" has mentioned "No. Not applicable" We wish to submit that we are directly impacted by the project activities We have already raised serious concerns regarding this in the public hearing of the company dated 5-8-2022 (Minutes of the public hearing meeting attached as Annexure 4). However, there has been no satisfactory response by the company regarding the cumulative impact of the proposed project. Therefore, the EAC should reject the proposal by the company for failing to share complete information for proper appraisal.	Impacts from the proposed project are clearly mentioned in Chapter 4 of the final EIA report. The MRK company is closed and hence not mentioned in the EIA Report. There are no similar industries like steel industry in the study area of 10 km radius but there are other operating industries and the emissions from those existing industries have already been captured in the baseline data collected for a complete season (December 2021 to February 2022) and the predicted incremental emissions from the proposed project are given in Chapter 4 of the EIA report. PP has replied to all the points raised during Public Hearing. The action plan for public hearing is submitted**.**
Point C: Serious and irreplaceable impacts of environment clearance on our lives and livelihood.	This objection letter has claimed that there is a mentioned of the below point in the EIA report

Objection raised	Reply from Project Proponent
As mentioned above, the proposed project is in our close vicinity. The total population in our villages is roughly around 4000. Out of this, around 70 % of the population is involved in animal husbandry. Further, we are also involved in agricultural activities. The proposed project will directly impact our common resources which are crucial for our livelihood. The EIA report submitted by the company notes "A lot of debris and other solid wastes are expected to be generated during construction period and during monsoon with the surface runoff, the debris will be washed away contributing a lot of suspended solids in nearby stream. The Form-2 submitted by the company mentions that the likely employment generation from the project operation will be around 200 regular employment opportunities. With only 200 regular employment opportunities for the entire project, if the project is to come through it will not only destroy our traditional sources of livelihood but will also jeopardize our future livelihood incomes.	"A lot of debris and other solid wastes are expected to be generated during construction period and during monsoon with the surface runoff, the debris will be washed away contributing a lot of suspended solids in nearby stream." It is to note that in the EIA report it is clearly mentioned in point 5 of table 4.14 in chapter 4 that "After completion of the construction phase, the surplus excavated soil and stones shall be used for filling up in low land within the plant premises for levelling activities and nothing will be disposed off". Construction and Demolition Waste Management Rules 2016 shall be followed for disposal. Since the project is a zero liquid discharge plant, no water shall go outside the plant premises. Also it is clearly mentioned in the point 2 of table 4.14 in chapter 4 of EIA report that at suitable locations, sedimentation pits will be made to trap the silt laden runoff water and avoid excessive silt from going outside. The total employment generation from the project operation phase is 837 including permanent and contractual. The project will help in the development of the surrounding areas through indirect employment opportunities in addition to direct employment of 837 and it will not destroy rather enhance the traditional sources of livelihood in any form through skill trainings.
EAC deliberated the representations and the reply of the PP and found that the reply of PP is satisfactory and the EIA/EMP Report having all the mitigation measures on the issues.	

2) <u>Reply to the Representation 2</u>

Objection raised	Reply from Project Proponent
Water flow in the project area of Ambica Steel India Limited has been filled with soil. This watershed has not been studied in the EIA report. Environmental clearances are being obtained by providing false information to government agencies. Therefore, environmental clearance should not be given to this project.	No construction activity has been started in the project hence no water flow has been blocked by the project. The drainage of the study area has been studied and given in section 3.3 of Chapter 3 of the EIA report. The drainage map of the study area is submitted.
Ambica Steel India Limited has violated EIA Notification 2006 and Circular dated 19th August 2010 of Department of Forest and Environment, Government of India by constructing the plant without environmental clearance. As per the 2010 public notice of Member Secretary Gujarat	No construction activity has been started on the proposed project site. The same has been discussed during public hearing and later the GPCB and revenue team visited the site for inspection and as per statement recorded by them no construction activity has been

Objection raised	Reply from Project Proponent
Pollution Control Board, no industrial unit can carry out any kind of construction without obtaining environmental consent letter. As Ambica Steel India Limited has started construction without any permission, this project should not be sanctioned as a violation of EIA notification.	started in the proposed project site. The statement is submitted**.** (Statement is in Gujarati language) Also according to the latest OM dated 29.03.2022, the project proponent is allowed to do the following activities for securing the land. (i) Fencing of the project site by boundary wall using civil construction, barbed wire or precast/ prefabricated components. (ii) Construction of temporary sheds using pre-fabricated/ modular structure, for site office/guards and storing materials and machinery. (iii) Provision of temporary electricity and water supply for site office/ guards only.
Ambica Steel India Limited has used ground water for construction by constructing bore wells without the approval of Central Ground Water Authority. Namdar and NGT Court's O.A. As per order 176/2015 and guidelines of CPCB dated July 2019, the amount of environment compensation is recovered from the company. NGT from this company. To be recovered as per the guide line of court and CPCB. Environmental clearance is not granted to the company.	No construction has been started for the proposed project and hence no water is used by company. No bore well is constructed by the company. The bore wells already in the land which is acquired by the company were used for agriculture and are presently not in use. The panchnamu stating the presence of existing bore-wells before the purchase of land is submitted**.**
Ambica Steel India Limited's TOR Letter date 22-1-2022 according to point-4 Environment Site Settings-(7) study all water body (river, lakes, pond, nala natural drainage canal etc) exists within the project site. Existing ponds, and natural drains in the project area are not mentioned in detail. Thus the EIA report has been prepared based on incomplete details. EIA Notification —2006 is violated. Therefore, since this report is incomplete and against the rules, it should be canceled and the EIA report of this project should be prepared and a hearing be ordered.	The list of all water bodies (rivers, lakes, pond, nala, natural drainage, canal, etc.) present in the study area of the project are clearly mentioned in the section 3.1.1 of Chapter 3 of the final EIA report. There are no water bodies present in the proposed project site area. The same has been depicted in drainage map is attached**.** The drainage map showing the project site and 1 km radius around it is submitted**.**
ToR letter date of Ambica Steel India Limited 22 -1- 2022 recommendation of the committee point —14 Slag sending to TSDF site. The project is required to present the details of the MoU with the agency in its EIA report. He has hidden this detail. Therefore, since this report is incomplete and against the rules, it should be canceled and the EIA report of this project should be prepared and a hearing be ordered.	Slag from IF, AOD and VOD will be cooled by spraying water over molten slag thereby separating metals from slag. Metals will be reused and rejects shall be tested as per TCLP and the decision to use slag for construction or send it to TSDF shall be based on TCLP test results. The MoU with the TSDF site will be obtained after getting EC. The details of the disposal of slag are given in section 4.2.4.2 of Chapter 4 of the final EIA report.

Objection raised	Reply from Project Proponent
ToR letter date of Ambica Steel India Limited -22 -1-2022 recommendation of the committee point — 14 Plant layout shall be such that the agriculture farming in two plots on southern side is not affected by acid fumes. No any relevant detail in its EIA report. He hidden this detail. Therefore, since this report is incomplete and against the rules, it should be canceled and the EIA report of this project should be prepared and a hearing be ordered.	The Plant layout has been changed to address the concern and was resubmitted to the committee on 12th January 2022, during the second day of the 51st meeting of the re-constituted expert appraisal committee (Industry -1) held on 11th-12th January 2022. In addition to change in layout, to control the acid fumes from pickling lines these fumes will be treated in packed bed lime scrubbers and best available technology to control the fumes will be used. A 30 m wide greenbelt with a minimum of three-row plantation scheme has been proposed towards the south side of the project where it is sharing a boundary with two agricultural plots. The updated plant layout is submitted**.**
ToR letter date of Ambica Steel India Limited 22-1- 2022 recommendation of the committee point — 14 HFL details of sang river from the concerned competent authority and impact on revering ecology dué to the proposed project shall be submitted in the EIA report. no any relevant detail in its EIA report. He has hidden this detail (. Therefore, since this report is incomplete and against the rules, it should be canceled and the EIA report of this project should be prepared and a hearing be ordered.	Details regarding the HFL of nearby Sang nadi was asked from Government of Gujarat and Government has replied in negative as no data is available with them. Reply of Government is submitted. According to the Google earth the elevation of sang nadi is 69m whereas the elevation of the project site is 73m and there is a State Highway between Sang Nadi and Project site with an elevation of 74m acting as a barrier between the site and the water body.
Ambica Steel India Limited ToR letter date 22-1-2022 recommendation of the (Annexure -1) Generic Terms of reference in respect of industry sector for site details, location of the project site covering village, taluka, dist justification for selecting the site, whether other sites were considered report. No any relevant detail in its EIA report. He has hidden this detail. Therefore, since this report is incomplete and against the rules, it should be cancelled and the EIA report of this project should be prepared and a hearing be ordered.	The proposed site is present in an area of 27.28 ha/67.41 acres near Mokhana village, Bhuj Taluka, Kutch District in Gujarat. The location map and description of the project site are given in Chapter 1, Section 1.2, Sub-Section 1.2.2, Figure 1.1 and Table 1.3 respectively of the EIA report. The alternate site analysis was done for three sites and the Justification for selecting the site is given in Chapter 5, Section 5.1, Table 5.1 of the EIA report.
EIA report of Ambica Steel India Limited in the report lists the major surviving industry within 10 km of the project as MRK Pipe Company which is located at a distance of 1.5 km from the proposed project whose details are not mentioned. Cumulative impact study has not been done on its pollution effects so this report is incomplete, Ambica Steel India Limited's EIA report has not done any cumulative study on the adverse impact on the 10 km livelihood source agriculture, animal husbandry and grazing land of the project. No planning has been done in this report to address its effects.	Impacts from the proposed project and respective mitigation measures are clearly mentioned in Chapter 4 of the final EIA report. The MRK company is closed hence not mentioned in the EIA Report. There are no similar industries like steel industry in the study area of 10 km but there are other operating industries, the emissions from those existing industries have already been captured in the baseline data collected for a complete season (December 2021 to February 2022) and the predicted incremental emissions from the proposed project are given in the Chapter 4 of the EIA report.

Objection raised	Reply from Project Proponent
Environmental status Detailed description of flora and fauna existing in study area shall be given with special reference to rare, endemic and endangered species if schedule-1 flora and fauna within the study area, wildlife conservation plan shall be prepared and furnished. No mention has been made by the project in its EIA report regarding Schedule – 1 category flora and fauna of any area. Thus, a comprehensive plan for wild life protection has not been presented. Its EIA report does not detail. He has hidden this detail. Violation of EIA Notification-2006. Therefore, since this report is incomplete and against the rules, it should .be canceled and the EIA report of this project should be prepared and n hcnring be ordered	Primary study was carried out along with literature reviews / desk research to understand the ecological (both terrestrial and aquatic) condition of the study area. No Schedule-I fauna is found in the study area. (Refer reply to 5(i)). The details are given In Chapter 3, Section 3.8 of the EIA/EMP report. But during the public hearing representation has come regarding the presence of peafowl and its conservation, hence a conservation plan for peafowl has been made and sent for approval from the chief wildlife warden. The same is submitted as Annexure 4.1 in the Final EIA Report. The peafowl conservation plan is submitted.
Socio-economic status of the study area. The present project has not presented village wise social and economic information of the area in its EIA report. Also, the sources of livelihood of the villages in the area are agriculture, grazing-land, cattle and detailed information about agriculture has not been presented in this report. Socioeconomic has not been done in the EIA report of the project. Its EIA report does not detail It has hidden this detail. Violation of EIA Notification-2006. Therefore, since this report is incomplete and against the rules, it should be canceled and the EIA report of this project should be prepared and a hearing be ordered. Ambica Steel India Limited Tor letter date -22-1-2022 recommendation of the (Annexure -1) Generic Terms of reference in respect of industry sector.	The profile of the socio-economic conditions of the people in the 10 km radius of project site has been prepared with secondary data from Census of India database. The details are given in Chapter 3, Section 3.9, Sub Section 3.9.1 of the EIA report.
Impact assessment and environmental management plan Action plan for post- project environment plan of action shall be provided. The present project has not presented village wise social and economic information of the area in its EIA report. Also, no environmental management plan has been presented in.the EIA report to measure the impact of dust coming from the company's production work on the sources of livelihood of villages in the area, agriculture, grazing land, cattle and agriculture. Thus the EIA report's prepared based on the above details. Its EIA report does not detail Which is in Violation of EIA Notification- 2006. Therefore, since this report is incomplete and against the rules, it should be canceled and the EIA	Proper post project environmental monitoring is planned. The details are given in Chapter 6. The profile of the socio-economic conditions of the people in the 10 km radius of project site has been prepared with secondary data from Census of India database. The details are given in Chapter 3, Section 3.9, Sub Section 3.9.1 of the EIA report. All the probable Environmental Impacts and their Mitigation measures are provided in Chapter 4 of the final EIA report and the Environmental Management plan is given in Chapter 10 of the final EIA report.

Objection raised	Reply from Project Proponent
report of this project should be prepared and a hearing be ordered.	
Thus, due to the project presented by Ambica Steels India Limited, the traditional livelihood of thousands of people will not be there due to the creation of very serious and negative effects on the surrounding land, water, air and grazing land as well as the entire ecology. There will be adverse effects on agriculture and animal husbandry. So my humble request to you sir that the approval process of this project should be stopped and the project cancelled with immediate effect.	The project will help in the development of the surrounding areas but it will not destroy the traditional sources of livelihood in any form. There will be no adverse effects on the surrounding land, water, air, grazing land, agriculture, animal husbandry and entire ecology due to the commencement of the project.
EAC deliberated the representations and the reply of the PP and found that the reply of PP is satisfactory and the EIA/EMP Report having all the mitigation measures on the issues.	

3) <u>Reply to the Representation 3</u>

Objection raised	Reply from Project Proponent
This is to inform you with due respect that Ambica steel LTD with R.S No-385 is located at kaniyabe Ta-Bhuj Dist- kutch -Gujarat is going to do the production of 1. steel wire, 2. Steel wire rod to bright bar 3. steel round bar to bright bar. Total Annual-12000 MT and for this production process company will construct 2 no electric furnace (cap-4800 TPA per unit) (Construction plant photos attached as Annexure 1). It is mandatory to take environmental clearance as this company is categorized under group-B in accordance to schedule-3(A) of E.I.A Notification-2006. This application is to draw your kind attention towards this situation.	• The concerned survey number 385 is not included in this project for which the Environmental Clearance (with proposal number IA/GJ/IND1/405311/2022) is being taken, survey no. 385 belongs to a different project adjacent to the project site. The project proponent has not started any civil work on the proposed project site listed for EC. • The project proposed on survey no. 385 is a small project on 5-acre land which process only stainless-steel wires from wired rods (already rolled material taken from other Integrated Stainless steel industries) and bright bars from round bars (already rolled material taken from other Integrated Stainless steel industries). • This project on survey no. 385 does not involve either hot rolling or cold rolling nor any annealing/pickling of bright bars is involved. It only takes annealed & pickled rolled products as raw material and produces wires and bright bars. • According to the EIA notification, this project on survey no. 385 does not fall under category B1 and it does not require prior environmental clearance. • The project in plot no 885 have valid consent from GPCB and all of them were made part of EIA report.
Company has obtained consent to establishment (CTE) dated-18-4-2022 by	• The concerned objection is again related to the project located on survey no. 385, a CTE was granted to the project by Gujarat Pollution Control Board

Objection raised	Reply from Project Proponent
Gujarat pollution control board. Copy of this is attached herewith. But this clearly violation CTO condition no. 2" (CTE attached as Annexure 2). Industry shall not carry out any activates or install any machinery / furnaces which are cover under schedule 3 (a) of EIA Notification-2006 as per Moef letter dt-20-10-2020 issue wt, NGT order in case of chromeni steel ltd. Company has a require as per OM Date- 20-10-2020 mandatory EC for 5000 MT Production per Annually all secondary metallurgy processing industries, and OM 20 July 2022 (Om 20 july 2022 attached as Annexure 3). say And whereas, the Central Government is of the view that steel re-rolling operations fall under the purview of the secondary metallurgical processing industry and require Environment Clearance as per item 3(a), relating to Metallurgical Industries (Ferrous and Non-ferrous), of the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forest, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), vide notification number S.O. 1533 (E), dated the 14th September, 2006, mandating the requirement of prior environmental clearance for the projects covered in its Schedule (hereinafter referred to as the said notification), wherein all non–toxic secondary metallurgical processing units with capacities greater than 5000 tonnes/annum (TPA) fall under category B. Therefore, the company was bound to take prior EC before initiation of construction work. Further, not only does the initiation of work prior to EC is a violation of the EIA Notification which mandates the requirement of a prior EC before commencement of construction, it will also lead to the creation of a fait accompli situation in favor of the company. Once the construction is completed, the EC will hold no value and the situation will be irreversible. Therefore, the situation requires immediate intervention by the EAC to hold the company liable for violations and to ensure that there is no further misuse of mandatory safeguard legal procedures.	after a thorough scrutiny of all the documents produced, the concerned complainant is questioning the GPCB. The complainant is just trying to harass the project proponent. • This project on survey no. 385 does not come under the purview of the MoEF&CC notification SO 3250(E) dated 20/7/2022, which says that the plants involving cold rolling or hot rolling mills which are running on consent basis will have to take environmental clearance, but this project on survey no. 385 does not involve either cold rolling or hot rolling or any annealing/pickling of bright bars is involved. • The complainant has highlighted on the case of chromeni steel lid. Which involves stainless steel cold rolling mill, but that is not the case with the project on survey no. 385. • This project on survey no. 385 does not fall under the purview of category 3(a) Metallurgical Industries (Ferrous and Non-ferrous) of the secondary metallurgical processing industry and does not require environmental clearance. • The concerned survey number 385 is not included in this project for which the Environmental Clearance (with proposal number IA/GJ/IND1/405311/2022) is being taken, survey no. 385 belongs to a different project adjacent to the project site. The project proponent has not started any civil work on the proposed project site listed for EC. • All these questions were raised during the public hearing and were replied to by the project proponent during the course of the meeting itself and also mentioned in the public hearing action plan of the final EIA report submitted to the ministry.
This company manufacture is Annealed & picked stainless /Alloy steel wire rods & amp or round bar this industry is categorized under secondary metallurgical processing industry and require Environment Clearance as per item 3(a), relating to	• The project located on survey no. 385 does not manufacture wire rods and round bars, it manufactures stainless steel wires and bright bars from annealed and pickled wire rods and round bars which are taken as raw material from the other integrated stainless-steel industries.

Objection raised	Reply from Project Proponent
Metallurgical Industries (Ferrous and Non-ferrous), of the Schedule to the notification of the Government of India in the erstwhile Ministry of Environment and Forest, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), vide notification number S.O. 1533 (E), dated the 14th September, 2006, mandating the requirement of prior environmental clearance for the projects covered in its Schedule (hereinafter referred to as the said notification), wherein all non–toxic secondary metallurgical processing units with capacities greater than 5000 tonnes/annum (TPA) fall under category B. Thus, it is mandatory to take environmental clearance in accordance to schedule-3(A) of E.I.A Notification-2006.	• This project on survey no. 385 does not fall under the purview of category 3(a) Metallurgical Industries (Ferrous and Non-ferrous) of the secondary metallurgical processing industry and does not require environmental clearance. • The concerned survey number 385 is not included in this project for which the Environmental Clearance (with proposal number IA/GJ/IND1/405311/2022) is being taken, survey no. 385 belongs to a different project adjacent to the project site. The project proponent has not started any civil work on the proposed project site listed for EC.
EAC deliberated the representations and the reply of the PP and found that the reply of PP is satisfactory and the EIA/EMP Report having all the mitigation measures on the issues.	

Deliberations by the Committee

19.2.17 The Committee noted the following:

1. The instant proposal is for setting up of green field Steel Melting Shop of 2,08,400 TPA and Rolling Mill of 2,00,000 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 total project area is 27.28 ha. The entire land has been purchased for the project and is in possession of the company.
5. The nearest habitation to plant are Kaniyabe (1.65 km, West) and Mokhana (1.6 km, NNW) from the project site boundary.
6. The water requirement for the proposed project is estimated as 1130 m^3/day which will be obtained from the Gujarat Water Infrastructure Ltd. (GWIL) (Surface water - Narmada River).
7. Sang Nadi (0.60 km, N), Nihwara Nala (6.1 km, NNW), SakraNadi (6.3 km, E), Tappar Reservoir (10.0 km, ESE), Talav (3.0 km, S), Talav (8.8 km, WSW), Talav (6.8, SE),

Hothisar Lake (5.6 km, ENE), Rann (Salt Waste-Dry) (10.0 km, NNE) are flowing within 10 Km. radius of the plant site. Coastal water is about 14 Km (S) away from the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

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

9. The EAC noted that greenbelt has been proposed in 9.2 ha which is about 34% of the total project area. Total no. of 23000 saplings will be planted and nurtured in 9.2 hectares in 5 years.

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

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

12. The Committee also deliberated on the written submission of PP and found it satisfactory.

13. The Committee also deliberated the submission of the PP w.r.t. representations/objections against the project and the reply of PP is found to be 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.

Recommendations of the Committee:

19.2.18 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/reply of PP 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 water requirement of 1130 m^3/day shall be obtained from the Gujarat Water Infrastructure Ltd. (GWIL) (Surface water - Narmada River). Ground water withdrawal is not permitted.

iv. Following additional arrangements to control fugitive dust shall be provided:
   a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
   b. Proper covered vehicle shall be used while transport of materials.
   c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.

v. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.

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

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

viii. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

ix. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant

x. 85-90 % of billets shall be rolled directly in hot stage. RHF shall operate using only Light Diesel Oil as a fuel. Natural gas shall be used as a fuel. Alternatively, till such time Natural gas is available, LDO shall be used in RHF. DRI kiln shall run on coal.

xi. 100 % solid waste and dolochar generated in the facility shall be utilized.

xii. Online stack monitoring system for IF and RF 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.

xiii. Si-Mn slag shall be used for road construction and cement making. SMS slag shall be crushed for metal and flux recovery and aggregate shall be used for the purposes such as road construction, brick manufacturing and filling up of low-lying area etc.

xiv. Sang Nadi (0.60 km, N), Nihwara Nala (6.1 km, NNW), SakraNadi (6.3 km, E), Tappar Reservoir (10.0 km, ESE), Talav (3.0 km, S), Talav (8.8 km, WSW), Talav (6.8, SE), Hothisar Lake (5.6 km, ENE), Rann (Salt Waste-Dry) (10.0 km, NNE) are flowing within 10 Km. radius of the plant site. A robust and full proof Drainage Conservation scheme to protect the

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

xv. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

xvi. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

xvii. The nearest habitation to plant are Kaniyabe (1.65 km, West) and Mokhana (1.6 km, NNW) from the project site boundary. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include this locations in its environmental monitoring programme.

xviii. As committed by the PP to adopt two villages namely Mokhana & Kanyabe, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

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

xx. Three tier Green Belt shall be developed in at least 33% of the project area in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

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

xxiii. 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.

xxiv. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use

of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as four Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs 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. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. 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.

v. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. Used refractories shall be recycled.

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

VII. Green Belt

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

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

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

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

X. Miscellaneous

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

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

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

iv. The project proponent shall monitor the criteria pollutants level namely; PM_{10}, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

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

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

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

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

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

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

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

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

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

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

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

***

Agenda No. 19.3

19.3 Environment Clearance for Change in plant configuration without increase in steel production capacity and Separation of upcoming expansion units from EC for further transfer to JSW Vijayanagar Metallics Limited (JVML) and JSW Cement Ltd (JSWCL), located at Vijayanagar, Bellary, Karnataka- Consideration of Environmental Clearance under para 7 (ii) of the EIA notification 2006 and Partial Transfer of EC under provision of Para 11 of EIA Notification 2006.

[Proposal No. IA/KA/IND/289237/2022; File No. IA-J-11011/489/2009-IA-II(I)]
[Consultant: Mecon Limited; Valid upto 09.02.2023]

19.3.1 M/s JSW Steel Limited (JSWSL) has made an online application vide proposal no. IA/KA/IND/289237/2022 dated 05.12.2022 along with copy of Addendum EIA report, Form – 2 and certified compliance report seeking modification under the provisions of para 7(ii) of EIA Notification, 2006 in Environment Clearance granted vide Identification no. EC21A008KA165146 dated 29/11/2021 w.r.t change in plant configuration without increase in steel production capacity followed by separation of upcoming expansion units from EC for further transfer to JSW Vijayanagar Metallics Limited (JVML) and JSW Cement Ltd (JSWCL), located at Vijayanagar, Bellary, Karnataka. In addition to this, JVML also submitted an application vide proposal no. IA/KA/IND/290187/2022 dated 06.12.2022 in Form 7 for Partial EC Transfer for 5 MTPA Steel Plant from JSWSL to JVML in their name and JSWCL submitted an application vide proposal no. IA/KA/IND/289516/2022 dated 05.12.2022 in Form 7 for Partial EC Transfer for 2 MTPA Slag Grinding Unit from JSWSL to JSWCL in their name.

19.3.2 Name of the EIA consultant: M/s Mecon Limited [S. No. 49, List of ACOs with their Certificate/Extension Letter no. NABET/EIA/2023/RA 0195; valid up to 09/02/2023; Rev. 25, Sept 05, 2022].

Details submitted by the project proponent

19.3.3 The project of JSW Steel Limited (JSWSL) located in Toranagallu Village Ballari District, Karnataka is for

1) Change in plant configuration with minor (1.11%) increase in steel production capacity
   a. Relocation of the proposed Sinter plant (SP5) within the Complex
   b. Enhancement of proposed SP5 of 2.3 MTPA to 5.75 MTPA along with a new dedicated 600 TPD Lime kiln.
   c. Change in configuration of the proposed CPP5 from present 660 MW coal based CPP to 300 MW gas based CPP.
   d. Enhancement of SMS4 capacity from 4.8 MTPA to 5.0 MTPA
   e. Change in configuration of the proposed GCP of BF5 from dry type to wet type.
2) Partial Transfer / Separation of upcoming production units equivalent to 5 MTPA Steel Plant from JSWSL's EC for 18 MTPA plant dated 29.11.2021 for partial transfer to JSW Vijayanagar Metallics Limited (JVML)
3) Partial Transfer / Separation of upcoming 2 MTPA Slag grinding and Mixing unit from EC dated 29.11.2021 for partial transfer to JSW Cement Ltd (JSWCL).

Sl. No.	Unit/ Facility	Changes proposed	Category of change	Remarks
1.	Crude Steel Refer Sl No: 4 Table Row no 9 of EC	Reconfigure the proposed SMS4 to produce 5.0 MTPA steel and limit the Steel Production of existing 3 SMSs to 13 MTPA and transfer SMS4 from JSWSL to JVML	• **Change in configuration**	• No change in pollution load from the expanded plant wrt EC stage. • The pollution load due to future SMS4 will be attributed to JVML plant after partial transfer of EC.
2.	Captive Power Plant (CPP5) Refer Sl No: 4 Table Row no 21 of EC	Change in configuration from present proposed 1X660 MW coal based to 300 MW gas-based unit and transfer from JSWSL to JVML	• **Change in configuration**	• Overall power generation capacity of the proposed unit will be reduced. • Reduction in pollution load with respect to air emissions, effluent generation and solid waste generation. • The pollution load due to future CPP5 with revised configuration will be attributed to JVML plant after partial transfer of EC.
3.	Sinter plants Refer Sl No: 4 Table Row no 3 of EC	Enhance the Sinter Production Capacity of the steel Plant from 14.95 MTPA to 18.4 MTPA by	• **Enhancement of Sinter capacity &**	• Slight increase in pollution load from the expanded plant wrt EC stage. • The pollution load due to

Sl. No.	Unit/ Facility	Changes proposed	Category of change	Remarks
		enhancing Capacity of SP5 to 5.75 MTPA, addition of a dedicated lime kiln, Relocation inside Plant complex and transfer from JSWSL to JVML	**Change in layout**	future SP5 will be attributed to JVML plant after partial transfer of EC.
4.	GCP of the proposed BF5 Refer Sl No: 6 A. Specific Condition X(c) of EC	Change in configuration from Dry type to Wet Type GCP	• **Change in configuration**	• No change in overall pollution loads.
5.	Transfer of Facilities proposed under 18 MTPA stage : - Proposed BF5 - Revised SP5 - Revised SMS4 - Proposed HSM3 - Proposed LCP4 - Proposed LCP5 - Revised CPP5 Refer Sl No: 4 Table Row no 7, 3, 9, 13, 10 & 21 of EC	Change in overall plant configuration of JSWSL due to partial transfer of future expansion units to JVML.	• **Change in ownership**	• Overall production capacity of 18 MTPA as per the EC will be separated as under: - JSWSL will become 13 MTPA and JVML will be 5 MTPA. - Pollution load of future expansion units viz. BF5, SP5, SMS4, HSM3, LCP4 & CPP5 will be attributed to JVML in place of JSWSL.
6.	Proposed transfer of 2.0 MTPA Slag grinding & mixing unit to JSWCL Refer Sl No: 4 Table Row no 23 of EC	Change in overall plant configuration of JSWSL due to partial transfer of proposed unit to JSWCL.	• **Change in ownership**	• Pollution load of future Slag grinding & mixing unit will be attributed to JSWCL in place of JSWSL.

19.3.4 Environmental site settings:

S. No	Particulars	Details submitted by PP	Remarks
i.	Total land	Area - 3234.2 ha [Private]	Land use: Industrial
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014.	All land parcels are already in procession of JSW.	
iii.	Existence of habitation &	No R&R is required.	

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details submitted by PP</th><th>Remarks</th></tr>
<tr><td></td><td>involvement of R&R, if any.</td><td></td><td></td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site.</td><td>Latitudes (North) –
From 15˚10’0.12” To 15˚12’0”
Longitudes (East) –
From76˚37’58.8” To 76˚40’0.12”
GPS COORDINATES OF THE PROPOSED UNITS
<table>
<tr><th>Units</th><th>Point</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td rowspan="5">BF5, SMS4, HSM3 and Oxygen Plant Area</td><td>A</td><td>15°11'14.70"N</td><td>76°40'32.97"E</td></tr>
<tr><td>B</td><td>15°11'14.69"N</td><td>76°41'8.08"E</td></tr>
<tr><td>C</td><td>15°11'8.20"N</td><td>76°41'19.85"E</td></tr>
<tr><td>D</td><td>15°10'32.84"N</td><td>76°41'0.64"E</td></tr>
<tr><td>E</td><td>15°10'52.70"N</td><td>76°40'19.91"E</td></tr>
<tr><td rowspan="9">SMS3 Expansion</td><td>F</td><td>15°10'55.40"N</td><td>76°40'0.99"E</td></tr>
<tr><td>G</td><td>15°10'53.84"N</td><td>76°40'4.04"E</td></tr>
<tr><td>H</td><td>15°10'49.95"N</td><td>76°40'1.69"E</td></tr>
<tr><td>I</td><td>15°10'48.00"N</td><td>76°40'5.36"E</td></tr>
<tr><td>J</td><td>15°10'45.50"N</td><td>76°40'3.90"E</td></tr>
<tr><td>K</td><td>15°10'47.44"N</td><td>76°40'0.27"E</td></tr>
<tr><td>L</td><td>15°10'48.89"N</td><td>76°40'1.10"E</td></tr>
<tr><td>M</td><td>15°10'50.46"N</td><td>76°39'58.26"E</td></tr>
<tr><td rowspan="4">Pellet Plant 3</td><td>N</td><td>15°10'22.61"N</td><td>76°41'3.25"E</td></tr>
<tr><td>O</td><td>15°10'14.20"N</td><td>76°41'17.61"E</td></tr>
<tr><td>P</td><td>15°10'7.60"N</td><td>76°41'6.66"E</td></tr>
<tr><td>Q</td><td>15°10'12.85"N</td><td>76°40'57.28"E</td></tr>
<tr><td rowspan="4">CRM 3</td><td>R</td><td>15°11'58.95"N</td><td>76°39'7.94"E</td></tr>
<tr><td>S</td><td>15°11'48.39"N</td><td>76°39'28.10"E</td></tr>
<tr><td>T</td><td>15°11'37.61"N</td><td>76°39'21.98"E</td></tr>
<tr><td>U</td><td>15°11'48.49"N</td><td>76°39'1.43"E</td></tr>
<tr><td rowspan="6">Sinter Plant 5</td><td>V</td><td>15°10'56.82"N</td><td>76°37'55.13"E</td></tr>
<tr><td>W</td><td>15°10'47.85"N</td><td>76°38'11.27"E</td></tr>
<tr><td>X</td><td>15°10'46.78"N</td><td>76°38'10.76"E</td></tr>
<tr><td>Y</td><td>15°10'49.39"N</td><td>76°38'5.83"E</td></tr>
<tr><td>Z</td><td>15°10'46.77"N</td><td>76°38'4.26"E</td></tr>
<tr><td>AA</td><td>15°10'51.25"N</td><td>76°37'56.26"E</td></tr>
<tr><td rowspan="6">New Ash Pond</td><td>AB</td><td>15° 9'15.94"N</td><td>76°43'33.66"E</td></tr>
<tr><td>AC</td><td>15° 9'12.36"N</td><td>76°43'31.91"E</td></tr>
<tr><td>AD</td><td>15° 9'5.36"N</td><td>76°43'36.56"E</td></tr>
<tr><td>AE</td><td>15° 9'3.06"N</td><td>76°43'44.38"E</td></tr>
<tr><td>AF</td><td>15° 9'9.10"N</td><td>76°43'47.76"E</td></tr>
</table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site.</td><td>540 m above msl</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any</td><td>No Forest Land Involved</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body exists within the project site as well as study area</td><td><u>Project site</u>: Nil

<u>Study area</u>:
DarojiKere 3.2 Km NE of the plant
Taranagar Dam 7 Km SW of the pant
JSW’s reservoir near Gonahal 4 Km NW</td><td>-</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife</td><td><u>Study area</u>:
<u>Daroji Bear Sanctuary and its Eco-sensitive Zone</u></td><td>On 25th September 2019, Gazette</td></tr>
</table>

S. No	Particulars	Details submitted by PP	Remarks
	sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	The Daroji Bear Sanctuary is located at a distance of 6.7 Km from the main expansion area and at a distance of 3.8 Km from existing JSW Plant Boundary. As per Supreme Court Order dated 04/12/2006, NBWL recommendation for the previous expansion over the same land area was obtained from standing committee of NBWL vide letter no 6-79/2015 WL (35th Meeting) dated 24/08/2015. The proposed expansion of 16-18 MTPA will be carried out with in the land area for which SCNBWL Clearance and Environment Clearance was obtained. In the meantime, ESZ for Daroji Bear Sanctuary was notified SO 3528 (E) dated 25.09.2019. The distance of boundary of the plant from ESC boundary is reported to be 2.35 Kms as per the authenticated map of the State Forest Department.	Notification S.O. 3528 (E) regarding Daroji Bear Sanctuary Eco Sensitive Zone came into effect. An area to an extent varying from 1.0 kilometer to 4.7 kilometer around the boundary of Daroji Bear Sanctuary in Ballari district in the State of Karnataka was notified as Daroji Bear Sanctuary Eco Sensitive Zone.

19.3.5 The existing project was initially accorded environmental clearance vide lr.no. J-11011/489/2009 lA-II(I) dated 1/10/2015 and amendments dated 09/06/2016, 22/01/2018 and 29/05/2018. The expansion project was accorded environmental clearance vide lr.no. EC21A008KA165146 dated 29/11/2021 for expansion of Integrated Steel Plant from 16 MTPA to 18 MTPA and captive power Plant 1490 MW. Consent to Operate for the existing plant was accorded by Karnataka State Pollution Control Board project vide lr.no. AW-328970 dated 31/12/2021. The validity of CTO is up to 30/06/2026.

19.3.6 Implementation status of the existing EC:

Sl. No.	Facility	Units	Capacity		
			As per existing EC dated 29.11.2021	Implementation Status as on date	As per CTO dated 31.12.21
1	Ore beneficiation Plant	OBP-1	1 X 4.5 MTPA	Operational	1 X 4.5 MTPA
		OBP-2	2.5 + 5.0 +7.5 MTPA	Operational	2.5 + 5.0 +7.5 MTPA
2	Coke Oven	CO1 (NR)	Dismantling	Dismantled	-
		CO2 (NR)	Dismantling	Dismantled	-
		CO3	1.5 MTPA	Operational	1.5 MTPA
		CO4	2 MTPA	Operational	2 MTPA
		CO5	3 MTPA	Under Construction	3 MTPA
		CO6	1.5 MTPA	Construction yet to start	-

Sl. No.	Facility	Units	Capacity		
			As per existing EC dated 29.11.2021	Implementation Status as on date	As per CTO dated 31.12.21
3	Sinter Plants	SP1	2.3 MTPA	Operational	2.3 MTPA
		SP2	2.3 MTPA	Operational	2.3 MTPA
		SP3	5.75 MTPA	Operational	5.75 MTPA
		SP4	2.3 MTPA	Operational	2.3 MTPA
		SP5	2.3 MTPA	Construction yet to start	-
4	Pellet Plants	PP1	5 MTPA	Operational	5 MTPA
		PP2	5 MTPA	Operational	5 MTPA
		PP3	6.8 MTPA	Under Construction	-
5	Hot Metal-COREX	COREX 1	0.8 MTPA	Operational	0.85 MTPA
		COREX 2	0.8 MTPA	Operational	0.85 MTPA
6	Hot Metal-Blast Furnace	BF1	2.5 MTPA	Operational	2.5 MTPA
		BF2	2.17 MTPA	Operational	2.17 MTPA
		BF3	Expansion from 3 MTPA to 4.4 MTPA	Operational Will be upgraded to 4.4 MTPA during shutdown	3 MTPA
		BF4	3 MTPA	Operational	3 MTPA
		BF5	4.5 MTPA	Under construction	-
7	DRI Plant	-	1.2 MTPA	Operational	1.2 MTPA
8	Pig Caster	PCM	1X1200 TPD +3X3600 TPD	Operational 1X1200 TPD +2X3600 TPD	1X1200 TPD +2X3600 TPD
		MGP	5000 TPD	Operational	1.2 MTPA
9	Crude steel	SMS1	3.8 MTPA	Operational	3.8 MTPA
		SMS2	6.4 MTPA	Operational	6.4 MTPA
		SMS3	1.2 MTPA EAF	Operational	1.2 MTPA
			1.5 MTPA ZPF	Under construction	-
		SMS4	2X350 T converter (BOF) (4.8 MTPA)	Under construction	-
10	Lime Kilns	LCP1	4X300 TPD	Operational	4X300 TPD
		LCP2	4X300 TPD + 3X600 TPD	Operational	4X300 TPD + 3X600 TPD
		LCP3	2X600 TPD	Operational	2X600 TPD
		LCP4	3X600 TPD	Operational	3X600 TPD
11	Casters	Slab Caster 1	3.2 MTPA	Operational	3.4 MTPA
		Slab Caster 2	6.4 MTPA	Operational	6.4 MTPA
		Slab Caster 3	1.6 MTPA	Operational	1.45 MTPA
		Slab Caster 4	2 X 2.5 MTPA	Under construction	-
12	Billet Caster	Billet Caster 1	1.5 MTPA	Operational	1.5 MTPA
		Billet Caster 2	3.0 MTPA	Operational	1.5 MTPA
13	Hot Strip Mills	HSM1	4.0 MTPA	Operational	4 MTPA

Sl. No.	Facility	Units	Capacity		
			As per existing EC dated 29.11.2021	Implementation Status as on date	As per CTO dated 31.12.21
		HSM2	5.2 MTPA	Operational	5.2 MTPA
		HSM3	5.0 MTPA	Construction yet to start	-
14	Pipe Mill	-	0.4 MTPA	Yet to be installed	-
15	Wire Rod Mill	WRM1	0.6 MTPA	Operational	0.6 MTPA
		WRM2	1.2 MTPA	Under Construction	-
16	Rebar & Section Mills	BRM1	1.0 MTPA	Operational	1.0 MTPA
		BRM2	1.2 MTPA	Operational	1.2 MTPA
17	Cold Rolling Mills	CRM1	1.8 MTPA	Operational	1.8 MTPA
		CRM2	2.3 MTPA	Operational	2.3 MTPA
		CRM3	2.3 MTPA	Construction yet to start	-
18	Galvanizing Lines	CGL1	4X0.25 MTPA	0.45 MTPA Operational	0.45 MTPA
		CGL2	2X0.45 MTPA	Operational	2X0.45 MTPA
19	Colour Coating Line	-	0.6 MTPA	Operational	0.6 MTPA
20	Captive Power Plants	CPP1 – Gas based	100 MW	Operational	100 MW
		CPP2 – Gas based	130 MW	Operational	130 MW
		CPP3 – Coal + Gas	300 MW	300 MW Installation of Gas fired boiler yet to start	300 MW
		CPP4 – Coal + Gas	300 MW	300 MW Installation of Gas fired boiler yet to start	300 MW
		CPP5	660 MW Coal based, to be Revised to Gas based	Construction yet to start	-
21	Incinerator	-	1000 kg/h	Operational	1000 kg/h
22	Slag Grinding and mixing unit	CP1	0.2 MTPA	0.2 MTPA	0.2 MTPA
		CP2	2.0 MTPA	Under construction	-
23	Oxygen Plant (Out sourced)	-	1X2500 TPD	Operational	1X2500 TPD
			4X1800 TPD	Operational	4X1800 TPD
			1X900 TPD	Operational	1X900 TPD
			2060 TPD+ 2200 TPD	Construction yet to start	-
24	Township	-	7 Nos	4 Nos Constructed	4 Nos

