



**File No: No.IA-J-11011/554/2017-IA.II(I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**IA Division**  
**\*\*\***



Date **20/11/2023**



To,

M/s. MAITHAN STEEL AND POWER LTD  
9, AJC Bose Road, Ideal Centre, 6th floor, Kolkata , Kolkata, KOLKATA, WEST BENGAL, , 700017  
Email: madhur@maithangroup.com

**Subject:** **Expansion of Sponge Iron Plant (1,76,000 TPA to 4,20,000 TPA), Ferro Alloy Plant (30,000 TPA to 70,000 TPA) & Captive Power Plant (20 MW to 32 MW) along with existing Iron Ore Sinter Plant (80,000 TPA) & Iron Ore Washery Plant (2,40,000 TPA) by M/s Maithan Steel & Power Limited, located at Village-Bonra, P.O-Bonra, P.S-Neturia, Tehsil Neturia, District Purulia, West Bengal –Grant of Environmental Clearance under the provisions EIA Notification, 2006 - regarding.**

Sir/Madam,

This refers to your proposal no **IA/WB/IND1/423883/2023** dated **13.09.2023** along with copy of EIA report, Forms (Part A, B and C) seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A1003WB5773006N
(ii) File No.	No.IA-J-11011/554/2017-IA.II(I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous),1(d) Thermal Power Plants
(vi) Sector	Industrial Projects - 1 Expansion of Sponge Iron Plant (1,76,000 TPA to 4,20,000 TPA), Ferro Alloy Plant (30,000 TPA to 70,000 TPA) & Captive Power Plant (20 MW to 32 MW) along with existing Iron Ore Sinter Plant (80,000 TPA) & Iron Ore Washery Plant (2,40,000 TPA)
(vii) Name of Project	
(viii) Name of Company/Organization	MAITHAN STEEL AND POWER LTD

(ix) Location of Project (District, State)	PURULIA, WEST BENGAL
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

3. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is covered schedule 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.

4. The proposal is considered in the 46<sup>th</sup> meeting of the EAC for Industry-I sector held during on 9<sup>th</sup> 11<sup>th</sup> October, 2023, wherein the Committee, after detailed deliberations, recommended the proposal. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at <https://parivesh.nic.in>.

5. The details of the proposal are as per the EIA/EMP report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meetings of EAC (Industry 1 Sector) are given at **Annexure 1**, Unit configuration and capacity are given at **Annexure II** and PH action plan given at **Annexure III**.

6. The EAC, in its meeting held during on 9<sup>th</sup> to 11<sup>th</sup> October, 2023, inter-alia, deliberated the following:

1. The instant proposal is for expansion of Sponge Iron Plant (1,76,000 TPA to 4,20,000 TPA), Ferro Alloy Plant (30,000 TPA to 70,000 TPA) & Captive Power Plant (20 MW to 32 MW) along with existing Iron Ore Sinter Plant (80,000 TPA) & Iron Ore Washery Plant (2,40,000 TPA).

2. The existing project was accorded Environmental clearance vide letter no. IA-J-11011/554/2017-IA. II (I) dated 26<sup>th</sup> July 2021. Consent to Operate (CTO) for the existing unit was obtained from WBPCB vide CFO No. CO134698 dated 31.08.2023. The validity of CTO is up to 31.08.2028.

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

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

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

6. The EAC took into consideration the drone survey of the project site and kml file on the Google Earth presented by the project proponent along with DSS of the project site and made following deliberations accordingly.

7. The existing plant area is 13.78 hectares (34.05 acres) and additional area required for expansion is 4.37 hectares (10.8 acres), hence after expansion, the total plant area will be 18.15 hectares (44.85 acre). The complete land is under possession of the Company. PP has submitted the documents pertaining to Land use conversion of the existing project area i.e. 13.78 ha.

8. Saontal Motha (~ 0.2 km, SSW), Dhangajor (~ 0.9 km, ENE), Goaladih (~0.9 km, West) and Bonra (~ 1.0 km, NW) and other sensitive areas falls within the study area of the project site. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on the habitation of the locals.

9. Machkanda Jora is at distance of 0.8 km in the East direction of the project site within the study area from the project site. The EAC is of the opinion that water body shall not be disturbed. Mitigation measures w.r.t. safeguarding the water body shall be prepared and implemented.

10. The total water requirement after expansion will be 2750 KLD which will be obtained from Damodar River as per the Agreement with DVC. The EAC deliberated on the water requirement and found is satisfactory.

11. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and is of the

opinion that PP shall strictly implement the mitigation measures as per the submitted action plans to minimise the pollution.

