

File No: J-11011/522/2008-IA-II(IND-I)

Government of India Ministry of Environment, Forest and Climate Change IA Division



Date 08/05/2024



To,

M/s Prakash Industries Limited

Champa, JANJGIR-CHAMPA, District-Janjgir CHHATTISGARH, 495006

E-mail: akc@prakash.com

Subject:

Proposed Expansion of Steel Plant - Establishment of New Iron Ore Beneficiation (1.0 MTPA), New Iron Ore Pelletisation Unit (1.5 MTPA), New Coal Gasifier for Pellet Plant (5 x 8000 Nm3/hr), New Coal Washery (2 x 1.0 MTPA), New Wire Rod /TMT Mill (4 x 0.25 MTPA), New Coal Gasifier for Wire Rod / TMT Mill (5 x 8000 Nm3/hr.), Expansion FBC Based Power Plant (162.5 MW to 165 MW) & Expansion of Oxygen Plant (8.0 TPD to 16 TPD) by M/s Prakash Industries Limited, located, at Village: Hathneora, Champa Tehsil, District: Janjgir – Champa, Chhattisgarh - Grant of Environmental Clearance- Regarding

Sir/Madam,

This refers to your proposal no. IA/CG/IND1/431300/2023 dated 07.01.2024 along with copy of EIA report, Forms (Part A, B and C) and certified compliance report seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above.

2. The particulars of the proposal are as below:

(i) EC Identification No. EC23A1001CG5161369N

(ii) File No. J-11011/522/2008-IA-II(IND-I)

(iii) Clearance Type Fresh EC

(iv) Category A

(vii) Name of Project

(v) Project/Activity Included Schedule No. 3(a) Metallurgical Industries (ferrous and non

ferrous),2(b) Mineral beneficiation

(vi) Sector Industrial Projects - 1

PROPOSED EXPANSION OF STEEL PLANT -Establishment of New Iron Ore Beneficiation (1.0 MTPA), New Iron Ore Pelletisation Unit (1.5 MTPA), New Coal Gasifier for Pellet Plant (5 x

8000 Nm3/hr), New Coal Washery (2 x 1.0 MTPA), New Wire Rod /TMT Mill (4 x 0.25

MTPA), New Coal Gasifier for Wire Rod / TMT Mill (5 x 8000 Nm3/hr.), Expansion FBC Based Power Plant (162.5 MW to 165 MW) & Expansion

of Oxygen Plant (8.0 TPD to 16 TPD)

(viii) Name of Company/Organization M/s Prakash Industries Limited

(ix) Location of Project (District, State) JANJGIR-CHAMPA, CHHATTISGARH

No

(x) Issuing Authority MoEF&CC

(xi) Applicability of General Conditions as per

EIA Notification, 2006

3. The proposed project activity is listed at S. No. <u>3(a) Metallurgical industries (ferrous and Non-ferrous)</u>, <u>2(a) Coal washeries</u>, <u>2(b) Mineral Beneficiation and 1(d) Thermal Power Plants under Category "A"</u> of the schedule of the EIA Notification, 2006 and being appraised at Central Level

- 4. The instant Proposal was initially considered in the 53rd EAC Meeting held during 12 14th February, 2024. 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 at **Annexure-I**. The PP reported that Last EC was granted vide letter dated 3rd November, 2010 for Expansion of Integrated Steel Plant followed by extension of validity of EC vide letter dated 07.08.2019. Out of 243.476 ha of required total land, 39.25 ha. of land is allotted by State Forest Department, Chhattisgarh for which Stage 1 & 2 clearances from MoEFCC, New Delhi have been obtained.
- 6. The Unit configuration and capacity of the proposed project is at Annexure-II.
- 7. The EAC, in its 53rd meeting held during 12 14th February, 2024, inter-alia, deliberated the following:
- i. The instant proposal is for proposed enhancement of steel plant for establishment of New Iron Ore Beneficiation (1.0 MTPA), New Iron Ore Pelletisation Unit (1.5 MTPA), New Coal Gasifier for Pellet Plant (5 x 8000 Nm3/hr), New Coal Washery (2 x 1.0 MTPA), New Wire Rod /TMT Mill (4 x 0.25 MTPA), New Coal Gasifier for Wire Rod / TMT Mill (5 x 8000 Nm3/hr.), Expansion FBC Based Power Plant (162.5 MW to 165 MW) & Expansion of Oxygen Plant (8.0 TPD to 16 TPD).
- ii. The operations started during 1992 on the basis of CTE obtained from SPCB vide letter dated 25.02.1992 for 1.5 LTPA DRI Kiln and 6 MW WHRB. PP then obtained CTE for 1.3 MTPA Induction Furnace vide letter dated 26.06.1994. PP has reported that EC was not applicable as the project cost was below Rs. 100 Crores. Thereafter, PP obtained EC twice from MoEF&CC vide letter dated 14.12.1995 and 27.01.2005. The project was finally accorded environmental clearance vide lt. No.J-11011/522/2008-IA II (I)dated 3rd November, 2010 for expansion of Integrated Steel Plant followed by extension of validity of EC vide letter dated 07.08.2019. The latest Consent to Operate for the existing unit was accorded by Chhattisgarh Environment Conservation Board and the CTO is valid till 16th February 2025.
- iii. 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.
- iv. 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.
- v. 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.

- vi. 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.
- vii. The total area of the plant is 243.476 Ha which is under the possession of the PP. The land has been diverted for industrial purpose. Out of 243.476 ha total land, 39.25 Ha. of land is allotted by State Forest Department, Chhattisgarh to the Prakash Industries Ltd. after obtaining Stage # 1 & Stage # 2 clearances from MoEF, New Delhi which are submitted. The remaining 204.226 Ha. is allotted by Chhattisgarh State Industrial Development Corporation (CSIDC). PP has further submitted its application to District Forest Officer, Janjgir-Champa to obtain a letter that the Forest Land was diverted for Prakash Industries Ltd and the stamped receipted copy of application is submitted.
- viii. Kotadabri Village is adjacent to existing plant in North direction along with other sensitive areas within the study area of the project site. The EAC is of the opinion that PP shall prepare and strictly implement the environmental safeguard measures to minimise the impact of the project activities on these sensitive areas.
- ix. Hasdeo River is at a distance of 0.14 km in South along with other water bodies near within the study area. The EAC is of the opinion that the water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be prepared and implemented.
- x. Existing Water requirement is 28,235 m3/day, which is sourced from Hasdeo river. The water requirement for the proposed expansion project is estimated as 1751 m3/day and will be sourced from Hasdeo River. The total water requirement of existing & proposed project is 30,486 m³/day & considering use of about 6,412 m3 /day of treated effluent, balance requirement of fresh water is 24,074 m³/day. Existing plant is already having Water drawl permission from Water Resources Department, Govt. of Chhattisgarh for drawing 28,000 m3 /day which is sufficient for the proposed expansion project also. Hence no additional water drawl permission will be required for the proposed expansion. The EAC deliberated on the water requirement and found it satisfactory.
- xi. The Committee has deliberated on the baseline data and incremental GLC due to the proposed project and found it satisfactory.
- xii. The PP reported that the Central Pollution Control Board (CPCB) by its order dated 09.06.2011 directed disconnection of electricity and water supply to the Integrated Steel plant of Prakash Industries Ltd. (PIL) situated at Champa, Dist. Janjgir-Champa-495671, Chhattisgarh. PIL challenged the said order dated 09.06.2011 by way of a writ petition being W.P.(C) 3770 of 2011 before the Hon'ble High Court of Chhattisgarh at Bilaspur. The Hon'ble Court was pleased to issue notices to the Respondents and directed on 15.07.2011 that water and electricity supply to the plant of PIL shall not be disconnected. In due course pleadings were completed in the matter and the said matter is mature for final arguments and disposal. The order of the Hon'ble High Court dated 15.07.2011 is in operation currently. Undertaking confirming that Prakash Industries Ltd. will abide the directions of Final order of Honorable High Court of Chhattisgarh is submitted.
- xiii. The PP has submitted that the existing greenbelt has been developed in 98.100 Ha. area which is about 40.29% of the total project area of 243.476 Ha. with total sapling of 3,06,640 trees. Presently plantation density is 3,320 nos of plants per Ha. which is in excess of CPCB norm of 2500 nos/Ha. Thus total of 98.100 Ha. area (40.29% of total project area) is sufficient and no additional green belt is envisaged as part of expansion. The EAC deliberated on the greenbelt and found it satisfactory.
- xiv. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.
- xv. 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.
- xvi. The EAC also deliberated on the written submission of the project proponent and found it satisfactory.

xvii. 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.

xviii. 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.

xix. 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.

- 8. The EAC (Industry-1 Sector), in its 53rd meeting held during 12 14th February, 2024, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the proposal for grant of Environment Clearance subject to stipulation of specific and general EC conditions as detailed in Annexure-III.
- 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 Prakash Industries Limited under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions (Annexure-III)
- 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.

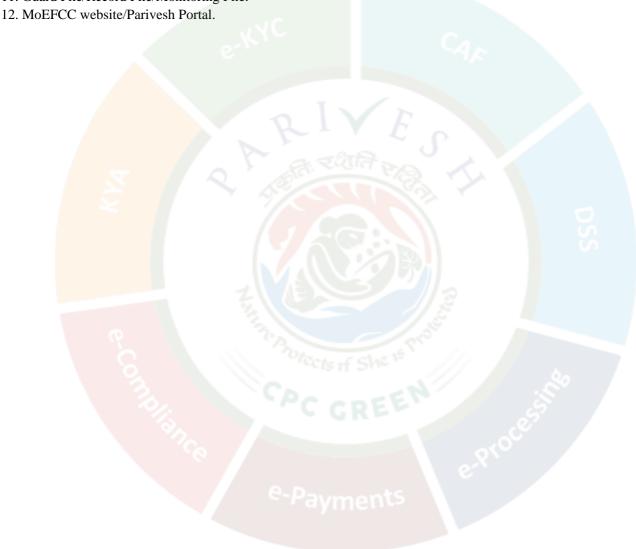
(Dr. R. B. Lal) Scientist 'F'/Director Tel: 011-20819346

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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 (HoFF) Chhattisgarh Forest Department, Jai Road Aranya Bhavan Raipur (C.G.)-492007.
- 5. Regional Officer, 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, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
- 7. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19 Naya Raipur (C.G.) 492002.
- 8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
- 9. The District Collector, Janjgir Champa, Chhattisgarh.
- 10. