



File No: IA-J-11011/836/2008-IA-II(IND-I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Date **05/02/2024**



To,

M/s. HIRA POWER AND STEELS LIMITED
Plot no. 557, 563 & 564 Urla Industrial Complex, RAIPUR-492 003 Chhattisgarh
Email: mining@hpslindia.com

Subject: **Expansion of Manufacturing of Ferro Alloys from 48,000 TPA to 64,000 TPA by M/s Hira Power and Steels Limited, located at Khasra No. 156, 500, 508, 509, 510, 511/1, 511/2, 512/1, 512/2, 513/1 - 513/5 and others Urla Industrial Area, Raipur, Chhattisgarh-Grant of Environmental Clearance under the provisions EIA Notification, 2006 -regarding.**

Sir/Madam,

This refers to your proposal no IA/CG/IND1/425728/2023 dated 19.05.2023 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. Further, PP has uploaded the ADS reply on Parivesh Portal on 02.11.2023, 19.11.2023 and 07.12.2023. The EAC has considered and recommended the proposal.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A1005CG5183604E
(ii) File No.	IA-J-11011/836/2008-IA-II(IND-I)
(iii) Clearance Type	Fresh EC
(iv) Category	A
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous)
(vi) Sector	Industrial Projects - 1
(vii) Name of Project	Expansion of Manufacturing of Ferro Alloys from 48,000 TPA to 64,000 TPA
(viii) Name of Company/Organization	HIRA POWER AND STEELS LIMITED
(ix) Location of Project (District, State)	RAIPUR, CHHATTISGARH
(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 attracts general condition due to Urla industrial area being at 7 Km (NE) from Siltara Industrial area and 6.9 Km (SSE) from Raipur which are CPA and being appraised at Central Level..

4. The proposal was initial considered in in 34th EAC meeting held on **31st May, 2023** wherein committee deferred the proposal. Based on the ADS reply the proposal was re-considered in 46th EAC held during **9th-11th October, 2023** and 48th meeting of the EAC held during **8th -9th November, 2023**, and further considered in 50th meeting of the EAC for Industry-I sector held on **13th – 15th December, 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 **9th-11th October, 2023 and 8th to 9th November, 2023**, inter-alia, deliberated the following:

1. The EAC noted that PP obtained first CTE cum CTO letter no 7057/TS/EZ/MPPCB/95 Dated 25.04.1994 for 3000 MT/year, Subsequently, obtained CTE cum CTO for 6000 MT/Shift/Year as per letter no 14869/TS/MPPCB/97 Dated 23.08.1997 for the first project.
2. PP obtained CTO for second project 2 X 5.5 MVA Furnaces and Captive power plant of 20 MW for Ferro Alloys - 42,000 TPA or Pig Iron – 78,500 TPA and Captive Power Plant-20 MW vide letter No.1912/TS/CECB/2006 for water and 1914/TS/CECB/2006 for Air Dated 17.04.2006 and Revised Consent to operate for Ferro Alloys (2 X 5.5 MVA Furnace) - 30,000 TPA or Pig Iron-56,000 TPA and Captive Power Plant - 20 MW vide letter No.4854 /TS /CECB /2009 for Air and 4852 /TS / CECB /2006 for water Dated 24.09.2009.
3. Fresh Environmental Clearance was obtained for proposed 6.0 MVA furnace for Total manufacturing capacity of 18,000 TPA vide File No. J-11011/836/2008-IA II (I) Dated 11.02.2009 for the first project in 3.845 ha.
4. Two consent to operates (Firstly, 1 X 3.0 MVA , 1 X 3.6 MVA & (1 X 6.0 MVA) with capacity of 18000 TPA & Secondly, 2 X 5.5 MVA Furnace and Captive power plant of 20 MW Ferro Alloy capacity of capacity 30,000 TPA) was Amalgamated vide letter no 208/TS/CECB/2018 dated 03.04.2018 with Production of Low/Medium Carbon Ferro Manganese (Ferro Alloy) Ferro Alloys (3.0 MVA, 3.6 MVA and 6.0 MVA Furnace - 18,000 TPA and Ferro Alloys (2 X 5.5 MVA Furnace) - 30,000 TPA or Pig Iron - 56,000 TPA and Captive Power Plant- 20 MW and Renewed Consent to operate vide Letter No.968/TS/CECB/2023 for Air and Water dated 16.05.2023 valid till 31.03.2024.
5. For the instant project ToR was issued by the Ministry to M/s Hira Power and Steel Limited located in Khasra No. 156, 500, 508, 509, 510, 511/1, 511/2, 512/1, 512/2, 513/1- 513/5 and others Urla Industrial Area, Raipur Tehsil, Raipur District, Chhattisgarh State is proposed to increase the production of Ferro Alloy by improvement in efficiency and using better quality of raw material from 48000 TPA to 64000 TPA without change in plant and machinery.
6. The PP has submitted detailed chronology by email, accordingly para has been elaborated and modified including the chronology of project. The EAC deliberated and found it found it satisfactory
7. The EAC deliberated Action Plan regarding CPA and found it found it satisfactory.
8. 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.
9. 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.