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

Sl. No.	Facility	Units	As per EC		After Present Proposal						Remarks
			Unit Cap	Total	Units under JSWSL		Units under JVML		Units under JSWCL		
					Unit Cap.	Total	Unit Cap.	Total	Unit Cap.	Total	
1.	Ore beneficiation Plant	OBP-1	(OBP-1 will be relocated to OBP-2)	19.5 MTPA	-	19.5 MTPA	-	-	-	-	No change
		OBP-2	1X 2.5 MTPA 1X 5.0 MTPA 1 X 7.5 MTPA 1 X 4.5 MTPA		1X 2.5 MTPA 1X 5.0 MTPA 1 X 7.5 MTPA 1 X 4.5 MTPA		-	-	-	-	
2.	Sinter Plants	SP1	2.3 MTPA	14.95 MTPA	2.3 MTPA	12.65 MTPA	-	**5.75 MTPA**	-	-	**SP5 capacity enhancement to 5.75 MTPA, relocation & transfer to JVML**
		SP2	2.3 MTPA		2.3 MTPA		-		-		
		SP3	5.75 MTPA		5.75 MTPA		-		-		
		SP4	2.3 MTPA		2.3 MTPA		-		-		
		SP5	**2.3 MTPA**		-		**5.75 MTPA**		-		
3.	Pellet Plants	PP1	5 MTPA	16.8 MTPA	5 MTPA	16.8 MTPA	-	-	-	-	No change
		PP2	5 MTPA		5 MTPA		-		-		
		PP3	6.8 MTPA		6.8 MTPA		-		-		
4.	Coke Ovens	CO3	1.5 MTPA	8 MTPA	1.5 MTPA	8 MTPA	-	-	-	-	No change
		CO4	2 MTPA		2 MTPA		-		-		
		CO5	3 MTPA		3 MTPA		-		-		
		CO6	1.5 MTPA		1.5 MTPA		-		-		
5.	Hot Metal-COREX	COREX 1	0.8 MTPA	1.6 MTPA	0.8 MTPA	1.6 MTPA	-	-	-	-	No change
		COREX 2	0.8 MTPA		0.8 MTPA		-		-		
6.	Hot Metal-Blast Furnace	BF1	2.5 MTPA	16.57 MTPA	2.5 MTPA	12.07 MTPA	-	4.5 MTPA	-	-	**4.5 MTPA BF-5 transfer to JVML**
		BF2	2.17 MTPA		2.17 MTPA		-		-		
		BF3	4.4 MTPA		4.4 MTPA		-		-		
		BF4	3 MTPA		3 MTPA		-		-		
		BF5	4.5 MTPA		-		**4.5 MTPA**		-		
7.	Pig Caster (MGP)	-	1 x 1200 TPD	17000 TPD	1 x 1200 TPD	12000 TPD	-	5000 TPD	-	-	**5000 TPD MGP transfer to JVML**
			3 x 3600 TPD		3 x 3600 TPD		-		-		
			1 x 5000 TPD		-		1 x 5000 TPD		-		
8.	Crude steel	SMS1	3.8 MTPA	18 MTPA	3.8 MTPA	13.2 MTPA	-	**5.0 MTPA**	-	-	**SMS4 capacity enhancement to 5.0 MTPA & transfer to JVML**
		SMS2	6.4 MTPA		6.4 MTPA		-		-		
		SMS3	1.5 MTPA EAF 1.5 MTPA ZPF		1.5 MTPA EAF 1.5 MTPA ZPF		-		-		
		SMS4	2X350 T (BOF) – 4.8 MTPA		-		**2X350 T (BOF)**		-		
9.		LCP1	4X300 TPD		4X300 TPD		-		-	-	

Sl. No.	Facility	Units	As per EC		After Present Proposal						Remarks
			Unit Cap	Total	Units under JSWSL		Units under JVML		Units under JSWCL		
					Unit Cap.	Total	Unit Cap.	Total	Unit Cap.	Total	
	Lime Kilns	LCP2	4X300 TPD + 3X600 TPD	7200 TPD	4X300 TPD + 3X600 TPD	5400 TPD	-	2400 TPD	-		**Addition of a dedicated 600 TPD Kiln in SP5 and transfer of 4X600 TPD kilns to JVML.**
		LCP3	2X600 TPD		2X600 TPD		-		-		
		LCP4	3X600 TPD		-		3X600 TPD		-		
		LCP5	-		-		1X600 TPD		-		
10.	Casters	Slab Caster 1	3.2 MTPA	20.7 MTPA	3.2 MTPA	15.7 MTPA	-	5.0 MTPA	-	-	**5.0 MTPA Slab Caster 4 transfer to JVML**
		Slab Caster 2	6.4 MTPA		6.4 MTPA		-		-		
		Slab Caster 3	1.6 MTPA		1.6 MTPA		-		-		
		Slab Caster 4	5.0 MTPA		-		5.0 MTPA		-		
		Billet Caster 1	1.5 MTPA		1.5 MTPA		-		-		
		Billet Caster 2	3.0 MTPA		3.0 MTPA		-		-		
11.	Hot Strip Mills	HSM1	4.0 MTPA	14.2 MTPA	4.0 MTPA	9.2 MTPA	-	5.0 MTPA	-	-	**5.0 MTPA HSM3 transfer to JVML**
		HSM2	5.2 MTPA		5.2 MTPA		-		-		
		HSM3	5.0 MTPA		-		5.0 MTPA		-		
12.	Pipe Mill	-	1x0.4 MTPA	0.4 MTPA	1x0.4 MTPA	0.4 MTPA	-	-	-	-	No change
13.	Wire Rod Mill	WRM1	0.6 MTPA	1.8 MTPA	0.6 MTPA	1.8 MTPA	-	-	-	-	No change
		WRM2	1.2 MTPA		1.2 MTPA		-		-	-	
14.	Rebar & Section Mills	BRM1	1.0 MTPA	2.2 MTPA	1.0 MTPA	2.2 MTPA	-	-	-	-	No change
		BRM2	1.2 MTPA		1.2 MTPA		-		-	-	
15.	Cold Rolling Mills	CRM1	1.8 MTPA	6.4 MTPA	1.8 MTPA	6.4 MTPA	-	-	-	-	No change
		CRM2	2.3 MTPA		2.3 MTPA		-		-	-	
		CRM3	2.3 MTPA		2.3 MTPA		-		-	-	
16.	Galvanizing Lines	CGL1	4X0.25 MTPA	1.9 MTPA	4X0.25 MTPA	1.9 MTPA	-	-	-	-	No change
		CGL2	2X0.45 MTPA		2X0.45 MTPA		-		-		
17.	Colour Coating Line	-	0.5 MTPA	0.5 MTPA	0.5 MTPA	0.5 MTPA	-	-	-	-	No change
18.	Captive Power Plants	CPP1 – Gas based	100 MW	1490 MW	100 MW	830 MW	-	300 MW	-	-	**CPP5 transfer to JVML after change in configuration from 660 MW Coal based to 300 MW**
		CPP2 – Gas based	130 MW		130 MW		-		-	-	
		CPP3 – Coal + Gas	300 MW		300 MW		-		-	-	
		CPP4 – Coal + Gas	300 MW		300 MW		-		-		
		CPP5	660 MW		-		300 MW		-		

Sl. No.	Facility	Units	As per EC		After Present Proposal						Remarks
			Unit Cap	Total	Units under JSWSL		Units under JVML		Units under JSWCL		
					Unit Cap.	Total	Unit Cap.	Total	Unit Cap.	Total	
											Gas based Unit
19.	Incinerator	-	1000 kg/h	1000 kg/h	1000 kg/h	1000 kg/h	-	-	-	-	No change
20.	Slag Grinding and mixing unit	CP1	0.2 MTPA	2.2 MTPA	0.2 MTPA	0.2 MTPA	-	-	-	2.0 MTPA	**2.0 MTPA CP2 transfer to JSWCL**
		CP2	2.0 MTPA		-		-		2.0 MTPA		
21.	Oxygen Plant	-	1X2500 TPD 4X1800 TPD 1X900 TPD 1X2060 TPD 1X2200 TPD	14860 TPD	1X2500 TPD 4X1800 TPD 1X900 TPD 1X2060 TPD 1X2200 TPD	14860 TPD	-	-	-	-	No change

19.3.8 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	Major Raw materials	Estimated Quantity, ton/annum			Source and location		Distance of Domestic sources from Plant (km)	Mode of Transport
		JSWSL (13 MTPA)	JVML (5 MTPA)	At 18 MTPA	Import Source	Domestic Source		
1	Iron ore fines	2,06,21,703	37,65,797	2,43,87,500	Australia, Brazil	Bannihatti,	30	Pipe conveyor-35%,
						Sandur,	30	Rail-50%,
						Hospet,	35	Road-15%
						Chitradurga,	125	
						Orissa &	1294	
						Goa	349	
2	Iron ore lumps	11,97,200	2,12,800	14,10,000	South Africa, Australia	Bannihatti,	30	Sea/Rail/Road
						Sandur,	30	
						Hospet,	35	
3	Coking coal	1,08,00,000	0	1,08,00,000	Australia, Canada, USA, Mozambique	-	-	Sea/Rail
4	COREX coal	11,20,000	0	11,20,000	Australia, Russia, South Africa	-	-	Sea/Rail
5	PCI coal	24,05,200	9,08,800	33,14,000	Australia, Russia	-	-	Sea/Rail
6	Anthracite coal	4,30,000	0	4,30,000	Russia, Finland, Latvia	-	-	Sea/Rail
7	Limestone LCP	36,40,153	8,77,470	45,17,623	UAE, Oman	-	-	Sea/Rail
8	Limestone Agg	6,02,146	3,56,090	9,58,236	UAE, Oman	-	-	Sea/Rail
9	Dolomite Agg	7,28,347	0	7,28,347		Bagalkot-Karnataka,	210	Sea/Rail

Sl. No	Major Raw materials	Estimated Quantity, ton/annum			Source and location		Distance of Domestic sources from Plant (km)	Mode of Transport
		JSWSL (13 MTPA)	JVML (5 MTPA)	At 18 MTPA	Import Source	Domestic Source		
					Thailand, UAE, Oman	Karnool-AP,	267	
						Kadapa-AP	205	
10	Ind. limestone	34,336	0	34,336	-	Bagalkot-Karnataka	210	Rail
11	Ind. dolomite	11,15,426	0	11,15,426	-	Bagalkot-Karnataka	210	Rail
12	Dolomite LCP	18,77,987	0	18,77,987	-	Bagalkot-Karnataka, Karnool-AP,	210	Rail
						Kadapa-AP	267	
							205	
13	Ind. quartz	6,92,425	54,528	7,46,953	-	Dhone-Kurnool	205	Rail
14	Bentonite	1,00,000	0	1,00,000	-	Andhra/K'taka		Rail/Road
15	Thermal Coal	28,00,000	0	28,00,000	-	Open market	-	Rail
Total		**4,81,64,923**	**61,75,485**	**5,43,40,408**				-
Transfer from JSWSL								
Pellet		-	30,83,233	-	JSWSL	-	-	Conveyor
coke		-	17,50,906	-	JSWSL	-	-	Conveyor
Coke breeze		-	1,94,831	-	JSWSL	-	-	Road
Purchased scrap		-	46,945	-	JSWSL	-	-	Road
Total		**4,81,64,923**	**1,12,51,400**	**5,43,40,408**				

19.3.9 At 18 MTPA, the water requirement for the entire JSW complex is estimated as 3,01,000 m3/day which is being sourced from two sources, viz Tungabhadra Dam (32 MGD through pipeline of 35 KM) and Alamatti dam (40 MGD through a pipeline of 178 Km). Out of this total, around 1,44,000 m3/day of fresh water is required for steel plant. The permission for drawl of raw water is obtained from Govt. of Karnataka vide Ltr. dated 09/11/2009. Additionally, around 30,000 m3/day waste water is also being recycled and used in Plant process. After present proposed changes in plant configuration, there shall be no change in Water requirement for the proposed 18 MTPA Plant. After the proposed transfer of facilities, this quantity of water will be divided among JSWSL and JVML. The estimated quantity of water required for 5 MTPA steel production units under JVML shall be around 48,789 m^3/day. MOU has been signed between JSWSL and JVML for supply of required quantity of makeup water.

19.3.10 The power requirement for the 18 MTPA plant is estimated as 1434 MW, which will be generated in the Captive Power Plants. After present proposed changes in plant configuration, there shall be no change in power requirement for the proposed 18 MTPA Plant. After the proposed transfer of facilities, the estimated quantity of power required for 5 MTPA steel production units under JVML shall be around 235 MW which will be met from internal generation of 300 MW from CPP5 and 27 MW from BF-5. Any shortfall or surpluses will be mutually transferred with JSWSL.

19.3.11 Baseline Environmental Studies:

Period	December 2021 to January 2022
AAQ parameters	• $PM_{2.5}$ = 48.85 to 57.81 μg/m^3

at 10 locations	• PM_{10} = 74.25 to 91.58 µg/m^3 • SO_2 = 25.41 to 31.6 µg/m^3 • NOx = 19.58 to 30.01 µg/m^3
AAQ modelling (Max Incremental GLC)	• PM_{10} = 0.14 µg/m^3 • $PM_{2.5}$ = 0.09 µg/m^3 • SO_2 = 2.26 µg/m^3 • NOx = 0.71 µg/m^3
Ground water quality at 15 locations	• pH: 7.32 to 8.97, • Total Hardness: 96 to 816 mg/l, • Chlorides: 37 to 558 mg/l, • Fluoride: 0.1 to 1.5 mg/l. • Heavy metals are within the limits.
Surface water quality at 5 locations	• pH: 7.91 to 8.72, • DO: 4.8 to 6.4 mg/l, • BOD: 2 to 4 mg/l,
Noise levels	45.5 to 53.7 dB for the day time; 35.6 to 46.4 dB for the Night time.
Traffic assessment study findings	At Toranagallu-Kudithini Road, the traffic on this road has still spare capacity. However, it may become necessary to regulate heavy vehicle movement in future to ensure that the traffic volumes do not exceed the design limits.
Flora and fauna	Leopard, Sloth Bear, Indian Pangolin, Python, Common Indian Monitor, Pea Fowl, Steppe Eagle, Short Toed Snake Eagle are present in 10 Km Study Area. The species are mostly confined within the Daroji sanctuary. As per specific condition no (iii) of the existing EC for expansion from 10 MTPA to 16 MTPA, JSW has to participate in the Wildlife Conservation Plan for Sloth Bears and other Schedule-I Fauna found in the study area and in the Daroji Bear Sanctuary. In 2011, Karnataka Forest Department had prepared the Management Plan for Daroji Sloth Bear Sanctuary with assistance from JSWSL and other industries in the area which includes measures for conservation and protection of Faunal species found in the sanctuary along with financial outlay for implementation of the same. With reference to PCCF and CWW Karnataka's letter no. PCCF(WL)/D /CR-64 /2020-21 dated 29/01/2021, the Management Plan of Daroji Sloth Bear Sanctuary for the period from 2020-21 to 2029-30 has been approved. JSW shall be participating in the same in the coming years. For the future, an amount of Rs 3 Crores has been earmarked for the same.

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

Non-Hazardous Solid Wastes

Sl. No.	Type of Waste	Generation (TPD)			Mode of Utilization/ Disposal
		JSWSL	JVML	Total	
Blast Furnace (BF)					
1	Blast Furnace Air Cooled Slag	1151	438	1589	For Road making purpose as a sub base material. Currently it is used for bund construction.

Sl. No.	Type of Waste	Generation (TPD)			Mode of Utilization/ Disposal
		JSWSL	JVML	Total	
2	Blast Furnace Granulated slag	11998	4572	16570	Selling to Cement Making Plants and as slag sand, an alternate of river sand.
3	Blast Furnace Flue Dust	592	225	817	Re-used in waste to wealth to recover Fe & C
4	Blast Furnace Sludge	197	75	272	
5	Blast furnace bag filter dust	296	113	409	Reused in micro pellet plant, further to sinter making
COREX					
6	Corex Slag(Dry Pit Slag)	150	0	150	For Road making purpose as a sub base material. Currently it is used for bund construction.
7	Corex Granulated slag	1600	0	1600	Selling to Cement Making Plants and as slag sand, an alternate of river sand.
8	Corex Coal Drying Plant Coal Dust	270	0	270	Re-used in Blast Furnace for Pulverized Coal Injection (PCI).
9	Corex GCP Sludge	260	0	260	Re-used in waste to wealth to recover Fe & C
10	Corex classifier sludge	50	0	50	Reused in micro pellet plant, further to sinter making
11	Corex bag house dust	15	0	15	
DRI					
12	DRI sludge	234	0	234	Re-used in base mix further to Sinter plant.
13	Product fines	150	0	150	
14	Oxide fines	240	0	240	
Steel Melting Shop – 1,2 & 4 (BOF)					
15	Fume Extraction System(FES) Dust	45	22	67	Re-used in micro pellet plant further to sinter making
16	Mill Scale	108	52	160	Used for mill scale briquetting for further use in BOF as coolant
17	GCP sludge	661	318	979	Re-used in micro pellet plant further to sinter making
18	Ladle Furnace(LF) Slag	601	289	890	
19	BOF slag	7222	3466	10688	Used in micro pellet plant, blast furnace and sinter as source of flux, as scrap in BOF and bund construction
Steel Melting Shop - 3 (EAF & ZPF)					
20	Fume Extraction System(FES) Dust	118	0	118	Used in mill scale briquetting plant further in SMS
21	EAF/ZPF slag	2397	0	2397	Used as scrap in BOF and For Road making purpose as a sub base material & for making sub base of Inter plant railway network.
22	Ladle Furnace(LF) Slag	148	0	148	Re-used in micro pellet plant further to sinter making
23	Mill scale	20	0	20	Used for mill scale briquetting for further use in BOF as coolant
24	Combustion Chamber Dust	50	0	50	

Sl. No.	Type of Waste	Generation (TPD)			Mode of Utilization/ Disposal
		JSWSL	JVML	Total	
Hot Strip Mill- 1,2 &3					
25	Mill Scale	454	246	700	Used for mill scale briquetting for further use in BOF as coolant
26	Sludge	19	10	29	
Wire Rod mills					
27	Mill scale	69	0	69	Used for mill scale briquetting for further use in BOF as coolant
28	Sludge	7	0	7	Re-used in micro pellet plant further to sinter making
Bar rod mills					
29	Mill scale	102	0	102	Used for mill scale briquetting for further use in BOF as coolant
30	sludge	8	0	8	Re-used in micro pellet plant further to sinter making
Lime calcinations Plants					
31	Dolo (Dolime) Fines	216	72	288	Re-used in CRM, Corex, and Sinter Plant.
32	Lime Fines	360	120	480	
33	Bag house Fines (Lime/Dolo dust)	135	45	180	Re-used in micro pellet plant further to sinter making
Refractory:					
34	Used Refractory Bricks	170	0	170	Sold to authorized recycler
35	Refractory Dust	110	0	110	Used in bund construction
Cold Rolling Mill (CRM-1,2&3)					
36	Iron Oxide from Acid Regeneration Plant(ARP)	88	0	88	Re-used in Mill Scale Briquetting Plant & PP-2.
37	Grinding Sludge	15	0	15	Re-used in Sinter plant / Selling to Authorized Recyclers / Re-processors.
38	Magnetic Separator Sludge	11	0	11	Burning in Incinerator
39	Zinc dross	24	0	24	Selling to Authorized Recyclers/Re processor
40	Effluent Treatment Plant (ETP) Sludge	23	0	23	Re-used in micro pellet plant further to sinter making
Coke Ovens					
41	CDQ dust	241	0	241	Re-used in micro pellet plant further to sinter making
42	Coke breeze	526	0	526	Re-used in sinter making
43	Tar	767	0	767	Sold
44	Decanter tank sludge	3	0	3	Reused in coke oven
45	BOD sludge	6	0	6	
Captive Power Plants					
46	Bottom Ash	33	0	33	Used for bricks manufacturing
47	Fly Ash	163	0	163	Sold to Cement Making

Hazardous Solid Wastes

Sl. No	Category	Quantity (TPA)			Proposed disposal
		JSWSL	JVML	Total	
1	Used oil	53	20	73	Disposed to auth. Reprocessor
2	Waste oil	346	133	479	Disposed to auth. Reprocessor
3	Oil soaked cotton waste	41	16	57	Incinerate
4	Waste pickled liquor	130179	50069	180248	Reprocessing own
5	Acid residue	354420	136315	490735	To be treated in ETP
6	Alkali Residue	1287759	495292	1783051	To be treated in ETP
7	Decanter tank sludge	827	0	827	Used back in Coke oven
8	ETP Sludge	4037	1553	5589	Used back in PP
9	Impure sulphur	217	0	217	Disposed to TSDF
10	Oil & grease skimming residue	1404	540	1944	Incinerate
11	Filter & filter material having organic compound	25	9	34	Incinerate
12	Ash from incinerator	407	0	407	used in bund
13	Discarded plastics containers	35	13	48	Disposed to auth. Reprocessor
14	Discarded MS containers	278	107	385	Disposed to auth. Reprocessor
15	Used Batteries	1257	483	1740	Disposed to auth. Reprocessor
16	BOD sludge	1829	0	1829	Used back in Coke oven
17	ZLD salt	364	140	504	Disposed to TSDF
18	Chrome sludge	106	41	147	Disposed to TSDF
19	Zinc dross	1395	0	1395	Disposed to auth. Reprocessor
Total		**1784977**	**684732**	**2469709**	

19.3.13 Details of earlier public consultation and its implementation status

Details of advertisement	• Prajavani (Kannada) on 07-12-2020 • The New Indian Express (English) on 07-12-2020 • E Namma Kannada Nadu (Daily local) on 10-12-2020
Date of public consultation	08th January, 2021 (11 am)
Venue	Proposed Project Site
Attendance	• Additional District Magistrate, Ballari District
Major Issues Identified	• Generation of Employment to Locals • Improvement in Health Care Facilities • Improving Educational Facilities • Improving the quality of life of farmers. • Development of Greenery around plant
Budget allocation for addressing PH issues	• Rs 40.97 Crores

Status of Action plan for Addressing Public Hearing Issues

1. A total of Rs 40.97 Crores has been identified for the following activities to be carried out in the surrounding villages based on the physical targets identified against each program.
2. The current status as of 1st November 2022 is given below.

Sl. No.	Project/ Program	Physical Target	Total	Year wise Progress		
				2021-22	2022-23	2023-24
Medical Facilities						
1	Upgradation of facilities at Sanjeevani Hospital					
1.1	Phase 1 Construction of New block Construction of Café, Kitchen, Burns ICU BlockConstruction of Service Block	Sq. feet	48768	36576 (completed)	12192	0
1.2	Renovation / Redoing of Existing Block: Phase 1	Sq. feet	13575	13575 (completed)	0	0
1.3	Phase: 2 Construction of OPD & Pharmacy Block and Development of Roads and Pathways	Sq. feet	20283	0	20283	0
Education						
2	Face lift and improve the facilities of the Anganwadies in DIZ villages as per need i) Painting for anganwadies ii) Repairs for building as required iii) Providing Teaching & Learning materialProviding play equipment as required	No of Anganwadi es	30	12 (completed)	8	10
3	Improving the existing 8 Government Schools intomodel schools is being planned and approved. Need based Interventions Proposed i) Renovation of School Toilets ii) Renovation of School Building	Schools	8	3 (completed)	3	2
Environment						
4	Development of Greenery around Sultanpura village (Acres)	No of trees	5000	5000 (completed)	0	0
5	Development of Greenery in surrounding villages	No of trees Lakhs	6	2.5 (completed)	1.5	2
6	Installation of CAAQMS station at Sultanpura Shared by 3 industries (Nos)	Nos	1	0	1	0
Agri Livelihoods						
7	Excavation of farm ponds in farmer's fields for irrigation requirements (size of farm ponds (Max Size) : 100' *100' * 12'	No of farm ponds	240	80 (completed)	60	100

19.3.14 Existing capital cost of project was Rs 20,357 Cr. However, after present proposal, the above cost will be split between JSWSL and JVML:

For JVML- The estimated cost of proposed 5 MTPA Steel Production units of JVML with revised configuration of CPP5 and relocated SP5 is estimated to be about Rs 14,000 Crores and the capital cost for environmental protection measures is estimated as Rs 980 Crores. The annual

recurring cost towards the environmental protection measures is estimated to be Rs 66 Crores. The employment generation from the proposed project / expansion is 2000 people. The details of cost for environmental protection measures is as follows:

S. No.	Particulars	Amount (in Rs. Cr.)	
		CAPEX	OPEX
1.	Air Pollution Control Measure	415	35
2.	Water Conservation and Wastewater Treatment	127	6
3.	Energy Conservation	277	6
4.	Greenbelt Development	46	5
5.	Rainwater harvesting	23	0
6.	On-line Monitoring and Environmental Laboratory	69	7
7.	Occupational Health and Safety	23	7
TOTAL (in Rs. Cr.)		**980**	**66**

For JSWSL -The estimated cost of balance units under ongoing expansion of JSWSL upto 13 MTPA is estimated to be about Rs 6,357 Crores and the capital cost for environmental protection measures is estimated as Rs 324.5 Crores. The annual recurring cost towards the environmental protection measures is estimated to be Rs 19.3 Crores. The employment generation from the proposed project / expansion is 1600 people. The details of cost for environmental protection measures is as follows:

S. No.	Description	Cost (Rs. in Crores)	
		Capital	Recurring
1.	Air Pollution Control/ Noise	138	10
2.	Water Pollution Control	52	3
3.	Solid Waste Management	9	2
4.	Environmental Monitoring and Management	2.5	0.6
5.	Occupational Health (Existing Facilities will be utilized)	0	0
6.	Rainwater Harvesting	0	1.5
7.	Energy Conservation	80	2
8.	Green Belt Development	2	0.2
9.	Addressal of Public Consultation concerns	40.97	0
TOTAL (in Rs. Cr.)		**324.47**	**19.3**

19.3.15 Existing green belt has been developed in 910.7 ha area which is about 28.2% of the total project area of 3230.2 ha with total sapling of 17,76,667 Trees.

Revised project area of JSWSL shall be 2893.1 ha. Revised green cover being 33.7% of the revised project area comes to 974.9 ha. The revised green belt cover development is under implementation and will be completed by March 2024. Similarly, the revised project area of JVML will be 337.1 ha. Greenbelt cover being 33.01 % of the project area comes to 111.3 ha. Thus, total of 1086.2 ha area (33.63% of total project area) will be developed as greenbelt.

Gap filling plantation shall be carried out over existing greenbelt area to increase the existing plantations density. A 2m - 20m wide greenbelt, consisting of at least 3 tiers around plant boundary is 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 8,40,000 saplings will be planted and nurtured in 175.6 ha in 2 years.

SL	Description		Existing	Future	Total
1	**JSWSL** (As per 18 MTPA EC)	Area (Acre)	2250.52	390	2640.52
		No of Trees (Nos)	17,76,667	8,40,000	26,16,667
		% of Plant Area	**28.19%**	**4.89%**	**33.08%**
2	**JSWSL** (At 13 MTPA After Present Proposal)	Area (Acre)	2019.42	390	2409.42
		No of Trees (Nos)	15,45,567	7,96,100	26,16,667
		% of Plant Area	**28.25%**	**5.46%**	**33.70%**
3	**JVML** (5 MTPA ISP After Present Proposal)	Area (Acre)	231.1	43.9	275
		No of Trees (Nos)	231100	43900	275000
		% of Plant Area	**27.74%**	**5.27%**	**33.01%**
4	**JSWCL**	Area (Acre)	22	27.5	49.5
		No of Trees (Nos)	22000	27500	49500
		% of Plant Area	**14.67%**	**18.33%**	**33.00%**

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

Particulars	As per EC dated 29/11/2021	After proposed change under para 7(ii)	% Increase
Land	3234.2 ha	3234.2 ha	0
Greenbelt	1068.6 ha	1086.2 ha	+1.65%
Water	3,01,000 m^3/day	3,01,000 m^3/day	0
Power	1434 MW	1434 MW	0
Raw materials	54.34 MTPA	54.34 MTPA	0
Products	18 MTPA Steel 2.2 MTPA Cement	**JSWSL** - 13 MTPA Steel, 0.2 MTPA Cement **JVML** - 5 MTPA Steel **JSWCL** - +2.0 MTPA Cement	0

19.3.17 Pollution load assessment:

Parameter	JSWSL as per EC of 18 MTPA	Revised load as per the changes proposed at 18 MTPA	Balance units of JSWSL at 13 MTPA after Partial Transfer	JVML of 5 MTPA	JSWCL (Additional load)
Air Pollution (g/s)					
PM_{10}	774.41	766.3	664	100.7	1.6
$PM_{2.5}$	240.6	236.4	173.6	62	0.8
SO_2	1912.85	1905.8	1771.3	134.5	0
NOx	1689.87	1654.4	1564.4	90	0
Water (m^3/day)					
Discharge	ZLD	ZLD	ZLD	ZLD	ZLD
Solid Wastes (TPD)					
BF Slag	19909	19909	14899	5010	0
BOF Slag	14123	14123	10368	3755	0
others	8154	8154	6856	1298	0

Sl. No	Units	Hgt (m)	Dia (m)	Temp (K)	Flow Nm^3/h	Pollution Load (g/s)			
						PM_{10}	$PM_{2.5}$	SO_2	NOx
Configuration as per EC									
1	SP5 – 2.3 MTPA	85	7	423	1602690	4.45	3.65	89.04	66.78
2	CPP5 – 660 MW coal-based Unit	275	6	413	1660806	13.84	8.44	46.13	46.13
(A) Sub-total						18.29	12.09	135.2	112.9
Revised Configuration as per present Proposal									
1	SP5 – 5.75 MTPA	85	7	423	1815409	5.05	4.13	115.56	65
2	CPP5 –300 MW Gas based CPP	80	6	413	889238	2.47	2.47	12.35	12.35
3	LCP-SP5	56	2	403	124000	1.03	0.52	0.21	0.10
(B) Sub-total						8.55	7.12	128.12	77.45
Net Change (B-A)						-9.74	-4.97	-7.05	-35.46

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

Certified compliance report from Regional Office:

19.3.19 The Status of compliance of earlier EC was obtained from Regional Office, Bangalore vide letter no. EP/12.1/2015-16/16/KAR960 dated 16.11.2022 in the name of M/s. JSW Steel Limited. The Action taken report regarding the observations made during the visit was submitted to Regional officer MoEF&CC, Bangalore vide letter dated 24.11.2022. The details of the observations made by RO in the report dated 16.11.2022 along with its re-assessment / present status as furnished by the PP is given as below:

Sl.	Non-Compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO/ Response by PP
			EC Date	Specific	General	
1.	-	Installation of covered sheds for coal storage:	-	-	-	PP has implemented the following, for immediate control, before 31.08.2022 to control fugitive emissions from Coal yard. • Coal stockpiles were covered with tarpaulin. • Windshields/Curtains of 0.8 Km were provided in the coal storage yard. PP has initiated to cover the sheds on Top priority with the following schedule • Design of Covered Shed – Completed. • Evaluation of Vendors &

Sl.	Non-Compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO/ Response by PP
			EC Date	Specific	General	
						placement of orders - 31.12.2022 • Commissioning of Covered shed -31.08.2023
2.	-	Control rooftop emissions from SMS 1 & 2.	-	-	-	PP had installed Primary Venturi Scrubbers, Secondary De-dusting system for SMS 1 &2. We had implemented, Additional Emission Control Works for SMS1 as follows • In addition to the above equipment, roof top emission control system (Primary & Secondary) was provided for SMS1 except secondary system for converter 3. The works of converter 3 were in progress and will be completed by 31.03.2023. • PP is using Mill scale briquetting (up to 700 tonnes/day) as coolant in SMS 1 & 2 convertors in place of Iron ore as a result of which there is significant reduction in secondary emissions With the above measures the roof top emissions were substantially Additional Emission Control Works for SMS2: • Mill scale briquetting (up to 700 tonnes/day) is used as coolant in SMS 1&2 convertors in place of Iron ore as a result of which there is significant reduction in secondary emissions. • Gas cleaning assistant (GCA) for primary dedusting will be installed by 31.03.2023 • Augmentation of primary dedusting system by 31.03.2024.
3.	-	Additional Clean technologies implementation of MEROS/High	-	-	-	PP is complying stipulated emission norm of 50 mg/Nm^3 in Sinter plants. However additionally PP is implementing the following Clean

Sl.	Non-Compliances details	Observation of RO (abridged)	Condition no.			Re-assessment by RO/ Response by PP
			EC Date	Specific	General	
		efficiency Bag Filters for Sinter plants to further reduce emissions				technologies to ensure emissions of 10 mg/Nm^3 well within the stipulated norm of 50 mg/Nm3. PP has implemented, MEROS for Sinter Plants 4 and High efficiency Bag Filter for Sinter Plant 2. In SP 1 installation of High efficiency Bag Filter will be completed by 31.03.2023. Installation of High efficiency Bag Filter in SP 3 plant will be completed by 30.09.2024.
4.	-	Single oven pressure control in Coke Ovens to control Charging Emissions along with CGT car and HPLA system.	-	-	-	As stipulated, PP has provided Dedusting car in all batteries to control charging emission control. However, PP is implementing the clean technology to further improvement. Single oven pressure control will be installed in phases in Coke Oven 3 &4.In two batteries by 31.03.2023. Further balance 6 batteries will be provided by 31.03.2025. In coke oven-5 CGT car & HPLA is being implemented 31.08.2023 along with implementation of Coke 5 Project.
5.	-	Slag sand plant (17000 TPD) is proposed for converting steel slag to sand for sale	-	-	-	Presently PP is achiving 100% utilization of Steel Slag by using in Steel process and construction of bund of Slime pond. PP has innovated BOF slag sand plant which will enable us to use Steel slag as Value added products for use as slag sand and for use in cement PP has installed one Steel(LD slag sand plant) was installed on trial basis. The capacity of the plant is 100 TPD. We will be enhancing the capaciy to 17,000 TPD by December 2023.

19.3.20 **Partial Transfer of EC dated 29.11.2021**

After the proposed changes in Plant configuration, JSWSL is further proposing for separating some of the future proposed units of the ongoing 18 MTPA expansion from existing EC and part transfer EC of these units to other group companies viz. JSW Vijayanagar Metallics Ltd (JVML) and JSW Cement Limited (JSWCL) as follows:

From - To	Details of Partial Transfer
JSWSL to JVML	• Sinter plant (SP5) of 5.75 MTPA capacity along with dedicated 600 TPD Lime Kiln • Blast furnace (BF5) of 4.5 MTPA along with 500 TPD MGP • SMS4-BOF of 2 x 350 T capacity along with 2X2.5 MTPA Slab Casters. • Hot Strip Mill (HSM3) of 5.0 MTPA • Lime kiln (LCP4) of 3 x 600 TPD, • Captive power plant (CPP5) of 300 MW gas based.
JSWSL to JSWCL	• Slag Grinding and Mixing Unit of 2.0 MTPA
Note: • The overall steel production capacity of the JSWSL shall be limited to 13 MTPA. • 5 MTPA Steel Plant shall be transferred to JVML. • The Cement production capacity of JSWCL shall increase from present 4 MTPA to 6 MTPA in future.	

19.3.21 With respect to the part transfer, following documents have been submitted:

1) JSW Vijayanagar Metallics Limited (JVML)

- Application in Form 7 vide proposal no. IA/KA/IND/290187/2022 dated 06.12.2022 for EC Transfer for 5 MTPA Steel Plant from JSWSL to JVML.
- No objection Certificate from M/s. JSWSL by way of affidavit in an India non-judicial stamp dated 24.08.2022 for partial transfer of Environment clearance dated 29.11.2021 to M/s. JVML.
- Undertaking from M/s. JVML by way of affidavit in an India non-judicial stamp dated 24.08.2022 stating that they will be comply with all the applicable conditions as stipulated in the Environment Clearance dated 29.11.2021.
- Copy of the board resolution passed by the Board of Directors of JSW Steel Limited at their meeting held on 27.05.2022, wherein decision has been taken for such arrangements pertaining to transfer of 5 MTPA Standalone Steel Making facilities forming part of EC dated 29.11.2021 from M/s. JSWSL to M/s. JVML.
- Certificate of Incorporation of M/s. JSW Vijayanagar Metallics Limited from ROC, Ministry of Corporate Affairs dated 24.12.2019 bearing CIN Number U27300MH2019PLC334944.
- Certificate of Incorporation of M/s. JSW Steel Limited from ROC, Ministry of Corporate Affairs dated 16.06.2005 bearing CIN Number 11-152925.
- Memorandum of Understanding between JSWSL and JVML by way of affidavit in an India non-judicial stamp.
- Facility matrix showing devolution of production facilities between JSWSL, JVML and JSWCL.
- Project Cost Matrix between JSWSL, JVML and JSWCL.

- Project Resource Requirement Matrix between JSWSL, JVML and JSWCL
- EC conditions compliance Matrix between JSWSL, JVML and JSWCL.
- Environmental Liability Matrix between JSWSL, JVML and JSWCL.
- Pollution Mitigation Matrix between JSWSL, JVML and JSWCL
- The addendum EIA report inter-alia including process details, emission levels, solid and hazardous waste management, raw material and fuel requirement, the Environmental Management Plan (EMP), etc. for the project**.**

S No	Name of Company	CIN No	Change of Ownership
1	M/s. JSW Steel Limited	11-152925	As per Sl. No 1 (f) of Form -7, the project proponent has submitted that the proposal involves change in ownership between M/s. JSW Steel Limited and M/s. JSW Vijayanagar Metallics Limited. Further the CIN numbers of both the companies are found different. In view of the same the proposal involves transfer of Environment Clearance from M/s. JSW Steel Limited to M/s. JSW Vijayanagar Metallics Limited.
2	M/s. JSW Vijayanagar Metallics Limited	U27300MH2019PLC334944	

2) <u>JSW Cement Ltd (JSWCL)</u>

- Application in Form 7 vide proposal no. IA/KA/IND/289516/2022 dated 05.12.2022 for EC Transfer for 2 MTPA Slag Grinding Unit from JSWSL to JSWCL.
- No objection Certificate from M/s. JSWSL by way of affidavit in an India non-judicial stamp dated 24.08.2022 for partial transfer of Environment clearance dated 29.11.2021 to M/s. JSWCL.
- Undertaking from M/s. JSWCL by way of affidavit in an India non-judicial stamp dated May, 2022 stating that they will be comply with all the applicable conditions as stipulated in the Environment Clearance dated 29.11.2021.
- Copy of the board resolution passed by the Board of Directors of JSW Steel Limited at their meeting held on 27.05.2022, wherein decision has been taken for such arrangements pertaining to transfer of 2 MTPA Slag Grinding & Mixing Unit forming part of EC dated 29.11.2021 from M/s. JSWSL to M/s. JSWCL.
- Certificate of Incorporation of M/s. JSW Cement Ltd from ROC, Ministry of Corporate Affairs dated 29.03.2006 bearing CIN Number U26957MH2006PLC160839.
- Certificate of Incorporation of M/s. JSW Steel Limited from ROC, Ministry of Corporate Affairs dated 16.06.2005 bearing CIN Number 11-152925.
- Memorandum of Understanding between JSWSL and JSWCL by way of affidavit in an India non-judicial stamp.
- Facility matrix showing devolution of production facilities between JSWSL, JVML and JSWCL.
- Project Cost Matrix between JSWSL, JVML and JSWCL.

- Project Resource Requirement Matrix between JSWSL, JVML and JSWCL
- EC conditions compliance Matrix between JSWSL, JVML and JSWCL.
- Environmental Liability Matrix between JSWSL, JVML and JSWCL.
- Pollution Mitigation Matrix between JSWSL, JVML and JSWCL
- The addendum EIA report inter-alia including process details, emission levels, solid and hazardous waste management, raw material and fuel requirement, the Environmental Management Plan (EMP), etc. for the project**.**

S No	Name of Company	CIN No	Change of Ownership
1	M/s. JSW Steel Limited	11-152925	As per Sl. No 1 (f) of Form -7, the project proponent has submitted that the proposal involves change in ownership between M/s. JSW Steel Limited and M/s. JSW Cement Limited. Further the CIN numbers of both the companies are found different. In view of the same the proposal involves transfer of Environment Clearance from M/s. JSW Steel Limited to M/s. JSW Cement Limited.
2	M/s. JSW Cement Limited	U26957MH2006PLC160839	

19.3.22 The EAC examined the aforementioned documents and noted that following are the changes may be arising out of the EC amendment followed by the part transfer of the facilities:

I. <u>Project Cost Matrix</u>

Particulars	JSWSL	JVML	JSWCL
Project	Expansion of Existing ISP from 12 MTPA to 13 MTPA	Installation of 5 MTPA Integrated Steel Plant	Expansion by addition of 2 MTPA Slag Grinding & Mixing unit
Capital Cost	Rs. 6357 Crores	Rs. 14,000 Crores	Rs. 450 Crores
Cost of Environmental Measures	Rs. 324.5 Crores	Rs. 980 Crores	Rs. 49.2 Crores
EMP Budget for Addressing PH Issues	Expenditure towards Addressing PH issues for an amount of Rs 40.97 Crores shall be carried out by JSWSL.		
Project Completion Period	36 months	36 months	24 months
Employment Generation	1600	2000	350

II. Project Resource Requirement Matrix

Sl	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
1	Land Details • Total Area • Greenbelt Area	• 7992 Acre • 2640.52 Acre (33.08%)	• 7149 Acre • 2409 Acre (33.7%)	• 833 Acre • 275 Acre (33.01%)	• 150 Acre • 49.5 Acre (33.0%)
2	Location	Vijayanagar Works, Toranagallu, Bellary, Karnataka	Vijayanagar Works, Toranagallu, Bellary, Karnataka	Vijayanagar Works, Toranagallu, Bellary, Karnataka	Vijayanagar Works, Toranagallu, Bellary, Karnataka
3	Coordinates	**Latitude:** 15° 9'21.31"N - 15°12'7.68"N **Longitude:** 76°37'4.75" E-76°44'1.93"E	**Latitude:** 15° 9'21.31"N - 15°12'7.68"N **Longitude:** 76°37'4.75" E-76°44'1.93"E	**Latitude:** 15°10’32.84"N - 15°11'14.70"N **Longitude:** 76°41'19.91"E - 76°42'19.85"E	**Latitude:** 15°10'17.43"N - 15°11'3.07"N **Longitude:** 76°41'40.53"E - 76°42'11.94"E
4	Raw Material	• Iron ore fines - 2,43,87,500 • Iron ore lumps - 14,10,000 • Coking coal - 1,08,00,000 • COREX coal - 11,20,000 • PCI coal - 33,14,000 • Anthracite coal - 4,30,000 • Limestone LCP - 45,17,623 • Limestone Agg - 958236 • Dolomite Agg - 7,28,347 • Ind. limestone - 34336 • Ind. dolomite - 11,15,426 • Dolomite LCP - 1877987	• Iron ore fines - 2,06,21,703 • Iron ore lumps - 11,97,200 • Coking coal - 1,08,00,000 • COREX coal - 11,20,000 • PCI coal - 24,05,200 • Anthracite coal - 4,30,000 • Limestone LCP - 36,40,153 • Limestone Agg - 6,02,146 • Dolomite Agg - 7,28,347 • Ind. limestone - 34,336 • Ind. dolomite - 11,15,426 • Dolomite LCP - 18,77,987	• Iron ore fines - 3765797 • Iron ore lumps - 212800 • PCI coal - 908800 • Limestone LCP - 877470 • Limestone Agg - 356090 • Ind. quartz - 54528 • Pellet 3083233 • Coke - 1750906 • Coke breeze - 194831 • Purchased scrap - 46945	• Gypsum Slag - 4962889 • Dry Fly Ash - 80000 • Clinker - 1137004 • Gypsum - 69752 • Coal - 62000

Sl	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
		• Ind. quartz - 7,46,953 • Bentonite - 1,00,000 • Thermal Coal - 47,50,000	• Ind. quartz - 6,92,425 • Bentonite - 1,00,000 • Thermal Coal - 28,00,000		
5	Final Products	• HR Coils • CR Coils • Wire Rods • Rebars • Beams • Billets • Slabs • Cement	• HR Coils • CR Coils • Wire Rods • Rebars • Beams • Billets • Slabs • Cement	• HR Coils	• Slag Cement
6	Water Requirement	1,44,000 m^3/day	109611 m^3/day	48789 m^3/day	100 m^3/day
7	Power Requirement	1434 MW	1186 MW	235 MW	13 MW
8	Fuel Requirement	• Coke Oven gas (COG) – 420 K Nm3/hr • BF Gas (BFG) – 2942 K Nm3/hr • COREX Gas – 308 K Nm3/hr • DRI Gas – 165 K Nm3/hr • LD Gas – 177 K Nm3/hr	• Coke Oven gas (COG) – 360 K Nm3/hr • BF Gas (BFG) – 2514 K Nm3/hr • COREX Gas – 308 K Nm3/hr • DRI Gas – 165 K Nm3/hr • LD Gas – 171 K Nm3/hr	• Coke Oven gas (COG) – 77 K Nm3/hr • BF Gas (BFG) – 816 K Nm3/hr • LD Gas – 56 K Nm3/hr	-

III. EC conditions compliance matrix

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	A. Specific Conditions			
i.	Green belt shall be developed in an area of 1068 ha all along the periphery of the project site by September, 2024 as committed with a tree density of 2500 trees per hectare.	Applicable	Applicable	Applicable Greenbelt shall be developed in 33% of the plant area
ii.	Project proponent shall install covered sheds for coal storage in an area of 32325 sqm by	Applicable	Applicable	Not Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	June 2022 as committed.			
iii.	84 km long pipe conveyor shall be installed by 31/03/2024 as committed.	Applicable	Applicable	Not Applicable
iv.	Ambient air quality shall be improved by adopting measures like pipe conveyor, use of by product gas in place of coal and covered shed. Noise levels shall be controlled by decrease in truck traffic after completion of the pipe conveyor.	Applicable	Applicable	Not Applicable
v.	Environment Clearance for the township project shall be obtained from the concerned competent authority.	Applicable	RIPL is the owner and shall obtain the EC for the proposed township	Not Applicable
vi.	PP shall control rooftop emissions from SMS 1 &2 shall be eliminated by 3 1103/2022 and that from SMS 2 by installation of primary De- dusting system by 31/10/2022 as committed.	Applicable	Applicable	Not Applicable
vii.	Junction houses in raw material handling area requiring repair and overhauling to control fugitive emissions shall be modified by March 2022.	Applicable	Applicable	Not Applicable
viii.	Desulfurization of Coke Oven Gas, use of low Sulphur coal, Flue Gas Desulphurization in captive power plant shall be adopted to control SO2 emissions.	Applicable	Applicable	Not Applicable
ix.	Project proponent shall install 2 additional Continuous Ambient Air Quality Monitoring Stations (CAAQMS) in addition to already installed 4 CAAQMS.	Applicable	Applicable	Applicable The data from the CAAQS shall be used for reporting purposes as the plant is located adjacent to JSWSL
x.	Following Cleaner technologies shall be adopted by PP as committed: a) MEROS in Sinter plants to control emissions b) Sinter cooler waste heat recovery to generate power c) Dry gas cleaning in BF and BOF converters d) TRT and Stove waste gas heat recovery system in BF e) Secondary Fume Extraction system in	Applicable	Applicable	Not Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	BOF with dog houses f) Independent FE for LRF. g) Pipe conveyor to transport iron ore from various mines h) 3.5 km wind curtains in coal yard i) WHRB for EAF waste heat recovery j) Installation of Zero Power Furnace. k) C02 injection for pH control in SMS. l) Single oven pressure control in Coke Ovens to control Charging Emissions along with CGT car and HPLA system.			
xi.	100% solid waste utilization by means of following state-of-the-art technologies for recovery and recycling various wastes generated within the plant premises shall be adopted			Not Applicable
	i. Slag sand plant for surplus granulated BF slag	Applicable	Installed	
	ii. Micro-pellet plant (2050TPD) for the dust & sludge collected from air and water pollution control equipment	Applicable	Installed	
	iii. Mill scale briquetting plant (600 TPD) for high Fe containing sludge & dust from Mills	Applicable	Installed	
	iv. Waste-to-wealth plant (600 TPD) for the Dust & sludge of low Fe values through beneficiation	Applicable	Installed	
	v. Steam Box technology for SMS slag ageing to make it suitable for use as aggregate in road making	Not Applicable	Applicable	
	vi. Slag sand plant (17000 TPD) is proposed for converting steel slag to sand for sale.	Applicable	Applicable	
	vii. LHF slag briquetting plant (300 TPD) for production of briquettes to replace imported synthetic slag	Applicable	Applicable	
	viii. Powder steel slag fines for use in land reclamation and soil conditioning	Applicable	Applicable	
	ix. Carbon recovery plant - Carbon recovery shall be done from BF dust, BF GCP slurry and Corex Furnace GCP slurry recycled back into pellet plant	Applicable	Applicable	
xii.	The recommendations of the approved Site-Specific Conservation Plan/Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly	Applicable	Applicable	Not Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	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	Applicable	Applicable	Applicable
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 (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through Jabs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Applicable	Applicable	Applicable
ii.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories	Applicable	Applicable	Applicable
iii.	Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions	Applicable	Applicable	Applicable
iv.	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	Applicable	Applicable	Applicable
v.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags	Applicable	Applicable	Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
vi.	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly	Applicable	Applicable	Applicable
vii.	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.	Applicable	Applicable	Not Applicable
viii.	The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin	Applicable	Applicable	Applicable
ix.	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).	Applicable	Not applicable	Not Applicable
x.	Land-based APC system shall be installed to control coke pushing emissions	Applicable	Not applicable	Not Applicable
xi.	Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.	Applicable	Not applicable	Not Applicable
xii.	Vapor absorption system shall be provided in place of vapor compression system for cooling of coke oven gas in case of recovery type coke ovens.	Applicable	Not Applicable	Not Applicable
xiii.	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.	Applicable	Applicable	Not Applicable
xiv.	Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars	Applicable	Applicable	Applicable
III. Air quality monitoring and preservation				
i.	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 3JS1 March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30111 May 2008 (Sponge Iron) as an1ended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories	Applicable	Applicable	Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
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.	Applicable	Applicable	Applicable
iii.	The project proponent shall provide the ETP for coke oven and by-product to meet the standards prescribed in G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 4 14 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 201 5 (Thermal Power Plants) as amended from time to time as amended from time to time;	Applicable	Not Applicable	Not Applicable
iv.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards	Applicable	Applicable	Applicable
v.	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.	Applicable	Applicable	Applicable
vi.	Tyre washing facilities shall be provided at the entrance of the plant gates	Applicable	Applicable	Applicable
vii.	Treated water from ETP of COBP shall not be used for coke quenching	Applicable	Not Applicable	Not Applicable
viii.	Water meters shall be provided at the inlet to all unit processes in the steel plants	Applicable	Applicable	Applicable
IV. Noise monitoring and prevention				
i.	Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report	Applicable	Applicable	Applicable
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.	Applicable	Applicable	Not Applicable
ii.	Restrict Gas flaring to < 1%.	Applicable	Applicable	Not Applicable
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;	Applicable	Applicable	Applicable
iv.	Provide LED lights in their offices and	Applicable	Applicable	Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	residential areas			
v.	Ensure installation of regenerative/recuperative type burners on all reheating furnaces	Applicable	Applicable	Not Applicable
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.	Applicable	Applicable	Applicable
ii.	Kitchen waste shall be composted or converted to biogas for further use	Applicable	Applicable	Applicable
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.	Applicable	Applicable	Applicable
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.	Applicable	Applicable	Applicable
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.	Applicable	Applicable	Applicable
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained	Applicable	Applicable	Applicable
IX.	**Environment Management**			
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/20 17-IA.III dated 30/09/2020	Applicable	Not Applicable CER shall be done by JSWSL	Not Applicable CER shall be done by JSWSL
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 I forest I wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation /violation of the environmental / forest /	Applicable	Applicable	Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	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	Applicable	Applicable	Applicable
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.	Applicable	Applicable	Applicable
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.	Applicable	Applicable	Applicable
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	Applicable	Applicable	Applicable
iv.	The project proponent shall monitor the criteria pollutants level namely; PM10, S02, 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.	Applicable	Applicable	Applicable
v.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	Applicable	Applicable	Applicable
vi.	The project proponent shall submit the	Applicable	Applicable	Applicable

Sl. No	ENVIRONMENTAL CLEARANCE CONDITIONS	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
	environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company			
vii.	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Applicable	Applicable	Applicable
viii.	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Applicable	Applicable	Applicable
ix.	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environn1ent, Forests and Climate Change (MoEF&CC).	Applicable	Applicable	Applicable
x.	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.	Applicable	Applicable	Applicable
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory	Applicable	Applicable	Applicable
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Applicable	Applicable	Applicable
xiii.	The RO 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 I information/monitoring reports	Applicable	Applicable	Applicable
xiv.	Any Appeal against the 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.	Applicable	Applicable	Applicable

IV. Environmental Liability Matrix

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
1. Compliance Obligations				
1.	EC Compliance	Timely submission of Compliance to EC Conditions for the 13 MTPA Plant shall be the responsibility of JSWSL	Timely submission of Compliance to EC Conditions for the proposed 5 MTPA Plant shall be the responsibility of JVML	Timely submission of Compliance to EC Conditions for the existing 4 MTPA Cement plant along with the proposed 2 MTPA Unit shall be the responsibility of JSWCL
2.	CTE Compliance	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
3.	CTO Compliance	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
4.	Compliance to Hazardous waste mgmt. rules	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
5.	Compliance to Plastic waste mgmt. rules	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
6.	Compliance to E waste mgmt. rules	Applicable for the 13 MTPA Steel Plant	Applicable for the 5 MTPA Steel Plant	Applicable for the 6 MTPA Cement Plant
7.	Compliance to Bio medical mgmt. rules	Applicable for Medical wastes of JSW Sanjeevani Hospital and in plant Health Centres	Applicable for Medical wastes of and in plant Health Centres	Applicable for Medical wastes of and in plant Health Centres
2. Remediation/Mitigation obligations				
8.	EMP Measures	CAPEX and OPEX expenditure towards implementation of EMP Measures for the 13 MTPA Steel Plant shall be the responsibility of JSWSL	CAPEX and OPEX expenditure towards implementation of EMP Measures for the proposed 5 MTPA Steel Plant shall be the responsibility of JVML	CAPEX and OPEX expenditure towards implementation of EMP Measures for the proposed expanded 6 MTPA Cement Plant shall be the responsibility of JSWCL
9.	Greenbelt Development	Development of minimum 33% of GB of the total project area of 7149 Acres shall be the responsibility of JSWSL	Development of minimum 33% of GB of the total project area of 833 Acres shall be the responsibility of JVML	Development of minimum 33% of GB of the total project area of 150 Acres shall be the responsibility of JSWCL
10	Remediation Plan (If Applicable)	In case of Violation of EC for the 13 MTPA Steel Plant, Expenditure towards mitigative measures	In case of Violation of EC for the proposed 5 MTPA Steel Plant, Expenditure towards	In case of Violation of EC for the proposed expanded 6 MTPA Cement Plant, Expenditure

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
		for the Remediation Plan shall be the responsibility of JSWSL	mitigative measures for the Remediation Plan shall be the responsibility of JVML	towards mitigative measures for the Remediation Plan shall be the responsibility of JSWCL
11	Natural and Community Resource Augmentation Plan (if applicable)	In case of Violation of EC for the 13 MTPA Steel Plant, Expenditure towards mitigative measures for the Natural and Community Resource Augmentation Plan shall be the responsibility of JSWSL	In case of Violation of EC for the proposed 5 MTPA Steel Plant, Expenditure towards mitigative measures for the Natural and Community Resource Augmentation Plan shall be the responsibility of JVML	In case of Violation of EC for the proposed expanded 6 MTPA Cement Plant, Expenditure towards mitigative measures for the Natural and Community Resource Augmentation Plan shall be the responsibility of JSWCL
3. Fines and penalties				
12	Liability towards reply to Show cause Notices	In case of issuance of Show Cause Notice regarding any Environmental Issues related to the 13 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of Show Cause Notice regarding any Environmental Issues related to the proposed 5 MTPA Steel Plant, JVML shall be liable.	In case of issuance of Show Cause Notice regarding any Environmental Issues related to the proposed expanded 6 MTPA Cement Plant, JSWCL shall be liable.
13	Directions issued by CPCB SPCB	In case of issuance of Directions under The Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 or The Environment (Protection) Act, 1986 related to the 13 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of Directions under The Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 or The Environment (Protection) Act, 1986 related to the proposed 5 MTPA Steel Plant, JVML shall be liable.	In case of issuance of Directions under The Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 or The Environment (Protection) Act, 1986 related to the proposed expanded 6 MTPA Cement Plant, JSWCL shall be liable.

Sl. No	Environmental Liability	Parent Company JSWSL	Transferee Company 1 JVML	Transferee Company 2 JSWCL
14	Penalty due to EIA Violation	In case of violation of EIA Notification, 2006 by the 13 MTPA Steel Plant, payment towards any penalty as applicable shall be the responsibility of JSWSL	In case of violation of EIA Notification, 2006 by the proposed 5 MTPA Steel Plant, payment towards any penalty as applicable shall be the responsibility of JVML	In case of violation of EIA Notification, 2006 by the proposed expanded 6 MTPA Cement Plant, payment towards any penalty as applicable shall be the responsibility of JSWCL
15	Penalty due to failure in Compliance to Directions	In case of failure in Compliance to Directions by the 13 MTPA Steel Plant, payment towards any penalty or any other punishment as applicable shall be the responsibility of JSWSL	In case of failure in Compliance to Directions by the proposed 5 MTPA Steel Plant, payment towards any penalty or any other punishment as applicable shall be the responsibility of JVML	In case of failure in Compliance to Directions by the proposed expanded 6 MTPA Cement Plant, payment towards any penalty or any other punishment as applicable shall be the responsibility of JSWCL
4. Compensation obligations/Punitive Damages				
16	Due to Fines & Penalties	In case of issuance of any Fines or Penalties to the 13 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of any Fines or Penalties to the proposed 5 MTPA Steel Plant, JSWSL shall be liable.	In case of issuance of any Fines or Penalties to the proposed expanded 6 MTPA Cement Plant, JSWSL shall be liable.
5. Rehabilitation Obligations				
17	R&R (If applicable)	Applicable in case of any future expansion of the project area involving R&R	Not Applicable	Not Applicable

V. Pollution Mitigation Matrix

Sl.	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
1	**Air Pollution Control**	• Best Practices in line with European Union best available technologies • Design limit for dust emission from bag	• Best Practices in line with European Union best available technologies	• Best Practices in line with European Union best available technologies • Design limit for	• Bag Filter based DE systems

Sl.	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
		filters -< 30 mg/nm^3 • Additional high-performance bag filters in all sinter plants, with emission limit of < 10 mg/nm^3 • High efficiency ESPs along with bag filters in pellet plant to limit dust to < 10 mg/nm^3 • Switching over from highly polluting sinter plants (SP-6) to pellet plant. • Charging emission control by SOPRECO • Emission reduction via MEROS in Sinter Plant • Dry fogging and bag filter based DE system in material handling • Charging and pushing Emission control in coke ovens • Low NOx stage combustion burners • Electrostatic Precipitator (ESP) based process & Waste gas cleaning	• Design limit for dust emission from bag filters -< 30 mg/nm^3 • Additional high-performance bag filters in all sinter plants, with emission limit of < 10 mg/nm^3 • High efficiency ESPs along with bag filters in pellet plant to limit dust to < 10 mg/nm^3 • Switching over from highly polluting sinter plants (SP-6) to pellet plant. • Charging emission control by SOPRECO • Emission reduction via MEROS in Sinter Plant • Dry fogging and bag filter based DE system in material handling • Charging and pushing Emission control in coke ovens • Low NOx stage combustion burners • Electrostatic Precipitator (ESP) based process & Waste gas cleaning	dust emission from bag filters - < 30 mg/nm^3 • Emission reduction via MEROS in Sinter Plant • Dry fogging and bag filter based DE system in material handling • Low NOx stage combustion burners • Electrostatic Precipitator (ESP) based process & Waste gas cleaning	
2	**Noise Pollution Control**	• Plugging leakages in high-pressure gas/air pipelines. • Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps. • Design of absorber	• Plugging leakages in high-pressure gas/air pipelines. • Reducing vibration of high speed rotating machines by regular monitoring of vibration and	• Plugging leakages in high-pressure gas/air pipelines. • Reducing vibration of high speed rotating machines by regular	• Plugging leakages in high- pressure air pipelines. • Reducing vibration of high speed rotating machines by regular monitoring of vibration and taking necessary steps.

Sl.	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
		system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	taking necessary steps. • Design of absorber system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with rotational	monitoring of vibration and taking necessary steps. • Design of absorber system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound-proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly,	• Design of absorber system for the shift office and pulpit operator's cabin. • Noise absorber systems in pump houses. • Noise level at 1m from equipment will be limited to 85 dB (A). • The fans and ductwork will be designed for minimum vibration. • All the equipment in different units will be designed/operated in such a way that the noise level shall not exceed 85 dB (A). • Periodical monitoring of work zone noise and outside plant premises. • Un-manned high noise zone will be marked as "High Noise Zone". • In shops where measures are not feasible, attempts shall be made to provide operators with sound- proof enclosure to operate the system. • Workers exposed to noise level will be provided with protection devices like earmuffs and will be advised to use them regularly, while at work. • Workers exposed to noisy work place shall be provided with

Sl.	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
			duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	while at work. • Workers exposed to noisy work place shall be provided with rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.	rotational duties. • All workers will be regularly checked medically for any noise related health problem and if detected, they will be provided with alternative duty.
3	**Effluents Generation And Management**	• Zero Liquid Discharge outside plant boundary • Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide • Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the CETP for further treatment and reuse as make-up water. • Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level.	• Zero Liquid Discharge outside plant boundary • Effluent generated from coke ovens would be separately treated in Biological Oxidation and Dephenolization (BOD) treatment unit for removal of phenolic compounds and cyanide • Cooling tower blow downs and treated effluent from BOD plant of coke ovens would be taken to the CETP for further treatment and reuse as make-up water. • Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level.	• Zero Liquid Discharge outside plant boundary • Cooling tower blow downs would be taken to the CETP for further treatment and reuse as make-up water. • Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level.	• Zero Liquid Discharge outside plant boundary • Treatment of plant sanitary waste water including canteen effluent in a sewage treatment plant for separation of floating oil and reduction of BOD level.
4	**Solid and Hazardous Wastes**	• All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. • BF/BOF Slag shall be utilized in house or sold to cement	• All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. • BF/BOF Slag shall	• All non-hazardous solid wastes shall be utilized in-house in Sinter Plant/BOF. • BF/BOF Slag	• All non-hazardous solid wastes shall be utilized inhouse. • All other hazardous wastes shall be

Sl.	Item	Total Capacity at 18 MTPA stage as per EC dated 29/11/2021	Facilities/ Utilities after partial transfer of 2 MTPA Slag Grinding & Mixing Unit from EC of Transferer (JSWSL) to Transferees (JVML & JSWCL)		
			Transferer (JSWSL)	Transferee1 (JVML)	Transferee2 (JSWCL)
		manufacturers or used for road construction. • Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge. • All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms	be utilized in house or sold to cement manufacturers or used for road construction. Coal tar sludge and BOD sludge would be recycled for coke making by mixing with the coal charge. • All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms	shall be utilized in house or sold to cement manufacturers or used for road construction. • All other hazardous wastes shall be disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms	disposed in secured landfill/ handed over to authorized dealers for disposal as per statutory norms

Deliberations by the Committee

19.3.23 The Committee noted the following:

i. The EAC deliberated on the status of compliance of earlier EC obtained from Regional Office, Bangalore vide letter dated 16.11.2022 and noted that observations have been made by IRO for partial/non-compliance of EC conditions. PP submitted the Action taken report regarding the observations made to Regional officer MoEF&CC, Bangalore vide letter dated 24.11.2022. However, PP has not obtained closure report of IRO, MoEFCC. In this regard the EAC is of the opinion that closure report of IRO is essential for appraisal of the instant project.

ii. The EAC further noted that previous EC was granted vide letter dated 29/11/2021 for expansion of Integrated Steel Plant from 16 MTPA to 18 MTPA and captive power Plant 1490 MW with timelines to achieve the compliance of certain EC conditions as per the commitment of PP. It is desired that PP shall prepare a comparative statement of the compliance achieved as per the timelines and provide the status of the same. In case the timelines have not been met then PP shall submit the justification along-with the revised timelines to achieve the same.

iii. The EAC deliberated on the implementation status of the existing EC facilities and observed that PP has submitted wrong data in the brief submission w.r.t. SMS 3 as 1.2 MTPA EAF (which in actual is 1.5 MTPA EAF as per EC dated 29.11.2021). Also EAC observed that permission for Colour Coating Line of 0.5 MTPA was granted in the EC dated 29.11.2021. However, PP has submitted that they have installed Colour Coating Line of 0.6 MTPA and also obtained the CTO for the same. The EAC is of the view that PP has re-verify the data furnished with the application and submit the revised report and upload on Parivesh Portal.

iv. The EAC observed that initially the EC was granted on 1/10/2015. As reported by PP, existing green belt has been developed in 910.7 ha area which is about 28.2% of the total project area of 3230.2 ha with total sapling of 17,76,667 Trees which is less than the CPCB norm of achieving 33% greenbelt cover @ 2500 ha/saplings. PP shall submit reasons for not achieving 33% greenbelt cover till now and submit an action plan to achieve the same.

v. The EAC deliberated on the resource requirement for each of the entities among which the EC has to be splitted and observed that PP has not submitted proper information pertaining to water balance, material balance and energy balance specific to the proposal under consideration. In view of the same, the EAC is of the view that PP shall submit the desired water balance, material balance and energy balance for each entity.

vi. The EAC also noted that M/s. JSW Steel Limited has also sought modification under the provisions of para 7(ii) of EIA Notification, 2006 in EC dated 29/11/2021 w.r.t change in plant configuration without increase in steel production capacity. However, the pollution load details submitted are not justified and vague. Therefore, EAC is of the view that pollution load needs to be substantiated through modelling and the revised data needs to be furnished.

vii. The Committed observed that in the MoU submitted by way of affidavit in an India non-judicial stamp between JSWSL and JVML w.r.t. sharing of facilities, utilities, services etc., there is no name of the authorised signatories, nor there is any date on which the MoU was signed.

viii. The EAC deliberated on the EC conditions compliance matrix submitted by the PP and noted that while allocating the applicability of the EC conditions among the entities, PP has also mentioned not applicable at some places. However, PP has not submitted the reasons for the condition to be not applicable to that entity. Therefore, EAC is of the view that PP shall take due diligence in preparing the EC compliance matrix and revise the same with reasons where the condition is not applicable to the particular entity. Also, it is desired that applicable conditions shall be specified with distinctive quantification, wherever required, for each entity.

ix. The EAC noted that PP shall also clarify the existing facilities being operated by M/s. JVML and JSWCL and the final configuration and capacity of the facilities after the proposed splitting of facilities.

x. The EAC noted that due to change of configuration, load distribution, air, water, material balance, process flow etc. will have to be revised by the PP and resubmit the same.

xi. Details of layout and details of separate approach road needs to be provided for better implementation of the project.

xii. Justification for splitting of EC is not adequate. Details of board resolution et. Needs to be submitted. PP is unable to provide the reason for splitting of EC and the benefit to the safeguard of environment on these aspects.

xiii. The EAC noted that the addendum to EIA/EMP report is not adequate.

xiv. In view of above facts, EAC advised PP to revise the addendum EIA/EMP report along with Transfer of EC application covering all the desired information for further

consideration.

xv. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee

19.3.24 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. 19.3.23 above and submit the revised application as per the provisions of EIA Notification, 2006.

***

Re-consideration in Environmental Clearance

Agenda No. 19.4

19.4 Expansion of Integrated Steel Plant by M/s Shreeyam Power & Steel Industries Limited, located at Plot No. 332 GIDC, Phase II, Khasra No. 104, 116/1, 116/2 and 117/1, Mithirohar, Taluka Gandhidham, District Kutch, Gujarat– Consideration of Environmental Clearance.

[Proposal No. IA/GL/IND/269061/2007; File No. J-11011/250/2007-IA.II(I)]
[Consultant: Kadam Environmental Consultants; valid upto: 19.05.2023]

19.4.1 M/s Shreeyam Power and Steel Industries Limited has made an online application vide proposal no. IA/GJ/IND/269061/2007 dated 19/09/2022 along with copy of EIA/EMP report, Form – 2 and Certified compliance report seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) and 1(d) Thermal power plant under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

19.4.2 Name of the EIA consultant: M/s. Kadam Environmental Consultants [Sl. No. 18, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/SA 0164; valid upto 19.03.2023, Rev. 25, Sept 05, 2022].

Details submitted by the project proponent

19.4.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
10/11/2020	Standard Terms of Reference	Terms of Reference	21/11/2020	20/11/2024

19.4.4 The project of M/s Shreeyam Power and Steel Industries Limited located in Mithirohar village, Gandhidham Tehsil, Kutch District, Gujarat is for enhancement of sponge iron production from 0.186 to 0.456 MTPA, Billets (MS/SS) production from 0.378 to 0.678 MTPA and Rolled production from 0.21 to 0.628 MTPA, Captive Power generation from 36 MW to 60 MW (excluding 12 MW DG Set) and setting up of facilities for Bar Epoxy Coating 0.048 MTPA, Steel Forging 0.036 MTPA, Aluminium Ingots 0.024 MTPA.

19.4.5 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>33.1 ha [Private Land]</td><td>Land use: Industrial</td></tr>
<tr><td>2.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Existing plant area is 2,62,272 sqm (26.22 Ha.). Additional 68,695 sqm. (6.87 Ha.) land is already acquired for the proposed expansion and the same is adjacent to the existing facility.</td><td></td></tr>
<tr><td>3.</td><td>Existence of habitation & involvement of any R&R, if any.</td><td>Project site: No habitation exists in the plant site so no R&R involved.

Study Area<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Mithirohar</td><td>1 km</td><td>WNW</td></tr></table></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>23° 6’ 9.63” N</td><td>70° 10’ 59.00” E</td></tr><tr><td>B</td><td>23° 6’ 21.76” N</td><td>70° 10’ 59.22” E</td></tr><tr><td>C</td><td>23° 6’ 22.03” N</td><td>70° 11’ 2.27” E</td></tr><tr><td>D</td><td>23° 6’ 27.05” N</td><td>70° 11’ 7.76” E</td></tr><tr><td>E</td><td>23° 6’ 32.06” N</td><td>70° 11’ 7.86” E</td></tr><tr><td>F</td><td>23° 6’ 33.87” N</td><td>70° 11’ 10.66” E</td></tr><tr><td>G</td><td>23° 6’ 26.27” N</td><td>70° 11’ 13.60” E</td></tr><tr><td>H</td><td>23° 6’ 29.46” N</td><td>70° 11’ 19.07” E</td></tr><tr><td>I</td><td>23° 6’ 25.22” N</td><td>70° 11’ 21.83” E</td></tr><tr><td>J</td><td>23° 6’ 22.81” N</td><td>70° 11’ 23.21” E</td></tr><tr><td>K</td><td>23° 6’ 22.75” N</td><td>70° 11’ 23.80” E</td></tr><tr><td>L</td><td>23° 6’ 21.73” N</td><td>70° 11’ 24.41” E</td></tr><tr><td>M</td><td>23° 6’ 9.27” N</td><td>70° 11’ 19.40” E</td></tr></table></td><td>-</td></tr>
<tr><td>5.</td><td>Elevation of the project site</td><td>7 M above mean sea level</td><td></td></tr>
<tr><td>6.</td><td>Involvement of Forest land if any.</td><td>No involvement of Forest land</td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>7.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td><u>Project Site</u>: Nil

<u>Study Area:</u>
<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Mithirohar pond</td><td>1.6</td><td>SSW</td></tr><tr><td>Chudwa river</td><td>2.4</td><td>N</td></tr><tr><td>Chudwa river</td><td>4.6</td><td>NW</td></tr><tr><td>Sang River</td><td>3.2</td><td>WSW</td></tr><tr><td>Sang River</td><td>7.0</td><td>W</td></tr><tr><td>Varsana Pond</td><td>7.7</td><td>NNE</td></tr><tr><td>Padana Pond</td><td>5.6</td><td>N</td></tr><tr><td>Aji River (Tributary)</td><td>2.4</td><td>SE</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>None within the study area

<u>List of Reserved and protected forests:</u>
No Reserve Forest is falling within 10 km. radius of the plant site. Only few protected forests are present in buffer zone of the project site.</td><td></td></tr>
</table>

19.4.6 The plant was initially established by M/s. MID India Engineering Ltd. for production of 3,000 Tons per month of Sponge Iron, 12,500 Tons per month of MS Billets, 17,500 Tons per month of Rolled product and 3,333.3 Tons per month of Galvanized Corrugated sheets after obtaining Consent to Established from Gujrat Pollution Control Board on 07.03.2005. Environment Clearance, as per EIA Notification, 1994 was not required as the project cost was less than Rs. 100 Crores. The project was accorded Environmental Clearance vide lr. no. J-11011/250/2007-IA II(I) dated 24/08/2007 in the name of M/s. MID India Engineering Ltd. EC transfer in the name of M/s Shreeyam Power and Steel Industries Limited was granted by MoEF&CC vide letter dated 16.10.2020. Latest Consent to Operate for the existing unit was accorded by Gujarat State Pollution Control Board vide lr. no. AWH-114441 dated 31/08/2021. The validity of CTO is up to 02/08/2026.

19.4.7 Implementation status as per existing EC

S. No.	Facilities	As per CTE dated 07.03.2005	As per EC dated 24.08.2007	Implementation Status as on date	Production as per CTO
1.	Iron Ore Pellet Plant	-	50,000 TPM	Not Implemented	-
2.	Sponge Iron Plant	3000 MT/month	2x100 TPD 1x350 TPD	Implemented	15,500 MT/month

S. No.	Facilities	As per CTE dated 07.03.2005	As per EC dated 24.08.2007	Implementation Status as on date	Production as per CTO
			(Increased to 15,500 MT/month)		
3.	Steel Melting Shop Induction Furnace Billet Caster	12500 MT/month	4x20 Ton 2x4/7 m + 2x6/11 m (Increased to 25,000 MT/month)	Implemented	25,000 MT/month
4.	Alloy Steel Product LRF AOD	-	1x25 Ton 1x30 Ton (6500 MT/month)	Implemented	6500 MT/month
5.	Rolled Products	35 TPH (17,500 MT/month)	-	Implemented	17,500 MT/month
6.	Galvanizing Plant	3,333.3 MT/month	-	Implemented	3333.33 MT/month
7.	Power Plant	DG Set – 12 MW	WHRB – 12 MW PFBC – 24 MW	Implemented	WHRB – 12 MW PFBC – 24 MW DG Set – 12 MW
Note: The plant was initially established for production of 3,000 Tons per month of Sponge Iron, 12,500 Tons per month of MS Billets, 17,500 Tons per month of Rolled product and 3,333.3 Tons per month of Galvanized Corrugated sheets after obtaining Consent to Established from Gujrat Pollution Control Board on 07.03.2005. Environment Clearance, as per EIA Notification, 1994 was not required as the project cost was less than Rs. 100 Crores.					

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

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 24.08.2007								Proposed Units		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Un- implemented (B)		As per CTO						
		Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	
1.	Iron Ore Pellet Plant	--	600,000	--	--	--	600,000	--	--	--	--	--	--	Dropped
2.	Sponge Iron Plant	2x100 TPD 1x350 TPD	186,000	2x100 TPD 1x350 TPD	186,000	--	--	2x100 TPD 1x350 TPD	1,86,000	2x140 TPD 1x500 TPD (By modifying existing 2x100 TPD and 1x350 TPD Kilns) + 1x500 TPD (new)	2,70,000 (additional)	2x140 TPD 2x500 TPD	456,000	
2.	Steel Melting Shop													
2a.	Induction Furnace	4x20 Ton	--	4x20 Ton	--	--	--	4x20 Ton	--	2x22 Ton	--	4x20 Ton 2x22 Ton	--	--
2b.	EAF (24 MVA)	--	--	--	--	--	--	--	--	1x25 Ton EAF + LRF 1x30 Ton + 1x30 Ton VD		1x25 Ton EAF + LRF 1x30 Ton + 1x30 Ton VD		
2c.	CCM	2x4/7 m 2 x 6/11m	300,000	2x4/7 m 2 x 6/11m	300,000	--	--	2x4/7 m 2 x 6/11m	300,000	1x6/11 m 2x9/16 m	300,000	2x4/7 m 3x 6/11m 2x9/16 m	600,000	
2d.	Alloy Steel	1x25 Ton LRF 1x30 Ton AOD	78,000	1x25 Ton LRF 1x30 Ton AOD	78,000	--	--	1x25 Ton LRF 1x30 Ton AOD	78,000	-	-	1x25 Ton LRF 1x30Ton AOD	78,000	
3.	Rolling Mills													
3a	Rolling Mill#1 & 2 (MS TMT, WR, SEC., STR.)	35 TPH	210,000	35 TPH	210,000	--	--	35 TPH	2,10,000	By modification of existing Rolling Mills to 1x50 TPH each	3,40,000 (additional)	-	5,50,000	
3b	Rolling Mill #3 (AS/SS)	--	---	-	-	-	--	---	-	RM 1x15 TPH RH Furnace–15 TPH	78,000	RM 1x15 TPH RH Furnace–15 TPH	78,000	
4	Bar Epoxy Coating	--	--	-	-	---	-	---	-	1 x 8 TPH	48,000	1 x 8 TPH	48,000	

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 24.08.2007								Proposed Units		Final (Existing + Proposed)		Remarks
		Total (A+B)		Implemented (A)		Un- implemented (B)		As per CTO						
		Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	Configuration	Capacity (TPA)	
5	Steel Forging Plant	--	--	--	--	-	--	--	--	Press 1x1600 Ton, 1x16 Ton Hammer 1x15 Ton RH Furnace, 1x15 ton HT Furnace	36,000	Press 1x1600 Ton, 1x16 Ton Hammer 1x15 Ton RH Furnace, 1x15 ton HT Furnace	36,000	
6	Aluminium Ingots	--	--	-	-	--	--	--	--	2x5 Ton	24,000	2x5 Ton	24,000	
7	Galvanizing Plant	--	--	-	40,000	--	--	--	40,000	-	-	-	40,000	
8	Captive Power Plant - 72 MW (After Expansion)													
8a	WHRB - DRI		12 MW		12 MW	--	--	--	12 MW		12 MW		24 MW	
8b	CFBC /AFBC	CFBC	24 MW	CFBC	24 MW	--	--	CFBC	24 MW	AFBC	12 MW	CFBC + AFBC	36 MW	
8c	DG Set	--	12 MW	--	12 MW	--	--	--	12 MW	-	--	--	12 MW	

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

Sl. No.	Raw Material	Quantity required per annum			Source	Distance from site (Kms)	Mode of Transportation
		Existing	Expansion	Total			
1	Iron Ore/Pellets	330,900	5,40,000	870,900	Domestic Mines / Imported	650 km	Road
2	Non-Coking Coal	456,720	5,61,288	10,18,008	Imported / Indigenous	20 km	Sea to Kandla Port & then by Road
3	Dolomite	7,440	21,600	29,040	From various Mines in India	550 km	Road
4	Calcined Lime	---	3,900	3,900	From various Mines in India	650 km	Road
5	Calcined Dolomite	1,920	6,324	8,244	Open Market	650 km	Road
6	Ferro-alloys	3,900	15,320	19,220	Local Market	1500 km	Road
7	MS Scrap / Return Scrap	141,000	2,07,504	348,504	Local Market + In-house (Return scrap)	20 km	Road
8	Aluminium Scrap	--	25,800	25,800	Imported / Indigenous	20 km	Sea
9	Galvanised Sheet	40,000	0	40,000	Open market	20 km	Road
10	Epoxy Paint	--	1,920	1,920	Local Market	20 km	Road
11	Purchased Billet	--	22,000	22,000	Local Market	30 km	Road

19.4.10 Existing Water requirement is 1200 m^3/day. Water requirement is obtained from Gujarat Water Infrastructure Limited (GWIL) and permission for 1750 m^3/day has been obtained vide letter no. GWIL/Kutch/270701/2536 dated 24/12/2007. The water requirement for the proposed project is estimated as 3494 m^3/day, out of which 2813 m^3/day of fresh water requirement will be obtained from the Gujarat Water Infrastructure Limited (GWIL) & Water Tankers and the remaining requirement of 681 m^3/day will be met from recycled water. Applied for drawl of additional quantity of water required for the proposed expansion on 07.09.2020 vide letter SPSIL/P&A/2020/28 (Application ID No. 1000155270-1515971).

19.4.11 Existing power requirement of 36.0 MW is obtained from Captive power generation. Plant has permission for drawl of 6 MVA from the grid. The power requirement for the proposed project is estimated as 71.55 MW, out of which 60 MW will be obtained from the Captive Power Plant and remaining from grid.

19.4.12 Baseline Environmental Studies

<table>
<tr><th>Period</th><th>Mid October 2020 to Mid January 2021</th></tr>
<tr><td>AAQ parameters At eight Locations (min and max)</td><td>• $PM_{2.5}$ = 7 To 44 µg/m^3
PM_{10} = 17 To 94 µg /m^3
SO_2 = 3.8 to 18.4 µg/m^3
NOx = 25.1 To 6 µg/m^3
CO = 0.85 0.54 µg/m^3</td></tr>
<tr><td>Incremental GLC level</td><td>• PM_{10} = 12.25 µg/m^3 (Level at 0.5 km in SE Direction)
SO_2 = 5.75 µg/m^3 (Level at 0.5 km in NNE Direction)
NOx = 2.06 µg/m^3 (Level at 0.75 km in NNE Direction</td></tr>
<tr><td>Ground water quality at eight locations</td><td>pH: 6.5 to 7.45, Total Hardness: 31400 to 140 mg/l, Chlorides: 29 to 85534 mg/l, Fluoride: 0.3 to 1.96 mg/l. Heavy metals <0.01 to 0.13</td></tr>
<tr><td>Surface water quality at eight locations</td><td>pH: 8.0 to 9.5; DO: 3.6 to 6.6 mg/l and BOD: 5 mg/l. COD from 20 to <5 mg/l.</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>54.8 to 67.1 dBA for the day time and 44.7 to 63.6 dBA for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted at NH/SH/MDR Kandala to Mithirohar which is approximately 1.9 km (distance) from the plant site.
• Transportation of raw material, fuel & finished product will be done 90% by road.
• Existing PCU is 207 PCU/hr. on Kandala to Mithirohar (MDR) and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Existing V/C Ratio</th><th>LOS</th></tr>
<tr><td>Mithirohar to Kandala (both ways)</td><td>207</td><td>900</td><td>0.23</td><td>B</td></tr>
</table>
PCU load after proposed project will be 105 (Existing) + 3 (Additional) PCU/hr and level of service (LOS) will be:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr.)</th><th>C (Capacity in PCU/hr.)</th><th>Proposed V/C Ratio</th><th>LOS</th></tr>
<tr><td>Mithirohar to Kandala (both ways)</td><td>213</td><td>900</td><td>0.237</td><td>B</td></tr>
</table>
* Note: Capacity as per IRC 64: 1990 Guideline for capacity for roads.
Conclusion: The level of service will “Very Good” after including additional traffic due to proposed project.</td></tr>
<tr><td>Flora and fauna</td><td>Buffer zone of the study area has been reported as a habitat of Schedule I species Pavo cristatus commonly known as Indian Peafowl. Wildlife Conservation Plan has been prepared for Schedule I species (common peafowl). Capital Budget of INR 3,00,000 and recurring budget of INR 50,000 per year for 5 years will be spent. The conservation plan is submitted to State Forest Department vide letter dated 21.05.2022 for approval.</td></tr>
</table>

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

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal	Remarks
Soild Waste						
1.	Dolochar	DRI Kilns	68,400	--	Will be used in AFBC/ PFBC Boilers	
2.	Wet Scrapper Sludge	DRI Kiln	9,545	--	Will be stored at site for maximum period of 15 days and disposed-off in landfill	
3.	Iron Ore Fines	Sponge Iron Plant	23,000	--	Will be given to nearby Sinter Plant	
4.	Induction Furnace Slag	Induction Furnace	67,800	Metal Recovery from Slag	After metal recovery (approx. 10%), remaining slag shall be crushed and will be used as aggregates	
5.	Induction Furnace Bag Filter Dust	Induction Furnace	6,780	--	Will be sold to Sinter Plant	
6.	AOD Slag	SMS-AOD Convertor	4,000	TCLP test to determine whether hazardous or non-hazardous	After TCLP test, shall be used in Cement making as a mixture of raw materials, replacing some amount of natural raw materials like limestone and clay or shall be crushed and given to Paving blocks / Paving Tiles Manufacturing units or will be used as aggregates/land filling	
7.	CCM Scale	Continuous Casters	4,520	--	Will be used in remelting in IF/EAF	
8.	Mill Scale	Rolling Mill MS)	10,800	--	Will be used in remelting in IF/EAF	
9.	Mill Scale	(Rolling Mill SS/AS)	800	--	Will be used in remelting IF/EAF	
10.	Shot blasting iron	Epoxy	240	--	Will be used in	

S. No.	Type of Waste	Source	Quantity generated (TPA)	Mode of Treatment	Disposal	Remarks
	dust	Coating Plant			remelting IF/EAF	
11.	Rejects/boring scrap/ end cuts/ trimming	Steel Forging Plant	720	--	Will be used in remelting IF/EAF	
12.	WHRB / Pollution Control Dust / Fly-ash	ESP with DRI Kilns	13,680	Dry fly-ash collection system	After use in own Fly-ash brick Plant remaining will be given to the Cement Plant & Brick Manufacturing Units	MOU with Kamdhenu Enterprise
13.	PFBC / AFBC - Fly-ash	ESP with AFBC/ CFBC	51,500			
14.	PFBC / AFBC – Bottom Ash	PFBC / AFBC Boilers	23,760	--	Will be given to the nearby Brick Kilns, to be used as fuel	
Hazardous Waste						
1.	Used Oil	From all plant Units	30	--	Selling to registered recycler/ reprocessor	
2.	Oily Sludge	From all plant Units	72	--	Collection, Storage, Transportation, and sent to TSDF.	MOU with Detox India Pvt. Ltd. (common
3.	Discarded containers/Barrels/ Liners	From all plant Units	0.6	--	Collection, Storage, Transportation, and and sent to TSDF.	