12. Existing green belt has been developed in 4.5 ha, area which is about 17.8 % of the total project area of 13.78 ha with total sapling of 6150 no. of trees and remaining 5100 no. of trees will be planted in the 15.2 % of the plant area during the operation of EC accorded project. Proposed Greenbelt will be developed in 1.5 ha which is about 33% of the total project area. Thus, total of 6 ha area (33% of total project area) will be developed as a greenbelt. As committed, by July, 2024, MSPL will complete the greenbelt along the periphery and available space inside the plant during construction phase (8250 no. of plants). Balance of the greenbelt (3000 no. of plants) will be planted after completion of construction work (i.e. by the end of year 2024). For the proposed expansion project, additional greenbelt of 1.5 ha (3750 no. of plants) will be developed by end of year 2025-26. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that PP shall complete the greenbelt development within the stipulated timeframe.

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

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

15. The Committee also deliberated on the revised EMP submitted by the proponent and found it satisfactory.

16. The Committee also deliberated the CCR report of IRO, MoEFCC and found it satisfactory.

17. The EAC also deliberated on the other points submitted through written submission by the project proponent and found it satisfactory.

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

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

20. The EAC also reviewed the EC conditions (specific and general) pertaining to Industry-I projects and observed that some of the specific conditions stipulated so far in the previously recommended EC projects are common and applicable to most of the projects in general. In view of the same, the General Conditions (in case of EC projects) have been revised through reallocation of these common conditions from specific to General Conditions (in case of EC projects). Accordingly, the instant project is also being stipulated with the modified General conditions.

7. The EAC, in its 46<sup>th</sup> meeting of Expert Appraisal Committee (Industry-1 Sector) held during 9<sup>th</sup> to 11<sup>th</sup> October, 2023, based on information & clarifications provided by the project proponent and after detailed deliberations **recommended** the instant proposal for grant of Environment Clearance under the EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

8. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1 Sector) hereby decided to grant **Environment Clearance** for instant proposal of **M/s Maithan Steel & Power Limited** under the provisions of EIA Notification, 2006 subject to specific conditions and general conditions at **Annexure IV**.

9. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

10. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

11. Any appeal against this environmental clearance 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.



12. The above conditions shall be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

13. This issues with approval of the competent authority

(Dr. R. B. Lal)  
Scientist 'F'/Director  
Tel: 011-20819346  
Email-rb.lal@nic.in

**Copy To**

1. The Secretary, Department of Environment, Government of West Bengal, Secretariat Kolkata.
2. The Secretary, Department of Forests, Government of West Bengal, Kolkata.
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.
4. The Principal Chief Conservator of Forests, Government of West Bengal, Block LA, 10A Sector-III, Salt Lake City, Kolkata-700098.
5. The Deputy Director General of Forests (C), Integrated Regional Office, Ministry of Environment, Forest and Climate Change, IB-198, Sector-II, Salt Lake City, Kolkata – 700106
6. The Member Secretary, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. The Member Secretary, West Bengal State Pollution Control Board, Paribesh Bhawan, 10A- Block LA, Sector –III, Salt Lake City, Kolkata – 700 098.
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi 110001.
9. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
10. District Collector, Purulia District, West Bengal.
11. Guard File/Monitoring File/Website/Record File/ Parivesh Portal

**Annexure 1**

**Additional EC Conditions**

The specific and General Conditions are attached herewith.