10. 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.
11. The EAC also 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 on PARIVESH and made following deliberations accordingly.
12. The total project area is 17.6 Ha. This land is under the possession of the company.
13. The nearest habitation to plant is Urla Village at distance of 0.84 Km. 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.
14. Water requirement for after proposed expansion project is estimated as 542 m³/day and will be supplied by CSIDC Ltd. (500 m³/day) and ground water (50 m³/day). The EAC deliberated on the water requirement and found it satisfactory.
15. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and is of the opinion that the mitigation measures proposed to minimise the pollution shall be strictly implemented.
16. The PP has to develop greenbelt, consisting of at least 3 tiers around plant. Existing green belt has to be strengthened by gap filling. Total plantation should be 7.04 ha which is 40% of total land.
17. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
18. 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.
19. The EAC deliberated on the certified compliance report of IRO MOEFCC and is of the opinion that PP shall strictly comply with the observations of IRO.
20. The EAC also deliberated on the written submission of the project proponent and found it satisfactory.
21. 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.
22. 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.
23. 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 46th and 48th meeting of Expert Appraisal Committee (Industry-1 Sector), based on information & clarifications provided by the project proponent and after detailed deliberations **recommended** the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to the stipulation of 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. Based on information & clarifications provided by the project proponent the proposal was again considered in 50th EAC sector held during **13th – 15th December, 2023** and the Committee deliberated the CCR report of and found it satisfactory. In view of the foregoing and after detailed deliberations, the committee reiterated its earlier recommendations for grant of EC for the instant proposal under the provisions of EIA Notification, 2006

9. 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 Hira Power and Steels Limited** under the provisions of EIA Notification, 2006 subject to specific conditions and general conditions at **Annexure IV**.

10. 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.
11. 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.
12. 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.
13. 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.
14. This issues with approval of the competent authority.

Copy To

1. The Principal Secretary Forest, Mahanadi Bhawan, Nawa Raipur, Atal Nagar Chhattisgarh, India.
2. Additional Chief Secretary Forest, Mahanadi Bhawan, Nawa Raipur, Atal Nagar, Chhattisgarh
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi
4. The Principal Chief Conservator of Forests, Principal Chief Conservator of Forests, Government of Chhattisgarh, Medical Road, Raipur-492001
5. The Inspector General of Forests, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Aranya Bhawan, North Block, Sector-19 Naya Raipur, Atal Nagar, Chhattisgarh – 492002
6. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -32
7. The Member Secretary, Chhattisgarh State Environment Conservation Board (Pollution Control office), Paryavas Bhavan, North Block Sector-19, Atal Nagar Dist- Raipur Chhattisgarh
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
9. The District Collector, District Raipur, Chhattisgarh
10. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
11. Guard File/Monitoring File/Website/Record File/Parivesh Portal.