19.4.14 Public Consultation:

Details of advertisement given	In Kutch Uday on date 14/12/2021 and in The Indian Express on date 16/12/2022
Date of public consultation	18/01/2022
Venue	At adjacent plot of M/s Shreeyam Powwer and Steel industries Limited, Plot No. 332, Phase-II, GIDC, Vill. Mithirohar, Ta.: Gandhidham, Dist.: Kutch (Gujarat)
Presiding Officer	Deputy Collector & Sub Divisional Magistrate, Anjar-Kutch
Major issues raised	• Green area development in surrounding villages • Condition of roads in Mithirohar village • Employment including employment for Women • Education • Pollution from plant particularly impact on Salt Pan, grassland due to fly-ash • CSR activities, Cattle Shed etc.

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

S. No.	Project / Program	Target / Remarks	Year wise Progress (Amount - Rs. In INR)			
			2023	2024	2025	Total
Green Belt Development						
1	Tree Plantation drives in nearby villages (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Greenbelt development in nearby 4 village 2000 sapling per village (INR 350 per sapling)	7,00,000	7,00,000	14,00,000	28,00,000
Roads and Infrastructure Development						
1	Paved internal road in villages (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Construction Paved Road of village internal kaccha road in nearby 4 village in the study area	10,00,000	20,00,000	10,00,000	40,00,000
2	Water storage facilities for cattle sheds (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Construction of cattle shed in nearby 4 village in the study area	15,00,000	7,50,000	7,50,000	30,00,000
Education & Sports						
1	Higher education opportunities to the children in the nearby villages (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Educational funding for higher education in 8 schools located in the Study area	20,00,000	20,00,000	30,00,000	70,00,000
2	Distribution of books among school children (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Distribution of stationery in 8 schools located in the study area	3,00,000	6,00,000	3,00,000	12,00,000
3	Provision of necessary equipment and	Distribution of sport equipment in 8 schools	3,00,000	3,00,000	6,00,000	12,00,000

S. No.	Project / Program	Target / Remarks	Year wise Progress (Amount - Rs. In INR)			
			2023	2024	2025	Total
	infrastructure for sports activities (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	located in study area				
4	Development of Play Ground at Four Villages (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Development of Playgrounds of eight Schools	10,00,000	10,00,000	20,00,000	40,00,000
Drinking Water Facility						
1	Installation of RO Plant in the Schools of Four Villages and Community Hall / Area	Purchase of RO Water Plant with Storage Tank with Pipelines of capacity 8x50 litters for School and 4x100 litters for Community Hall / Gram Panchayat	2,50,000	5,00,000	2,50,000	10,00,000
Medical Facilities						
1	Providing Medical Facilities in Four Villages (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Purchase of two Ambulances with Emergency Medical Equipment	10,00,000	--	10,00,000	20,00,000
2	Organising Medical Clinics at Four Villages (Name of village: Modavardar, Mithirohar, Chudva, Kharirohar)	Check-up and free distribution of medicines	8,00,000	8,00,000	8,00,000	24,00,000
3	Distribution of Hearing Aid to the Elderly and needy persons	Purchase of 200 Hearing Aid @Rs.2000/-	1,00,000	2,00,000	1,00,000	4,00,000
Environmental Pollution						

S. No.	Project / Program	Target / Remarks	Year wise Progress (Amount - Rs. In INR)			
			2023	2024	2025	Total
1	Cleaning of village Pond (Name of village: MithiroharChudva)	Cleaning and deepening of Mithirohar village pond	--	5,00,000	5,00,000	10,00,000
Total overall Budget						**3,00,00,000**
Note: The Company will adopt two villages namely (Villages-1 Mithirohar, Village-2: Khariroha) for need based community development activities in different ways like child education, development of road, Cattle Shed, sports, etc., included in PH Action Plan.						

19.4.15 Existing capital cost of project was 486 crores. The capital cost of the proposed project is Rs 200 Crores and the capital cost for environmental protection measures is proposed as Rs 8.79 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs 0.6241 Crores. Further, PP has earmarked an amount of Rs 300 Lakhs for implementation of commitments made to address the issues raised during the public hearing. Existing manpower of the plant is 960. The estimated additional direct manpower required for the proposed expansion shall be 290. The details of cost for environmental protection measures is as follows:

S.No.	Description of Item	Existing (Rs. In Crores/lakhs)		Proposed (Rs. In lakhs)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
(i).	Air Pollution Control/ Noise Management	200	20	751	25.5
(ii).	Water Pollution Control	30	5	15	1.5
(iii).	Solid & Hazardous Waste Management	--	0.5	1.0	1.5
(iv).	Environmental Monitoring and Management	70.5	10.3	62	20.04
(v).	Occupational Health & Safety	--	5.0	17.0	11.6
(vi)	Green Belt Development	50	2.5	33.25	2.27
(vii)	Addressal of Public Consultation concerns	--	--	300	-

19.4.16 Existing green belt has been developed in 8.65 ha area which is about 33% of the total project area of 26.23 ha with total sapling of 18,000 Trees. For the proposed expansion, additional 6.87 Ha. area has been acquired. Proposed greenbelt will be developed in 10.96 ha which is about 33 % of the total project area. Thus, total of 10.96 ha area (33% of total project area) will be developed as greenbelt. A 7.5 m wide greenbelt, consisting of at least 3 tiers around plant boundary will be developed as greenbelt and green cover as per CPCB/MoEF&CC, guidelines. Local and native species will be planted with a density of 2500 trees per hectare. Total no. of 9500 saplings will be planted and nurtured in 2.31 hectares in 5 years.

19.4.17 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

19.4.18 The Status of compliance of earlier EC was obtained from Regional Office, Gandhinagar vide letter no J-11/59-2022-IRO GNR, dated 05/09/2022 in the name of M/s. Shreeyam Power and Steel Industries Limited. The Action taken report regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC via mail dated 07-09-2022 and 12.09.2022. The details of the observations made by RO in the report dated 05-09-2022 along with its re-assessment / present status as furnished by the PP is given as below:

<table>
<tr><th rowspan="2">Sl. No</th><th rowspan="2">Non-compliance details</th><th rowspan="2">Observation of RO (abridged)</th><th colspan="3">Condition no.</th><th rowspan="2">Re-assessment by RO / response by PP</th></tr>
<tr><th>EC date</th><th>Specific</th><th>General</th></tr>
<tr><td>1</td><td>Raw material will be stored in covered yards. Water sprinkling Complied. Arrangement should be made in the raw material stock yard to control fugitive, emissions. Materials will be transported in tippers, covered trucks, covered containers, covered rail wagons etc.</td><td>Partly Complied
During the visit it was observed that raw material is being stored in covered yard of storage shed area 2400 sq.m in thermal power plant and 3900 sq. m. is in sponge iron plant. Photographs for the same are provided in specific condition no. 3. Water sprinkling system is installed at potential dust generation areas to control fugitive emissions. Pucca floor/road is constructed in plant premises. Raw material from storage yard is being transferred through covered conveyor belt.
There is a need to strengthen the coal storage area and sprinkling system should be installed inside the coal storage area in a time bound manner.</td><td>24.08. 2007</td><td>(5)</td><td></td><td>Unit has provided covered storage yard for raw material,
sprinkling system inside coal yard will be installed inside coal storage area</td></tr>
<tr><td>2</td><td>Total water requirement shall be limited to 650 m3/d and met from GWSSB Narmada Main Canal. Wastewater from DM Plant and cooling tower shall be used for cooling. Sprinkling as road and raw material storage yard. In CPP, water shall be used for steam generation. The domestic wastewater generation from colony shall be treated in the STP and treated wastewater shall be utilized for green belt for irrigation with due compliance to the SPCB norms for irrigation.</td><td>Partly Complied
During the visit it was observed that STP & ETP has been installed to treat domestic and industrial effluent; treated water is being used for green belt development, cooling, and sprinkling. The month wise water consumption and waste water generation details is given below.
<table>
<tr><th>Sr</th><th>Month</th><th>Water Consumption (KL)</th><th>Waste water Generation (KL)</th></tr>
<tr><td>1.</td><td>October-2021</td><td>31156</td><td>8380</td></tr>
<tr><td>2.</td><td>November-2021</td><td>27669</td><td>8133</td></tr>
<tr><td>3.</td><td>December-2021</td><td>27845</td><td>8432</td></tr>
<tr><td>4.</td><td>January-2022</td><td>28703</td><td>8431</td></tr>
<tr><td>5.</td><td>February-2022</td><td>26811</td><td>7587</td></tr>
<tr><td>6.</td><td>March-2022</td><td>29339</td><td>8421</td></tr>
<tr><td></td><td>Total</td><td>171523</td><td>49384</td></tr>
<tr><td></td><td>Avg.(KL/Month)</td><td>28587</td><td>8230.6</td></tr>
</table></td><td>24.08. 2007</td><td>(6)</td><td></td><td>Unit has permission letter to obtain water from Narmada Main Canal for consumption.</td></tr>
</table>

Sl. No	Non-compliance details	Observation of RO (abridged)	Condition no.			Re-assessment by RO / response by PP
			EC date	Specific	General	
		<table><tr><td></td><td>Avg.(KL/day)</td><td>952.9</td><td>274.3</td></tr></table> Above data infers that during compliance period water consumption varies between 893.7 KL/Day – 1038.5 KL/Day while the average value found to be 952.9 KL/Day and wastewater generation varies between 252.9 KL/Day – 281.1 KL/Day while the average value found to be 274.3 KL/Day which is well within consent limit allotted in CCA. The unit is directed to submit the permission letter obtained from GWSSB Narmada Main Canal for Consumption of water to this office.				
3	The slag 300 MTPM shall be disposed of by road making. The Leach ability test for the slag shall be conducted and shall be ensured that no toxic or heavy metals are leached. Report of Leachate test for SMS Slag shall be submitted to the Ministry's Regional Office.	Partly Complied During the visit it was informed that leachate test of slag was conducted on dated 24.09.2021. It is found that no toxic and heavy metals are leached. The unit is directed to submit the quantity of slag generation during compliance period and its handling and disposal details to this office.	24.08. 2007	(9)		Detail of slag generation and disposal is submitted.
4	The implementation of the project vis-a-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry / SPCB / CPCB. A six-monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the Company.	Partly complied As per the records furnished during the site visit it was observed that the unit is regularly submitting six monthly compliance report to SPCB on regular basis. They have further agreed that they will submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned time to time. The unit is directed to submit the weblink of half-yearly compliance report posted on the website of the company.	04.08. 2007		10	Details of weblink for half yearly EC compliance is mentioned for information http://spsil.in/InvestorRelations.aspx?catid=643e5419-5d15-452b-a01f-73ca20fd9425&name=Miscellaneous
5.	The company shall harvest surface as well as rainwater from the rooftop of the buildings proposed in the expansion project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Complied During the visit it was observed that rain water is collected in a pit located within premises. The volume of pit is 11812 Sq.m. they have dedicated storm water management system. It is directed to make the water pond considering all the measures to protect it from contamination. The action plan should be submitted to this office.	24.08. 2007	(13)		Unit has provided rain water collection pond within premises to protect it from contamination adequate measures i.e., pucca floor, pond fencing etc will be provided upto 31.01.2023.

19.4.19 The proposal was initially considered in the 14th meeting of the EAC for Industry-I sector held on 29-30th September, 2022 wherein the Committee deferred the proposal on account of technical shortcomings. The deliberations and recommendations of the EAC are as follows:

Deliberations by the Committee (EAC during 29-30th September, 2022)

19.4.20 The Committee noted the following:

1. The Ministry and EAC (Industry-I) members are in receipt of a representation through email dated 27.09.2022 raising objection for proposed expansion project of M/s. Shreeyam Power & Steel Industries Limited pertaining to construction activity undertaken by PP without Environment Clearance, continuous non-compliance of environmental safeguard conditions such as illegal dumping of fly ash and fugitive dust emission, illegal discharge of effluents from the company premises etc. PP is advised to submit the clarifications w.r.t. the points raised in support of objections for proposed expansion project in the representation. In this context, EAC is of the view that IRO, MoEFCC may be requested for the factual report in this regard.

2. IRO in EC compliance report dated 05/09/2022 has made observations with respect to the partial/non-compliance of some of the EC conditions. The EAC noted that the Action taken report (ATR) regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC via mail dated 07.09.2022 and 12.09.2022. The EAC deliberated on the observations of IRO and ATR submitted by project proponent and is of the view that ATR shall be evaluated by the IRO and closure report of IRO on the observed partial/non-compliance shall be submitted.

3. The total water requirement is 3494 m^3/day, out of which 2813 m^3/day of fresh water requirement shall be obtained from the Gujarat Water Infrastructure Limited (GWIL) & Water Tankers and the remaining requirement of 681 m^3/day shall be met from recycled water. Project proponent has submitted that permission from the Competent Authority shall be obtained. In this regard, PP shall submit the document pertaining to application made to the competent authority and its updated status.

4. The EAC noted that existing green belt has been developed in 8.65 ha area with total sapling of 18,000 Trees which is less than 2500 trees per hectare. The Committee is of the view that PP shall submit commitment with an action plan for gap filling in the existing plantation so as to achieve a density of 2500 trees per hectare.

5. The total project area is 33.1 ha (Existing – 26.22 ha, Additional – 6.97 ha). Land has already been acquired and under the possession of the company. The PP during the deliberation submitted that the nature of additional land acquired is agricultural. The EAC is of the opinion that PP shall submit the status of conversion of land to industrial land.

6. The EAC deliberated on water balance diagram and is of the view that industry shall revisit on water quantity demarcated to greenbelt development and other operations, and submit the revised water balance.

7. The PP shall submit for each unit, the total water supplied and the quantity of water lost in evaporation.

8. PP needs to submit the action plan to plant locally grown tree cover on the banks of at least 2 village ponds/lakes which is helpful to preserve to prevent soil erosion and increase soil fertility.

9. Schedule I species namely *Pavo cristatus* commonly known as Indian Peafowl is found in the buffer zone of the project site. Wildlife Conservation Plan has been prepared for with a Capital Budget of INR 3,00,000 and recurring budget of INR 50,000 per year for 5 years. The conservation plan vide letter dated 21.05.2022 is submitted to State Forest Department for approval. PP shall submit the updated status on the approval of conservation plan.

10. The treatment of CO emitted from the AOD has not been addressed. In this context, PP shall submit the information on the following:(a) quantity of liquid steel treated (tonnes) per heat in AOD (b) Flow rate of oxygen through the AOD-through top lance and through bottom(c) flow rate of argon through the AOD(d) flow rate of nitrogen through the AOD(e) how is the CO emitted by the reactor treated? (f) temperature of liquid steel during refining (g) what are the measures for recovering heat from the exit gases of AOD?

11. As committed by the PP they shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted. Action plan submitted to address the PH issues and socio-economic development of the nearby villages shall also be revised and submitted as per Ministry's OM dated 30.09.2020.

12. The nearest habitation to plant is Mithirohar Village which is at distance of 1 km in WNW direction. Project Proponent shall submit environmental safeguard measures that will be undertaken to minimise the impact on the habitation of the locals.

13. Mithirohar pond, Chudwa river, Sang River, Sang River, Varsana Pond, Padana Pond, Aji River (Tributary) are flowing within 10 Km. radius of the plant site. Few ponds exist within 10 Km radius. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted.

Recommendations of the Committee (EAC during 29-30th September, 2022)

19.4.21 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** due to certain deficiencies in the proposal and sought requisite information on the points referred at para no. 19.4.20 above. The proposal shall be considered after submission of requisite information in next EAC meeting.

19.4.22 The proponent submitted the ADS reply vide letter dated NIL uploaded on PARIVESH on 29.11.2022. Point-wise reply of ADS is given as below:

S. No.	ADS Point	Reply/Response of PP
1	The Ministry and EAC (Industry-I) members are in receipt of a representation through email dated 27.09.2022 raising objection for proposed expansion project of M/s.	PP has submitted that there is no violation of EIA Notification 2006 and there is no dumping of fly ash nor any clandestine disposal of effluent.

S. No.	ADS Point	Reply/Response of PP
	Shreeyam Power & Steel Industries Limited pertaining to construction activity undertaken by PP without Environment Clearance, continuous non-compliance of environmental safeguard conditions such as illegal dumping of fly ash and fugitive dust emission, illegal discharge of effluents from the company premises etc. PP is advised to submit the clarifications w.r.t. the points raised in support of objections for proposed expansion project in the representation. In this context, EAC is of the view that IRO, MoEF&CC may be requested for the factual report in this regard.	For detailed explanation, an IRO report and detailed answer to the query has been submitted.
	Complaint No. 1: Construction Undertaken without Obtaining Environmental Clearance a) The said construction is Rolling Mill 2, which was erected in year 2009-2011 in parts of Khasra No 116/1, 116/2. 104 and GIDC Plot 332. b) The mill shed was constructed in GIDC Plot 332, Khasra no. 116/1, 116/2 and 104 after getting permission 89 (Deemed NA to start construction) and Consent to Establish (CTE) for related products from this subject mill, namely MS Rolled Products from Gujarat Pollution Control Board (GPCB). c) Rolling Mills were not under purview of prior Environmental Clearance (EC) during that period of time, consequently EC was not taken for this Rolling Mill. d) Whilst this Rolling Mill was erected and trial taken in 2011, due to lack of market and financial difficulties in year 2012, the mill was forced to shut down. It has remained un-operational since then. e) Moving forward, a re-designed Rolling Mill for producing MS, TMT Bars, Wire Rods, Sections and Structures will be developed within the same shed. EC application has been made with the MoEF&CC for the said products as part of the proposed expansion. f) The Company therefore undertakes that it has not violated the EIA Notification 2006. g) Factual Report submitted by IRO, MoEFCC, Gandhinagar confirm this. **Complaint No. 2: Dumping of Fly Ash and Fugitive Dusts Emissions from the Plant** • The Company has provided all requisite infrastructure as mandated by GPCB and Central Pollution Control Board (CPCB) to control fugitive emissions namely: a) Covered conveyor belt with RCC flooring below, is provided. b) 33% of total plot area is covered under plantation c) Water sprinkling system is installed in coal storage area d) Dust monitoring is being done by NABL approved lab.	

S. No.	ADS Point	Reply/Response of PP
	• For proper management/disposal of generated fly ash, M/s Shreeyam Power and Steel Industries Ltd. (SPSIL) has: a) Installed brick manufacturing plant where generated fly ash is being utilized b) Also, SPSIL has MoU with Kamdhenu Enterprise for disposal of fly-ash. • SPSIL did not dump fly ash in any pond or someone else's land. • Unit is continuously submitting details of fly ash generation and disposal to Govt. body. **Complaint No. 3: Illegal discharge of effluent from the Company premises** • SPSIL has installed ETP to treat waste water and ETP is equipped with online monitoring system for monitoring of environmental parameters and flow of ETP outlet. M/s Shreeyam Power and Steel Industries Ltd. is a Zero Liquid Discharge (ZLD) unit and the plant is re-using treated water. • An online monitoring system connected to the outlet of the ETP is linked with the CPCB server. • Treated water from ETP is being utilized for indirect cooling in sponge iron kiln and for greenbelt plantation. • There is no opening in any compound wall, whatsoever, for disposing treated effluent through the company premises.	
2	IRO in EC compliance report dated 05/09/2022 has made observations with respect to the partial/non-compliance of some of the EC conditions. The EAC noted that the Action taken report (ATR) regarding the partially/non-complied condition was submitted to Regional officer MoEF&CC via mail dated 07.09.2022 and 12.09.2022. The EAC deliberated on the observations of IRO and ATR submitted by project proponent and is of the view that ATR shall be evaluated by the IRO and closure report of IRO on the observed partial/ non-compliance shall be submitted.	SPSIL vide email dated 12.09.2022 submitted Action Taken Report (ATR) for partly complied conditions to IRO, MoEFCC, Gandhinagar. Based on the ATR furnished by SPSIL and further inspection carried out on 22.11.2022 by the IRO, MoEF&CC, Gandhinagar all 4 partly complied conditions are now complied. The closure report of IRO on partial/non-compliances has been submitted.
3	The total water requirement is 3494 m^3 /day, out of which 2813 m^3/day of fresh water requirement shall be obtained from the Gujarat Water Infrastructure Limited (GWIL) & Water Tankers and the remaining requirement of 681 m^3/day shall be met from recycled water. Project proponent has submitted that permission from the Competent Authority shall be obtained. In this regard, PP shall submit the document	The Plant has permission from Gujarat Water Infrastructure Limited (GWIL) vide letter no. GWIL/Kutch/270701/2536 dated 24/12/2007 for 1750 m^3/day (present use 1200 m^3/day). Plant has applied for drawl of additional quantity of water required for the proposed expansion on 07.09.2020 vide letter SPSIL/P&A/2020/28 (Application ID No. 1000155270-1515971) and the application letter has been submitted.

S. No.	ADS Point	Reply/Response of PP
	pertaining to application made to the competent authority and its updated status.	
4	The EAC noted that existing green belt has been developed in 8.65 ha area with total sapling of 18,000 Trees which is less than 2500 trees per hectare. The Committee is of the view that PP shall submit commitment with an action plan for gap filling in the existing plantation so as to achieve a density of 2500 trees per hectare.	The Undertaking from Shreeyam Power & Steel Ltd. to increase the Plant density from existing 2090 plants/ hectare to 2500 plants/ hectare by planting additional 3500 trees considering survival rate of 80%, in the next monsoon (2023) in the area of 8.35 Ha is submitted along with Greenbelt plan shown on Plant layout map.
5	The total project area is 33.1 ha (Existing – 26.22 ha, Additional – 6.97 ha). Land has already been acquired and under the possession of the company. The PP during the deliberation submitted that the nature of additional land acquired is agricultural. The EAC is of the opinion that PP shall submit the status of conversion of land to industrial land.	SPSIL is currently having permission 89 which allows for construction to proceed but needs to be supplemented by final NA for Industrial Land. Accordingly, SPSIL has applied for final NA with the Competent Authority. Details as follows: Acceptance Receipt 104 Acceptance Receipt 116/1 Acceptance Receipt 117/1 All the documents have been submitted.
6	The EAC deliberated on water balance diagram and is of the view that industry shall revisit on water quantity demarcated to greenbelt development and other operations, and submit the revised water balance.	The revised water balance diagram has been submitted. Water quantity for greenbelt is also demarcated.
7	The PP shall submit for each unit, the total water supplied and the quantity of water lost in evaporation.	The make-up water supplied and quantity of water lost in evaporation or as drift loss is shown in the revised water balance diagram which has been submitted. Requirement of fresh water quantity, quantity of recycled water and total water in the circuit is submitted in Tabular form.
8	PP needs to submit the action plan to plant locally grown tree cover on the banks of at least 2 village ponds/lakes which is helpful to preserve to prevent soil erosion and increase soil fertility.	Company shall carry out tree plantation in 4 villages i.e. Modavardar, Mithirohar, Chudva and Kharirohar. The activity is -part of Public Hearing Action Plan which has been submitted.
9	Schedule I species namely Pavo cristatus commonly known as Indian Peafowl is found in the buffer zone of the project site. Wildlife Conservation Plan has been prepared for with a Capital Budget of INR 3,00,000 and	The Conservation plan for Schedule 1 species (Indian Peafowl) is submitted to the District Forest Department and the inward copy dated 21.05.2022 has been submitted.

S. No.	ADS Point	Reply/Response of PP
	recurring budget of INR 50,000 per year for 5 years. The conservation plan vide letter dated 21.05.2022 is submitted to State Forest Department for approval. PP shall submit the updated status on the approval of conservation plan.	Forest department Team has carried out site visit of the plant on 4th November 2022 to process further.
10	The treatment of CO emitted from the AOD has not been addressed. In this context, PP shall submit the information on the following:(a) quantity of liquid steel treated (tonnes) per heat in AOD (b) Flow rate of oxygen through the AOD-through top lance and through bottom(c) flow rate of argon through the AOD (d) flow rate of nitrogen through the AOD (e) how is the CO emitted by the reactor treated? (f) temperature of liquid steel during refining (g) what are the measures for recovering heat from the exit gases of AOD?	Normally the CO is not generated in the process as it is Excess Oxygen combustion / Reduction of Carbon at molten steel temperature. While injecting the oxygen gas, the carbon is converted into CO_2 gas and trace level of CO gas remains. Point wise reply submitted. In the AOD process carbon is reduced in the molten steel by blowing oxygen gas, nitrogen gas and argon gas at different intensity and mix as per the process requirement. a) The per heat input varies from 22 to 25 ton of molten steel. b) Oxygen flow rate varies from 1600 to 2200 m^3/hr., mostly from bottom of Convertor through three numbers Tuyeres, Top lance is very rarely used, Top lance flow, if used, can be 600-800 m^3/hr. c) The argon is blown at the rate of 400-600 m^3/hr. for very small time from Bottom tuyeres at the last stage of the process to float the impurities on the top of bath and to improve the liquid quality. d) The Nitrogen is blown at the rate of 1000-1200 m^3/hr. from bottom tuyeres in the middle of process to Churn the Bath and float major impurities as well to allow bath to pick up nitrogen to get nonmagnetic properties in steel. e) Normally the CO is not generated in the process as it is Excess Oxygen combustion / Reduction of Carbon at molten steel temperature. While injecting the oxygen gas, the carbon is converted into CO_2 gas and trace level of CO gas. These gases are coming out from AOD mouth at a temperature of 1650˚C to 1750˚C. The high volume of air is sucked by suction hood and mixed with the hot flue gas thus

S. No.	ADS Point	Reply/Response of PP
		it dilutes further the CO_2 and CO in flue gas, which is cooled in FD cooler and filtered by bag house after mixing of dilution air/emergency cooling air. The flue gas handling / pollution control schematic diagram is attached for Ready reference please. f) The Temperature of Liquid steel during Converter process varies from 1650˚C to 1750˚C depending upon grade of steel. g) The Process is a batch process and processing required only on Market order, the Process flue gas heat continuously varies, the heat recovery from such small intermittent operational converter is not feasible and not economical.
11	As committed by the PP they shall undertake village adoption and formulate Village Adoption program consisting of need-based community development activities, shall be prepared to develop them into model villages. PP shall submit details of the villages to be adopted. Action plan submitted to address the PH issues and socio-economic development of the nearby villages shall also be revised and submitted as per Ministry's OM dated 30.09.2020.	The Company will adopt two villages namely (Villages-1 Mithirohar, Village-2: Khariroha) for need based community development activities in different ways like child education, development of road, Cattle Shed, sports, etc., included in PH Action Plan
12	The nearest habitation to plant is Mithirohar Village which is at distance of 1 km in WNW direction. Project Proponent shall submit environmental safeguard measures that will be undertaken to minimize the impact on the habitation of the locals.	Mithirohar village lies at distance of 1 km to the west of the project site. Dispersion modelling undertaken for the period Mid October 2020 to Mid-January 2021 indicates that the wind blows away from the village and not towards the village with respect to the project site. On an annual basis also, based on IMD wind profile submitted in EIA report on page 103 (Table 3-4), wind does not flow towards the Mithirohar village. The project provides direct and indirect employment to about 50 persons from Mithirohar village. There is no ground water withdrawal, surface water is used from the supply dedicated for industrial use by the government (GWIL), noise level reaching the village from the project site are within the

S. No.	ADS Point	Reply/Response of PP
		prescribed limit and in general the project is not a source of nuisance. As already mentioned, fly ash is not dumped, effluent is completely re-cycled and storm water will be suitably managed. With this, it can be said that impacts on Mithi Rohar will be negligible at best.
13	Mithirohar Pond, Chudwa River, Sang River, Sang River, Varsana Pond, Padana Pond, Aji River (Tributary) are flowing within 10 Km. radius of the plant site. Few ponds exist within 10 Km radius. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be submitted	As company does not discharge any effluent out of the plant premises being a Zero discharge Unit Company water is collected in inside pond as shown in the layout. The company activities do not affect the natural drains in any way. A robust and fool-proof drainage conservation scheme and soil conservation (the drainage inside premises are RCC built and covered) scheme has been submitted.

Written representations:

19.4.23 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 16.12.2022 through email dated 16.12.2022 submitted the revised action plan to address the issues raised during PH and based on the socio-economic survey of the study area. The same is updated at para 19.4.14 above.

Deliberations by the Committee

19.4.24 The Committee noted the following:

1. The instant proposal is for enhancement of sponge iron production from 0.186 to 0.456 MTPA, Billets (MS/SS) production from 0.378 to 0.678 MTPA and Rolled production from 0.21 to 0.628 MTPA, Captive Power generation from 36 MW to 60 MW (excluding 12 MW DG Set) and setting up of facilities for Bar Epoxy Coating 0.048 MTPA, Steel Forging 0.036 MTPA, Aluminium Ingots 0.024 MTPA.

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

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

be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

5. The plant was initially established by M/s. MID India Engineering Ltd. for production of 3,000 Tons per month of Sponge Iron, 12,500 Tons per month of MS Billets, 17,500 Tons per month of Rolled product and 3,333.3 Tons per month of Galvanized Corrugated sheets after obtaining Consent to Established from Gujrat Pollution Control Board on 07.03.2005. Environment Clearance, as per EIA Notification, 1994 was not required as the project cost was less than Rs. 100 Crores. The project was accorded Environmental Clearance vide lr. no. J-11011/250/2007-IA II(I) dated 24/08/2007 in the name of M/s. MID India Engineering Ltd. EC transfer in the name of M/s Shreeyam Power and Steel Industries Limited was granted by MoEF&CC vide letter dated 16.10.2020.

6. The total project area is 33.1 ha (Existing – 26.22 ha, Additional – 6.97 ha). Land has already been acquired and under the possession of the company.

7. The nearest habitation to plant is Mithirohar Village which is at distance of 1 km in WNW direction.

8. The water requirement for the proposed project is estimated as 3494 m^3/day, out of which 2813 m^3/day of fresh water requirement will be obtained from the Gujarat Water Infrastructure Limited (GWIL) & Water Tankers and the remaining requirement of 681 m3/day will be met from recycled water.

9. Mithirohar pond, Chudwa river, Sang River, Sang River, Varsana Pond, Padana Pond, Aji River (Tributary) are flowing within 10 Km. radius of the plant site. Few ponds exist within 10 Km radius. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

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

11. The EAC noted that existing green belt has been developed in 8.65 ha area which is about 33% of the total project area of 26.23 ha with total sapling of 18,000 Trees. For the proposed expansion, additional 6.87 Ha. area has been acquired. Proposed greenbelt will be developed in 10.96 ha which is about 33 % of the total project area. Thus, total of 10.96 ha area (33% of total project area) will be developed as greenbelt. Total no. of 9500 saplings will be planted and nurtured in 2.31 hectares in 5 years. The Committee deliberated on the action plan and budget allocation for green belt development and is of the view that the greenbelt shall be completed within a span of one year.

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

13. Schedule I species namely Pavo cristatus commonly known as Indian Peafowl is found in the buffer zone of the project site. Wildlife Conservation Plan has been prepared for with a Capital Budget of INR 3,00,000 and recurring budget of INR 50,000 per year for 5 years.

14. The Committee deliberated upon the certified compliance report of IRO along with action taken on the observations of IRO is of the view that PP shall complete the compliance of partly / non-complied conditions as per the Action Plan submitted with timelines and a report needs to be submitted within 6 months from grant of EC to the IRO, MoEF&CC.

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

16. The Committee also deliberated the ADS reply to address the issues and found it satisfactory.

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

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

Recommendations of the Committee:

19.4.25 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 water requirement is 3494 m^3/day, out of which 2813 m^3/day of fresh water requirement shall be obtained from the Gujarat Water Infrastructure Limited (GWIL) & Water Tankers and the remaining requirement of 681 m^3/day shall be met from recycled water. No ground water abstraction is permitted.

iv. PP shall complete the compliance of partly / non-complied conditions as per the Action Plan submitted with timelines and a report needs to be submitted within 6 months from grant of EC to the IRO, MoEF&CC.

v. Following additional arrangements to control fugitive dust shall be provided:
   a. Fog / Mist Sprinklers at all conveyors point and on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
   b. Proper covered vehicle shall be used while transport of materials.
   c. Wheel Washing mechanism shall be provided in entry and exit gates with complete recirculation system.

vi. All internal road and connecting road from project site to main highway shall be developed and maintained with suitable Million Axle Standard (MSA) as per the traffic load due to existing and proposed project.

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

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

ix. Particulate matter emission from stacks shall be less than 30 mg/Nm^3. Action plan submitted to limit the dust emission shall be strictly implemented.

x. CEMS shall be provided on all process stacks and the signal shall be received in plant control room for central control of APCDs installed in the plant

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

xii. Submerged Arc Furnace shall be of closed type with 4^{th} hole extraction system.

xiii. FeCr slag after jigging shall be subjected to TCLP test to ensure its utilization or disposal in TSDF.

xiv. Ultralow NOx burner with three stage combustion, flue gas recirculation and auto combustion control system shall be used.

xv. 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 100 % solid waste generated in the plant.
   c. Used refractories shall be recycled as far as possible.

xvi. Mithirohar pond, Chudwa river, Sang River, Sang River, Varsana Pond, Padana Pond, Aji River (Tributary) are flowing within 10 Km. radius of the plant site. Few ponds exist within 10 Km radius. 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.

xvii. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

xviii. The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

xix. Mithirohar Village which is at distance of 1 km in WNW direction from the project site. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include these locations in its environmental monitoring programme.

xx. As committed to adopt two villages namely Mithirohar and Khariroha, project proponent shall prepare and implement a robust plan to develop them into model villages in next 10 years.

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

xxii. Three tier Green Belt shall be developed in at least 33% of the project area in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.

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

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

xxv. During operational phase at Captive Power Plant, PP shall measure coal dust exposures and to maintain coal dust exposures within stipulated standards at coal handling areas. PP shall identify extreme hot areas through heat stress survey as well as noise monitoring within process plants to ensure that workers not exposed above 90 dBA levels as per Factories Act, 1948.

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

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

taken shall also be included in the six monthly compliance report being submitted by the project proponents.

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

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

B. General conditions

I. Statutory compliance:

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

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as two Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.

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

v. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

vi. The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation.

vii. The project proponent shall provide primary and secondary fume extraction system at all melting furnaces.
viii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R 414 (E) dated 30th May 2008; G.S.R 277 (E) dated 31st March 2012 (applicable to IF/EAF); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iv. 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.
v. 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.
vi. Tyre washing facilities shall be provided at the entrance/exit of the plant gates.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

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

VI. Waste management

i. Used refractories shall be recycled.
ii. Kitchen waste shall be composted or converted to biogas for further use.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
ii. Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon

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

VIII. Public hearing and Human health issues

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

IX. Environment Management

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

X. Miscellaneous

i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

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

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

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

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

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

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

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

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

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

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

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

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

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

****

Modification/Amendment in Environmental Clearance

Agenda No. 19.5

19.5 Expansion of Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,000 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace by M/s Giridhan Metal Private Limited, located at Village: Jamuria Industrial Estate, Village Ikra & Damodarpur, Tehsil: Jamuria, District: Paschim Bardhaman, West Bengal – Amendment in Environmental Clearance.

[Proposal No. IA/WB/IND/294211/2022; File No. J-11011/366/2010-IA-II(I)]

19.5.1 M/s Giridhan Metal Private Limited has made an online application vide proposal no. IA/WB/IND/294211/2022 dated 05.12.2022 along with Form-4 and addendum EIA report and sought for amendment in Environmental Clearance accorded by the Ministry vide File no. J-11011/366/2010-IA-II(I) dated 8th April, 2021 w.r.t. dropping the proposal of Railway Siding with Wagon Tippler due to denial of the permission by Eastern Railways and further co-using the adjacent railway siding of own group company for transport of materials which is inside the premises of M/s. Super Smelters Limited.

Details submitted by Project proponent

19.5.2 M/s. Giridhan Metal Private Limited was granted Environment Clearance from MoEFCC, New Delhi vide letter no. J-11011/366/2010-IA-II(I) dated 8th April, 2021 for Expansion of Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,000 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA to 30,000 TPA & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler at Jamuria Industrial Estate, Village Ikra & Damodarpur, Tehsil Jamuria, District Paschim Bardhaman, West Bengal. The company obtained Consent to Establish for the same from West Bengal Pollution Control Board vide NOCNO164560 dated 28.06.2021 valid till 31.05.2028. With reference to the EC, some units are under operation and some are under construction. The company obtained Consent to Operate from West Bengal Pollution Control Board for all the operational units. CTO has been obtained for 350 TPD DRI Kiln & 32 TPH boiler vide Consent Letter No. CO131954 dated 26.07.2021 valid till 31.07.2026; for 600 TPD DRI Kiln & 70 TPH WHRB vide Consent Letter No. CO132190 dated 23.08.2022 valid till 31.07.2026 & for 2x9 MVA Submerged Arc Furnace vide Consent Letter No. CO132108 dated 08.12.2021 valid till 31.07.2026.

19.5.3 Implementation status of existing EC:

S. No.	Units / Plant	Capacity as per granted EC dated 8th April, 2021	Status of Implementation	Expected Completion Time
1.	Sponge Iron	318000 TPA (1x 350 & 1X 600 TPD DRI Plant)	Both DRI are under operation	NA
2.	MS Billets	372300 TPA	Under construction	March 2023

S. No.	Units / Plant	Capacity as per granted EC dated 8th April, 2021	Status of Implementation	Expected Completion Time
		[6X20 Ton IF (Induction Furnace) & 1X30 Ton LF (Ladle Furnace)]		
3.	Rolling Mill	300000 TPA (310 TPD & 625 TPD)	Under construction	March 2023
4.	SAF	30000 TPA (2X9 MVA of Fe-Mn/ Si-Mn)	Under operation	NA
5.	WHRB	21 MW (35 TPH & 70 TPH)	Under operation	NA
6.	Captive Power Plant	21 MW	9 MW under operation	NA
			12 MW under planning	May 2023
7.	Billet Caster	2X2 Strand	Under construction	March 2023
8.	Railway Siding with Wagon Tippler		Not implemented	Proposed to be dropped

19.5.4 The instant proposal is for seeking amendment in EC dated 08.04.2021 w.r.t. dropping the proposal of Railway Siding with Wagon Tippler due to denial of the permission by Eastern Railways vide letter no. TPM215/New Siding/2002 dated 7th September, 2022 and further co-using the adjacent railway siding of own group company for transport of materials which is inside the premises of M/s. Super Smelters Limited.

Ref. in EC dated 08.04.2021	Existing Proposal as per EC	Proposal after amendment sought	Reason/Justification	Remarks
Para 8 of Page 4 of 20; Point 8	*Railway Siding with Wagon Tippler*	*PP will be co-using the adjacent railway siding of own group company for transport of materials which is inside the premises of M/s. Super Smelters Limited*	The PP is dropping the proposal of Railway Siding with Wagon Tippler due to denial of the permission by Eastern Railways vide letter no. TPM215/New Siding/2002 dated 7th Sept., 2022. Permission has been granted by Eastern railway to co-use the private siding of Super Smelter Ltd. vide their letter no CL. No. C490/561/Pt-II/BG dated 29th June, 2022.	The PP will transport the materials from railway siding of own group company, i.e., M/s Super Smelters Limited to the premises of Giridhan Metal Private Limited by internal road owned by the company. The 100 meter internal road will be paved & a dense greenbelt of 20 meters width will be developed along the road with plantations of approximately 600 trees.

Ref. in EC dated 08.04.2021	Existing Proposal as per EC	Proposal after amendment sought	Reason/Justification	Remarks
Note: M/s. Giridhan Metal Private Limited has made an agreement with M/s. Super Smelter Ltd. for usage of their railway siding to bring their incoming traffic of raw materials to be used for plant.				

19.5.5 There is no change in configuration & capacity of units in granted EC. There will be no change in raw material, site, water, power, manpower requirement in the project. There will be no change in any pollution load for the proposed amendment.

19.5.6 **Reason for Amendment:** In the EC letter dated 08.04.2021, in Para 8 on Page 4 of 20, point 8, inter alia a Railway Siding with Wagon Tripler has been proposed to be established. Accordingly, Eastern Railway was approached for their permission for construction of railway line/siding for inward movement of rakes for raw materials. After the survey, Eastern Railway vide their letter no TPM. 215/New Siding/2002 dated 7th September, 2022 has rejected the proposal for non-viability of construction of railway private siding due to the following inadequacies:

- With the commissioning of the proposed siding, the average rake handling will increase from 28 rakes/month to 39 rakes/month with existing 2 D.D Lines for which provisions of 3 D.D Lines is desirable.
- The proposed loading/ unloading wharf should be at least 650 m length instead of 640x10 sq. m.
- Overhead 11 KV LT line passing across proposed track to be undergrounded.