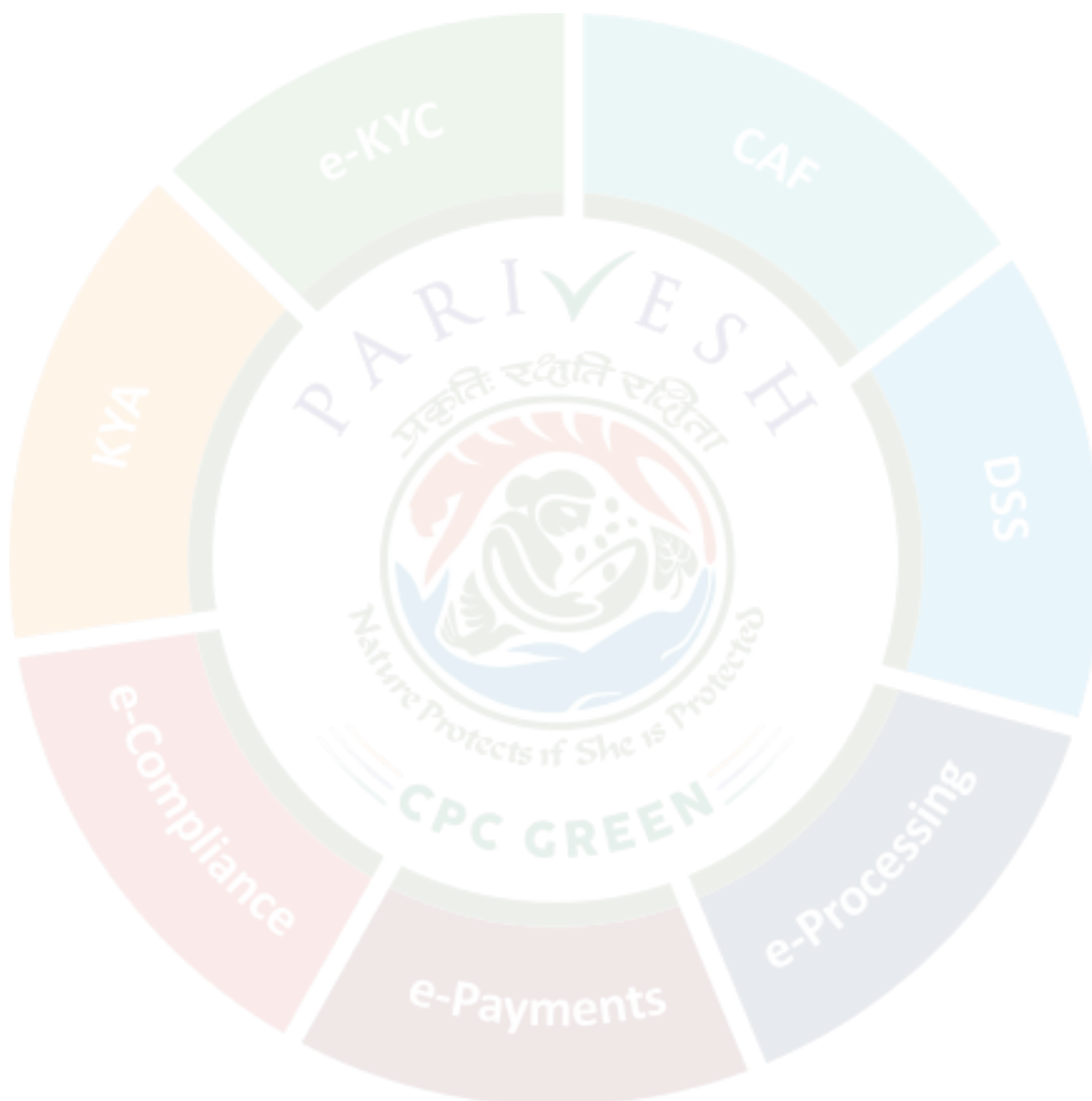
## Annexure I

The salient features of the proposal as presented during the meetings of EAC

S. No.	Particulars	Details																																																																											
a.	Terms of Reference for undertaking EIA study	02.07.2022																																																																											
b.	Period of baseline data collection	March to May, 2022																																																																											
c.	Date of Public Consultation	16.01.2023																																																																											
d.	Action plan to address the PH issues	An amount of Rs. 90.5 Lakhs has been earmarked for implementation of the commitments made during Public Hearing and need based activities. Detail of activities proposed attached as <b>Annexure III</b> .																																																																											
e.	Location of the project	Village-Bonra, P.O-Bonra, P.S-Neturia, Tehsil Neturia, District Purulia, West Bengal																																																																											
f.	Latitude and Longitude of the project site	<table> <tr> <th>Point</th><th>Latitude</th><th>Longitude</th></tr> <tr> <td colspan="3">Part A</td></tr> <tr> <td>A</td><td>23°38'10.82"N</td><td>86°50'7.05"E</td></tr> <tr> <td>B</td><td>23°38'8.51"N</td><td>86°50'7.45"E</td></tr> <tr> <td>C</td><td>23°38'7.84"N</td><td>86°50'8.93"E</td></tr> <tr> <td>D</td><td>23°37'52.39"N</td><td>86°50'12.58"E</td></tr> <tr> <td>E</td><td>23°37'47.26"N</td><td>86°50'4.41"E</td></tr> <tr> <td>F</td><td>23°37'47.17"N</td><td>86°50'1.05"E</td></tr> <tr> <td>G</td><td>23°37'52.42"N</td><td>86°49'57.13"E</td></tr> <tr> <td>H</td><td>23°37'55.81"N</td><td>86°49'59.20"E</td></tr> <tr> <td>I</td><td>23°37'58.26"N</td><td>86°50'1.58"E</td></tr> <tr> <td>J</td><td>23°37'58.69"N</td><td>86°50'1.05"E</td></tr> <tr> <td>K</td><td>23°37'59.51"N</td><td>86°50'0.45"E</td></tr> <tr> <td>L</td><td>23°37'59.98"N</td><td>86°49'59.81"E</td></tr> <tr> <td>M</td><td>23°38'1.60"N</td><td>86°49'58.06"E</td></tr> <tr> <td>N</td><td>23°38'5.38"N</td><td>86°50'4.24"E</td></tr> <tr> <td>O</td><td>23°38'7.19"N</td><td>86°50'2.82"E</td></tr> <tr> <td>P</td><td>23°38'8.15"N</td><td>86°50'3.46"E</td></tr> <tr> <td>Q</td><td>23°38'9.58"N</td><td>86°50'4.56"E</td></tr> <tr> <td>R</td><td>23°38'10.36"N</td><td>86°50'5.57"E</td></tr> <tr> <td colspan="3">Part B</td></tr> <tr> <td>A</td><td>23°37'51.92"N</td><td>86°50'12.68"E</td></tr> <tr> <td>B</td><td>23°37'48.73"N</td><td>86°50'14.06"E</td></tr> <tr> <td>C</td><td>23°37'45.99"N</td><td>86°50'9.40"E</td></tr> <tr> <td>D</td><td>23°37'45.43"N</td><td>86°50'3.73"E</td></tr> </table>	Point	Latitude	Longitude	Part A			A	23°38'10.82"N	86°50'7.05"E	B	23°38'8.51"N	86°50'7.45"E	C	23°38'7.84"N	86°50'8.93"E	D	23°37'52.39"N	86°50'12.58"E	E	23°37'47.26"N	86°50'4.41"E	F	23°37'47.17"N	86°50'1.05"E	G	23°37'52.42"N	86°49'57.13"E	H	23°37'55.81"N	86°49'59.20"E	I	23°37'58.26"N	86°50'1.58"E	J	23°37'58.69"N	86°50'1.05"E	K	23°37'59.51"N	86°50'0.45"E	L	23°37'59.98"N	86°49'59.81"E	M	23°38'1.60"N	86°49'58.06"E	N	23°38'5.38"N	86°50'4.24"E	O	23°38'7.19"N	86°50'2.82"E	P	23°38'8.15"N	86°50'3.46"E	Q	23°38'9.58"N	86°50'4.56"E	R	23°38'10.36"N	86°50'5.57"E	Part B			A	23°37'51.92"N	86°50'12.68"E	B	23°37'48.73"N	86°50'14.06"E	C	23°37'45.99"N	86°50'9.40"E	D	23°37'45.43"N	86°50'3.73"E
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		acres), hence after expansion, the total plant area will be 18.15 hectares (44.85 acre).																					
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Complete land is under the possession of the company.																					
i.	Existence of habitation & involvement of R&R, if any	<p><b>Plant Site:</b> No habitation exists within the plant site.  <b>Study Area:</b> Village falling near to the project site is given below:</p> <table border="1"> <thead> <tr> <th>Habitation</th><th>Distance (km)</th><th>Direction</th></tr> </thead> <tbody> <tr> <td>Saontal Motha</td><td>~ 0.2 km</td><td>SSW</td></tr> <tr> <td>Dhangajor</td><td>~ 0.9 km</td><td>ENE</td></tr> <tr> <td>Goaladih</td><td>~ 0.9 km</td><td>West</td></tr> <tr> <td>Bonra</td><td>~ 1.0 km</td><td>NW</td></tr> </tbody> </table>	Habitation	Distance (km)	Direction	Saontal Motha	~ 0.2 km	SSW	Dhangajor	~ 0.9 km	ENE	Goaladih	~ 0.9 km	West	Bonra	~ 1.0 km	NW						
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j.	Elevation of the project site	113 m to 120 m above mean sea level.																					
k.	Involvement of Forest land if any.	No Forest Land is involved in the project site and also confirmed through DSS																					
l.	Water body exists within the project site as well as study area	<p>Plant site: None  Study area: Seven water bodies fall within 10 km radius:</p> <table border="1"> <thead> <tr> <th>Water body</th><th>Distance (km)</th><th>Direction</th></tr> </thead> <tbody> <tr> <td>Machkanda Jora</td><td>0.8 km</td><td>East</td></tr> <tr> <td>Damodar River</td><td>3.5 km</td><td>NE</td></tr> <tr> <td>Ramchandrapur Reservoir</td><td>4.5 km</td><td>South</td></tr> <tr> <td>Barakar River</td><td>7.5 km</td><td>NNW</td></tr> <tr> <td>Uttala Nadi</td><td>8.5 km</td><td>WNW</td></tr> <tr> <td>Khudiya Nadi</td><td>9.0 km</td><td>NNW</td></tr> </tbody> </table>	Water body	Distance (km)	Direction	Machkanda Jora	0.8 km	East	Damodar River	3.5 km	NE	Ramchandrapur Reservoir	4.5 km	South	Barakar River	7.5 km	NNW	Uttala Nadi	8.5 km	WNW	Khudiya Nadi	9.0 km	NNW
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m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	<p>No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km radius.  Some Reserved Forests (RF) &amp; Protected Forests (PF) are present namely:</p> <ul style="list-style-type: none"> <li>• Panchet RF (~4.5 km in West direction)</li> <li>• Dandahit PF (~6.0 km in SSE direction)</li> <li>• Bheti PF (~6.5 km in South direction)</li> <li>• Muktipur PF (~8.0 km in SW direction)</li> <li>• Dubrajpur PF (~8.0 km in SSW direction)</li> <li>• Ledian PF (~8.5 km in SSE direction)</li> <li>• Nimtikuri PF (~9.0 km in SSE direction)</li> <li>• Pirargoriya PF (~9.5 km in SSE direction)</li> <li>• Brindabanpur PF (~9.5 km in SW direction)</li> </ul>																					
n.	Project cost	Proposed – INR Rs 142 Crores																					
o.	EMP cost	<table border="1"> <thead> <tr> <th>Type</th><th>Capital</th><th>Recurring</th></tr> </thead> <tbody> <tr> <td></td><td></td><td></td></tr> </tbody> </table>	Type	Capital	Recurring																		
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S. No.	Particulars	Details		
			(Rs. in Crores)	(Rs. in Crores)
		Proposed	12	1.2
p.	Employment opportunity	300 persons		
q.	Water and Power requirement	Water –2750 KLD, Power –60 MW		



## Annexure II

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

Units	Existing operation as per CTE, 2001 & Valid CTO		Granted as per EC dated 26.07.2021 (under implementation)		Proposed Expansion		Total after expansion	
	Config	Capacity (TPA)	Config	Capacity (TPA)	Config	Capacity (TPA)	Config	Capacity (TPA)
Sponge Iron Plant	2 x 100 TPD DRI	60000 TPA	2 x 100 TPD DRI (existing operational) & 1 x 350 TPD DRI Kilns	1,76,000 Sponge Iron	1 x 400 TPD & 1 x 100 TPD DRI Kilns	2,44,000 *	3 x 100 TPD DRI, 1 x 350 TPD & 1 x 400 TPD DRI Kilns	4,20,000 (Pellet used as raw material) 3,36,000 (Iron ore used as raw material) Sponge Iron*
Ferro Alloy Plant	Nil	Nil	2 x 9 MVA	30,000 (Ferro-Manganese, Silico-Manganese, Ferro Silico, Pig Iron) **	2 x 9 MVA to 2 x 10.5 MVA (Modification)	5,000 (Ferro-Manganese, Silico-Manganese, Ferro Silico, Pig Iron) **	4 x 10.5 MVA	70,000 (Ferro-Manganese, Silico-Manganese, Ferro Silico, Pig Iron) **
	Nil	Nil	-	-	2 x 10.5 MVA	35,000 (Ferro-Manganese, Silico-Manganese, Ferro Silico, Pig Iron) **		
Captive Power Plant	Nil	Nil	20 MW (12 MW WHRB+ 8 MW AFBC)	20 MW Power	(10+2) MW WHRB	12 MW	32 MW CPP [24 MW WHRB +8 MW AFBC]	32 MW Power
Iron Ore Sinter Plant	Nil	Nil	1 x 250 TPD	80,000 Iron Ore Sinter	--	--	1 x 250 TPD	80,000