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	27.10.2021																																																									
b.	Period of baseline data collection	October-December 2021																																																									
c.	Date of Public Consultation	21.07.2022																																																									
d.	Action plan to address the PH issues	An amount of Rs. 10 Lakhs has been earmarked for implementation of the commitments made during Public Hearing and need based activities. Detail of activities proposed attached as Annexure III .																																																									
e.	Location of the project	located at Khasra No. 156, 500, 508, 509, 510, 511/1, 511/2, 512/1, 512/2, 513/1 - 513/5 and others Urla Industrial Area, Raipur, Chhattisgarh																																																									
f.	Latitude and Longitude of the project site	<table border="1"> <thead> <tr> <th>Point</th><th>Latitude</th><th>Longitude</th></tr> </thead> <tbody> <tr><td>A</td><td>21°19' 18.33" N</td><td>81° 37' 11.39" E</td></tr> <tr><td>B</td><td>21°19' 12.12" N</td><td>81° 37' 14.81" E</td></tr> <tr><td>C</td><td>21°19' 08.63" N</td><td>81° 37' 13.66" E</td></tr> <tr><td>D</td><td>21°19' 07.72" N</td><td>81° 37' 19.40" E</td></tr> <tr><td>E</td><td>21°19' 06.61" N</td><td>81° 37' 19.27" E</td></tr> <tr><td>F</td><td>21°19' 06.39" N</td><td>81° 37' 13.66" E</td></tr> <tr><td>G</td><td>21°19' 02.69" N</td><td>81° 37' 13.46" E</td></tr> <tr><td>H</td><td>21°19' 02.39" N</td><td>81° 37' 18.39" E</td></tr> <tr><td>I</td><td>21°18' 58.63" N</td><td>81° 37' 17.84" E</td></tr> <tr><td>J</td><td>21°18' 57.70" N</td><td>81° 37' 15.68" E</td></tr> <tr><td>K</td><td>21°18' 57.05" N</td><td>81° 37' 12.95" E</td></tr> <tr><td>L</td><td>21°18' 57.30" N</td><td>81° 37' 08.75" E</td></tr> <tr><td>M</td><td>21°18' 53.81" N</td><td>81° 37' 08.96" E</td></tr> <tr><td>N</td><td>21°18' 53.79" N</td><td>81° 37' 00.43" E</td></tr> <tr><td>O</td><td>21°18' 58.57" N</td><td>81° 37' 02.08" E</td></tr> <tr><td>P</td><td>21°19' 06.89" N</td><td>81° 37' 06.13" E</td></tr> <tr><td>Q</td><td>21°19' 13.51" N</td><td>81° 37' 08.47" E</td></tr> <tr><td>R</td><td>21°19' 13.30" N</td><td>81° 37' 12.43" E</td></tr> </tbody> </table>	Point	Latitude	Longitude	A	21°19' 18.33" N	81° 37' 11.39" E	B	21°19' 12.12" N	81° 37' 14.81" E	C	21°19' 08.63" N	81° 37' 13.66" E	D	21°19' 07.72" N	81° 37' 19.40" E	E	21°19' 06.61" N	81° 37' 19.27" E	F	21°19' 06.39" N	81° 37' 13.66" E	G	21°19' 02.69" N	81° 37' 13.46" E	H	21°19' 02.39" N	81° 37' 18.39" E	I	21°18' 58.63" N	81° 37' 17.84" E	J	21°18' 57.70" N	81° 37' 15.68" E	K	21°18' 57.05" N	81° 37' 12.95" E	L	21°18' 57.30" N	81° 37' 08.75" E	M	21°18' 53.81" N	81° 37' 08.96" E	N	21°18' 53.79" N	81° 37' 00.43" E	O	21°18' 58.57" N	81° 37' 02.08" E	P	21°19' 06.89" N	81° 37' 06.13" E	Q	21°19' 13.51" N	81° 37' 08.47" E	R	21°19' 13.30" N	81° 37' 12.43" E
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g.	Total land	17.6 ha.																																																									
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	100% land is in possession of the company																																																									
i.	Existence of habitation & involvement of R&R, if any	<p>No habitation exists in plant site.</p> <table border="1"> <thead> <tr> <th>Habitation</th><th>Distance</th><th>Direction</th></tr> </thead> <tbody> <tr> <td>Urla</td><td>840m</td><td>West</td></tr> </tbody> </table>	Habitation	Distance	Direction	Urla	840m	West																																																			
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j.	Elevation of the project site	273 M above mean sea level																																																									

S. No.	Particulars	Details									
k.	Involvement of Forest land if any.	No Forest land is involved in the project site.									
l.	Water body exists within the project site as well as study area	Project site: Nil Study area: <table border="1"> <thead> <tr> <th>Water body</th><th>Distance</th><th>Direction</th></tr> </thead> <tbody> <tr> <td>Kharun River</td><td>4.0 Km</td><td>NNW</td></tr> <tr> <td>ChhokraNala</td><td>3.0 Km</td><td>NNE</td></tr> </tbody> </table>	Water body	Distance	Direction	Kharun River	4.0 Km	NNW	ChhokraNala	3.0 Km	NNE
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ChhokraNala	3.0 Km	NNE									
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	There are no ESZ/ESA/National Park/ Wild life sanctuary / Biosphere reserve / Tiger Reserve / migratory routes for Birds. List of Reserved and protected forests: None									
n.	Project cost	Proposed – INR Rs 4.10 Crores (The existing capital cost of project was Rs.188.61 Crores)									
o.	EMP cost	<table border="1"> <thead> <tr> <th>Type</th><th>Capital (Rs. in Crores)</th><th>Recurring (Rs. in Crores)</th></tr> </thead> <tbody> <tr> <td>Proposed</td><td>4.10</td><td>0.405</td></tr> </tbody> </table>	Type	Capital (Rs. in Crores)	Recurring (Rs. in Crores)	Proposed	4.10	0.405			
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Proposed	4.10	0.405									
p.	Employment opportunity	523 persons									
q.	Water and Power requirement	(Total)Water –542 KLD, Power 18.9 MW									