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

Written representations:

19.5.8 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 19.12.2022 through email dated 19.12.2022 submitted the following information:

1. PP has reported that the company will transport the materials from railway siding of own group company, i.e., M/s Super Smelters Limited to the premises of Giridhan Metal Private Limited by internal road owned by the company. The 100 meter internal road will be paved & dense greenbelt of 20 meters width will be developed along the road with plantation of approximately 600 trees.
2. Copy of six monthly EC Compliance report submitted to IRO, MoEFCC office is submitted.
3. Revised details of the amendment sought as updated at para 19.5.4 above.

Deliberation by the Committee

19.5.9 The Committee noted the following:

i. The instant proposal is for seeking amendment in Environmental Clearance accorded by the Ministry vide File no. J-11011/366/2010-IA-II(I) dated 8th April, 2021 w.r.t. dropping the proposal of Railway Siding with Wagon Tippler due to denial of the permission by Eastern Railways and further co-using the adjacent railway siding of own group company for transport of materials which is inside the premises of M/s. Super Smelters Limited.

ii. M/s. Giridhan Metal Private Limited was granted Environment Clearance from MoEFCC, New Delhi vide letter no. J-11011/366/2010-IA-II(I) dated 8th April, 2021 for Expansion of Steel Plant by expanding Sponge Iron from 1,20,000 TPA to 3,18,000 TPA, MS Billets from 1,05,000 TPA to 3,72,000 TPA, Rolling Mill from 1,00,000 TPA to 3,00,000 TPA, Submerged Arc Furnace (SAF) from 15,000 TPA to 30,000 TPA & Captive Power Plant from 16 MW to 42 MW including Waste Heat Recovery Boiler at Jamuria Industrial Estate, Village Ikra & Damodarpur, Tehsil Jamuria, District Paschim Bardhaman, West Bengal. The company obtained Consent to Establish for the same from West Bengal Pollution Control Board vide NOCNO164560 dated 28.06.2021 valid till 31.05.2028. With reference to the EC, some units are under operation and some are under construction. The company obtained Consent to Operate from West Bengal Pollution Control Board for all the operational units. CTO has been obtained for 350 TPD DRI Kiln & 32 TPH boiler vide Consent Letter No. CO131954 dated 26.07.2021 valid till 31.07.2026; for 600 TPD DRI Kiln & 70 TPH WHRB vide Consent Letter No. CO132190 dated 23.08.2022 valid till 31.07.2026 & for 2x9 MVA Submerged Arc Furnace vide Consent Letter No. CO132108 dated 08.12.2021 valid till 31.07.2026.

iii. Instant proposal is for seeking amendment in EC dated 08.04.2021 w.r.t. dropping the proposal of Railway Siding with Wagon Tippler due to denial of the permission by Eastern Railways vide letter no. TPM215/New Siding/2002 dated 7th September, 2022. In Para 8 on Page 4 of 20, point 8, inter alia a Railway Siding with Wagon Tripler has been proposed to be established. Accordingly, Eastern Railway was approached for their permission for construction of railway line/siding for inward movement of rakes for raw materials. After the survey, Eastern Railway vide their letter no TPM. 215/New Siding/2002 dated 7th September, 2022 has rejected the proposal for non-viability of construction of railway private siding due to the inadequacies mentioned in para 19.5.6 above.

iv. The EAC noted that PP has also submitted that alternately, M/s. Super Smelter Ltd. (Own group company of Giridhan Metal Private Limited) having their private railway siding around 100 meters away from the raw materials yard of M/s. Giridhan Metal Private Limited, have been requested to provide co-user permission for inward movement of materials through railway siding between Tapasi-Barabani section. For the same, permission has been granted by Eastern railway to co-use the private siding of Super Smelter Ltd. vide their letter no CL. No. C490/561/Pt-II/BG dated 29th June, 2022. Subsequently, M/s. Giridhan Metal Private Limited has made an agreement with M/s. Super Smelter Ltd. for usage of their railway siding to bring their incoming traffic of raw materials to be used for plant.

v. The EAC noted that there is no change in configuration & capacity of units in granted EC. There will be no change in raw material, site, water, power, manpower requirement, pollution load in the project.

vi. The Committee also deliberated on the written submission of PP and found it satisfactory.

Recommendations of the Committee

19.5.10 After deliberations, the Committee **recommended** the proposal for amendment in EC granted vide File no. J-11011/366/2010-IA-II(I) dated 8th April, 2021 w.r.t. dropping the proposal of Railway Siding with Wagon Tippler due to denial of the permission by Eastern Railways and and further co-using the adjacent railway siding of own group company for transport of materials which is inside the premises of M/s. Super Smelters Limited by internal road owned by the company subject to the following additional condition:

i. The 100 meter internal road shall be paved & dense greenbelt of 20 meters width shall be developed along the road.

ii. The other terms and condition of the Environment Clearance granted vide letter no. J-11011/366/2010-IA-II(I) dated 8th April, 2021 shall remain the same.

***

Consideration of TOR Proposal

Agenda No. 19.6

19.6 Proposed 3X9 MVA Ferro Alloy plant and 30 TPD Sinter Plant by M/s Nilkanth Ferro Limited, located at Village: Radha Madhavpur, Mouza & P.O: Chousal, District: Bankura, West Bengal – Consideration of TOR under Violation category as per provisions of SOP dated 07.07.2021-Regarding.

[Proposal No. IA/WB/IND1/402895/2022; File No. IA-J-11011/10/2011-IA-II(IND-I)]

19.6.1 M/s. Nilkanth Ferro Limited has made an application online vide proposal no. IA/WB/IND1/402895/2022 dated 03.12.2022 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level. PP has applied for appraisal of proposal under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedures dated 07.07.2021 pertaining to consideration of violation cases as PP has reported that the case involves construction of sinter plant after the expiry of the EC dated 26.09.2012.

19.6.2 Name of the EIA consultant: M/s. Min Mec Consultancy Pvt Ltd. [S. No. 10, List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2225/IA 0095 valid till 29.03.2025; Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

19.6.3 The project of M/s Nilkanth Ferro Limited located in Radha Madhavpur Village, Gangajhalghati Tehsil, Bankura District, West Bengal is for setting up of a new 3X9 MVA Ferro Alloy Plant for production of 61,365 TPA Ferro Manganese, 45,256 TPA Silica Manganese and 21,049 TPA Ferro Silicon.

19.6.4 Environmental site settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total Land</td><td>5.13 ha</td><td>Land use: Industrial</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>100% is in possession of PP.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td><u>Project Site:</u> Radha Madhavpur Village

<u>Study Area:</u> Nearest habitation:

<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Radha Madhavpur Village</td><td>350 m</td><td>West</td></tr></table></td><td>Status of R&R: Not applicable since entire land is in possession of the PP</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 (N)</th><th>Longitude (E)</th></tr><tr><td>North most</td><td>23°28’23.48”</td><td>87°09’53”</td></tr><tr><td>East most</td><td>23°28’18.44”</td><td>87°10’03.62”</td></tr><tr><td>South Most</td><td>23°28’15.90”</td><td>87°09’57.19”</td></tr><tr><td>West most</td><td>23°28’18.40”</td><td>87°09’50.09”</td></tr></table></td><td>Measured from google earth kml</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>109 m AMSL</td><td></td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>Nil</td><td></td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td><u>Project site:</u>
Name: Nil

Study area:<table><tr><th>Water Body</th><th>Distance (in km)</th><th>Direction</th></tr><tr><td>Nityanandpur Reservoir</td><td>3.3</td><td>SE</td></tr><tr><td>Barjora Nala</td><td>3.5</td><td>SE</td></tr></table></td><td></td></tr>
</table>

Sl. No.	Particulars	Details	Remarks
		Jamgari reservoir 3.5 SSW Barajuri Nala 3.7 N Chouphari Nala 5.9 W Tartora Nala 6.5 SE Damodar river 7.7 SE Gaighata Jhor 9.3 NNW Subhankari Nala 9.6 SE Singaran Nala 10.0 SE Sali Reservoir 10.0 SW DSP Reservoir 10.0 NE	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area	**Study area:** Nil. **List of Reserved and protected forests:** in 10 km study **Forests** – **Distance** – **Direction** Gangajalghati PF – 9.4 – NNW Gangajalghati PF – 5.9 – SW PF north of Gangajalghati – 3.8 – SW Beliator PF – 4.3 – SE Beliator RF – 5.6 – SE PF near Santalpara – 5.6 – S PF near Palerbandh – 3.9 – NW PF near Kenduadihi – 7.0 – SSW	

19.6.5 The existing project was accorded environmental clearance vide letter no. J-11011/10/2011-IA-II(I) dated 26.09.2012. The validity of the EC lapsed on 26.09.2019 and was not extended. Consent to Operate for the existing unit was accorded by West Bengal Pollution Control Board vide lr. no.26-2N-42/2011(E) dated 08.01.2014 and extended on 15.03.2019 till 31.12.2023.

19.6.6 Implementation of the existing EC:

Sl. No.	Facilities	Units	As per EC dated	Implementation status as on	Production as per CTO
1.	Submerged Arc Furnaces	3 X 9 MVA	26.09.2012	Not constructed	No CTO is available

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

Sl. No.	Plant Equipment / Facility	Existing facilities as per EC dated 26.09.2012						Proposed Units		Final (Existing + Proposed)	
		Total (A+B)		Implemented (A)		Unimplemented (B)					
		Configuration	Capacity TPA	Configuration	Capacity TPA	Configuration	Capacity TPA	Configuration	Capacity TPA	Configuration	Capacity, TPA
1.	**Submerged Arc**	3 X 9 MVA				3 X 9 MVA		3 X 9 MVA		3 X 9 MVA	

	Furnaces:										
1.1	Ferro Manganese		61,365	-	-		61,365		61,365		61,365
1.2	Silico Manganese		45,256	-	-		45,256		45,256		45,256
1.3	Ferro Silicon		21,049	-	-		21,049		21,049		21,049
2	Sinter Plant	-	-	-	-	-	-	30 TPD	10,316	30 TPD	10,316

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

Sl. No.	Raw Material	Quantity required per annum	Source	Distance from site, kms	Mode of transportation
1	Mn ore fines & concentrate	115,750	Nagpur, Maharashtra & Inhouse Jigging Plant and Sinter Plant	1200	By Rail/Road
2	Coke Breeze and Fines	28,264	Dhanbad, Jharkhand	120	By Road
3	Dolomite	19,330	Jalpaiguri, West Bengal	610	By Road
4	Fe-Mn Slag	31,537	Inhouse	-	-
5	Iron Scrap	11,242	Durgapur, West Bengal	35	By Road
6	Metallurgical Coke	12,124	Durgapur, West Bengal	35	By Road
7	Quartz	21,891	Bankura, West Bengal	15	By Road

19.6.9 The water requirement for the proposed project is estimated as 46.5 m^3/day, out of which 43.5 m^3/day of fresh water requirement will be obtained from the borewell and rainwater and the remaining requirement of 3 m^3/day will be met from the blowdown water. The permission for drawl of groundwater / surface water is obtained from State Water Investigation Directorate (SWID), Bankura vide permit no. P010601402440/00000/05TSE & P01060140237/00000/TSE dated 15.09.2009 and 09.01.2018.

19.6.10 The power requirement for the project is estimated as 27.3 MW which will be obtained from the Damodar Valley Corporation. During power failure, 2X125 MVA DG sets are proposed.

19.6.11 The capital cost of the project is Rs 51.079 Crores and the capital cost for environmental protection measures is proposed as Rs 6.22 Crores. The employment generation from the proposed project is 350.

Violation Details

19.6.12 After lapse of previous EC no. J-11011/10/2011-IA-II (I) dated 26.09.2012 on 25.09.2019, a fresh application to obtain Terms of Reference (ToR) was made and the same was granted on 01.07.2021 & amended on 11.08.2021. The PH was held on 07.01.2022 and the final EIA/EMP was submitted on 29/03/2022 for EC. The project was considered in EAC dated 28.04.2022 and recommended for EC. Accordingly, the file was processed and submitted for approval of the Competent Authority. The Ministry examined the proposal and competent authority decided that since project proponent did claim the progress made under previous EC for carrying out different

project activities, submission of certified compliance report (CCR) of previous EC is required. Therefore, ADS was raised on PARIVESH on 06.06.2022 along with an issuance of letter vide F.No. J-11011/10/2011-IA. II(I) dated 06.06.2022 to IRO Kolkata requesting for requisite CCR for further action in the matter. Integrated Regional Office, Kolkata monitored the site on 08.07.2022 and gave its report on 18.07.2022. The IRO had noted that part of the sinter plant has been installed. Though in the EC dated 2012 there is no provision of sinter plant, PA's have installed part of the sinter plant, which is in violation of the condition stipulate in the EC dated 2012. During 12th meeting of the EAC for Industry-I sector held on 30-31st August, 2022, and in view of the foregoing CCR Report submitted by the IRO MoEF&CC and after detailed deliberations, the Committee noted that this is a violation case involving construction of sinter plant after the expiry of the EC dated 26.09.2012. Therefore, project proponent was directed to further apply under the violation category as per the provisions of SOP dated 07.07.2022 and EIA Notification, 2006 and amendments thereof. The EAC also recommended that the SPCB to take necessary credible actions (filling of court case etc.) against the PP as per provision of SOP dated 07.07.2021.

Compliance to violation standard operating procedure vide MOEFCC OM No F. No. 22-21 /2020-IA.III dated 7th July, 2021

Compliance to SOP Standard Operating Procedure - Guiding Principles

Point 10	Description in OM	Compliance status of Project
(i)	Without prejudice to any other consequences, action has to be initiated under section 15 read with section 19 of The Environment (Protection) Act, 1986 against all violations.	The MoEF&CC has written to West Bengal Pollution Control Board vide letter no. J-11011/10/2011-IA-II (I) dated 26.09.2022 for initiating action and as per verbal interaction with the WBPCB, we understand that they will be initiating a court case in the district court under the provisions of EPA 1986
(ii)	Projects not allowable/permissible, for grant of EC, as per extant regulations: To be demolished.	Not applicable since the project is allowable/ permissible for grant of EC.
(iii)	Projects allowable/ permissible, if prior EC had been taken as per extant regulations: To be closed until EC is granted (if no prior EC has been taken) or to revert to permitted production level (in case prior EC has been granted).	Not applicable since no operation had commenced
(iv)	Polluter pays: Violators to pay for violation period - proportionate to the scale of project and extent of commercial transaction.	No commercial transaction has taken place since no operation has taken place
(v)	Setting up a mechanism for reporting of violation to the regulatory authority(ies).	Mechanism for reporting of violation to the regulatory authority(ies): ➢ GM (Works) will monitor and ensure compliance to the conditions of environmental clearances as well as the consents issued by Pollution Control Board.

Point 10	Description in OM	Compliance status of Project
		➢ During the compliance process or earlier, if any deviation or violation is identified by GM (Works), he has to inform the plant head immediately along with root cause analysis, corrective action i.e. the steps to be taken for compliance and preventive action, for future. ➢ The plant head will take a decision on implementation to ensure compliance and give needful directions to the relevant department/ contractors. ➢ The Plant head will directly monitor the activities required to be undertaken for compliance in conjunction with GM (Works) till the non compliance becomes compliant. ➢ The matter will also be reported to the Director(s) of the company in regular meetings with them ➢ The Director(s) shall report the compliance/ violation to the regulatory authority(ies) as part of compliance mechanism

Compliance status to SOP for dealing with violation cases as per point no. 11 & 12 of OM dated 07.07.2021

Point 11	Description in OM	Compliance status of Project
Step 1	Closure or revision	Its a non-operational unit. No construction is taking place as on date.
Step 2	Action under EPA 1986	The MoEF&CC has written to West Bengal Pollution Control Board vide letter no. J-11011/10/2011-IA-II (I) dated 26.09.2022 for initiating action and as per verbal interaction with the WBPCB, we understand that they will be initiating a court case in the district court under the provisions of EPA 1986
Step 3	Appraisal under EIA Notification 2006	The project had received an environmental clearance vide letter no. J-11011/10/2011-IA-II (I) dated 26.09.2012 for establishment of a submerged arc furnace. The IRO report dated 18.07.2022 noted that part of the sinter plant has been installed, tagging it as a violation. Subsequently Ministry noted in its MOM of EAC meeting dated 31.08.2022 that as per IRO report, it's a violation of the condition stipulated in the EC of 2012. And after detailed deliberations, the Committee was of the view that this is a violation case involving construction of sinter plant after the expiry of the EC dated 26.09.2012. Hence, the PP applied for TOR as a violation case under the provisions of OM dated 07.07.2021 and the project was considered in EAC meeting dated 16.12.2022. In addition to the EIA report, the following shall also be prepared after receipt of ToR in compliance to the SOP in OM dated 07.07.2021:

Point 11	Description in OM	Compliance status of Project
		(1) Damage Assessment Plan (2) Remedial Plan (3) Community Augmentation Plan
Point 12	**Penalty**	It is a new project where operation has not commenced. Hence, penalty of 1% of the total project cost incurred upto the date of filing of application along with EIA/EMP report. The penalty will be in addition to liability for carrying out various remedial measures which shall be worked out based on the damage assessment for quantifying the environmental damage caused due to unauthorised project activity.

19.6.13 Proposed Terms of Reference: [Baseline data collection period: 01.03.2021 to 31.05.2021]

Attributes	Parameters	Sampling		Remarks
		No. Of stations	**Frequency**	
A. Air				
a. Meteorological Parameters	Wind speed, direction, relative humidity, temperature and rainfall	1 (Core Zone of existing plant)	Measured at hourly duration	90 days duration
b. AAQ parameters	PM 10, PM 2.5, SO_2, NOx, CO	8 (one in core zone and 7 in buffer zone)	24 hourly samples, twice a week	Total 192 samples
	Benzene,NH_3, B(a)P, Arsenic, Nickel and Lead	8 (one in core zone and 7 in buffer zone)	Twice a week at core zone and once month in buffer zone	Total 45 samples
B. Noise	Leq (Day), Leq (Night)	8	Hourly readings taken for 24 hours	Total 8 measurements
C. Water				
Surface water & Ground water quality	Chemical, physical and biological parameters	16 (Surface Water-8 and Ground water-8)	Once in monitoring period	Grab sample
D. Land				
a. Soil quality	Textural Classification, Colour pH, E.C., Specific Gravity, Moisture, Organic Carbon, Organic Matter, Potassium, Grain Size Analysis, Calcium, Sodium,	3	Once in monitoring period	Grab sample

Attributes	Parameters	Sampling		Remarks
	Phosphorous, Nitrate-Nitrogen			
b. Land Use	Satellite Imagery interpretation, Land use details	Of 10 km study area	Once	-
E. Biological				
a. Aquatic	Flora and Fauna species	Of 10 km study area	Once	-
b. Terrestrial	Flora and Fauna species	Of 10 km study area	Once	-
F. Socio-Economic Parameter	1) Various amenities, demography, employment pattern, 2) need assessment for CSR	1) Of 10 km study area 2) nearby villages	1) Census data 2) sample survey-once	-
G. Traffic	Traffic volume	2	Once for 24 hours	-

Period	**March to May 2021**
AAQ parameters at 8 Locations	$PM_{2.5}$= 28.0 to 46.0 µg/m^3 PM_{10} = 48.0 to 77.0 µg/m^3 SO_2= 5.3 to 11.1 µg/m^3 NOx= 16.2 to 25.2 µg/m^3 CO = 0.1 to 0.22 mg/m^3
Ground water quality at 8 locations	pH: 7.79 to 8.65, Total Hardness: 120 to 587 mg/l, Chlorides: 6.6 to 233 mg/l, Fluoride: 0.31 to 0.90 mg/l. Heavy metals are within the limits.
Surface water quality at 8 locations	pH: 7.4 to 8.87, DO: 5.2 to 6.3 mg/l, BOD: 1.03 to 12.9 mg/l COD: 32 to 116 mg/l
Noise levels at 8 locations	51.38 to 70.37 dBA for the day time and 40.94 to 59.07 dBA for the Night time.
Flora and fauna	No habitat of Schedule I species
Traffic assessment study findings	

Road	**V (Volume in PCU/ day)**	**C (Capacity in PCU/ day)**	**Existing V/C Ratio**	**LoS**
Near Sri Chandrapur Village	5523	30000	0.184	A
Ghatakgram village	6208	30000	0.207	A

Written representations:

19.6.14 During the meeting, based on the deliberations made by the EAC, the project proponent through email dated 16.12.2022 submitted compliance status to SOP for dealing with violation cases as per point no. 11 & 12 of OM dated 07.07.2021 which is updated at para 19.6.12 above.

Deliberation by the Committee

19.6.15 The Committee noted the following:

i. The instant proposal is for setting up of a new 3X9 MVA Ferro Alloy Plant for production of 61,365 TPA Ferro Manganese, 45,256 TPA Silica Manganese and 21,049 TPA Ferro Silicon.

ii. The project proponent in the instant application has applied for ToR and decided to come before the committee for appraisal of proposal under violation category as per the provisions contained in the MoEF&CC Standard Operating Procedures dated 07.07.2021 pertaining to consideration of violation cases as PP has reported that the case involves construction of sinter plant after the expiry of the EC dated 26.09.2012.

iii. The existing project was accorded environmental clearance vide letter no. J-11011/10/2011-IA-II(I) dated 26.09.2012. The validity of the EC lapsed on 26.09.2019 and was not extended.

iv. After lapse of previous EC no. J-11011/10/2011-IA-II (I) dated 26.09.2012 on 25.09.2019, a fresh application to obtain Terms of Reference (ToR) was made and the same was granted on 01.07.2021 & amended on 11.08.2021. The PH was held on 07.01.2022 and the final EIA/EMP was submitted on 29/03/2022 for EC. The project was considered in EAC dated 28.04.2022 and recommended for EC. Accordingly, the file was processed and submitted for approval of the Competent Authority. The Ministry examined the proposal and competent authority decided that since project proponent did claim the progress made under previous EC for carrying out different project activities, submission of certified compliance report (CCR) of previous EC is required. Therefore, ADS was raised on PARIVESH on 06.06.2022 along with an issuance of letter vide F.No. J-11011/10/2011-IA. II(I) dated 06.06.2022 to IRO Kolkata requesting for requisite CCR for further action in the matter. Integrated Regional Office, Kolkata monitored the site on 08.07.2022 and gave its report on 18.07.2022. The IRO had noted that part of the sinter plant has been installed. Though in the EC dated 2012 there is no provision of sinter plant, PA's have installed part of the sinter plant, which is in violation of the condition stipulate in the EC dated 2012. During 12th meeting of the EAC for Industry-I sector held on 30-31st August, 2022, and in view of the foregoing CCR Report submitted by the IRO MoEFCC and after detailed deliberations, the Committee noted that this is a violation case involving construction of sinter plant after the expiry of the EC dated 26.09.2012. Therefore, project proponent was directed to further apply under the violation category as per the provisions of SOP dated 07.07.2022 and EIA Notification, 2006 and amendments thereof. The EAC also recommended that the SPCB to take necessary credible actions (filling of court case etc.) against the PP as per provision of SOP dated 07.07.2021.

v. The EAC noted that it is a fit case of violation and to be apprised based on the provisions of the SOP dated 07.07.2021 [Violation Cases]. The Project proponent has to comply all the procedure as laid down in the SOP dated 07.07.2021.

vi. PP has submitted compliance to violation standard operating procedure vide MOEFCC OM No F. No. 22-21 /2020-IA.III dated 7th July, 2021 as detailed in para 19.6.12 above. The Committee deliberated on the same and found it satisfactory.

vii. The total project land is 5.13 ha which is under the possession of the company.

viii. The nearest habitation to plant is Radha Madhavpur Village at a distance of 0.35 km from the project site boundary in the West direction.

ix. Nityanandpur Reservoir (3.3, km, SE), Barjora Nala (3.5 km, SE), Jamgari reservoir (3.5 km, SSW), Barajuri Nala (3.7 km, N), Chouphari Nala (5.9 km, W), Tartora Nala (6.5 km, SE), Damodar river (7.7 km, SE), Gaighata Jhor (9.3 km, NNW), Subhankari Nala (9.6 km, SE), Singaran Nala (10.0, SE), Sali Reservoir (10.0 km, SW) and DSP Reservoir (10.0 km, NE) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be prepared and included in the EIA/EMP Report.

x. The water requirement for the proposed project is estimated as 46.5 m^3/day, out of which 43.5 m^3/day of fresh water requirement will be obtained from the borewell and rainwater and the remaining requirement of 3m^3/day will be met from the blowdown water.

Recommendations of the Committee

19.6.16 The EAC noted that it is a fit case of violation and apprised based on the provisions of the SOP dated 07.07.2021 [Violation Cases]. After deliberations, the Committee **recommended** the project proposal **subject to uploading of written submission on PARIVESH portal** for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2**.

(i) PP needs to comply all the points of TOR for Violation Project and follow SOP dated 07.07.2021 issued by the Ministry of Environment, Forest & Climate Change, for identification & handling of Violation cases under EIA notification 2006.

(ii) The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC for the Unit which violated under the provision of the EIA Notification 2006 i.e. 1.4 MTPA Iron Ore Pellet Plant.

(iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi) Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.

(vii) The project proponent shall require to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii) Project proponent shall implement penalty provisions i.e., 1% of project cost attributable to the expansion, incurred up to the date of filing of application along with the EIA/EMP report as contained in the paragraph 12 of the Standard Operating Procedure dated 7/07/2021 shall be complied with.

(ix) The nearest habitation to plant is Radha Madhavpur Village at a distance of 0.35 km from the project site boundary in the West direction. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.

(x) Nityanandpur Reservoir (3.3, km, SE), Barjora Nala (3.5 km, SE), Jamgari reservoir (3.5 km, SSW), Barajuri Nala (3.7 km, N), Chouphari Nala (5.9 km, W), Tartora Nala (6.5 km, SE), Damodar river (7.7 km, SE), Gaighata Jhor (9.3 km, NNW), Subhankari Nala (9.6 km, SE), Singaran Nala (10.0, SE), Sali Reservoir (10.0 km, SW) and DSP Reservoir (10.0 km, NE) are flowing within 10 Km. radius of the plant site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(xi) The water requirement of 46.5 m^3/day is proposed to be met from the borewell, rainwater the blowdown water. PP shall explore the possibility to shift to alternate source of water to minimise the dependency on ground water.

(xii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. Details of flora and fauna existing in the study area shall be duly authenticated by the concerned DFO of the area. In case of existence of any endangered species and Schedule I fauna, authenticated conservation plan shall be submitted.

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

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

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

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

(xvii) Project proponent shall prepare layout plan showing all internal roads minimum 6m width and 9m turning radius with proper looping for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include

area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.

(xviii) 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.

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

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

(xxi) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.

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

(xxiii) Action plan to limit the dust emission from all the stacks below 30 mg/Nm^3 shall be furnished. Action plan for fugitive emission control in the plant premises shall be provided.

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

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

****

Agenda No. 19.7

19.7 Manufacturing of Ferro Alloys, Metals, Tungsten Salts & oxides by M/s Fonsmet Materials Pvt. Ltd., Located at Survey No. 25/3, Village Isambe, Taluka –Khalapur, District Raigad, Maharashtra – Consideration of TOR.

[Proposal: No IA/MH/IND1/404196/2022; File No. IA-J-11011/348/2022-IA-II(IND-I)]
[Consultant: M/s. Aditya Environmental Services Pvt. Ltd. valid till 05.01.2025]

19.7.1 M/s Fonsmet Materials Pvt. Ltd has made an application online vide proposal no. IA/MH/IND1/404196/2022 dated 27/10/22 along with the application in prescribed format (Form-I), copy of pre-feasibility report and proposed ToRs for undertaking detailed EIA study

as per the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at Sl. No. 3(a) Metallurgical Industries (Ferrous and Non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and appraised at central level.

19.7.2 Name of the EIA consultant: M/s. Aditya Environmental Services Pvt. Ltd. [List of ACOs with their Certificate / Extension Letter No: NABET/EIA/2225/RA 0262 valid till 05.01.2025].

Details submitted by Project proponent

19.7.3 The project of M/s Fonsmet Materials Pvt. Ltd located in Isambe Village, Khalapur Tehsil District Raigad, Maharashtra is for setting up of a new Ferro alloy Plant for production of 6191 Tons Per Annum (TPA).

19.7.4 Environmental site settings:

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land: 42.0 Ha.</td><td>1.43 ha (Private Land)</td><td>Land use: Open barren land in Industrial zone</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Land is on 20 years of lease from M/s. Aspirewings Enterprises Pvt. Ltd (owner of land)</td><td>A lease agreement has been done between M/s. Aspirewins Enterprises Pvt. Ltd and M/s. Fonsmet Materials Pvt. Ltd.</td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: No R & R applicable.

Study Area:<table><tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr><tr><td>Isambe village</td><td>0.5 km</td><td>SE</td></tr><tr><td>Rasayani</td><td>5.24 km</td><td>NW</td></tr></table></td><td>-</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>From</td><td>18º51’10.6.48’N</td><td>73º13’29.058’E</td></tr><tr><td>To</td><td>18º51’11.3’N</td><td>73º13’31.788’E</td></tr></table></td><td>-</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>63m above MSL.</td><td>-</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No Forest Land Involved</td><td>-</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site: Seasonal nala adjacent to project boundary in East direction.

Study Area:<table><tr><th>Water Body</th><th>Distance</th><th>Direction</th></tr><tr><td>Patalganga</td><td>0.81 Km</td><td>-</td></tr></table></td><td>-</td></tr>
</table>

<table>
<tr><th>S. No</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>River</td><td></td><td></td></tr>
<tr><td>Vaki river</td><td>9.9 Km</td><td>SW</td></tr>
<tr><td>Sarsole Lake</td><td>7.01 Km</td><td>SE</td></tr>
<tr><td>Bhilwale Lake</td><td>7.8 Km</td><td>NE</td></tr>
<tr><td>Usrane Lake</td><td>10 km</td><td>NW</td></tr>
</table>
</td><td></td></tr>
<tr><td>viii</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/ elephant reserve etc. if any within the study area</td><td>
<u>Study Area:</u>
ESA villages as per Draft Western Ghat notification: 7 Villages in Khalapur Taluka and 2 villages in Karjat Taluka

Name of the ESZ: Karnala Bird Sanctuary, Matheran

Status of Notification:
1. Matheran ESZ notified vide S.O 133(E) dated 4th February 2003 and amended vide S.O 83(E) dated 16th January 2004.
2. Karnala Bird Sanctuary Notified vide S.O 230(E) dated 22 January 2016.
3. Draft Western Ghat notification vide S.O 3072 (E) dated 6th July 2022

<u>Distance of project from ESZ/ESA:</u>

<table>
<tr><td>ESA Villages of Western Ghat (Khalapur Taluka)</td><td></td></tr>
<tr><td>Talwawali
Nigdoli
Kalote Rayati
Kalote Mokshi
Godivali
Parkhande
Talashi</td><td>2.7 km, SW
0.071 Km, E
3.8 Km, E
5 km, E
6.91 Km ESE
4.5 Km, S
1.45 Km, WSW</td></tr>
<tr><td>ESA Villages of Western Ghat (Karjat Taluka)</td><td></td></tr>
<tr><td>Talawali
Palasdari</td><td>8.3 Km, ENE
8 km, ENE</td></tr>
<tr><td>Karnala Bird Sanctuary</td><td>8.84 Km, WNW</td></tr>
<tr><td>Ecosensitive zone of Karnala Bird Sanctuary (Notified vide S.O. 230 (E) dated 22 January 2016)</td><td>8.78 Km, WNW</td></tr>
<tr><td>Matheran Town</td><td>12.57 Km, NNE</td></tr>
<tr><td>ESZ of Matheran</td><td>5.88 KM, NNE</td></tr>
</table>

List of Reserved and protected forests:
<table>
<tr><th>Forest Area</th><th>Distance and Direction</th></tr>
<tr><td colspan="2">Reserve Forest (R.F.)</td></tr>
</table>
</td><td>-</td></tr>
</table>

S. No	Particulars	Details submitted by the PP		Remarks
		R.F. near Nigdoli	2.53 Km, E	
		R.F. near Vashivali	4.29 Km, NW	
		R.F. near Vinegaon	5.34 Km, ENE	
		R.F. near Kasap	6.27 Km, WNW	
		R.F. near Boragaon Budrukh	6.80 Km, NNW	
		R.F. near Rasayani	7.41 Km, NW	
		R.F. near Apta	7.98 Km, WNW	
		R.F. nearAkulwadi	8.66 Km, WNW	
		R.F. near Posari	9.49 Km, NW	
		R.F. near Narangwadi	9.71 Km, SSE	
		Protected Forest (P.F.)		
		Protected Forest Bokarpada	7.81 Km, NNW	

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

Facility / activity	Configuration
Ferro Alloys & Metals – Alumino thermic process	1) Ball mill = 0.5 TPH x 1 No. OR Pulverizer = 2 TPH x 1 No. 2) LDO / FO fired Furnace = 1 Ton x 1 No 3) Hopper = 1000 liters x 1 No. 4) Overhead crane =2 Ton x 1 No. 5) M.S crucible = 300 liters x 8 No. 6) Jaw Crusher = 0.1 TPH
Metal Ingots & Powder from Scrap (aluminum & copper ingots)	1) LDO /FO/coal fired Furnace = 700 liters x 4 No. 2) C.I or graphite casting = 10 kg x 20 No. 3) SiC / Graphite / C.I crucible = 500 liters x 4 No 4) Atomizer plant (Stainless Steel) = 100 kg/hr
Metals reduction by Carbons source (met coke) (Tin & Copper metal)	1) LDO /FO/coal fired pit Furnace = 100 liters x 2 No. 2) C.I/Graphite/SiC crucible = 50 liters x 2 No. 3) C.I/Graphite cast = 10 kg x 10 No.
Metals Reduction By Hydrogen gas reduction	1) Pusher type furnace =100kg x 1 No.
Tungsten Salts & Oxides from ore /concentrate (wolframite & scheelite) Leaching & solvent extraction process Cobalt, copper and nickel sulfate/chloride from scrap or sludge Tungsten Salts & Oxide manufacturing from tungsten carbide Cobalt/Nickel scrap	1) Mixer settler = 300lit x 12 No. 2) Stainless steel reactor (limpet/jacket) = 3 KL x 2 No. 4 KL x 2 No. 3) Glass lined reactor (limpet/jacket) = 4 KL x 2 No. 4) Filter Press (MS+PP) = 500 lit x 3No. 5) AOD Pump = 135 LPM x 4 No. 6) Storage Tank (HDPE/PP) = 5 Kl x 5 No. 7) Acid storage Tank (HDPE/PP) = 10 Kl x 3 N0. 8) HDPE/PP Drum = 500 liters x 4No. 9) HDPE/PP Drum = 200 liters x 6 No. 10) Storage Tank (HDPE/PP) = 3 KL x 2 No. 4 KL x 2 No. 11) Centrifuge = 50 liters x 3 No. 12) Vaccuum Tray dryer = 200 kg x 1 No. 13) Thermic fluid heater, = 10,00,000 kcal/hr

Facility / activity	Configuration
	14) LDO/FO fired OR electrical furnace = 500 kg x 2 No. 15) MEE (Stainless steel limpet/jacketed) = 10 Kl x 1 No. 16) H2S Scrubber (PP) = 500 Lit x 1 No.

Phase 1		
Name of Facility	**Name of Product**	**Quantity (TPA) Max.**
Ferro Alloys Any product combination from Sr. No. 1 to 9. Based on the orders Not exceeding 1200 TPA collective & also not exceeding their individual capacities.	Low carbon Ferro Chrome	1200
	Ferro Manganese	1200
	Ferro Tungsten	600
	Ferro Molybdenum	600
	Ferro Titanium	600
	Ferro Vanadium	600
	Ferro Niobium	600
	Ferro Nickel	600
	Ferro Cobalt	600
Metal Ingots & Powder from Scrap Melting and refining Aluminum & Copper scrap	Aluminum Ingots/Powder	1200
	Copper Ingots/Powder	1200
Metals Reduction by Aluminum Any combinations of products from Sr. no. 1 to 10. Based on orders Not exceeding 240 TPA & also not exceeding their individual capacities	Tantalum	240
	Niobium	240
	Nickel	240
	Cobalt	240
	Tungsten	240
	Chromium	240
	Vanadium	240
	Molybdenum	240
Metals By Carbon Reduction Producing both Tin AND Copper	Product Name	Quantity (TPA) Max.
	Tin	240
	Copper	240

Phase - 2		
Name of Facility	**Name of Product**	**Quantity (TPA) Max.**
Metals Reduction By Hydrogen Any combinations of products from Sr no. 1 to 7 Based on orders	Tungsten	240
	Molybdenum	240
	Copper	240
	Nickel	240

Phase - 2		
Name of Facility	**Name of Product**	**Quantity (TPA) Max.**
Not exceeding 240 TPA & also not exceeding their individual capacities	Cobalt	240
	Chromium	240
	Vanadium	240

Phase 3		
Name of Facility	**Name of Product**	**Quantity (TPA) Max.**
Tungsten Salts & Oxides Any combination of products from Sr. no. 1 to 5.Based on orders Not exceeding 180 TPA (WO3 basis) & also not exceeding their individual capacity *Note – Basis for tungsten salts & oxides is the WO3 content present in them.*	Sodium Tungstate [Na2WO4.2H2O]	251
	Ammonium Para tungstate [(NH4)10(H2W12O42).4H2O]	198.6
	Tungsten Trioxide[WO3]	180
	Tungstic acid[H2WO4]	194
	Blue Tungsten Oxide[WO2.5 – 2.9]	167.6
Sulfates of Copper, Nickel and Cobalt Producing Copper sulfate, nickel sulfate and cobalt sulfate Each product having individual Capacity of 300 TPA max.	Copper Sulfate[CuSO4.nH2O, where n = 0 to 5] Basis- CuSO4.5H2O	300
	Nickel Sulfate [NiSO4.nH2O, where n= 0 to 7] Basis- NiSO4.7H2O	300
	Cobalt Sulfate[CoSO4.nH2O, where n= 0 to 7] Basis- CoSO4.7H2O	300
Tantalum & Niobium metal powders Producing Tantalum and Niobium Metal powders. Each product having individual capacity of 240 TPA max.	Tantalum Metal powders	240
	Niobium Metal Powders	240

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

Name of the natural resource/ Raw Material	Quantity (TPA)	Source	Mode of transport	Remarks (Distance from source in Km)
Phase 1				
Chrome Concentrate	2400	Local	trucks	1800
Iron-oxide/Mill scale	1025	Local	trucks	55
Aluminium scrap/powder	2946	Local OR Imported	trucks	115
Sodium Nitrate	406	Local OR Imported	trucks	83
Lime/Fluorspar	396	Local	trucks	58
Roasted Manganese concentrate	1425	Local	trucks	787
Calcium tungstate	1338.63	Local Or Imported	trucks	43

Name of the natural resource/ Raw Material	Quantity (TPA)	Source	Mode of transport	Remarks (Distance from source in Km)
Tungsten trioxide	1077.88	Local Or Imported	trucks	330
Molybdenum concentrate	760	Local Or Imported	trucks	55
Molybdenum trioxide	1065	Local Or Imported	trucks	300
Calcium Molybdate	918	Local Or Imported	trucks	300
Illmenite ore	1502	Local Or Imported	trucks	330
Rutile	755	Local Or Imported	trucks	60
Vanadium Pentoxide	1435	Local Or Imported	trucks	290
Niobium Pentoxide	920	Local Or Imported	trucks	43
Nickel (II) oxide	730	Local Or Imported	trucks	80
Cobalt(II) oxide	730	Local Or Imported	trucks	80
Copper scrap	1600	Local Or Imported	trucks	55
Sodium Chloride	320	Local Or Imported		20
Tin oxide/sludge	400	Local Or Imported	trucks	330
Silico Manganese	857.15	Local	trucks	1075
Iron Scrap	114.286	Local	trucks	50
Manganese Ore	1142.86	Local	trucks	787
Aluminium Fluoride	442	Local	trucks	55
Sodium Silicate	3	Local	trucks	0
Met Coke/Coal OR Light Diesel Oil / Furnace Oil	2211.3 OR 1212	Local Or Imported	Truck OR Tanker	60
Phase 2				
Tungsten Trioxide	305	Local OR Imported	trucks	300
Molybdenum Trioxide	360	Local OR Imported	trucks	225
Copper(II) oxide	302	Local OR Imported	trucks	285
Nickel(II) oxide	306	Local OR Imported	trucks	330
Cobalt(II) oxide	306	Local OR Imported	trucks	330
Chromium oxide	352	Local OR Imported	trucks	55

Name of the natural resource/ Raw Material	Quantity (TPA)	Source	Mode of transport	Remarks (Distance from source in Km)
Vanadium Pentoxide	430	Local OR Imported	trucks	330
Hydrogen gas	25	Local	trucks	10
Argon /Nitrogen Gas	30	Local	trucks	10
Phase 3				
Wolframite Ore OR	360 OR	Imported	trucks	60
Scheelite Ore OR	360 OR			
Calcium Tungstate OR	223.5 OR			
Tungsten carbide scrap	190.31			
Sodium Hydroxide	474.5	Local	trucks	225
Aluminum Sulfate	96	Local	trucks	40
Sulfuric acid	579.45	Local	Tanker	60
Magnesium sulfate	38.33	Local	trucks	40
Sodium hydrogen sulfide	16.16	Local	trucks	50
Sodium Fluoride OR Hydrofluoric acid	0.024	Local	Trucks/tanker	60
Hydrogen peroxide	31.99	Local	tanker	55
Alamine 336	0.98	Imported	Tanker	60 (from JNPT)
2-octanol/ isodecanol	0.5	Local	Tanker	60
Commercial kerosene/equivalent	3	Local	Tanker	225
Ammonia gas	45.96	Local	Trucks	60
Sodium carbonate	26.49	Local	trucks	60
Hydrochloric acid (30%) OR Sulfuric acid (98%)	2831.46 OR 1166.05	Local	trucks	60
Lime	8.95	Local	trucks	30
Sodium Nitrate	131.98	Local	Trucks	60
Copper Scrap OR Copper Ash	89 OR 127	Local OR Imported	Trucks	335
Biomass OR Light diesel Oil/Furnace Oil	2654 OR 852	Local	Trucks OR Tanker	85
Tantalum Pentoxide	293.052	Local	Trucks	60
Niobium Pentoxide	343.326	Local	Trucks	60
Magnesium Metal	285.052	Local	Trucks	60

19.7.7 Water requirement for the proposed project is estimated as 52 KLD, out of which 27.5 KLD of freshwater requirement will be obtained from Tanker OR Ground water from Bore-well and the remaining requirement of 24.5 KLD will be met from the recycled water from treated sewage and rainwater harvesting. The permission for drawl of groundwater: We have appointed QCI NABET accredited groundwater consultancy organization (M/S Sujalam Consultant Nagpur) to undertake the hydrogeological studies and advise to undertake rainwater harvesting measures. The application for CGWB clearance will be submitted on receipt of TOR letter.

19.7.8 The power requirement for the proposed project is estimated as 0.66 MW, which will be obtained from the MSEDCL.

19.7.9 The capital cost of the project is Rs 20.45 Crores and the capital cost for environmental protection measures is proposed as Rs 3.08 Crores. The employment generation from the proposed project is 70.

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

19.7.11 Proposed Terms of Reference: [Baseline data collection period: 1st March to 31st May 2022]

Attributes	Parameters	Sampling		Remarks
		No of stations	Frequency	
A. Air				
a. Meteorological parameters	Temperature, rainfall, wind speed, wind direction, relative humidity, atmospheric pressure, Solar Radiation / Cloud cover	1	3 months	MET station installed near site.
b. AAQ parameters	PM10, PM2.5, SOx, NOx, CO, Ammonia, Lead, Arsenic and Nickel.	8	Twice in a week for 24 hours X 4 weeks per month X 3 months.	Method of sampling and analysis: As per the methods suggested by CPCB under NAAQS
B. Noise	Residential and Industrial Noise Monitoring (Leq dB(A)	8	Once in season	Method of sampling and analysis: Continuous sound level meter
C. Water: Surface water	As per CPCB Designated Best Use Water Quality Criteria	4	Once in season	Method of sampling and analysis: As per the method suggested in Standard Methods, Study of Drainage Pattern.
Ground water	As per IS:10500-2012 for Ground water	8	Once in season	
D. Land				
a. Soil quality	Texture, pH, Conductance, Moisture, Particle size, TOC, Water holding Capacity, Organic Carbon, Chloride, Phosphorous, Nitrogen,	6	Once in season	As per BIS and Handbook of Agricultural by ICMR

Attributes	Parameters	Sampling		Remarks
		No of stations	Frequency	
	Sulfates, TKN, Potassium, Iron, Calcium, Magnesium, Sodium, Oil & Grease, Fe, Ni, Si, Mn, Cr, Pb, As, Zn and Al			
b. Land use	Study area (10 Km) from project site. Topography of the area indicating gradients, aspects and altitude. Establishment of Land Use Pattern. Locations of National Park/ Sanctuary/Biosphere Reserve/ Monument / Heritage site/Reserve Forests			
E. Biological	Study area 10km			
a. Aquatic	Primary survey to identify: a) floral and faunal species, b) Rare/ endangered species in various habitats in study area. Phyto-Sociological Studies to determine various indices. Secondary data collection to get information on Flora & Fauna in Reserve Forest/ Protected Areas and special feature if any.			
b. Terrestrial				
F. Socio-economic parameters	Primary survey to gauge socioeconomic- health status of populace and understand quality of life and needs and aspirations of the local populace. Secondary Data will be collected from Census 2011 and various Government departments to understand Demographic Pattern (literacy rate, Male to Female Ratio), Occupational Pattern, major diseases observed in the area			
G. Hydrogeological studies	Undertaking Hydrogeological studies to ascertain geology of substratum, permeability characteristics, drainage and depth of groundwater.			

Written representations:

19.7.12 During the meeting, based on the deliberations made by the EAC, the project proponent vide letter dated 18.12.2022 through email dated 19.12.2022 submitted an undertaking stating that the proposed site does not come under Western Ghat ESA village as per Western Ghat directions dated 13.11.2013. PP has also submitted image showing location overlayed on Western Ghat Boundary (ISRO - Bhuvan As Per MoEF&CC).

Deliberation by the Committee

19.7.13 The Committee noted the following:

i. The instant proposal is for setting up of a new Ferro alloy Plant for production of 6191 Tons Per Annum (TPA).

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

iii. Total Project area is 1.43 ha. Land is on 20 years of lease from M/s. Aspirewings Enterprises Pvt. Ltd (owner of land).

iv. The nearest habitation to plant is Isambe village at a distance of 0.5 km from the project site boundary in the SE direction.

v. Patalganga River (0.81 Km), Vaki river (9.9 Km, SW), Sarsole Lake (7.01Km, SE), Bhilwale Lake (7.8 Km, NE) and Usrane Lake (10 km, NW) are flowing within 10 Km. radius of the plant site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be prepared and included in the EIA/EMP Report.

vi. ESA villages as per Draft Western Ghat notification are observed at 7 Villages in Khalapur Taluka and 2 villages in Karjat Taluka. Also ESZ of Karnala Wildlife Sanctuary, Matheran is at a distance of 8.78 km in WNW direction. ESZ of Matheran is at a distance of 5.88 km in NNE direction.

vii. The water requirement is estimated as 52 KLD, out of which 27.5 KLD of freshwater requirement will be obtained from Tanker OR Ground water from Bore-well and the remaining requirement of 24.5 KLD will be met from the recycled water from treated sewage and rainwater harvesting.

viii. The Committee also deliberated on the written submission of PP and is of the view that the Sector may also obtain the comments of the ESZ Division w.r.t. ESA.

Recommendations of the Committee

19.7.14 After deliberations, the Committee **recommended** the project proposal **subject to obtaining comments from the ESZ division (w.r.t. proposed site not falling under ESA)** for prescribing following specific ToRs for undertaking detailed EIA and EMP study in addition to the generic ToRs enclosed at **Annexure-1** read with additional ToRs at **Annexure-2**.

(i) The nearest habitation to plant is Isambe village at a distance of 0.5 km from the project site boundary in the SE direction. Project Proponent shall prepare an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include some of these locations in its environmental monitoring programme.

(ii) Patalganga River (0.81 Km), Vaki river (9.9 Km, SW), Sarsole Lake (7.01Km, SE), Bhilwale Lake (7.8 Km, NE) and Usrane Lake (10 km, NW) are flowing within 10 Km. radius of the plant site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(iii) The water requirement of 52 m^3/day is proposed to be obtained from Tanker OR Ground water from Bore-well and from the recycled water from treated sewage and rainwater harvesting. PP shall explore the possibility of shifting to alternate source of water to reduce dependency on groundwater.

(iv) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. Details of flora and fauna existing in the study area shall be duly authenticated by the concerned DFO of the area. In case of existence of any endangered species and Schedule I fauna, authenticated conservation plan shall be submitted.

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

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

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

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

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

(x) 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.

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

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

(xiii) Traffic study shall be carried out inter-alia including existing road details with traffic load, proposed quantum of material to be transported by sea/rail/road with anticipated vessels/rakes/vehicles details, line source modelling and infrastructure strengthening details etc., These details shall be included in the EIA report.

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

(xv) Action plan to limit the dust emission from all the stacks below 30 mg/Nm^3 shall be furnished. Action plan for fugitive emission control in the plant premises shall be provided.

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

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

***

DAY 2: DECEMBER 19th, 2022 (MONDAY)

Consideration of Environmental Clearance Proposals

Agenda No. 19.8

19.8 Expansion of Existing Pellet Plant (1.2 Million TPA To 6.4 Million TPA), Iron Ore Beneficiation Plant (Matching With Pellet Plant – 6.4 Million TPA), Producer Gas Plant (75,000 N.Cu.M/Hr To 2,00,000 N.Cu.M/Hr) with Addition of New Sponge Iron Plant (2.0 Million TPA), Ferro Alloys Plant (0.036 Million TPA) with Chrome Briquette & Zigging Plant, Steel Melting Shop with Matching LRF, CCM, Oxygen Optimized Furnace (1.8 Million TPA) With Slag Crushing Unit, Oxygen Plant (400 TPD), Rolling Mill With Pickling And Continuous Galvanizing Line (0.35 Million TPA), Wire Rod & Wire Drawing Mill (1.4 Million TPA) And CPP 245 MW (120 Mw Coal And Dolochar Mix Based And 125 MW WHRB Based) by M/s Orissa Steel & Power Pvt. Ltd., located at Village – Jitusole & Baghmuri, P. O. – Garhsalboni, P. S. – Jhargram, District – Jhargram, West Bengal – Consideration of Environmental Clearance.

[Proposal No.: IA/WB/IND/274512/2012; File No. IA-J-11011/180/2012-IA-II(I)]
[Consultant: Centre for Envotech and Management Consultancy (P); Valid upto 18.03.2024]

19.8.1 M/s Orissa Steel & Power Private Limited has made an online application vide proposal no. IA/WB/IND/274512/2012 dated 24.05.2022 along with copy of EIA/EMP report, Form-2 and Certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 2(b) Mineral Beneficiation, 3(a) Metallurgical industries (ferrous & non-ferrous) and 1(d) Thermal Power Plants Under Category 'A' of the schedule of the EIA Notification, 2006) and appraised at Central Level.

19.8.2 Name of the EIA consultant: M/s. Centre for Envotech and Management Consultancy (P) [Sl. No. 102, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2124/RA0243; Valid up to 18.03.2024, Rev. 24, July 05, 2022].

Details submitted by Project proponent

19.8.3 The details of the ToR are furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
16.05.2020 & 17.02.2021	The proposal was considered in the 21st, 25th, 26th and 31st meeting of the Re-constituted EAC (Industry-I) 30th July- 1st August 2020; 26-27th November 2020; 16 -	Terms of Reference	04.03.2021	04.03.2025

Date of application	Consideration	Details	Date of accord	ToR Validity
	17th December 2020 and 25-26th February 2021.			
27.09.2021	--	Transfer of TOR from M/s Rashmi Udyog Pvt. Ltd. to M/s Orissa Steel & Power Pvt. Ltd.	27.10.2021	

19.8.4 The project of M/s Orissa Steel & Power Private Limited located at Villages – Jitusole & Baghmuri, P.O. - Garhsalboni, P.S. - Jhargram, District - Jhargram, West Bengal is for expansion of existing Pellet Plant (1.2 Million TPA To 6.4 Million TPA), Iron Ore Beneficiation Plant (Matching With Pellet Plant – 6.4 Million TPA), Producer Gas Plant (75,000 N.Cu.M/Hr To 2,00,000 N.Cu.M/Hr) with Addition of New Sponge Iron Plant (2.0 Million TPA), Ferro Alloys Plant (0.036 Million TPA) with Chrome Briquette & Zigging Plant, Steel Melting Shop with Matching LRF, CCM, Oxygen Optimized Furnace (1.8 Million TPA) With Slag Crushing Unit, Oxygen Plant (400 TPD), Rolling Mill With Pickling And Continuous Galvanizing Line (0.35 Million TPA), Wire Rod & Wire Drawing Mill (1.4 Million TPA) And CPP 245 MW (120 Mw Coal And Dolochar Mix Based And 125 MW WHRB Based).

19.8.5 Environmental Site Settings:

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>56.656 ha [Private: 55.746 ha; Agriculture: 0.91 ha]</td><td>Land use:
<table>
<tr><th>S. No.</th><th>Particulars</th><th>Area (Ha)</th><th>%</th></tr>
<tr><td>1</td><td>Main Plant</td><td>23.176</td><td>40.90</td></tr>
<tr><td>2</td><td>Water Reservoir</td><td>5.30</td><td>9.35</td></tr>
<tr><td>3</td><td>Built up Area</td><td>0.59</td><td>1.04</td></tr>
<tr><td>4</td><td>Internal roads</td><td>0.81</td><td>1.43</td></tr>
<tr><td>5</td><td>Green Belt</td><td>18.69</td><td>33.00</td></tr>
<tr><td>6</td><td>Tailing Area</td><td>2.02</td><td>3.56</td></tr>
<tr><td>7</td><td>Truck Parking area</td><td>1.01</td><td>1.78</td></tr>
<tr><td>8</td><td>Raw Material Storage</td><td>5.06</td><td>8.94</td></tr>
<tr><td colspan="2">TOTAL PROJECT AREA</td><td>56.656</td><td>100.0</td></tr>
</table></td></tr>
<tr><td>ii</td><td>Land acquisition details as per</td><td>Out of the 56.656 hectare of land, 42.09 hectare of land is already in possession of M/s Orissa Alloy Steel Private Limited</td><td>--</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td></td><td>MoEF&CC O.M. dated 7/10/2014</td><td>(Formerly M/s Rashmi Alloy Steel Private Limited) & for rest of land (14.57 hectare) consent from private rayat obtained.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project Site:
No habitation in the proposed site.

Study Area:
<table>
<tr><th>Habitation</th><th>Distance</th><th>Direction</th></tr>
<tr><td>Baghmuri</td><td>0.6 km</td><td>S</td></tr>
<tr><td>Jitusole</td><td>1.1 km</td><td>NE</td></tr>
<tr><td>Ghritakham</td><td>1.0 km</td><td>W</td></tr>
<tr><td>Garo</td><td>1.2 km</td><td>ESE</td></tr>
<tr><td>Shalboni</td><td>2.1 km</td><td>N</td></tr>
<tr><td>Jhargram</td><td>9.5 Km</td><td>NW</td></tr>
</table></td><td>No rehabilitation and resettlement is involved for the subject project. Land acquisition is carried out under Land Acquisition Act of West Bengal. Land is purchased through private negotiations from private rayat. Apart from Govt. valuation of the land, Additional One time Welfare Fund is given to the land looser in addition to the land cost.</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of the project site</td><td>
<table>
<tr><th>Site</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td colspan="3">Existing Project Boundary</td></tr>
<tr><td>Point a</td><td>22˚21’53.67”N</td><td>87˚00’59.70”E</td></tr>
<tr><td>Point b</td><td>22˚21’32.76”N</td><td>87˚00’47.50”E</td></tr>
<tr><td>Point c</td><td>22˚21’32.12”N</td><td>87˚00’57.59”E</td></tr>
<tr><td>Point d</td><td>22˚21’18.87”N</td><td>87˚00’55.83”E</td></tr>
<tr><td>Point e</td><td>22˚21’28.58”N</td><td>87˚01’00.88”E</td></tr>
<tr><td>Point f</td><td>22˚21’25.61”N</td><td>87˚01’08.84”E</td></tr>
<tr><td>Point g</td><td>22˚21’22.80”N</td><td>87˚01’14.18”E</td></tr>
<tr><td>Point h</td><td>22˚21’27.09”N</td><td>87˚01’13.53”E</td></tr>
<tr><td>Point i</td><td>22˚21’29.97”N</td><td>87˚01’07.56”E</td></tr>
<tr><td>Point j</td><td>22˚21’32.19”N</td><td>87˚01’00.63”E</td></tr>
<tr><td>Point k</td><td>22˚21’49.24”N</td><td>87˚01’04.80”E</td></tr>
<tr><td colspan="3">Expansion Project Boundary</td></tr>
<tr><td>Point A</td><td>22°21'19.79"N</td><td>87° 01'54.78"E</td></tr>
<tr><td>Point B</td><td>22°21’07.22"N</td><td>87° 01'53.82"E</td></tr>
<tr><td>Point C</td><td>22°21'02.24"N</td><td>87° 00'55.56"E</td></tr>
<tr><td>Point D</td><td>22°21'01.83"N</td><td>87° 01'09.13"E</td></tr>
<tr><td>Point E</td><td>22°21'04.57"N</td><td>87° 01'06.24"E</td></tr>
<tr><td>Point F</td><td>22°21'07.39"N</td><td>87° 01'09.43"E</td></tr>
<tr><td>Point G</td><td>22°21'13.04"N</td><td>87° 01'12.18"E</td></tr>
<tr><td>Point H</td><td>22°21'11.64"N</td><td>87° 01'07.87"E</td></tr>
<tr><td>Point I</td><td>22°21'16.00"N</td><td>87° 01'07.12"E</td></tr>
<tr><td>Point J</td><td>22°21'15.89"N</td><td>87° 01'13.03"E</td></tr>
<tr><td>Point K</td><td>22°21'20.39"N</td><td>87° 01'17.70"E</td></tr>
<tr><td>Point L</td><td>22°21'25.00"N</td><td>87° 01'18.21”E</td></tr>
<tr><td>PointM</td><td>22°21'25.67"N</td><td>87° 01'14.23"E</td></tr>
<tr><td>Point N</td><td>22°21'47.78"N</td><td>87° 01'08.90"E</td></tr>
<tr><td>Point O</td><td>22°21'40.34"N</td><td>87° 01’08.10"E</td></tr>
<tr><td>Point P</td><td>22°21'32.83"N</td><td>87° 01'11.09"E</td></tr>
<tr><td>Point Q</td><td>22°21'32.24"N</td><td>87° 01'07.01"E</td></tr>
</table></td><td>--</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>Elevation of the project site varies from 68 m to 86 m AMSL.</td><td>--</td></tr>
<tr><td>vi.</td><td>Involvement of Forest land if any.</td><td>No forest land involved.</td><td>--</td></tr>
</table>

<table>
<tr><th>Sl. No.</th><th>Particulars</th><th>Details</th><th>Remarks</th></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.) exists within the project site as well as study area</td><td>Project site:
02 Nos. rain water harvesting pond.

Study area:<table><tr><th>Water body</th><th>Distance</th><th>Direction</th></tr><tr><td>03 Nos. R.W.H Structure of RCL</td><td>0.5 km</td><td>NE</td></tr><tr><td>Jangalkhas Pond</td><td>0.6 km</td><td>N</td></tr><tr><td>Ghritakham Pond</td><td>0.8 km</td><td>W</td></tr><tr><td>Ghosher Bandh Pond</td><td>1.9 Km</td><td>NE</td></tr><tr><td>Shalboni Pond</td><td>2.5 km</td><td>NNE</td></tr><tr><td>Kangsabati Canal</td><td>3.5 Km</td><td>E</td></tr><tr><td>Kangsabati River</td><td>13.5 Km</td><td>NE</td></tr></table></td><td>--</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve / tiger reserve/ elephant reserve etc. if any within the study area</td><td>Nil</td><td>Several Revenue Forest is present in the 10 km area of project site. There is no protected or reserved forest. Name of Forests are: Fairly dense mix jungle mainly Sal (Jhargram Forest Rang, Dhobi Jangal, Lalgarh Forest and Gurguripal Forest).</td></tr>
</table>

19.8.6 The existing project was accorded environmental clearance in the name of M/s Rashmi Iron Industries Private Limited vide Letter No. J-11011/180/2012-IA.II (I) dated 22nd June, 2015 which was transferred to M/s Rashmi Cement Limited vide letter no. J-11011/180/2012-IA.II (I) dated 4th October, 2019. The EC was further transferred from M/s Rashmi Cement Limited to M/s Rashmi Udyog Private Limited (Wholly own subsidiary of M/s Rashmi Cement Limited) vide letter dated 28.01.2020. EC is ultimately transferred from M/s Rashmi Udyog Private Limited to M/s Orissa Steel & Power Private Limited by MoEFCC vide letter no. J-11011/180/2012-IA.II (I) dated 9th June, 2021. Consent to Operate for the existing unit was accorded by West Bengal Pollution Control Board vide lr. No. CO131911 dated 20.01.2021 and 23.06.2021. The validity of CTO is up to 30.11.2025.

19.8.7 **Implementation status of the existing EC:**

Sl. No.	Units	As per EC dated 22.06.2015, 04.10.2019, 28.01.2020 & 09.06.2021		Implementation Status as on November 2022	Production as per CTO
		Configuration	Capacity		

1	Pellet Plant, Million TPA	2 x 0.6 MTPA	1.2 MTPA	Implemented	1.2 MTPA
2	I/O Beneficiation Plant, Million TPA	1 x 1.5 MTPA	1.5 MTPA	Implemented	1.5 MTPA
3	Producer Gas Plant Nm^3/hr	10 x 7,500 Nm^3/hr	75,000 Nm^3/hr	Implemented	75,000 Nm^3/hr

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

Sl. No.	**Plant Equipment/ Facility**	**Existing facilities as per EC dated 22.06.2015, 04.10.2019, 28.01.2020 & 09.06.2021 Total (A+B)**		**Expansion Proposal considering 350 annual working days**		**Final (Existing + Proposed)**		**Remarks**
		Configuration	**Capacity**	**Configuration**	**Capacity**	**Configuration**	**Capacity**	
1	DRI plant	--	--	**5 x 900 TPD**	2.0 Million TPA	5 x 900 TPD	2.0 Million TPA	Sponge Iron
2	SMS with matching LRF/AOD,CCM and oxygen optimized furnace	--	--	**(8 x 30 T + 2 x 40 T) I.F + 1 x 60 T EAF**	1.80 Million TPA	(8 x 30 T + 2 x 40 T) I.F + 1 x 60 T EAF	1.80 Million TPA	Billets & Slab
3	SMS Slag Crusher	--	--	**4 x 25 TPH**	100 TPH	4 x 25 TPH	100 TPH	Metal Recovery
4	Oxygen Plant	--	--	**2 x 200 TPD**	400 TPD	2 x 200 TPD	400 TPD	Oxygen
5	Ferro Alloy Plant	--	--	**3 x 9 MVA**	36,000 TPA	3 x 9 MVA	36,000 TPA	Ferro Alloys (FeMn, FeSi, SiMn & FeCr)
6	Jigging Plant	--	--	**3 x 30 TPD**	90 TPD	3 x 30 TPD	90 TPD	Metal Recovery
7	Chrome Briquette plant	--	--	**1 x 20 TPH**	20 TPH	1 x 20 TPH	20 TPH	Chrome Briquette
8	Rolling Mill with Pickling Line & Continuous Galvanizing Line	--	--	**0.35 Million TPA**		0.35 Million TPA		H.R Plate, Galvanized Sheets
9	Wire Rod Mill and Wire Drawing	--	--	**1.40 Million TPA**		1.4 Million TPA		TMT Bar, Wire & Wire Rod
10	Enhancement in pellet plant capacity	2 x 0.6 Million TPA	1.2 Million TPA	2 x 0.6 Million TPA to 2 x 1.0 Million TPA	(+) 0.8 Million TPA	2 x 1.0 Million TPA	6.4 Million TPA	Iron Ore Pellet
	New Pellet plant		--	**Addition** (2 x 2.2 Million TPA)	4.4 Million TPA	2 x 2.2 Million TPA		
11	Matching I/O Beneficiation	1 x 1.5 Million TPA	1.5 Million TPA	**Addition** (2 x 2.45 Million TPA)	(+) 4.9 Million TPA	1.5 Million TPA + 2 x 2.45 Million TPA	6.4 Million TPA	Concentrated Iron Ore

Sl. No.	Plant Equipment/ Facility	Existing facilities as per EC dated 22.06.2015, 04.10.2019, 28.01.2020 & 09.06.2021 Total (A+B)		Expansion Proposal considering 350 annual working days		Final (Existing + Proposed)		Remarks
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	
12	Producer Gas Plant	10 x 7,500 Nm^3/hr	75,000 Nm^3/hr	**Additional** (10 x12,500 Nm^3/hr)	(+) 1,25,000 Nm^3/hr	10 x 7,500 + 10 x 12,500 Nm^3/hr	2,00,000 Nm^3/hr	Producer Gas
13	Captive Power Plant	--	--	**WHRB Based125 MW from DRI Plant + CFBC (Coal Dolochar mix based) 2 x 60 MW**	245 MW	**125 MW WHRB** Based from DRI Plant **120 MW CFBC** (Coal & Dolochar Mix based) 2 x 60 MW	245 MW	Power

19.8.9 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.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of Source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for expansion Unit	Total		First Unloading Point (Km)	Project Site		Distance from first unloading point (Approx.)	Mode of Transportation
1	Iron Ore Fines & lumps	15,00,000	90,99,950	1,05,99,950	Applied for captive iron ore mines Alternate source: Purchased from Barbil-Joda, Orissa	270-300	---	Train up to Jhargram Public Siding	10.5 KM	By Road SH-5 and/or from dedicated road (post approval of construction of road from competent authority)
								Train up to Siding of associate company or Nimpura Public Siding	22-30 KM	By Road NH-49 (previously NH-6) by SH-5 or from dedicated road.
2	Pig Iron	---	2,28,206	2,28,206	Form other unit of group company	---	30-200	---	---	By Road NH-49 (previously NH-6) by SH-5 or from dedicated road.
3	Non - coking coal	1,44,000	40,73,960	42,17,960	CCL, MCL & Imported Coal. Also, applied for captive Coal mines (Jagnnathpur - B, (Raniganj	300 - 500	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by	10.5 KM	By Road SH-5 and also from dedicated road (post approval of construction

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of Source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for expansion Unit	Total		First Unloading Point (Km)	Project Site		Distance from first unloading point (Approx.)	Mode of Transportation
					Coal field West Bengal), vesting order from MOC, Govt. India obtained.			train up to Jhargram Public Siding		of road from competent authority)
								By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by Train up to Siding of associate company	30 KM	By Road NH-49 (previously NH-6) by SH-5 or from dedicated road.
4	Coke	---	43,200	43,200	Imported, E-Auction	300	---	By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by train up to Jhargram Public Siding	10.5 KM	By Road SH-5 and/or from dedicated road.
								By vessel up to nearest port (Haldia / Paradeep / Vizag) and followed by Train up to Siding of associate company	30 KM	By Road NH-49 (previously NH-6) by SH-5 or from dedicated road.
5	Dolomite	---	2,18,680	2,18,680	From Birmitrapur, Orissa / Bilaspur, CG	270-350	---	Train up to Jhargram Public Siding	10.5 Km	By Road SH-5 and/or from dedicated road.
6	Bentonite	40,000	88,000	1,28,000	From Gujarat, Rajasthan	1000	---	Train up to Jhargram Public Siding	10.5 Km	By Road SH-5
7	Limestone	26,000	2,76,322	3,02,322	From Birmitrapur, Orissa / Bilaspur, Raipur CG / Katni MP	270-350	---	Train up to Jhargram Public Siding	10.5 Km	By Road SH-5 and/or from dedicated road.
8	Manganese Ore	---	68,400	68,400	From Balaghat, MP & Orissa	1000	---	Train up to Jhargram Public Siding	10.5 Km	By Road SH-5 and/or from dedicated road.
9	Chromium	---	90,000	90,000	Orissa,	300	---	Train up to	10.5 Km	By Road SH-

Sl. No.	Name of the Raw Materials	Quantity (TPA)			Source	Distance of Source from		Up to First Unloading point (RAIL/ PORT)	Plant site	
		Existing for EC awarded Project	Additional for expansion Unit	Total		First Unloading Point (Km)	Project Site		Distance from first unloading point (Approx.)	Mode of Transportation
	Ore				Jharkhand etc.			Jhargram Public Siding		5 and/or from dedicated road.
10	Quartzite	---	64,800	64,800	From Belpahar Orissa / Bilaspur, Raipur CG	500	---	Train up to Siding of associate company	30 Km	By Road NH-49 (previously NH-6) and by SH-5 or from dedicated road.

19.8.10 The existing water requirement (as per sanctioned EC) is 489 m^3/day. The water requirement for the proposed project is estimated as 7,191 m^3/day, water requirement will be obtained from Subarnarekha River (335 days @ 7380), Rain Water Harvesting (30 days @ 7380 KLD) & Ground water-(365 days @ 300.0 KLD) (for domestic purpose). The permission for drawl of surface water 3.0 MGD (13,500 m3/day) for 07 months from Subarnarekha River is obtained from Irrigation & Water Department, West Bengal vide Memo no-185-I/I-4M-02/2021 dated 01.10.2021 and memo no-73-I/I-4M/02/2021 dated 10.03.2022 and permission for ground water has been obtained from State Water Investigation Directorate (SWID) vide even permit no-07367; 07368; 07369; 07370 and 07371 dated 13.03.2014.

Sl. no.	Permission Granted by	Permission Obtained for drawl of water		Total Daily Make up Water requirement for the proposed project	
		Quantity of drawl KLD	No of days of drawl	m^3/hr.	KLD
1.	Irrigation & water Department, West Bengal from Subarnarekha River. [3 MGD (13,500 KLD) for 07 months or 224 days]	7,380	335 days	320	7,680
2.	Water Storage Reservoir (surplus water stored)				
3.	Rain Water Harvesting Pond-02 Nos. (Dimension 185 M x 100 M x 6 M and 165 M x 135 M x 6 M)	7,380	30 days		
4.	State Water Investigation Directorate (SWID), West Bengal from Bore Well for 960 KLD. *	300	365 days		
***Ground water will be used for meeting domestic water requirement.**					

19.8.11 The existing power requirement of 08 MW is obtained from Captive power plant & State grid. The power requirement for the proposed project is estimated as 324.9 MW. Total power 332.9 MW will be obtained from the captive power plant {125 MW WHRB Based from DRI Plant + 120 MW CFBC (Coal & Dolochar Mix based) 2 x 60 MW} & 79.9 MW from State Grid power supply system at 220 kV/ 400 kV.

19.8.12 Baseline Environmental Studies:

<table>
<tr><td>Period</td><td>1st March 2021 to 31st May 2021</td></tr>
<tr><td>AAQ parameters at 10 Locations (min and max)</td><td>• $PM_{2.5}$ = 43.4 to 50.8 µg/m^3
• PM_{10} = 66.9 to 80.1 µg/m^3
• SO_2 = 6.4 to 15.3 µg/m^3
• NO_X = 12.3 to 18.1 µg/m^3
• CO = <0.1 to 0.40 mg/m^3</td></tr>
<tr><td>Cumulative Incremental GLC level</td><td>• PM_{10} = 4.24 µg/m^3 (Level at 0.42 km in NE Direction)
• SO_2 = 4.41 µg/m^3 (Level at 0.62 km in NE Direction)
• NO_X = 3.08 µg/m^3 (Level at 0.62 km in NE Direction)
• CO = 1.25 mg/m^3 (Level at 2.7 km in N Direction)</td></tr>
<tr><td>Ground water quality at 8 Locations</td><td>• pH: 6.6 to 7.1,
• Total Hardness: 152 to 178 mg/l,
• Iron: 0.12 to 0.17 mg/l,
• Chloride: 32.1 to 40.4 mg/l,
• Heavy metals (Mercury, Lead, Cadmium & Arsenic): BDL</td></tr>
<tr><td>Surface water quality at 9 Locations</td><td>• pH: 6.2 to 6.9,
• DO: 5.6 to 6.4 mg/l,
• BOD: 4.6 to 6.9 mg/l,
• COD: 14.8 to 21.6 mg/l</td></tr>
<tr><td>Noise levels Leq (Day and Night)</td><td>49.7 to 69.8 for the day time and 39.9 to 59.6 for the Night time.</td></tr>
<tr><td>Traffic assessment study findings</td><td>• Traffic study has been conducted on NH-49 (Formerly NH-6) in South East direction approximately 3.5 km w.r.t to the project site and on State Highway-5 in East direction approximately 1.5 km w.r.t to the project site.
• Transportation of raw material, fuel & finished product will be by existing road (NH-49 followed by SH-5) from railway siding (03 nos. private & 02 no. public railways siding at a distance of 10-30 km) to the plant site.
• Also a dedicated Road Corridor for 100% Material Transportation being constructed. Dedicated road will be constructed within 18 months. Post that material transportation to plant site from railway siding will be by NH-49 followed by dedicated road corridor.
• Existing PCU is 8,416 PCU/hr on NH-49 (Formerly NH-6) & 5,201 PCU/hr on SH-5 and existing level of service (LOS) is:
<table>
<tr><th>Road</th><th>V (Volume in PCU/hr)</th><th>C (Capacity in PCU/Hr)</th><th>Existing (V/C Ratio</th><th>LOS</th></tr>
<tr><td>NH-49 (Formerly NH-6)</td><td>8,416/24 = 351</td><td>3600*</td><td>0.09</td><td>A</td></tr>
<tr><td>State Highway-5</td><td>5,201/24 = 217</td><td>1500*</td><td>0.14</td><td>A</td></tr>
</table>
• PCU load after proposed project will be:</td></tr>
</table>

	<table><tr><td>Road</td><td>V (Volume in PCU/hr)</td><td>C (Capacity in PCU/Hr)</td><td>Existing (V/C Ratio</td><td>LOS</td></tr><tr><td>NH-49 (Formerly NH-6)</td><td>13,748/24 = 573</td><td>3600*</td><td>0.16</td><td>A</td></tr><tr><td>State Highway-5</td><td>10,533/24 = 439</td><td>1500*</td><td>0.29</td><td>B</td></tr></table> * Note: Capacity as per IRC-106:1990 Guide line for capacity for roads. **Conclusion** The level of service is "A" for National Highway 49 (formerly NH-6); and for State Highway-5; to "B" in the LOS value. Thus, it can be concluded that the present road network is good enough to bear the minor increased traffic load.
Flora and fauna	No schedule-I species & endangered fauna were recorded in the core & buffer zone of plant area.

19.8.13 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 (TPA)			Mode of Treatment	Disposal	Remarks
			Existing	Additional	Total			
1	Dolo Char	DRI Plant	**	3,77,400	3,77,400	Not Applicable	100% used in CFBC Boilers.	--
2	Slag & Scale	SMS	**	2,85,600	2,85,600	Recovery of metal & flux from Slag Crushing unit	Used for Road construction/ Land levelling purpose, Paver Block Making after recovering metal from Slag Crushing unit;	--
3	Slag	Ferro Alloys Plant	**	39,600	39,600	Not Applicable	• Slag generated during FeMn production - used as raw material for SiMn production. • Slag generated during SiMn production - used for road construction/land levelling. • After maximum recovery of Chrome from FeCr slag it will undergo TCPL Test & then used in green concreting.	--
4	Bottom Ash	CPP	**	1,50,912	1,50,912	Not Applicable	Used for Road construction/ Land levelling purpose	--
5	Dust	APC Devices of DRI & Ferro Plant	**	2,81,840	2,81,840	Not Applicable	Used in Sinter Plant and Brick Manufacturing, Pelletisation mix	--

S. No.	Type of waste	Source	Quantity (TPA)			Mode of Treatment	Disposal	Remarks
			Existing	Additional	Total			
		APC Devices of SMS	**	1,26,000	1,26,000	Not Applicable	Cement making, Brick Manufacturing & Road construction, in the pellet plant as pelletisation mix	
		APC device of Pellet Plant	30,000	1,06,960	1,36,960	Not Applicable	100% Recycled in the process.	
6	Kiln Accretion	DRI Plant	**	16,044	16,044	Not Applicable	Road Construction	--
7	Tar Sludge	Producer gas plant	20,927	34,877	55,804	Not Applicable	Sold to WBPCB authorized vendor	--
	Coal Tar					Not Applicable		
8	Miss Roll/End Cuts	Rolling Mill	**	50,000	50,000	Not Applicable	Used as raw material in SMS Plant	--
9	Fly Ash	CPP	**	6,43,260	6,43,260	Not Applicable	Used for Brick making and also in Cement Plant	Agreement made with associate companies.
10	Tailing	I/O Beneficiation plant	2,64,700	1,34,570	3,99,270	Not Applicable	Used for Brick manufacturing/ Paver block making, aggregate in concrete, road construction	--
11	Iron oxide Powder from ARP	Rolling Mill	**	1,500	1,500	Not Applicable	Eliminated due to surrendering cold rolling mill with pickling & galvanizing line	--

19.8.14 Public Consultation:

Details of advertisement	• "Millennium Post" (in English) dated 13th December, 2021. • "Aajkaal" (in Bengali) dated 13th December, 2021. • "Sanmarg" (in Hindi) 13th December, 2021.
Date/Time of Public Hearing	13th January, 2022 at 12:00 P.M.
Venue	Jhargram Range Auction Hall, P.O.- Jhargram, Dist.: Jhargram, West Bengal
Presiding Officer	Additional District Magistrate (ZP), Jhargram
Major Issues Raised	1. Environment – APCD, Pollution Control, Housekeeping 2. Employment 3. Road Construction & Development/ maintenance 4. Drinking water facilities 5. CSR Activities related etc. 6. Installation of solar street lights 7. Construction of temple

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

<table>
<tr><th rowspan="2">S. No.</th><th colspan="2">Physical activity and action plan</th><th colspan="3">Year of implementation (Budget in INR)</th><th rowspan="2">Total Expenditure (Rs. in Lakhs)</th></tr>
<tr><th>Name of the Activity</th><th>Physical Targets</th><th>1st</th><th>2nd</th><th>3rd</th></tr>
<tr><td>1.</td><td>Proper action to control pollution</td><td>Most effective and advanced stage technology having techno-economic viability for air pollution control devices of adequate capacity have been installed for existing operational units and will be installed in parallel with implementation of the proposed plant and it will be regularly monitored by dedicated team. Also third party audit / monitoring have been/ will be conducted by approved lab / agency on quarterly basis.

Performance test shall be conducted on all pollution control systems every year and report shall be submitted to Integrated Regional Office of the MoEFCC/ WBPCB with EC compliance report.

Plant is being design as Zero Liquid Discharge plant and entire waste water after treatment used in plant. Once in three months treated waste water quality will be monitored by NABL/ MOEFCC approved laboratory.</td><td colspan="4"><table><tr><th>Description</th><th>Capital cost, Rs. in crore</th><th>Recurring cost Rs. in crore</th></tr><tr><td>Air pollution control</td><td>44.34</td><td>1.88</td></tr><tr><td>Water pollution control</td><td>23.85</td><td>0.90</td></tr><tr><td>Solid Waste Management System</td><td>24.24</td><td>0.77</td></tr><tr><td>Green belt Development</td><td>13.75</td><td>1.00</td></tr><tr><td>Noise pollution control</td><td>10.75</td><td>0.31</td></tr><tr><td>Env. Monitoring and Surveillance System</td><td>14.40</td><td>4.30</td></tr><tr><td>Implementation of Controlling measures to minimize impacts due to transportation and traffic</td><td>7.00</td><td>0.25</td></tr><tr><td>Setting Environmental Laboratory & Environmental Management Cell</td><td>4.00</td><td>0.50</td></tr><tr><td>Total</td><td>142.33</td><td>9.94</td></tr></table></td></tr>
<tr><td rowspan="2">2.</td><td rowspan="2">Local employment</td><td>Maximum employment will be given to the Local youth as per State Government norms based on their knowledge and skill. In addition, vocational training will be given for the employment to local. Total 120 persons will receive stipend of Rs. 12,500 per month for three months training</td><td>Rs. 0.15 Crores</td><td>Rs. 0.15 Crores</td><td>Rs. 0.15 Crores</td><td>Rs. 0.45 Crores</td></tr>
<tr><td>Vocational Training Center for Educated youth of villages and Skill development to unemployed local youth through National Skill Development Corporation, Govt. of India Scheme. (Contribution to DM, Jhargram & ITI, Jhargram- ₹ 5 Lakhs each in 1st year, 2nd Year & 3rd Year)</td><td>Rs. 0.10 Crores</td><td>Rs. 0.10 Crores</td><td>Rs. 0.10 Crores</td><td>Rs. 0.30 Crores</td></tr>
</table>

S. No.	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Lakhs)
	Name of the Activity	Physical Targets	1st	2nd	3rd	
3.	Maintenance, Development & Construction of road in nearby villages	Construction of cement concrete road, development & maintenance of road in villages Jangalkhas Shirshi & Shalboni. (1.0 km in 1st year in Shirshi village, 2.5 km in 2nd year in Jangalkhas-Gadro village and 1.2 km in 3rd year in Shalboni village).	Rs. 0.75 Crores	Rs. 2.0 Crores	Rs. 0.85 Crores	Rs. 3.60 Crores
4.	Drinking water facilities	Bore well (40 Nos.) in villages Ghritakham (Village-08 Nos. & 02 Nos. in 'Sonakuri Temple'), Bagmuri (10 Nos.), Shirshi (0 5 Nos.), Shalboni (5 Nos.) & Jitusole (10 Nos.) – 1st Year three villages (Ghritakham , Shalboni & Shirshi) and in 2nd year two villages (Bagmuri & Jitusole)	Rs. 0.10 Crores	Rs. 0.10 Crores	--	Rs. 0.20 Crores
5.	Installation of solar street lights	Installation of Street Lights with pole (50 Nos. Solar/Led) at suitable public places & road of village Shirshi (20 Nos.) (1st year), Salboni (10 Nos.) (2nd year), Garro (5 Nos.) & Bagmuri (15 Nos.) in (3rd year).	Rs. 0.10 Crores	Rs. 0.05 Crores	Rs. 0.10 Crores	Rs. 0.25 Crores
6.	Construction of Temple	Construction of Temple in village Shirshi (1 No.) in 2nd year.	--	Rs. 0.10 Crores	--	Rs. 0.10 Crores
NEED BASED ACTIVITIES						
7.	Financial Support to the Local School for better education facility, development of infrastructure & library facilities	Jhargram Bikash Bharati Sikshayatan, Jangalkhas in 1st year, Ramakrishna Mission in 2nd year and Jitusole Primary School in 3rd year	Rs. 0.20 Crores	Rs. 0.20 Crores	Rs. 0.20 Crores	Rs. 0.60 Crores
8.	Provision for health care facility	Financial support to charitable Dispensary with specialist doctor, compounder & assistant etc./ Free Health Center at Jitusole for providing free consultation & medicine to nearby villager- Cost for 1 doctor, 02 nurses, Support staffs, medicines etc.	Rs. 0.15 Crores	Rs. 0.15 Crores	Rs. 0.15 Crores	Rs. 0.45 Crores
		Dedicated Ambulance for meeting emergency demand of nearby villagers at Free Health Center at Jitusole	--	Rs. 0.15 Crores	--	Rs. 0.15 Crores
9.	Social infrastructure development	Development of parks, playground & community center in village Jangalkhas-1st year, Jitusole-2nd year & Salboni-3rd year etc.	Rs. 0.10 Crores	Rs. 0.10 Crores	Rs. 0.10 Crores	Rs. 0.30 Crores
10.	Avenue Plantation	Avenue plantation/ development of park in village Salboni (Krish Garden)- -1st Year, & Plantation alongside the state Highway SH-5 near factory and near West End High School, Jhargram in 3rd year.	Rs. 0.20 Crores	Rs. 0.10 Crores	Rs. 0.20 Crores	Rs. 0.20 Crores

S. No.	Physical activity and action plan		Year of implementation (Budget in INR)			Total Expenditure (Rs. in Lakhs)
	Name of the Activity	Physical Targets	1st	2nd	3rd	
11.	Providing collection bins/ dustbin.	Providing 40 nos. of collection bins in villages-Baghmuri (10 nos.)-1st Year, Jitusole (10 nos.)-1st Year, Shirshi-(10 nos.)-3rd year, Ghritakham (10 nos.) -3rd Year	Rs. 0.05 Crores	--	Rs. 0.05 Crores	Rs. 0.10 Crores
Total			**Rs. 1.90 Crores**	**Rs. 3.20 Crores**	**Rs. 1.90 Crores**	**Rs. 7.00 Crores**

19.8.15 The existing capital cost of project was Rs 330 Crores. The capital cost of the proposed project is Rs. 1,500 Crores and the capital cost for environmental protection measures is proposed as Rs. 162.43 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 10.81 Crores. The employment generation from the proposed expansion is 3,000 (Direct additional employment - Regular & Contractual). The details of cost for environmental protection measures is as follows:

S. No.	Description	Existing ECs (Rs. in Crores)		Proposed (Rs. in Crores)	
		Capital cost	Recurring cost	Capital cost	Recurring cost
1	Air pollution control	3.34	0.38	41.00	1.50
2	Water pollution control	3.35	0.10	20.50	0.80
3	Solid Waste Management System	0.74	0.07	23.50	0.70
4	Green belt Development	0.75	0.10	13.00	0.90
5	Noise pollution control	0.25	0.10	10.50	0.30
6	Occupational health Management	0.75	0.15	6.10	0.75
7	Risk Mitigation & Safety Plan	0.25		6.00	
8	Env. Monitoring and Surveillance System	1.50	0.90	12.90	3.40
9	Implementation of Controlling measures to minimize impacts due to transportation and traffic	--	--	7.00	0.25
10	Setting Environmental Management Cell	0.10	0.10	1.50	0.40
11	Setting Environmental Laboratory	1.40		1.00	
13	EMP for Social & Infrastructure development: - Addressal of public consultation concerns. - Need base assessment (Adopting 08 nos. of villages –Salboni, Shirshi, Baghmuri, Jitusole, Garo, Ghritakham, Jangalkhas & Boria) in nearby project area	-		7.00	To be spent in 3 years
	Total	**12.43**	**1.81**	**150.00**	**9.00**

19.8.16 Existing green belt has been developed in 6.81 ha area which is about 33.0% of the total project area of 20.639 ha with total sapling of 21,350 Trees. Proposed greenbelt will be developed in 11.88 ha which is about 20.97% of the total project area. Thus total of 18.69 ha area (33% of total project area) will be developed as greenbelt. A 10-15 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, guidelines. Local and native species will be planted with a density of 2,500 trees per hectare. Total no. of 51,025 saplings (Existing -21,350 + New-29,725) will be planted and nurtured in 18.69 hectares in first two year.