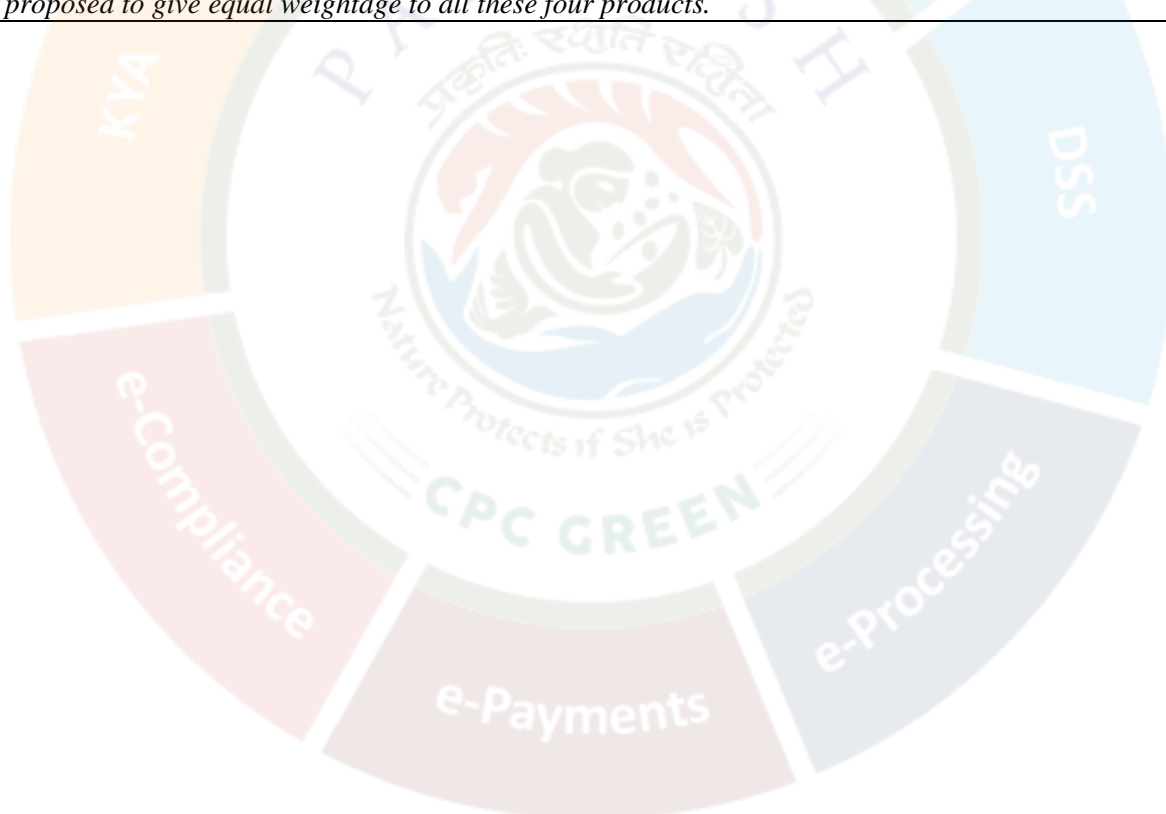


Units	Existing operation as per CTE, 2001 & Valid CTO		Granted as per EC dated 26.07.2021 (under implementation)		Proposed Expansion		Total after expansion	
	Config	Capacity (TPA)	Config	Capacity (TPA)	Config	Capacity (TPA)	Config	Capacity (TPA)
Iron Ore Washery Plant	Nil	Nil	1 x 40 TPH	2,40,000 Iron Ore Concentrate	--	--	1 x 40 TPH	2,40,000 Iron Ore Concentrate

**Note:**

\* PP may produce Sponge Iron either by iron ore or by pellets depending upon the market scenario. However, for raw material estimation for this project we have considered 50 % sponge iron production from pellet and another 50 % sponge iron production from iron ore.

\*\* Ferroalloys Namely Fe-Mn, Si-Mn, Fe-Si & Pig Iron have been proposed to be manufactured from Submerged Arc Furnace as per market demand. The production will therefore vary from time to time depending the product manufactured. But for estimation of raw material requirement, it is proposed to give equal weightage to all these four products.



### Annexure III

Public Consultation Action plan as per MoEF&CC O.M. dated 30.09.2020

Sr. No.	Concerns raised during the Public Hearing	Physical activity to be done	Budgets in Lakhs			Total Budget (in Lakhs)
			1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
1.	Skill Development & Women empowerment	Skill Development:- Vocational training at plant, Seminar on farming & animal husbandry.  Women Empowerment:- Helping self-help groups and financial assistance to Women to start their livelihood	25.0	25.0	25.0	75.0
2.	Water Conservation and Drainage System	Restoration of local ponds and construction of rainwater harvesting structures in the local community	8.0	8.0	4.0	20.0
3.	Solar Light installation	Installation of solar light installation in local villages	2.0	2.0	2.0	6.0
4.	Infrastructure Development	Road Construction, Repair of School Buildings, Village Road Repairing	30.0	25.0	15.0	70.0
5.	Avenue Plantation	Plantation of saplings along roads, highway, pathway and on the roads towards primary health centers and schools in the villages	2.5	1.5	1.0	5.0
		Budget in Lakhs				
<b>Budget as per PH issues to be spent mostly in the nearby villages like Bonra, Dangajore, Goaladih etc.</b>			67.5	61.5	47.0	<b>176.0</b>
<b>Budget as activities targeted under Model Village development programme (Saontal Motha)</b>			23.0	11.5	8.5	<b>43.0</b>
<b>Total</b>			<b>90.5</b>	<b>73.0</b>	<b>53.5</b>	<b>217.0</b>

**Specific conditions and general conditions****A. Specific Condition:**

- i. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.
- ii. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- iii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iv. Saontal Motha (~ 0.2 km, SSW), Dhangajor (~ 0.9 km, ENE), Goaladih (~0.9 km, West) and Bonra (~ 1.0 km, NW) and other sensitive areas falls within the study area of the project site. Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include some of these locations in its environmental monitoring programme.
- v. Machkanda Jora is at distance of 0.8 km in the East direction of the project site within the study area from the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- vi. The water requirement of 2750 KLD shall be obtained from Damodar River only after obtaining necessary permission from the Competent Authority. No ground water abstraction is permitted.
- vii. Three tier Green Belt shall be developed in at least 33% of the project area as per the plan committed all along the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. PP shall also develop greenbelt in the form of shelter belt comprising of total of 6 rows of 2x2 m plantation with tall trees & broad leaves with thick canopy along with windshield inside the plant premises to act as green barrier for air pollution & noise levels towards Saontal Motha (~ 0.2 km, SSW), Dhangajor (~ 0.9 km, ENE), Goaladih (~0.9 km, West) and Bonra (~ 1.0 km, NW) and other sensitive areas. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- viii. All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's

OM dated 30.09.2020 amounting to Rs. 2.17 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

- ix. The PP shall undertake village adoption programme, prepare and implement the action plan to develop them into model villages.
- x. PP shall install digital display board at the plant gate.
- xi. PP shall prepare a comprehensive housekeeping plan and implement on regular basis.
- xii. PP shall provide PTFE Bag Filters in the existing as well as proposed expansion project. The Bag Filters in the existing 200 TPD DRI Plant (PTM type) shall be replaced with PTFE Bags within a year.

## **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 04 Nos. Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM<sub>10</sub> and PM<sub>2.5</sub> in reference to PM emission, and SO<sub>2</sub> and NO<sub>x</sub> in reference to SO<sub>2</sub> and NO<sub>x</sub> emissions) within and outside the plant area covering upwind and downwind directions.
- iii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iv. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.



- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.
- x. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xiii. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- xiv. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- xv. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
- xvi. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
- xvii. The particulate matter emissions from the process stacks shall be less than 30 mg/Nm<sup>3</sup> and measures shall be undertaken as per the submitted action plan. Efficient Air monitoring equipment shall be installed.
- xviii. Following additional arrangements to control fugitive dust shall be provided:
  - a. Fog / Mist Sprinklers at all on bulk raw material storage area (at the transfer points) like Iron Ore, Coal and for Fly Ash and similar solid waste storage areas.
  - b. Proper covered vehicle shall be used while transport of materials.
  - c. Wheel washing mechanism shall be provided in entry and exit gates with complete recirculation system.
- xix. Briquetting and Jigging plant shall be installed in Ferro Alloys Plant.
- xx. The PP shall minimize the evaporation losses in jigging operation to less than 10% using suitable advanced process.

- xxi. The 4<sup>th</sup> hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.
- xxii. Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m<sup>3</sup> for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.
- xxiii. During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948 shall be implemented.
- xxiv. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m<sup>3</sup>, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.
  - i. The industry should estimate the total dust emitted from the stacks in tonnes/month and submit this to IRO MoEFCC, once in six months.
  - ii. The PP to install CO sensors with alarm system, at strategic locations inside the Plant.

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

- i. The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor regularly ground water quality at least twice a year (pre- and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- iii. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
- iv. Water meters shall be provided at the inlet to all unit processes in the plants.
- v. The project proponent shall make efforts to minimise water consumption in the plant complex by segregation of used water, practicing cascade use and by recycling treated water.
- vi. The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. Suitable measures shall be adopted for sewage water handling to ensure no contamination of any kind of water body.

- vii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
- viii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
- ix. Air Cooled condensers shall be used in the captive power plant.

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

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

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

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.
- iii. The project proponent shall provide waste heat recovery system on the DRI Kilns.
- iv. The dolochar generated shall be used for power generation.
- v. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- vi. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.

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

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
- ii. Kitchen waste shall be composted or converted to biogas for further use.
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents

are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

- v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- vi. Solid waste utilization
  - a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
  - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
  - c. Used refractories shall be recycled as far as possible.
- vii. SMS slag after metal recovery in waste recycling facility shall be conditioned and used for road making, railway track ballast and other applications. The project proponent shall install a waste recycling facility to recover metallic and flux for recycle to sinter plant. The project proponent shall establish linkage for 100% reuse of rejects from Waste Recycling Plant.
- viii. Carbon recovery plant to recover the elemental carbon present in GCP slurries for use in Sinter plant shall be installed.
- ix. Waste recycling Plant shall be installed to recover scrap, metallic and flux for recycling to sinter plant and SMS.
- x. The ESP dust must be agglomerated before disposal in exhausted mines. The dust must be recycled inside the Plant, wherever possible.

## **VII. Green Belt**

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

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

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



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

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

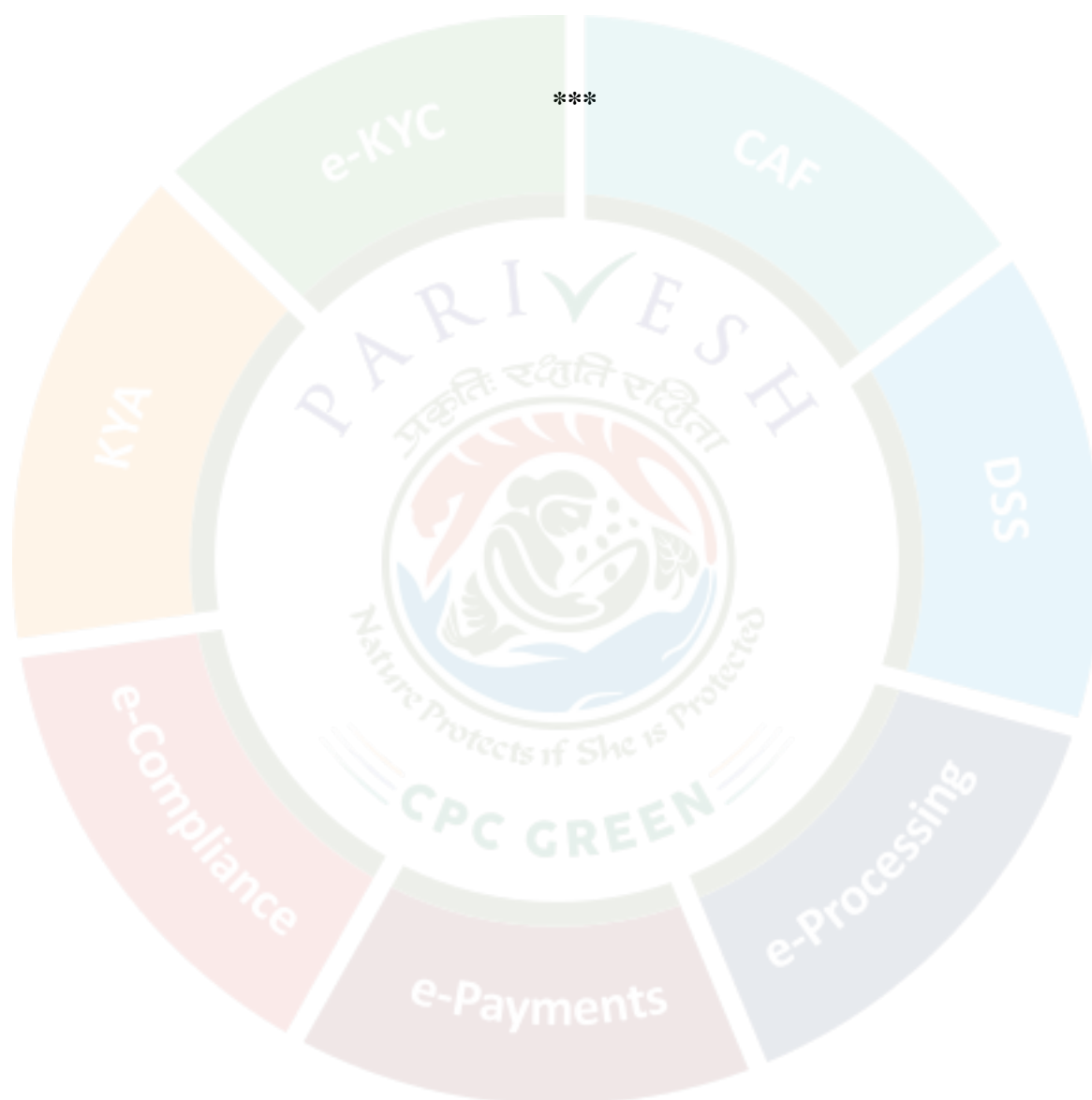
- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental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

#### **X. Miscellaneous**

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

- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
- vi. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vii. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- viii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- xi. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- xii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xiii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

- xvi. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Signature Not Verified

Digitally Signed by : Aditya Narayan Singh  
Member Secretary, MoEFCC (EC)

Date: 20/11/2023