Annexure II

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

S. No.	Plant Equipment/Facility	Existing facilities as per CTO & EC dated 11.02.2009				Proposed Units	Final (Existing + Proposed)	Remarks
		Total (A+B)	Implemented (A)	Unimplemented (B)	As per CTO			
		Configuration & Capacity	Configuration & Capacity	Configuration & Capacity	Configuration & Capacity			
1	Ferro Alloys	48000 TPA	48000 TPA	Nil	48000 TPA	16000 TPA	64000 TPA	30000 TPA was existing prior to EC dated 11 th February 2009
2	Power Plant	20 MW	20 MW	Nil	20 MW	Nil	20 MW	Existing prior to EC dated 11 th February 2009

Annexure III

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

S.N.	MAJOR ACTIVITY HEADS		YEAR OF IMPLEMENTATION	TOTAL EXPENDITURE (Rs. in Lakhs)
			2023	
1.	Training will be provided to the local youths for skill development .	Physical Nos and Villages	Training to the eligible unemployed, interested youth of, Birgaon and Acholi	2 lacs
		Budget in Lakhs Rs.	2 lacs	
2.	Health camps including medicine in the nearby villages	Physical Nos and Villages	Health camps will be organized in Urla Village.	2 lacs
		Budget in Lakhs Rs.	2 lacs	
3.	Development of Public Bathroom and Toilets at Village Achholi Ward No.-08 Nagar Nigam Birgaon	Physical Nos and Villages	At Urla Village	6 lacs
		Budget in Lakhs Rs.	6 lacs	
.			Total	10.00 Lacs



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. The nearest habitation to plant is Urla Village at distance of 0.84 Km. Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. PP needs to strengthen green belt all around the plant area to reduce the dust pollution. The PP shall also include this location in its environmental monitoring programme.
- v. The water requirement of 542 m³ /day shall be obtained from CSIDC Ltd. (500 m³ /day) and ground water (50 m³ /day) after obtaining approval from the Competent Authority.
- vi. Three tier Green Belt shall be developed in at least 40% of the project area in a time period of 1 year as 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 Urla Village and other sensitive areas nearby project site. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- vii. 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. 0.1 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- viii. As committed, PP shall undertake village adoption programme and prepare and implement the action plan to develop them into a model village.

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 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. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x 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/Nm³ 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 4th hole extraction system shall be provided in the Sub Merged Arc Furnaces and EAF.
- xxii. Industry is going to use silica quartz in large quantities and going to produce Silico Manganese and Ferro Silicon alloy steel. Therefore, it is necessary to control silica/quartz exposures at production Departments, not only emission norms as per Indian Factories Act. The permissible limit for silica/quartz should be within 10 mg/m³ for total dust as per Indian Factories Act. Therefore, it is recommended to monitor personal and area exposures for silica quartz dust in the process plants.
- xxiii. 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/m³, 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.

VI. Waste management

- i. Oil Collection pits shall be provided in oil cellars to collect and reuse/recycle spilled oil.
- ii. Kitchen waste shall be composted or converted to biogas for further use.
- iii. 100% utilization of fly ash shall be ensured. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding in this regard shall be submitted to the Ministry's Regional Office.
- iv. The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at <https://cpcb.nic.in/technical-guidelines-3/>. All the project proponents are hereby requested to sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.
- v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- vi. Solid waste utilization
 - a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
 - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
 - c. Used refractories shall be recycled as far as possible.

VII. Green Belt/ Decarbonisation program

- 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. The Project proponent shall prepare a road map to achieve the carbon neutrality consistent with India's commitment to achieve carbon neutrality by 2070, with periodic targets (every five years).
- iv. Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

VIII. Public hearing and Human health issues

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

IX. Environment Management

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

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
- v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
- vi. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vii. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- viii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- xi. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

- xii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xiii. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- xiv. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xv. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xvi. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- xvii. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