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

Certified compliance report from Regional Office:

19.8.18 The Status of compliance of earlier EC was obtained from Integrated Regional Office, Kolkata vide letter no-102-495/EPE/433 dated 19.10.2022. The Action taken report regarding the partially non-complied condition was submitted to Regional officer MoEF&CC, Kolkata vide letter no. OSPL/ATR/22-23/01 dated 08.11.2022. MoEF&CC (IRO), Kolkata evaluated the same and has issued Certified Closure Compliance report letter vide memo no- no-102-495/EPE/466 dated 15.11.2022. The details of the observations made by IRO in the report dated 19.10.2022 along with its re-assessment/present status as furnished by the PP is given as below.

S. No	Non-compliance details	Observation of IRO	Condition no.			Response by PP	Re-assessment by IRO, Kolkata
			EC date	Specific	General		
1.	Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air-cooled condensers shall be explored and closed-circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.	Sand mounds were observed at the rain water harvesting structure. It is recommended that contour of the rain water harvesting structure should be maintain properly.	22.06.2015	vi		Rain water harvesting structural development work was going on and was kept on hold due to unavailability/ lack of labour because of which sand mound were observed during the day of inspection. Post inspection the same has been removed/ utilised for development of the R.W.H structure and now rain water harvesting structure with connecting drain has been developed completely. The details are:	From the information submitted a photographs provided, it is observed that PAs have removed the sand mound from the rain water harvesting structure. It has been further informed that rain water harvesting structure has been developed with connecting drainage.
	The company shall develop rain water				vii		

S. No	Non-compliance details	Observation of IRO	Condition no.			Response by PP	Re-assessment by IRO, Kolkata
			EC date	Specific	General		
	harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.					02 nos. R.W.H Pond of Dimension 185 M x 100 M x 6.0 M. and another 165 M x 135 M x 6.0	
2.	Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.	PAs have not submitted the report regarding the toxic metal content in the waste material. The same needs to be submitted to the Integrated Regional office		x	--	Toxic metal content in the waste material (dust from air pollution control device) attached with pellet plant and coal ash from Producer Gas plant carried by NABL accredited laboratory.	As per the information provided by PAs, it is observed that Pas have submitted the report regarding the toxic metal content in the waste material (sample collected from dust from air pollution control device attached with pellet plant. Pas have also submitted the TCL testing results of coal ash from producer gas plant). It is observed that the results are within the stipulated standard.

Further in compliance to ToR condition, Verification report has been issued by Integrated Regional Office, MoEFCC, Kolkata vide letter No. - 102-179/07/EPE dated 07.06.2021 of corrective action taken by the project proponent on each of the observations of the sub-committee.

Deliberations by the Committee

19.8.19 The Committee noted the following:

1. The total project area reported in the instant application is 56.656 ha [Private: 55.746 ha; Agriculture: 0.91 ha]. However, the EAC observed that as per the ToR, the area reported was 56.653 ha [Private: 54.60 ha; Agriculture: 2.053 ha]. Thus there is mismatching in the reported area and also the nature of the land. The EAC seeks clarification in this regard alongwith supporting documents. Further, as reported, out of the 56.656 hectare of land, 42.09 hectare of land is already in possession of M/s Orissa Alloy Steel Private Limited & for rest of land (14.57 hectare) consent from private rayat obtained. PP is required to submit

the credible documents showing the status of land acquisition in pursuance to Ministry's O.M. vide F.No. 22-76/2014-IA-III dated 07.10.2014.

2. The EAC deliberated on the solid and hazardous waste disposal plan and observed that details with respect to ferro alloy slag are limited to Ferro Chrome only. PP shall take into consideration the slag generated from Ferro Alloy plant in all forms and accordingly submit plan for management and disposal of the slag. The PP shall revise the EIA/EMP report incorporating all such details.

3. The EAC deliberated on the earlier PH issues and status of issues addressed based on the action plan submitted and noted that the same is not clear from the submission. PP is required to provide the status of the targets achieved as per the Action Plan. The EAC further advised that in case the PP has failed to meet the targets and timelines shall clearly state the reasons and revise the action plan timelines and budget with quantified targets to be achieved latest March, 2024.

4. 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 in the instant proposal and noted that the submitted action plan is very limited and do not justify the cost to address all the PH issues. Action plan submitted to address the PH issues and socio-economic development of the nearby villages shall be revised and submitted as per Ministry's OM dated 30.09.2020. The same shall be submitted in the form of an affidavit signed by the higher authority of the company not below the Director of the company.

5. PP is required to undertake village adoption and formulate Village Adoption program consisting of need-based community development activities to develop them into model villages. PP shall submit details of the villages to be adopted alongwith physical targets and financial aspects.

6. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions and the associated EMP cost and found it unsatisfactory. The EAC is of the opinion that revised EMP cost for the project shall be submitted.

7. The EAC observed that existing project was initially accorded EC in the name of M/s Rashmi Iron Industries Private Limited vide Letter dated 22nd June, 2015 which was transferred to M/s Rashmi Cement Limited vide letter dated 4th October, 2019, further transferred to M/s Rashmi Udyog Private Limited vide letter dated 28.01.2020 and ultimately transferred in the name of M/s Orissa Steel & Power Private Limited vide letter dated 9th June, 2021. PP is required to clarify whether all the other statutory permissions have been transferred in the name of M/s Orissa Steel & Power Private Limited. The PP shall prepare and submit a summary of such permissions in a tabular form along with requisite documents.

8. The Committee noted that there is a confusion in the facilities proposed to be installed in the instant application. As per ToR, PP had proposed for SMS with matching LRF, CCM and oxygen optimized furnace. In the instant EC application PP has proposed for SMS with matching LRF/**AOD**, CCM and oxygen optimized furnace. PP shall submit clarification with respect to AOD furnished in the instant case.

9. The EAC also noted that the as per ToR, PP had proposed for SMS Slag Crusher for a configuration/capacity of 4x25 **TPH**. However, in the brief shared alongwith other documents to all the EAC members through email, PP has mentioned SMS Slag Crusher for a configuration/capacity of 4x25 **TPD.** The EAC advised PP to submit the documents after due diligence only.

10. On perusal of kml file on Google Earth, the Committee noticed that there is Memorial Bird Sanctuary at a distance of approx. 1.7 km from the boundary of the project site. The EAC is of the view that PP shall submit clarification whether the Memorial Bird Sanctuary is notified or not. PP shall confirm in this regard.

11. The Committee noted that PP has revised the resource requirement. As per TOR granted, the water requirement was 7680 m^3/day and power requirement was 320 MW. However, in the instant EC application the water requirement is reduced to 7191 m^3/day and power requirement is increased to 324.9 MW. Also, the raw material requirement has been increased against the quantity approved in the ToR. The Committee observed that PP/Consultant did not bring the changes to the notice of EAC themselves or through EIA/EMP Report and therefore, advised PP/Consultant to be more transparent in the facts presented during the appraisal of the proposal. The EAC also warned the consultant in this regard.

12. In view of above facts, EAC advised PP to revise the EIA/EMP report covering all the desired information for further consideration.

13. The PP/Consultant agreed to the suggestions of EAC and requested EAC to allow reappear after the revision of the application incorporating the desired information.

Recommendations of the Committee

19.8.20 In view of the foregoing and after detailed deliberations, the committee recommended to **defer the proposal** to address the shortcomings enumerated at para no. 19.8.19 above. The proposal may be considered after submission of the requisite information.

***

Agenda No. 19.9

19.9 Setting of 3.2 MTPA Pellet Plant (PP) and 3.6 MTPA Pellet feed cum Beneficiation Plant (BP) by M/s. Resources Pellets Concentrates Private Limited (RPCL), located at Somalapura Village, Sandur Taluk, Bellary District, Karnataka - Consideration of Environmental Clearance.

[Proposal No.: IA/KA/IND1/408033/2022; File No. J- 11011/39/2021-IA I)]
[Consultant: MECON LIMITED; valid up to 09.02.2023]

19.9.1 M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL) has made an online application vide proposal no. IA/KA/IND1/408033/2022 Dated 26.11.2022 along with copy of EIA/EMP report

and Form – 2 seeking Environment Clearance (EC) under the provision of the EIA Notification, 2006 for the project mentioned above. The proposed project activity is listed at schedule no. 3(a) Metallurgical Industries (ferrous & non-ferrous) and 2(b) Mineral Beneficiation under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

19.9.2 Name of the EIA consultant: M/s. Mecon Limited [Sl. No. 49, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0195; valid upto 09.02.2023, Rev. 25, September 05, 2022].

Details submitted by the project proponent

19.9.3 The detail of the ToR is furnished as below:

Date of application	Consideration	Details	Date of accord	ToR Validity
29.01.2021	30th Meeting of the EAC (Industry-1) held on 10th – 11th Feb. 2021.	Terms of Reference in the name of M/s Resource Concentrates Private Limited (RCPL)	26.02.2021	25.02.2025
13.10.2021	-	Transfer of ToR from M/s. Resource Concentrates Private Limited (RCPL) to M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL)	27.10.2021	
22.12.2021	51st Meeting of the Re-constituted Expert Appraisal Committee (Industry-1) held on 11th – 12th Jan. 2022.	Amendment in ToR in the name of M/s. Resource Concentrates Private Limited (RCPL)	27.01.2022	
04.02.2022	Application for name transfer dated 04.02.2022	Corrigendum in ToR Amendment letter dated 27.01.2022 w.r.t. change in name from M/s. Resource Concentrates Private Limited (RCPL) to M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL)	14.03.3022	

19.9.4 The project of M/s. Resource Pellets & Concentrate Pvt. Ltd (RPCL) located in Somalapura Village, Sandur Tehsil, Bellary District, Karnataka is for setting up of a new Pellet and Pellet cum Beneficiation plant for production of 3.2 MTPA Pellets and 3.6 MTPA pellet feed cum Beneficiation plant.

19.9.5 Environmental site settings

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>178.46 ha
(Agriculture land: 26.7 ha; Grazing land: 38 ha and Fallow land: 113.76 ha)</td><td>--</td></tr>
<tr><td>ii.</td><td>Land acquisition details as per MoEF&CC, O.M. dated 7/10/2014.</td><td>Out of 178.46 ha, 116.94 ha acquired already and balance 61.52 is under process of acquisition through KIADB.</td><td></td></tr>
<tr><td>iii.</td><td>Existence of habitation & involvement of R&R, if any.</td><td>Project site: No habitation exists in the plant site. R&R not applicable.

Study Area: The Somallapura and Yeshwantnagara villages are located adjacent i.e. by 1 km distance from the edges of the plant and tailing disposal area.</td><td>--</td></tr>
<tr><td>iv.</td><td>Latitude and Longitude of all corners of the project site</td><td><table><tr><th>S. No.</th><th>Co-ordinates</th></tr><tr><td>1</td><td>Lat: 15°02’23.26” N, Long: 76°30’13.41”E</td></tr><tr><td>2</td><td>Lat: 15°02’00.16” N, Long: 76°30’36.91”E</td></tr><tr><td>3</td><td>Lat: 15°01’42.91” N, Long: 76°30’34.82”E</td></tr><tr><td>4</td><td>Lat: 15°01’32.98” N, Long: 76°30’50.02”E</td></tr><tr><td>5</td><td>Lat: 15°01’17.37” N, Long: 76°30’55.62”E</td></tr><tr><td>6</td><td>Lat: 15°01’09.54” N, Long: 76°30’25.04”E</td></tr><tr><td>7</td><td>Lat: 15°01’26.96” N, Long: 76°30’23.79”E</td></tr><tr><td>8</td><td>Lat: 15°01’35.02” N, Long: 76°30’12.56”E</td></tr></table></td><td>--</td></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>625 to 655 M above mean sea level</td><td>--</td></tr>
<tr><td>vi.</td><td>Involvement of Forest Land, if any</td><td>Nil</td><td>--</td></tr>
<tr><td>vii.</td><td>Water body (Rivers, Lakes, Pond, Nala, Natural Drainage, Canal etc.,) exists within the project site as well as study area</td><td><u>Project Site:</u> One seasonal drain in pellet plant area and two seasonal drain in tailings disposal area.

<u>Study area:</u>

Narihalla stream is passing in the western direction of project site at about 1.5km. Few ponds are located within the study area.</td><td>No major water bodies are located within the study area</td></tr>
<tr><td>viii.</td><td>Existence of ESZ / ESA / National Park / Wildlife Sanctuary / Biosphere Reserve / Tiger Reserve / Elephant Reserve</td><td>Environment Sensitive Area (ESA) as Kumaraswamy temple is located at about 6.06 km from project site in eastern direction.

About 9 reserved forests are located within the study area of 10 km radius from project site. The details of forest are given below:</td><td></td></tr>
</table>

S. No.	Particulars	Details submitted by PP	Remarks
	etc. if any within the study area	1) Kumaraswamy Betta RF - Adjacent, East 2) Somalapura RF - ~0.8 km West-South-West 3) Bandri RF Extension - ~4 km North-West 4) Ramangarh RF - ~1.5 km North 5) Sivapura RF Extension - ~9 km South-West 6) Tumbaraguddi RF - ~6 km South-East 7) SM block RF - ~9.5 km South-East 8) Keriyaginahalli RF extension - ~9.5 km South-West 9) Donimalai RF - 10 km, North-East	
ix.	Others	PP has submitted about 119 trees are identified to clear at project site for which Assistant Conservator of Forest, Bellary Sub-division had visited the project site and given the tree felling permission vide their letter dated 02.02.2022	

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

S. No.	Name	Proposed Units		Total
		Configuration	Production TPA	
1.	Pellet Plant	3.2 MTPA	3200000	3.2 MTPA
2.	Beneficiation Plant	3.6 MTPA	3600000	3.6 MTPA

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

S. No.	Raw material	Quantity (T/Year)	Source	Distance from site	Mode of transportation
1	Iron ore fines	45,00,000 to 50,00,000	Indigenous (Mines belongs to group companies and other mines)	50	Downhill conveyor/ Road
2	Bentonite	27,000	Indigenous (Gujarat/nearby sources)	1500	Rail/road
3	Coke breeze	70,000	Indigenous (Bellary/Gujarat)	1500	Rail/road
4	Limestone/ dolomite	70,000	Indigenous (Bellary/Gujarat)	1500	Rail/road

19.9.8 Water requirement for the proposed project is estimated as 5397 m^3/day, out of which 3919 m^3/day of fresh water requirement will be obtained from the Tunga Bhadra Dam and the remaining requirement of 1478 m^3/day will be met from the rainwater harvesting facilities. The permission for drawl of surface water is obtained from Karnataka Irrigation Corporation Ltd. vides letter no.J.Sam.E21 MTP 2020 dated 23.02.2021.

19.9.9 The power requirement for the proposed project is estimated as 32.6 MVA for which already permission from KPTCL is obtained. Out of which 80% of power requirement is planned from renewable energy in future.

19.9.10 Baseline Environmental Studies

<table>
<tr><th>Period</th><th>March to May 2021</th></tr>
<tr><td>AAQ Parameters at 8 locations</td><td>• $PM_{2.5}$ = 23 to 40 µg/m^3
• PM_{10} = 52 to 73 µg/m^3
• SO_2 = 5.20 to 13.20 µg/m^3
• NO_2 = 9.40 to 19.20 µg/m^3
• CO = 218 to 1542 µg/m^3</td></tr>
<tr><td>AAQ Modeling (Incremental GLCs)</td><td>• PM_{10} = 16.33 µg/m^3 (Within project site)
• $PM_{2.5}$ = 3.95 µg/m^3 (Within project site)
• SO_2 = 3.42 µg/m^3 (Within project site)
• NO_X = 7.33 µg/m^3 (Yeshwantnagar South, 1km)</td></tr>
<tr><td>Groundwater quality at 8 locations</td><td>pH: 6.52 to 7.12, Total Hardness: 340 to 1210 mg/l, Chlorides: 70 to 750 mg/l, Fluoride: 0.7 to 1.4 mg/l, Heavy metals: <0.001 to <0.01</td></tr>
<tr><td>Surface water quality at 9 locations</td><td>pH: 6.71 to 7.21, DO: 4.7 to 6.8 mg/l, BOD: <2 mg/l, COD: 34 to 73 mg/l.</td></tr>
<tr><td>Noise levels at 8 locations</td><td>37.5 to 54.1 DBA for day time and 35.1 to 48.2 DBA for night time.</td></tr>
<tr><td>Traffic assessment studyfindings</td><td>• Traffic study has been conducted at SH 40, Sandur to Kudligi which is approximately 2 km from the plant site.
• Transportation of raw material will be done 100% by road for initial four years. After 4 years the raw material will be transported to site by downhill conveyor. The fuel will be transported by roads in tankers. In future, the fuel will be transported by pipeline if GAIL pipeline comes to Sandur. Regarding finished product i.e. pellets will be transported through Rail.
• Existing PCU is 333 PCU/hr on SH40 and existing Level of Service is “C”.
<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>SH40</td><td>333</td><td>625</td><td>0.53</td><td>C</td></tr>
</table>
• PCU load after proposed project will be 347 PCU/hr and Level of Service (LOS) will be “D”.
<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>SH40</td><td>385</td><td>625</td><td>0.61</td><td>D</td></tr>
</table>
• Note: Capacity as per the IRC 73: 1980 for highways (PCU/Day) = 15000 PCU/day.</td></tr>
</table>

	Conclusion: The level of service will be "D" (Temporary stress on road till downhill conveyors comes) after including additional traffic due to the proposed project. The above scenario is only for initial four years. After 4 years the raw material will be transported via downhill conveyors from the nearby mines instead of roads. During such condition the Level of Service (LOS) is "C" thus no adverse change on SH-40 when compared to existing PCU/hr.
Flora and fauna	Schedule I fauna like Leopard, Sloth bear, Peafowl, Shikra, Monitor lizard and Python are available in the study area as per working plan of forest department. Wildlife conservation plan along with funding provision is prepared and submitted to Deputy Conservator of Forest Bellary division for approval.

19.9.11 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	Tailings	Beneficiation plant	1500000 TPA	-	Stacking in a disposal area
2	Spent Oil	DG Sets, Transformers etc.	3 m^3/year	Sold to authorised vendors as per KSPCB norms	

19.9.12 Public Consultation

Date of advertisement	21 March 2022
Name of newspapers	National Paper (Decan Hearald) Regional Paper (Vijaya Karnataka)
Date on which Public Hearing conducted	22 April 2022
Venue	Project site Somalapura
Attended by	District Magistrate
Issues are	Employment generation, Education facilities to locals, pollution & health related issues to local villagers.

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

Action plan along with the budget provision against Public Hearing issues (Including an additional amount of Rs. 4 Crore against adoption of two more villages) is detailed in below table:

Sl. No.	Issues raised during Public Hearing	Commitment by project proponent	Action Plan	Time frame and budget in lakhs					
				1st year	2nd year	3rd year	4th year	5th year	Total
		About 1000 and 534 persons will be employed during construction and operation respectively. Mostly it will be sourced from the nearby villages.	-	-	-	-	-	-	-
1	Employment generation and area development	Development of surrounding villages will be carried out through CER activities during the construction period of 60 months.	(i) **Drinking water facilities** like installation of RO plants and drilling of bore wells etc.	31	31	27	18	18	**125**
				58	58	54	40	40	**250**
		Further, the development of surrounding areas will be strengthened by CSR funds every year during operation of the plant.	(ii) **Sanitation facilities to villagers** like construction of bathrooms and toilets including soak pits etc.	23	23	22	16	16	**100**
			(iii) **Health camps and awareness programs** in the villages like free medical check-up, providing sanitary pads, free eye cataract surgery, awareness session on health and hygiene etc.	23	23	22	16	16	**100**
				340	340	320	200	200	**1400**
			(iv) **Agricultural livelihood enhancement activities** like supply of seeds, fertilizers, farming equipment etc.	120	120	110	75	75	**500**
				25	25	20	20	10	**100**
			(v) **Development of infrastructure facilities** like construction of roads, bridges, schools, providing solar street lights, community halls etc.	120	120	100	40	20	**400**
			(vi) **Avenue plantation**, plantation in community areas, desilting of existing ponds, rainwater						

Sl. No.	Issues raised during Public Hearing	Commitment by project proponent	Action Plan	Time frame and budget in lakhs					
				1st year	2nd year	3rd year	4th year	5th year	Total
			harvesting facilities etc. (vii) **Education facilities and skill development** program like providing donation to schools for building constructions, distribution of note books to students, distribution of furniture's & laptops, renovation of washrooms in village schools, evening tuition classes for poor students, skill development programs etc. (viii) **Additional amount of Rs. 4 Crore against adoption of two more villages** like Ankamanallu and Dharmapur besides the two nearest ones Somalapura and Yeshwantnagara for carrying out social development activities.						
2	Education for local	An amount of Rs. 100 lakhs are earmarked against the CER head of Education and skill development for local peoples.	Mentioned above in point no. (vii)	25	25	20	20	15	**100**
3	Issues on Pollution	During construction, the measures like wetting of the roads, green belt development, erection of wind curtains and controlled vehicle movement will bring down the fugitive emissions level. Further, a modeling has been carried out to predict the fugitive dust generation during construction and the highest GLC values are occurring within the project site only and also the values	About Rs. 188 Crore is planned to be spent towards pollution control equipment, Rs. 12 Crore is planned to be spent on monitoring system and about Rs. 20 Crore is likely to be incurred towards recurring cost.	-	-	-	-	-	-

Sl. No.	Issues raised during Public Hearing	Commitment by project proponent	Action Plan	Time frame and budget in lakhs					
				1st year	2nd year	3rd year	4th year	5th year	Total
		are well within the AAQ norms. In addition, the nearest villages are Yeshwantnagara and Somalapura from project site. The width of the plantations in the project boundary near villages are about 50m is envisaged to reduce the impact through fugitive dust. **<u>During operation:</u>** To control air pollutions during operation various environmental pollution control measures are adopted in the proposed project like Dust Extraction systems, suitable stack heights, ESP's, Dry fog dust suppression system/secondary dust extraction system, hood extraction, bag filters, water spray as suitable to site, covered conveyors, Process Flue gas cleaning, water sprinklers in tailing disposal area etc. are adopted.							

19.9.13 The capital cost of the proposed project is Rs. 2000 Crore and the capital cost for environmental protection measures is proposed as Rs. 200 Crore. The annual recurring cost towards the environmental protection measures is proposed as Rs. 20 Crore. The employment generation from the proposed project is 534 nos. The details of cost for environmental protection measures is as follows:

Sl. No.	Description of item	Proposed (Rs. In Crores)	
		Capital cost	Recurring cost
1	Air pollution control / Noise management	51.5	5.15
2	Water pollution control	85	8.5
3	Environmental monitoring and management	8.5	0.85
4	Green belt development	5	0.5
5	Occupational health & medical camp, Personal safety equipment, Rain water harvesting system and Municipal solid waste management like Organic Waste Converter	50	5
6	Addressal of public consultation concerns	29.75	-

7	**Details of adoption of villages:** RPCL is planning to have MoU with Karnataka State Rural Development and Panchayat Raj University, Gadag to guide RPCL while undertaking social development activities and PH issues through CER amount of Rs. 29.75 Crore. In this regard, four villages like Somalapura, Yeshwantnagara, Ankamanahalu and Dharmapura is likely to be adopted by RPCL. The amount to be spent against adoption of villages is covered in Sl. No. 6 of above.	-	-

19.9.14 Proposed greenbelt will be developed in 63.67 ha which is about 35.68% of the total project area. A 25m wide greenbelt consisting of 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 159175 saplings will be planted and nurtured in 63.67 hectares in 54 months.

19.9.15 It is submitted that there is no violation under EIA notification 2006/no court cases/no show cause/no direction.

Earlier Application:

19.9.16 M/s. RPCL had earlier made an online application vide proposal no. IA/KA/IND/225778/2021 dated 18.08.2022. The proposal was initially considered in 12th meeting of Re-constituted EAC (Industry-1) held on 30-31st August, 2022. Proposal was deferred for want of additional information and in view of the same, the Committee recommended for site visit of the proposed project area by a sub-committee of EAC Industry-1 members. Accordingly, the EAC (Industry-1) sub-committee conducted a site visit on 22nd September, 2022. Based on the report submitted by the EAC (Industry-1) sub-committee, the proposal was further considered by the EAC (Industry 1) in its 17th meeting of the EAC for Industry-I sector held on 14-16th November, 2022. The pointwise submission was made by the PP during the 17th EAC meeting on the observations/recommendations made by the sub-committee based on the site visit as follows:

S. No.	Observations/Recommendations made by the sub-committee based on the site visit	Submission of PP during the 17th EAC held during 14th – 16th November, 2022
1.	The modelling carried out on GLC indicates that the particulate matter and SO_2 will be within the critical limit for safeguarding human health. Further, the PP should correct the statement cited in their report as mentioning that there is	The predicted incremental load is calculated at project site is about 16.33 µg/m^3 for (PM10) for initially 4 years due to transportation of iron ores by road from nearby mines. After 4 years, it is significantly reduced to 1.08 µg/m^3 as the transportation of iron ores are planned by downhill conveyors from nearby mines.

<table>
<tr><th>S. No.</th><th>Observations/Recommendations made by the sub-committee based on the site visit</th><th>Submission of PP during the 17th EAC held during 14th – 16th November, 2022</th></tr>
<tr><td></td><td>no Archaeological monument within 10 km radius</td><td>This is only for initial duration of four years. However, the mitigation measures like concrete roads, frequent wetting of roads, tarpaulin covered material handling, SOP for vehicle movement are proposed.

<u>Scenario: 1 (for initial 4 years)</u>
<table>
<tr><th>Parameters</th><th>Unit</th><th>Baseline AAQ – C98 (A)</th><th>Predicted GLCs due to the proposed project (B)</th><th>Cumulative AAQ (A+B)</th></tr>
<tr><td>PM_{10}</td><td>µg/m^3</td><td>71.08</td><td>16.33</td><td>87.41</td></tr>
<tr><td>$PM_{2.5}$</td><td>µg/m^3</td><td>38.08</td><td>3.95</td><td>42.03</td></tr>
<tr><td>SO_2</td><td>µg/m^3</td><td>11.76</td><td>3.42</td><td>15.18</td></tr>
<tr><td>NOx</td><td>µg/m^3</td><td>18.38</td><td>6.71</td><td>25.09</td></tr>
</table>
<u>Scenario: 2 (after 4 years)</u>
<table>
<tr><th>Parameters</th><th>Unit</th><th>Baseline AAQ – C98 (A)</th><th>Predicted GLCs due to the proposed project (B)</th><th>Cumulative AAQ (A+B)</th></tr>
<tr><td>PM_{10}</td><td>µg/m^3</td><td>71.08</td><td>1.08</td><td>72.16</td></tr>
<tr><td>$PM_{2.5}$</td><td>µg/m^3</td><td>38.08</td><td>0.66</td><td>38.74</td></tr>
<tr><td>SO_2</td><td>µg/m^3</td><td>11.76</td><td>2.73</td><td>14.49</td></tr>
<tr><td>NOx</td><td>µg/m^3</td><td>18.38</td><td>2.30</td><td>20.68</td></tr>
</table>
Further, the predicted incremental load is added to receptor values (background values) and it is found to be well within the AAQ norms.
Existence of archaeological monument within 10 km radius is corrected and mentioned in the EIA report as “Kumaraswamy temple is located at about 6.06 km from the project site in eastern direction.

There will not be any impact to Kumaraswamy temple since the elevation of temple is higher than plant elevation with a difference of 252m AMSL. In addition, two intervening hillocks with full of greeneries are also present at a height of 1037m each w.r.t. MSL.</td></tr>
<tr><td>2.</td><td>As estimated by the PP, about 1200 tonnes of SO_2 gas will be emitted by the pelletizing Plant, per annum. The severity of this</td><td>➢ Volume of gas from the pellet plant wind box exhaust is 749580 Nm^3/hr.
➢ Standard Norms for SO_2 is 500 mg/Nm^3.</td></tr>
</table>

S. No.	Observations/Recommendations made by the sub-committee based on the site visit	Submission of PP during the 17th EAC held during 14th – 16th November, 2022
	pollution is masked in the modelling calculations because of the huge amount of dilution of the flue gases with air, in the process. Not only the impact on human health, but the impact on the health of the monument also must be considered in this case. Hence, this issue must be scrutinised closely. The PP should ensure that the SO_2 is reduced significantly before the gas leaves the chimney. They should prepare a mitigation plan for this and submit the same for further deliberations by the EAC.	➢ Based on the above, Permissible SO_2 generation is 104.10 g/sec (2878.15 Tonne/year). ➢ SO_2 prediction from Pellet plant wind box exhaust is 37 g/sec (1022.97 Tonne/year) which is 2.8 times lesser than the permissible limit. ➢ Further, the emissions are discharged through 85m tall chimney for proper dispersion in the environment
3.	The PP shall remove tailings from the designated area periodically once in six months and shall execute a MOU with intending parties for the removal of tailings.	As per Para 16 (vii) & 17 of the original TOR dated 26.02.2021, the PP was asked to submit a plan to reduce storage up to 90 days of the tailings generated. However, in view of such condition being impractical and implemented nowhere in the country/world. The PP had thereafter sought an amendment to the above condition. As per the condition 9 & 10 of the amended TOR dated 27.01.2022, the tailings shall be dewatered in filter press and stacked in stable stockpile over an area of 50 acres, as per the design by IIT Delhi after their study (attached report). Further, green belt shall be created in & around stockpiles without disturbing the existing watercourses therein. Nevertheless, efforts shall be made from time to time to remove tailings as much as possible for downstream use in construction activities & an MOU to that effect is signed & submitted. However, it is practically not feasible to commit on its removal every six months or any fixed period because of poor & unstable demand of the said product in the market either domestically or internationally. Pertinently, it may be noted that the EC granted by MOEF CC for similar plants, including some granted in the recent past

S. No.	Observations/Recommendations made by the sub-committee based on the site visit	Submission of PP during the 17th EAC held during 14th – 16th November, 2022
		viz.; Orissa Sponge (submitted) does not have any such compulsion on removal of tailings at a fixed time interval. Further, the prevalent international practice also requires disposing off dry tailings (filter cake) and stacking the same in safe stockpiles with vegetation over it for bio-stabilisation (International Mining News submitted). The Global Industry Standards (published by UNEP, ICMM, and PRI in Aug 2020) also does not mandate periodic removal of tailings from its storage facilities. Pertinently all the major operators in the country including the eight plants in our nearby area (list attached submitted) are still disposing off tailings in a more risky liquid slurry form without any mandate for its periodic removal. Compared to that, our proposed stacking of dry filter cake, as per amended TOR condition, is obviously safer and being first in the state of Karnataka, it deserves to be promoted without any further condition for its periodic removal, until at least the downstream construction industry matures enough to absorb such waste in substantial quantities.
4.	All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented. The PP should prepare a separate chapter to address the representations received at the MoEF&CC directly from the local population.	All the commitments made to the public during PH will be satisfactorily implemented during the construction period of 54 months. The action plan is prepared and the same is covered in Chapter-7, Table 07 – 02. Separate chapter with point wise replies has been prepared against local's representation to MoEF&CC and the same is enclosed as a part of EIA report.
5.	In response to PH query #17, the PP asserts that the predominant wind direction at the site is West-to-East. This is not true. The wind direction changes with season. It appears that the PP is making the	The ToR was issued by MoEF&CC on 26.02.2021, as received ToR immediately the baseline data generation at site was carried out during March to May 2021 considering the north-east monsoon starts from July to Sep. in Karnataka.

S. No.	Observations/Recommendations made by the sub-committee based on the site visit	Submission of PP during the 17th EAC held during 14th – 16th November, 2022
	assertion based on the Wind Rose Diagram for the season March-May. However, in the Bellary region, the wind blows South-West to North-East during December - February. The PP should reanalyse the Wind Rose diagram for the other seasons also and examine the wind direction and speed and reuse the data accordingly. This has a lot of relevance to the erosion of the tailings-mound.	In addition, the following mitigation measures have been adopted to reduce the impact if any on the neareby villages. ➢ Width of 25m Green belt is planned all along the periphery ➢ About 15.90 ha land of green belt is envisaged near villages within the project site ➢ Frequent road wetting, WT roads, SOP for vehicle movement is envisaged ➢ Vegetation is planned (bio-stabilization) on the tailings slope to arrest the dust if any ➢ In addition, the dust will not be generated from tailings stack due to compactness in nature
6.	The PP obtained the ToR mentioning that furnace oil would be replaced with LNG in future, implying that the use of FO was a temporary arrangement. The PP has categorically stated during the visit of the sub-committee that replacement of FO with LNG has been abandoned forever. The PP shall adhere the statement made in ToR.	During subcommittee site visit, RPCL informed that presently LNG pipeline is not available at Sandur. In future the FO will be replaced with LNG against the availability of LNG pipeline in Sandur. In addition, already dual burner arrangements of 20 nos. in induration machine are envisaged.
7.	The industry has to report on the existence of other industries within a radius of 10 K.M. (Page 52, E.I.A. Report) as required by ToR. However, the PP has reported industries only within 5 K.M. radius (page 75, E.I.A. Report). The PP should correct this and report on industries within 10 Km radius as prescribed in the ToR issued by the Ministry.	Complied. About 9 mining industries are located within 5 km radius and 2 Beneficiation plants are located 5 to 10 km radius. The industry details are mentioned in Chapter-2, Clause 02.04.03, 2) page no. 16 and in subsequent slide for immediate reference.
8.	For streams within project area, PP should proceed for preparation of contour with a Permanent Bench Mark established and all streams shall be protected and a water conservation Plan shall be	Water conservation plan like 4 storm water tanks with different capacities with suitable garland drains are envisaged to harvest the surface run-off generated from the plant. The location of tanks is selected in the lower most area as per contour plan to ensure the natural gravity flow.

S. No.	Observations/Recommendations made by the sub-committee based on the site visit	Submission of PP during the 17th EAC held during 14th – 16th November, 2022
	prepared. For Narihalla stream, the PP should prepare a conservation plan with a construction of retaining wall or earthen bund of sufficient height to safeguard. Proper mitigation measures may be adopted to protect the nallah/drains as well as Narihalla stream. A water conservation plan for the water bodies present in the project site is essential with respect to contouring of the area and PP to ensure that no disposal of drainage inside the project area shall be letting into the natural water bodies exist within and around project site. PP further to ensure that the Narihalla stream is also safeguarded by preparing a conservation plan with the help of contouring.	Mitigation measures like Green belt width of 15m along with suitable height of retaining wall is planned in the vicinity of water bodies/nallah near tailings disposal area. Proper drainage system is planned to divert the entire surface run-off generation in the tailings disposal area to avoid any discharge to Narihalla stream. Necessary precautions have already been taken care that no drainage inside the project area will be let into the natural water bodies exist within and around the project site.
9.	As discussed with PP on site, a detailing of layout plans for Green Belt within site and outer periphery @ 30M width, Land use plans, Roads with proper traffic channelization in the context of movement of fire tenders, Indexing indicating all activities, Contours with water conservation plan with respect Bench Mark, Area statement, Drainage disposal within site area safeguarding existing streams etc shall be prepared in a separate drawing as discussed in detail. No diversion of any stream or nallaha shall be permitted in the project site. Further the PP shall submit revised Water Balance data.	As suggested by sub committee during site visit, 25 m wide green belt is planned all along the periphery with three tier system. About 63.67 ha, i.e., 35.68% green belt is planned within the project site and its boundary. Land use plans, area statements, roads of 4, 7, 10 and 12m width of about 17 km length is considered in the context of movement of fire tenders / trucks. Water conservation plan with 4 storm water tanks of different capacities with suitable garland drains are envisaged and the location of tanks is finalised as per contour plan. The revised plan is shown in below drawing and the same is covered in Chapter-2, Fig. 02 – 04, page no. 13. No diversion of existing nallah/stream is planned. The water balance is revised and the present make-up water consumption per day is 5397 m^3/day in place of 6600 m^3/day as per issued ToR. Make-up water requirement: Min 3919 m^3/day and max 5397 m^3/day is required. ZLD concept is envisaged.

S. No.	Observations/Recommendations made by the sub-committee based on the site visit	Submission of PP during the 17th EAC held during 14th – 16th November, 2022
10.	The Green belt of about 25-30m depth may be developed in the vicinity of water bodies/Nallah/drain/stream. Further PP to ensure a thick Green belt all around project boundary within the project site with three tier system. The revised plan shall be submitted to the EAC for further deliberation.	As suggested by subcommittee during site visit, Green belt width of 15m along with suitable height of retaining wall is planned in the vicinity of existing water bodies/nallah near tailings disposal area. Width of 25m green belt is planned all along the periphery with three tier system. The revised plan is shown in below drawing and the same is covered in Chapter-2, Fig. 02 – 04, page no. 13.
11.	The PP to prepare a land use plan for land which is acquired and remaining which is not yet acquired giving boundary area with proper indexing.	Complied. The same is shown in the submitted drawing and the same is covered in Chapter-2, Fig. 02 – 02, page no. 11.
12.	The PP to provide a proposed Green Belt Plan for the project site as per EIA notifications 2006 with different colour code in the index.	Complied. The same is shown in the submitted drawing and the same is covered in Chapter-2, Fig. 02 – 04, page no. 13.
13.	The PP to provide a layout plan showing all internal roads networks for smooth traffic flow, including fire tender as per NBC. Road network shall connect all service areas in layout. This drawing shall include area statement showing plot area, area under roads, parking, green belt with calculations and % with respect to plot area of project site and proper indexing.	Complied. The same is shown in the submitted drawing and covered in Chapter-2, Fig. 02 – 04, page no. 13.

After deliberations, the Committee recommended the proposal to be **returned in its present form** to address the technical/factual errors observed in the proposal form on PARIVESH and the documents submitted by project proponent and submit the updated EIA/EMP report along with all the details after rectification of the issues.

19.9.17 M/s. Resource Pellets & Concentrate Pvt Ltd (RPCL) has again made an online application vide proposal no. IA/KA/IND1/408033/2022 Dated 26.11.2022 after addressing the issues. The proposal was considered in the 19th meeting of the EAC for Industry-I sector held on 16th & 19th December, 2022. The deliberations and recommendations of EAC are as follows:

Written representations:

19.9.18 During the meeting, based on the deliberations made by the EAC, the project proponent vide email dated 22.12.2022 submitted the following information:

- With reference to clarification from the local DCF regarding the project area not falling under Forest area, PP has once again checked their project boundary (kml map) with reference to the Forest boundary (coordinates received from local Forest office Sandur) and found that there is no forest land involved in their project area (plan submitted for ready reference). However, as discussed in the said meeting, PP has also submitted a letter vide No. RPCL/22-23/C-101 dated 21.12.2022 to the DCF office Bellary for necessary clarification that there is no Forest land involved in their project (Copy submitted).

- PP has further submitted that will submit the reply from DCF as soon as they receive it & also undertake that if at all any forest land is found to be involved on examination by the DCF, PP is ready to forgo & drop that area from their project area.

Deliberations by the Committee

19.9.19 The Committee noted the following:

1. The instant proposal is for setting up of a new Pellet and Pellet cum Beneficiation plant for production of 3.2 MTPA Pellets and 3.6 MTPA pellet feed cum Beneficiation plant.
2. The Committee further noted the following from the subcommittee's site visit report:
   2.1. Ancient Temple of Kumarswami and Narsimha swami temple was located after two consequent hillocks of about 1200 m height (above MSL) at a distance of approx. >6.50 km from the project site. The Chimney height is around 80 M in the project area. The project area is about 650 above MSL.
   2.2. Seasonal drains/Nallah of about 2-5 m width were observed within the proposed project site. Diversion of about 350 m Nallah may be needed within the project site. The Narihalla stream is passing in the western direction of project site at about 1.5km. Few ponds are located within the study area. The EAC is of the opinion that the water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.
   2.3. About 1500000 TPA solid waste (Tailings) will be generated from the beneficiation plant that shall be stacked in a disposal area.
3. The total project area is about 178.46 ha. Out of 178.46 ha, 116.94 ha acquired already and balance 61.52 is under process of acquisition through KIADB.
4. Somalapura (Population: 863 nos) and Yeshwantnagara (Population: 6847 nos) are in close proximity to the project site.
5. The total water requirement for the project is estimated as 6600 m^3/day, which will be obtained from Tunga Bhadra Dam.

6. The PP has reported that about 119 trees are identified to be felled in the proposed site for which Assistant Conservator of Forest, Bellary Sub-division had visited the project site and given the tree felling permission vide their letter dated 02.02.2022.

7. Schedule I fauna like Leopard, Sloth bear, Peafowl, Shikra, Monitor lizard and Python are available in the study area as per working plan of forest department. Wildlife conservation plan along with funding provision is prepared and submitted to Deputy Conservator of Forest Bellary division for approval.

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

9. The Committee deliberated on the action plan and budget allocation for green belt development and found it satisfactory.

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

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

12. The EAC also deliberated on the representation dated 30.08.2022 received against the project raising objection for issuance of EC for 3.2 MTPA pellet Plant to M/s RPCL, Sandur, Karnataka and taking into account the submission of PP along with site visit of sub-committee (Industry-1) found it satisfactory.

13. The EAC observed that as per decision support system, one very small piece of land in the proposed site was apparently visible as forest land. The PP confirmed that there is no forest land in the proposed site. The EAC is of the view that as the decision support system is a guiding tool, PP may be asked to recheck and verify it. Further, before commencing any activity, PP should ensure that no forest land is proposed in the project area. The EAC deliberated on the written representation of the PP and is of the view that PP shall submit clarification/NOC from the State Forest Department that the proposed project site does not fall in the forest land.

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.

Recommendations of the Committee:

19.9.20 In view of the foregoing and after detailed deliberations, the Committee **recommended** the instant proposal for grant of Environment Clearance **subject to uploading the letter on PARIVESH portal** (from State Forest Department certifying that the proposed project site do not fall in the forest land), 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 Conditions:

i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
iii. Seasonal drains/Nallah of about 2-5 m width were observed within the proposed project site. Diversion of about 350 m Nallah may be needed within the project site. The Narihalla stream is passing in the western direction of project site at about 1.5km. Few ponds are located within the study area. 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.
iv. Somalapura (Population: 863 nos.) and Yeshwantnagara (Population: 6847 nos.) are in close proximity to the project site. Project Proponent shall prepare and implement an action plan for environmental safeguard measures to minimise the impact on the habitation of the locals. The company shall also include these locations in its environmental monitoring programme.
v. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.
vi. 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.
vii. Three tier Green Belt shall be developed in a time frame of one year with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
viii. There are around 190 nos. of trees proposed to be felled at the project site. PP shall explore the possibility to limit the tree felling to bare minimum and with the permission from Competent Authority. The compensatory afforestation shall be done as per the guidelines of the Forest Department.

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

x. 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.

xi. Dust emission from all the stacks shall be less than 30 mg/Nm^3.

xii. 6600 m^3/day of water requirement shall be met from Tunga Bhadra Dam. No ground water abstraction is permitted for expansion project.

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

xiv. The proposed project shall be designed as "Zero Liquid Discharge" Plant. No waste water will be discharged outside the plant boundary.

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

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

xvii. 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.

xviii. 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.

xix. The PP shall obtain a certificate from the State Forest Department that the project site doesn't have any forest land before commencing of the activities.

xx. 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. <u>General conditions</u>

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 04 Nos. Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

iii. Sampling facility at process stacks and at quenching towers shall be provided as per CPCB guidelines for manual monitoring of emissions.

iv. 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.

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

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

vii. 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.

viii. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.

ix. 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).

x. Land-based APC system shall be installed to control coke pushing emissions.

xi. Monitor CO, HC and O2 in flue gases of the coke oven battery to detect combustion efficiency and cross leakages in the combustion chamber.

xii. 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.

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

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

III. Water quality monitoring and preservation

i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R 277 (E) dated 31st March 2012 (Integrated iron & Steel); G.S.R 414 (E) dated 30th May 2008 (Sponge Iron) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time 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. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.

iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.

v. Tyre washing facilities shall be provided at the entrance of the plant gates.

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

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

i. 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. Ensure installation of regenerative/recuperative type burners on all reheating furnaces.

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.

VII. Green Belt

i. Green belt shall be developed in an area equal to 33% of the plant area with native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant

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

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

VIII. Public hearing and Human health issues

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

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

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

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

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

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

X. Miscellaneous

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

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

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

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

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

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

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

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

ix. 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).

x. 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.

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

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

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

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

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

***

Agenda No. 19.10

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

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

19.10.1 Shree Cement Limited has made an online application vide proposal no. IA/RJ/IND1/407182/2022 dated 2nd December, 2022 along with copy of EIA/EMP Report, Forms (Part A, B and C) and Certified Compliance Report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006, as amended thereof for the project mentioned above. The proposed project activity is listed at schedule no. 3(b) Cement Plants and 1(d) Thermal Power Plants under Category "A" of the schedule of the EIA Notification, 2006 and appraised at Central Level.

19.10.2 Name of the EIA consultant: M/s. J.M. EnviroNet Pvt. Ltd. [S. No. 41, List of ACOs with their Certificate / Extension Letter no. NABET/EIA/2023/RA 0186 valid up to 07.02.2023, Rev. 25, Sept 05, 2022].

Details submitted by Project proponent

19.10.3 The details of the ToR are furnished as below:

Date of Application	Consideration	Details	Date of accord	ToR Validity
11th May, 2022	Standard ToR was issued by MoEF&CC	Standard Terms of Reference	08th June, 2022	07th June, 2026

19.10.4 The project of M/s. Shree Cement Limited located at Gothra Village, Nawalgarh Tehsil, Jhunjhunu District, Rajasthan is for expansion in existing Environmental Clearance granted

capacity of Integrated Cement Plant - Clinker: 2.0 to 4.5 Million TPA, Cement: 4.0 to 6.0 Million TPA, Waste Heat Recovery Power Generation: 20 to 40 MW and installation of Captive Power Plant: 25 MW, DG Sets of 2000 KVA (1000/500/250/125 KVA) along with Railway Siding.

19.10.5 Environmental Site Settings:

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>i.</td><td>Total land</td><td>Total Land Area of the Integrated Cement Plant Site including township is 153.62 ha; Out of which, 3.92 ha. land widening and construction of connecting area excluded for Road. The Effective land area of Integrated Cement Plant including residential colony is 149.70 ha; Out of 149.70 ha i.e., effective area of the site, 135.34 ha is for the Integrated Cement Plant (including 49.2 ha common area of plant & mine lease) and remaining 14.36 ha area is reserve for residential Colony.</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 and R&R is not applicable.
Study Area:
<table>
<tr><th>Habitation</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Gothra</td><td>~0.50 Km</td><td>NE</td></tr>
<tr><td>Dhani Kanakawali</td><td>~1.50 Km</td><td>WSW</td></tr>
<tr><td>Jhajhar</td><td>~1.50 Km</td><td>WNW</td></tr>
<tr><td>Basawa</td><td>~2.0 Km</td><td>SSW</td></tr>
<tr><td>Keswa Ki Dhani</td><td>~2.0 Km</td><td>NE</td></tr>
<tr><td>Neharon Ki Dhani</td><td>~3.0 Km</td><td>SSE</td></tr>
<tr><td>Bhairoo Ki Bas</td><td>~3.0 Km</td><td>NNW</td></tr>
</table>
There are approx. 43 other villages in 10 km radius study area.</td><td>-</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>1.</td><td>27°48'03.82"N</td><td>75°19'47.11"E</td></tr>
<tr><td>2.</td><td>27°47'33.39"N</td><td>75°20'32.69"E</td></tr>
<tr><td>3.</td><td>27°47'59.02"N</td><td>75°20'26.98"E</td></tr>
<tr><td>4.</td><td>27°47'14.43"N</td><td>75°20'27.46"E</td></tr>
<tr><td>5.</td><td>27°47'54.68"N</td><td>75°20'25.51"E</td></tr>
<tr><td>6.</td><td>27°47'22.98"N</td><td>75°19'41.33"E</td></tr>
<tr><td>7.</td><td>27°47'53.97"N</td><td>75°20'28.85"E</td></tr>
<tr><td>8.</td><td>27°47'35.64"N</td><td>75°19'37.49"E</td></tr>
<tr><td>9.</td><td>27°47'36.13"N</td><td>75°20'20.64"E</td></tr>
<tr><td>10.</td><td>27°47'35.92"N</td><td>75°19'44.51"E</td></tr>
</table>
</td><td>-</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th><th>Remarks</th></tr>
<tr><td>v.</td><td>Elevation of the project site</td><td>415 m to 422 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 area</td><td>Plant site: No water body exists within the plant site.
Study area: Following water body fall within 10 km radius:<table><tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr><tr><td>Udaipur Lohagarh Ki Nadi</td><td>~4.0 km</td><td>ENE</td></tr></table></td><td>-</td></tr>
<tr><td>viii.</td><td>Existence of ESZ/ESA/national park/ wildlife sanctuary/ biosphere reserve/tiger reserve/elephant reserve etc. if any within the study area.</td><td>Nil.</td><td>-</td></tr>
<tr><td>ix</td><td>Interlinked Project</td><td>• Limestone Mine (ML No.: 47/2007& ML Area: 624 ha.) with existing production capacity of 3.2 Million TPA located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the mine has been obtained from MoEF&CC, New Delhi vide letter no. J-11011/1173/2007-IA II (I) dated 15th July, 2009 (valid up to 14th July, 2039).
• To cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application for Gothra Limestone Mine with limestone production capacity from 3.2 to 6.822 Million TPA is under process with MoEF&CC.</td><td></td></tr>
</table>

19.10.6 The existing project was initially accorded Environmental Clearance from MoEF&CC, New Delhi for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Ltd.; further validity of same for 3 years was extended vide letter dated 29th September, 2016; which was expired on 14th July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines upto 14th July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted

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

<table>
<tr><th>Facilities Envisaged</th><th>Consent Status (CTE)</th><th>Implementation Status</th><th>Production details as per CTE</th></tr>
<tr><td>Clinker</td><td rowspan="2">Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited granted by RSPCB vide letter no. F(CPM)/Jhunjhunu (Nawalgarh)/2(1)/2018-2019/ 7228-7230 and vide Order No. 2018-2019/CPM/5424 dated 28.02.2019
Validity: 14.06.2018 to 31.05.2023</td><td rowspan="3">At present, the project is under construction of utilities & infrastructure development and yet not operational.</td><td>2.0 Million TPA</td></tr>
<tr><td rowspan="2">Cement</td><td rowspan="2">3.0 Million TPA</td></tr>
<tr><td>Additional Cement production capacity 1.0 Million TPA Cement located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) of Shree Cement Limited granted by RSPCB vide letter no. F(CPM)/ Jhunjhunu (Nawalgarh)/ 2(1)/2018-2019/636-638 and vide Order No. 2021-2022/CPM/5701 dated 15.06.2021
Validity: 02.03.2021 to 28.02.2026</td><td>1.0 Million TPA</td></tr>
<tr><td>CPP</td><td rowspan="2">Captive Power Plant of 36 MW, WHRS of 20 MW located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan) granted by RSPCB vide letter no. F(CPM)/Jhunjhunu(Nawalgarh)/2(1)/2018-2019/7793-7795 and vide Order No. 2018-2019/CPM/5447 dated 26.03.2019
Validity: 14/06/2018 to 31/05/2023</td><td rowspan="2">At present, the project is under construction of utilities & infrastructure development and yet not operational</td><td>36 MW</td></tr>
<tr><td>WHRS</td><td>20 MW</td></tr>
</table>

19.10.7 Implementation status of the existing EC:

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

19.10.8 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 03rd February, 2021						Proposed Unit*		Final (Existing + Proposed)	
		Total (A + B)		Implemented (A)		Un - implemented (B)					
		Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity	Configuration	Capacity
1.	Clinker*	Kiln: 1 x 6700 TPD	2.0 Million TPA	-	-	Kiln: 1 x 6700 TPD	2.0 Million TPA	Kiln: 1 x 7500 TPD	2.5 Million TPA	Kiln: 1 x 13500 TPD	4.5 Million TPA
2.	Cement	VRM / Ball mill with Roller Press: 1 x 13400 TPD	4.0 Million TPA	-	-	VRM / Ball mill with Roller Press: 1 x 13400 TPD	4.0 Million TPA	VRM 2 x 9000 TPH	2.0 Million TPA	VRM 18000 TPH	6.0 Million TPA
3.	CPP	CPP Boiler 1 x 136 TPH	25 MW	-	-	CPP Boiler 1 x 136 TPH	25 MW	-	-	CPP Boiler 1 x 136 TPH	25 MW
4.	WHRS	PH & AQC Boiler (20 MW)	20 MW	-	-	PH & AQC Boiler (20 MW)	20 MW	PH & AQC Boiler (20 MW)	20 MW	PH & AQC Boiler (40 MW)	40 MW
*Clinker will also be sent to the sister grinding units, market sale (through rail and road) and will also be received from outside or sister units of SCL, if clinker unit is not in operation or in case of shortfall of clinker.											

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

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

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

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

SN	Raw Material	Requirement (in Million TPA) for Cement Production ***								Source	Distance (in km) and Mode of transportation
		Existing Capacity as per granted EC **				Total Capacity after expansion					
		OPC / RHPC/ SRC	PPC	PSC	Composite Cement	OPC / RHPC/ SRC	PPC	PSC	Composite Cement		
Total		**2.15**	**4.0**	**4.0**	**4.0**	**6.0**	**6.0**	**6.0**	**6.0**	**-**	**-**

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

** As per granted EC & CTE/ Under construction phase

*** Cement production will be done 6.0 Million TPA only either from various options as OPC/RHPC/SRC/PPC/PSC/Composite Cement.

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

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

19.10.12 Baseline Environmental Studies:

Period	Winter Season (December, 2021 to February, 2022)
AAQ parameters at 12 locations	• $PM_{2.5}$ - 25.1 to 46.1 µg/m^3 • PM_{10} - 51 to 83.7 µg/m^3 • SO_2 - 5.3 to 13.8 µg/m^3 • NO_2 - 10.6 to 25.5 µg/m^3 • CO - BDL to 0.78 mg/m^3
Incremental GLC level	• PM = 2.29 µg/m^3 (Level at 100 m in SE direction) • SO_2 = 2.41 µg/m^3 (Level at 700 m in SE direction) • NO_x = 3.97 µg/m^3 (Level at 900 m in SE direction) • CO = 0.000307 mg/m^3 (Level at 100 m in SE direction)
Ground water quality at 09 locations	• pH - 7.63 to 7.96 • Total Hardness - 155.45 to 255.65 mg/l • Chlorides –79.65 to 186.32 mg/l • Fluoride - 0.76 to 1.16 mg/l • Heavy Metals - Iron as Fe: 0.14 to 0.26 mg/l
Surface water quality	Surface water sample could not be collected as the water body is seasonal water body (Udaipur Lohagarh Ki Nadi at ~4.0 Km in ENE direction) and was found dry during the monitoring period.
Noise levels at 08 locations	Noise Level During Day Time –50.9 to 65.6 Leq dB (A) Noise Level During Night Time –40.9 to 43.6 Leq dB (A)

<table>
<tr><td>Traffic assessment study findings</td><td>

Traffic study has been conducted at SH –8 which is approximately 8.0 km in WNW direction and from Village Road connecting to MDR-25B; which is adjacent to plant site.
Transportation of raw material & finished product will be done as per details given below:
Limestone - via Covered Conveyor belt from Captive Limestone Mine
Fly ash - 100% by road
Gypsum (Mineral, Chemical & Imported) – 50% by road & 50 % by rail
Slag - 50 % by road & 50 % by rail
Iron ore - 50 % by road & 50 % by rail
Bauxite - 50 % by road & 50 % by rail
Clinker – 50 % by road & 50 % by rail
Cement - 50 % by road & 50 % by rail.
PCU load after proposed project will be 471.45 (Existing) + 247 (Additional) PCU/hr on SH –8 and 61.9 (Existing) + 199.75 (Additional) at on Village Road connecting to MDR-25B and level of service (LOS) will be:

<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– 8</td><td>471.45 (Existing) + 247 (Additional)</td><td>1200</td><td>0.59</td><td>C</td></tr>
<tr><td>Village Road connecting to MDR-25B</td><td>61.9 (Existing) + 199.75 (Additional)</td><td>625</td><td>0.42</td><td>C</td></tr>
</table>
** Capacity as per IRC- 64-1990 & 106-1990 Guidelines.*
Conclusion: The level of service will be “C” i.e., Good for SH - 8 and village road connecting to MDR-25B due to expansion project (before installation of railway siding).

PCU load after expansion project (After installation of Railway Siding) will be 471.45 (Existing) + 137 (Additional) PCU/hr. on SH –8 and 61.9 (Existing) + 111.25 (Additional) at on Village Road connecting to MDR-25B and level of service (LOS) will be:

<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 –8</td><td>471.45 (Existing) + 137 (Additional)</td><td>1200</td><td>0.50</td><td>C</td></tr>
<tr><td>Village Road connecting to MDR-25B</td><td>61.9 (Existing) + 111.25 (Additional)</td><td>625</td><td>0.27</td><td>B</td></tr>
</table>
** Capacity as per IRC- 64-1990 & 106-1990 Guidelines.*
Conclusion: The level of service will be “C” i.e., Good for SH- 8 and “B” i.e., Very Good for village road connecting to MDR-25B after including additional traffic due to expansion project (after installation of railway siding).
SCL’s proposal for installation of railway siding will turns out to be beneficial to the environment in terms of global CO_2 emission reduction, reduction in GHG emission and ultimately will lead to achieve Sustainable Development Goal for the Indian Railway sector.
</td></tr>
<tr><td>Flora and fauna</td><td>Two schedule - I species i.e., Indian Peafowl (Pavo cristatus) & Desert Cat (Felis libyca) recorded in the study area during field survey; which are categorized as Schedule - I according to (IWPA) Indian Wildlife Protection Act’ 1972.</td></tr>
</table>

	Wildlife Conservation Plan for all the Schedule- I species has been authenticated by PCCF (Wildlife) Jaipur on 26th Nov., 2020. The total budget allocated for implementation of Peafowl and Desert Cat Conservation is Rs. 16.60 Crores for the implementation period of 10 years.

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

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

S. No.	Type of Waste	Waste	Source	Quantity Generated (Approx.)	Mode of Treatment / Disposal
					Management rules 2016, as amended thereof.

19.10.14 Public Consultation:

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

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

S. No.	Physical Activity and action plan		Unit of Measurement			Tentative Budget (Rs. in lacs)
	Name of the activity	Physical Targets	1st Year	2nd Year	3rd Year	
1.	*Employment Related*	Establishment of Skill Development Training Centre	01 Centre (Village Gothra & Basawa)	01 Centre (For Villages Parasrampura & Jhajhar)	01 Centre (Chaoudhani & Deogaon)	30
2.	*Women Empowerment*	Development of Women Empowerment Centre for Socio economic development	01 Centre (For Village Parasrampura & Gothra)	01 Centre (For Village Deogaon)	01 Centre (For Village Jhajhar)	40
3.	*Education and Sports Facilities*	Upgradations/Renovation of Classrooms in Schools of nearby Villages	Village Gothra, Jhajhar & Choudhani	Village Parasrampura	Village Basawa	70
		Development & modification of Playground and providing necessary sports equipment	Village Parasrampura & Gothra	Village Deogaon	Village Keswa Ki Dhani	110
4.	*Rural Infrastructure Development*	Construction of Stadium facilities	Village Parasrampura	Village Parasrampura	Village Parasrampura	200
		Construction and strengthening of road network at nearby Villages connecting with SH-8 & SH-37	01 No (Village Gothra, Project site & Village Choudhani)	02 No. (Villages Jhajhar & Nawalgarh)	02 No. (Villages Dholakhera)	350
		Infrastructure development at Goshala	02 No (Village Gothra & Deogaon)	02 No. (Villages Choudhani & Basawa)	01 Nos (Village Jhajhar)	70
		Construction of Toilets in Nearby Villages.	02 No. (Villages Khirod & Basawa)	02 Nos (Villages Gothra & Parasrampura)	02 No. (Village Chaurhani & Jhajhar)	30
		Upgradation/Renovation of Community Centers	02 Nos (Villages Gothra & Devgaon)	02 No. (Villages Choudhani & Basawa)	02 No. (Villages Jhajhar & Parasrampura)	60

S. No.	Physical Activity and action plan		Unit of Measurement			Tentative Budget (Rs. in lacs)
	Name of the activity	Physical Targets	1st Year	2nd Year	3rd Year	
		Installation of Solar lights	20 Nos (Villages Gothra & Basawa)	20 No. (Villages Deogaon & Choudhani)	20 No. (Villages Khirod & Pujaron ki Dhani)	15
5.	*Ground Water Conservation*	Restoration of Water ponds / percolation tanks by desilting, clearing the water paths, strengthening the banks etc., and Development of wells and stepwells	02 No. (Villages Gothra & Jhajar)	02 Nos (Villages Basawa & Keswa Ki Dhani)	02 No. (Villages Todpura & Parasrampura)	45
		Rain water harvesting on Govt. School Building	03 No. (Villages Gothra, Parasrampura & Basawa)	02 Nos (Villages Chaurhani & Poojari Ki Dhani)	01 Nos (Village Devgaon)	18
6.	*Safe Drinking Water*	Construction of Water Tanks in Nearby Villages	03 Nos. (Villages Gothra, Khirod, Todpura)	02 Nos (Villages Balriya & Parasrampura)	01 No. (Village Poojari Ki Dhani)	35
		Installation of Water Coolers to provide safe drinking water at community places & Schools	05 No. (Village Gothra , Basawa, Pujaron ki Dhani, Jhajhar & Keswa ki Dhani)	04 No. (Villages Choudhani, Devipura, Khirod & Todpura)	04 No. (Village Parasrampura, Beri, Bhijnagar & Nawalgarh)	13
7.	*Health*	Providing Mobile Medical Van (medicine & checkup) and organizing Health camps in nearby Villages	02 Nos (Villages Gothra, Basawa & Poojari ki dhani)	02 Nos. (Villages Parasrampura & Khirod)	01 No. (Villages Todpura)	35
		Renovation and construction of Community health center Health Centre	02 Nos (Village Khirod & Gothra)	02 Nos (Villages Basawa & Parasrampura)	01 Nos (Village Pujari Ki Dhani)	50
		Provide medical investigating equipment and need based support Material set	02 Nos (Village Gothra & Deogaon)	02 Nos (Villages Todpura & Khirod)	01 No. (Village Parasrampura)	25
8.	*Plantation & Agricultural and animal Husbandry*	Upgrading Facilities in veterinary hospital	2 no. (Village Gothra & Deogaon)	2 no. (Village Chaurhani & Basawa)	01 Nos (Village Jhajhar)	15
		Awareness and aid for organic farming in the nearby villages	03 Nos. (Villages Gothra, Khirod, Deogaon)	02 Nos. (Villages Parasrampura & Basawa)	01 No. (Village Jhajhar & Pujaro Ki Dhani)	21
		Plantation in nearby Villages along the roads, Govt offices and available free space in nearby Villages	4000 nos. saplings (2000 saplings each at Villages Gothra and Deogaon)	1000 nos. saplings in village Choudhani	1000 nos. saplings in village Parasrampura	18
Total						**1250**

19.10.15 Existing capital cost of the project was Rs. 1660 Crores. The capital cost for the after expansion is Rs. 3407.1 Crores & the capital cost for environmental protection measures is proposed as Rs. 171.03 Crores. The annual recurring cost towards the environmental protection measures

for expansion is Rs. 8.8 Crores/ annum. The employment generation from the expansion project is 1500 people. The details of cost for environment protection measures are as follows:

S. No.	Description of Item	Existing (Rs. In Crores)		Proposed (Rs. In Crores)	
		Capital Cost	Recurring Cost	Capital Cost	Recurring Cost
i.	Air Pollution Control/ Noise Management	45	0.6	142.1	5.83
ii.	Water Pollution Control	0.5	0.06	17.2	1.9725
iii.	Environment Monitoring and management	3	0.3	3.66	0.4205
iv.	Greenbelt Development	0.2	0.02	6.175	0.3088
v.	Hazardous Waste Storage & Handling	-	-	0.5	0.075
vi.	Occupational Health & Safety	0.3	0.02	0.75	0.075
vii.	Organic Waste Converter & Its Facilities	-	-	0.15	0.0225
viii.	Others (Housekeeping and Municipal Waste Management)	-	-	0.5	0.075
	Total	**50**	**1.00**	**171.04**	**8.81**
ix.	Addressal of Public Consultation concerns	16.3	-	12.5	-
x.	Details of adaption of village, if any	-	-	1.25	-
	Grand Total	**66.3**	**1.00**	**184.79**	**8.81**

19.10.16 Greenbelt & Plantation is being / will be developed in ~49.40 ha which is about ~33 % of the total effective project area of 149.70 ha. Existing greenbelt has already been developed in 3.7 ha area (6476 Nos saplings) which is about 2.47% of the total project area, balance 45.70 ha (1,17,024 Nos saplings) will be developed. Native Plant species such as Neem, Amla, Imli, Shisham, Bargad, Pipal, Karanj, Mango, Gulmohar, Amaltas, Senjana, Shahtut, Siris, Gurhal, Arjun, Dubai Tree, Semal, Saptaparni, Palash, Jamun etc. is being/ will be planted @ 2500 Trees per hectare with 90% survival rate as per consultation with local forest officer and as per CPCB guidelines.

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

Certified compliance report from Regional Office

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

Deliberations by the Committee

19.10.19 The Committee noted the following:

1. The existing project was initially accorded EC from MoEF&CC, New Delhi for Integrated Cement Plant (Clinker: 2.0 Million TPA, Cement: 3.0 Million TPA), CPP: 36 MW, WHRS: 15 MW and Limestone Mine (ML Area: 624 ha) with limestone production capacity of 3.2 Million TPA; further validity of same for 3 years was extended vide letter dated 29th September, 2016; which was expired on 14th July, 2019 for Integrated Cement Plant, whereas the same EC is valid for Captive Limestone Mines upto 14th July, 2039. Due to expiry of earlier granted EC, a fresh EC of Integrated Cement Plant on same project site with revised capacities (Clinker: 2.0 Million TPA, Cement: 4.0 Million TPA, Waste Heat Recovery Power Generation: 20 MW, Captive Power Plant: 25 MW and D.G. Sets of 2000 KVA) was granted by MoEF&CC vide letter dated 3rd February 2021. Integrated Cement Plant with production capacity 2.0 Million TPA Clinker, 3.0 Million TPA Cement, granted by RSPCB vide letter dated 28.02.2019. Based on EC obtained from MoEF&CC, the project is under construction of utilities & infrastructure development and yet not operational.

2. The EAC noted that instant proposal is a part of Interlinked project. Limestone Mine (ML No.: 47/2007& ML Area: 624 ha.) with existing production capacity of 3.2 Million TPA located at Village: Gothra, Tehsil: Nawalgarh, District: Jhunjhunu (Rajasthan). Environmental Clearance for the mine has been obtained from MoEF&CC, New Delhi vide letter no. J-11011/1173/2007-IA II (I) dated 15th July, 2009 (valid up to 14th July, 2039). To cater the limestone requirement after Expansion of Integrated Cement Plant from Environmental Clearance granted Capacity, a separate EC application (Proposal No. IA/RJ/MIN/272197/2022 dated 11.05.2022) for increase of limestone production capacity from 3.2 to 6.822 Million TPA was submitted to MoEF&CC. The proposal was considered in the 53rd EAC meeting of Non-Coal Mining (NCM) Sector held during 28th – 29th June, 2022. The project proponent submitted the proposal for Terms of Reference for Expansion in Limestone Production Capacity from 3.2 Million TPA to 6.822 Million TPA (Total Excavation: 27.298 Million TPA). *After, the detailed deliberations, the Committee (NCM) noted that the project proponent has started production in the year 2021-22 and has achieved a production of 478.18 tonnes only out of the 3.2 MTPA production limit granted in the earlier Environmental Clearance letter dated 15.07.2009. Also, the Committee (NCM) observed that that there will be an instant shock load on the environment by jumping twice the production capacity granted in previous Environmental Clearance. The EAC (NCM) felt that the Environmental Management Plan (EMP) which is in place cannot be fully tested at this juncture since the production capacity reached by the project proponent is way beyond the prescribed limit. The EAC (NCM) was of the opinion that this project must first achieve at least 50% capacity of the EC granted for generating pragmatic baseline data for appraisal by the Committee. Furthermore, the project proponent is advised to submit the compliance in terms of plantation, efficacy of EMP on the maximum production that it achieves before seeking expansion. Therefore, the Committee (NCM) deferred the proposal.* The EAC noted that PP has hided this information and these facts are not submitted before the EAC neither in presentation nor in the Report. In view of the same, the EAC (Industry-1) seeks clarification from the PP

regarding fulfilling the limestone requirement for the proposed expansion in the instant application.

3. On perusal of kml file, the EAC noted that there are number of the schools adjacent to the project site (Three corners of the boundary of the project) and within the study area. However, PP has not reported this neither in the EIA/EMP Report nor in the Presentation. The EAC also observed that there is a habitation inside the project boundary, though PP has reported that there is no habitation within the plant site and hence R&R is not applicable. Further PP has reported that the nearest habitation to the project site include Gothra (0.5 Km, NE), Dhani Kanakawali (1.5 km, WSW), Jhajhar (1.5 km, WNW), Basawa (2 km, SSW), Keswa Ki Dhani (2 Km, NE), Neharon Ki Dhani (3 km, SSe) and Bhairoo Ki Bas (3 km, NNW). There are approx. 43 other villages in 10 km radius study area of the project site**. Considering the Environmental Sensitivity to the adjacent schools and habitation in the area, the EAC opined that it is prudent to inspect the area for understanding the ground reality as the area appears to have rich habitation.**

4. 1000 m^3/day water is proposed for the expansion project which is proposed to be sourced from STP Treated Water of Nagar Palika, Nawalgarh/ Ground Water/ Mine Pit. The EAC deliberated on water consumption and consequently the ETP/STP capacity and is of the view that the quantity of water requirement is not justified and there is a need to understand the water balance along with the source of water available near the project site as PP has also proposed the ground water as source of water.

5. The PP shall submit the compliance status of earlier commitments and its implementation status along with details of expenditures on the issues raised during the PH while granting the EC in February 2021.

6. Existing greenbelt (GB) is developed in 3.7 ha area (6476 Nos saplings) only which is about 2.47% of the total project area. The Committee deliberated that EC was granted long back in 2009 and further in 2021 and still the greenbelt development is very poor. The GB width along plot boundary is too small. It must be around 40 m to incorporate 3 tier GB design. Further for 49.40ha of Gb the PP to plant 123500 trees. PP shall ensure around 1200cum water per day for the proposed GB sustainability.

7. Thus, in view of the above observations the EAC is of the opinion that it is pertinent to undertake site visit to understand the ecological/environmental sensitivity of the area to the schools and local habitation, fulfilment of raw material (limestone), water consumption, sources & treatment proposed in project, greenbelt development at the project site.

Recommendations of the Committee:

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

***

Consideration of TOR Proposal

Agenda No. 19.11

19.11 Regularization of Rolling Mill for production of 33,600 TPA Flat Bars, Round Bars and Angle Bars and 36,000 TPA Stainless Steel forging by M/s Viraj Profiles Private Limited, Located at Plot no. G-75, 76 & S.No.40/3/2, District-Palghar, Maharashtra – Consideration of TOR

[Proposal no. IA/MH/IND1/402956/2022; File No. IA-J-11011/313/2022-IA-II(IND-I)]

19.11.1 Consideration of the proposal was deferred as the Project Proponent did not attend the meeting. The Member Secretary appraised the Committee that PP vide letter dated 18.12.2022 sent through email dated 19.12.2022 has informed that they are unable to attend the meeting due to some unavoidable circumstances. Taking into consideration the communication from the PP, EAC requested the Ministry to place the proposal in the EAC meeting only after receiving further request/communication from project proponent.

The meeting ended with thanks to the Chair.

***

ANNEXURE –1

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

Preliminary requirements:

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

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

Structure of EIA/EMP report

Executive Summary

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

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

iii. Executive Summary

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

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

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

IV. Anticipated impacts

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

V. Alternative analysis
VI. Environmental Monitoring program
i. Ambient air, noise, water and soil quality
ii. Emission and discharge from the plant
iii. Green belt
iv. Social parameters

VII. Additional studies
i. Risk assessment
ii. Public consultation
iii. Action plan to address the issues raised during public consultation as per MoEF&CC O.M. dated 30/09/2020

VIII. Project benefits
IX. Environment management plan
i. Air quality management plan
ii. Noise quality management plan
iii. Solid and hazardous waste management plan
iv. Effluent management plan
v. Storm water management plan
vi. Occupational health and safety management plan
vii. Green belt development plan
viii. Socio-economic management plan
ix. Project cost and EMP implementation budget.

EIA/EMP Report

1. Introduction

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

2. Project description

A. Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State.
ii. Site accessibility
iii. A digital toposheet in pdf or shape file compatible to google earth of the study area of radius of 10km and site location preferably on 1:50,000 scale. (including all eco-sensitive areas and environmentally sensitive places).

iv. Latest High-resolution satellite image data having 1 m - 5 m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc., along with delineation of plant boundary co-ordinates. Area must include at least 100 m all around the project location.

v. Environment settings of the site and its surrounding along with map.

vi. A list of major industries with name, products and distance from plant site within study area (10km radius) and the location of the industries shall be depicted in the study area map.

vii. In case if the project site is in vicinity of the water body, 50 meters from the edge of the water body towards the site shall be treated as no development/construction zone. If it's near the wetland, Guidelines for implementing Wetlands (Conservation and Management) Rules, 2017 may be followed.

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

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

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

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

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

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

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

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

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

i. Status of Forest Clearance for the use of forest land shall be submitted.
ii. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife if the project site located within notified Eco-Sensitive Zone, 10 km radius of national park/sanctuary wherein final ESZ notification is not in place as per MoEF&CC Office Memorandum dated 8/8/2019.
iii. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, Eco-sensitive Zone and Eco-sensitive areas, the project proponent shall submit the map duly authenticated by Divisional Forest Officer showing the distance between the project site and the said areas.
iv. Wildlife Conservation Plan duly authenticated by the Competent Authority of the State Government for conservation of Schedule I fauna along with budget and action plan, if any exists in the study area.

C. Salient features of the project

i. Products with capacities in **Tons per Annum** for the proposed project.
ii. If expansion project, status of implementation of existing project, details of existing/proposed products with production capacities in Tons per Annum.
iii. Site preparatory activities.
iv. List of raw materials required and their source along with mode of transportation.
v. Other than raw materials, other chemicals and materials required with quantities and storage capacities.
vi. Manufacturing process details along with process flow diagram of proposed units.
vii. Consolidated materials and energy balance for the project.
viii. Total requirement of surface/ ground water and power with their respective sources, status of approval.
ix. Water balance diagram
x. Details of Emission, effluents, hazardous waste generation and mode of disposal during construction as well as operation phase.
xi. Man-power requirement.
xii. Cost of project and scheduled time of completion.
xiii. In case of expansion projects, project proponent shall submit structural stability certificate showing whether existing structure withstand for proposed expansion activity.
xiv. Brief on present status of compliance (Expansion/modernization proposals)
    a. Cumulative Environment Impact Assessment for the existing as well as the proposed expansion/modernization shall be carried out.
    b. In case of ground water drawl for the existing unit, action plan for phasing out of ground water abstraction in next two years except for domestic purposes and shall switch over to 100 % use of surface water from nearby source.
    c. Copy of all the Environment Clearance(s) including Amendments/validity of extension/transfer of EC, there to obtained for the project from MoEF&CC/SEIAA shall be attached as Annexures. A Certified Compliance Report (CCR) of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change/ or concerned authority as per OM

No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022 on the status of compliance of conditions stipulated in all the existing environment clearances including amendments shall be provided. A Certified Compliance Report (CCR) issued by the concerned Authority shall be valid for a period of one year from the date of inspection.

d. In case the existing project has not obtained Environment Clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. A proper justification needs to be submitted along with documentary proof. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 1994 or 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of CTO from the Regional Office of the SPCB shall be submitted, as per OM No. IA3-22/10/2022-IA.III [E 1772581], dated 8th June, 2022. CCR on CTO conditions issued by the concerned SPCBs/PCCs shall be valid for a period of one year from the date of inspection of the project.

3. Description of the Environment

i. Study period

ii. Approach and methodology for data collection as furnished below.

Attributes	Sampling		Remarks
	Network	Frequency	
A. Air Environment			
Micro-Meteorological • Wind speed (Hourly) • Wind direction • Dry bulb temperature • Wet bulb temperature • Relative humidity • Rainfall • Solar radiation • Cloud cover • Environmental Lapse Rate	Minimum 1 site in the project impact area	1 hourly continuous	• IS 5182 Part 1-20 • Site specific primary data is essential • Secondary data from IMD, New Delhi • CPCB guidelines to be considered.
Pollutants • $PM_{2.5}$	At least 8-12 locations	As per National Ambient Air Quality Standards, CPCB Notification.	• Sampling as per CPCB guidelines • Collection of AAQ data (except in monsoon season) • Locations of various stations for different
• 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. • The monitoring stations shall be based on the NAAQM standards as per GSR 826(E) dated 16/11/2009 and take into account the predominant wind direction, population zone and sensitive receptors including reserved forests, • Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAAQM Notification of 16/11/2009 along with min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
B. Noise			
• Hourly equivalent noise levels	At least 8-12 locations	As per CPCB norms	-
C. Water			

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

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

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

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

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

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

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

Activity	Environment	Ecological	Socio-economic
Construction phase			
Operation phase			

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

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

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

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

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

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

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

b. Operation phase

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

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

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

5. Analysis of Alternatives (Technology & Site)

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

6. Environmental Monitoring Program

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

iv. Action plan for **post-project environment monitoring matrix**:

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

7. Additional Studies

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

ii. Details of adoption/ implementation status/plan to achieve the goal of Glasgow COP26 Climate Submit with regard to enhance the non-fossil energy, use of renewable energy, minimization of net carbon emission and carbon intensity with long-term target of "net Zero" emission.

iii. Implementation status/measures adopted for avoiding the generation of single used plastic waste.

iv. In cases the project is located in Critically and Severely Polluted Areas, additional mitigation measures adopted and detailed action plan to be submitted in the EIA/EMP Report as per MoEF&CC O.M. No. 22-23/2028-IA.III dated 31/10/2019 and MoEF&CC O.M. No. 22-23/2028-IA.III dated 5/07/2022 has to be submitted.

v. Public consultation details (Entire proceedings as separate annexure along with authenticated English Translation of Public Consultation proceedings).

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

vii. Summary of issues raised during public consultation along with action plan to address the same as per MoEF&CC O.M. dated 30/09/2020

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

viii. Risk assessment

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

ix. Emergency response and preparedness plan

8. Project Benefits

i. Environment benefits

ii. Social infrastructure

iii. Employment and business opportunity
iv. Other tangible benefits

9. Environment Cost Benefit Analysis

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

10. Environment Management Plan (Construction and Operation phase)

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

11. Conclusion of the EIA study

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

****

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.

******

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.

*****

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

******

ANNEXURE-3

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

S. No.	Name	Position	16/12/2022	19/12/2022
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	***Present***	***Present***
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. B. N. Mohapatra, 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 E, MoEFCC	Member Secretary	***Present***	***Present***
MoEFCC				
15.	Dr R P Rastogi	Scientist C	***Present***	***Present***
16.	Dr Sandeepan BS	Scientist B	***Present***	***Present***

ANNEXURE-4

Approval of EAC Chairman

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

Re: Compiled Draft minutes of the 19th EAC Meeting held on 16th and 19th December 2022 for approval of Chairman (EAC-Industry 1 Sector)-Regarding

From : rajivekumar1983@gmail.com Tue, Dec 27, 2022 09:48 AM

Subject : Re: Compiled Draft minutes of the 19th EAC Meeting held on 16th and 19th December 2022 for approval of Chairman (EAC-Industry 1 Sector)-Regarding

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

Cc : chairman eac ind 1 <chairman.eac.ind.1@gmail.com>, ranganathan metals <ranganathan.metals@gmail.com>, ranjitnitj@gmail.com, rajuevr60@gmail.com, sksinghdce@gmail.com, dshome61@gmail.com, tejaswini acf <tejaswini.acf@gmail.com>, sshemant 801 <sshemant_801@rediffmail.com>, NCCBM DIRECTOR GENERAL <dg@ncbindia.com>, Nazimuddin <nazim.cpcb@nic.in>, Raghavan S <raghuharihar@gov.in>, raghuharihar@yahoo.co.in, Sanjay Bist <sanjay.bist@imd.gov.in>, drjkpandey eac industry1 <drjkpandey.eac.industry1@gmail.com>

Dear Dr Lal
The draft minutes are approved.
Kindly do needful.

Best wishes
Rajive Kumar
Chairman- Industry-1

***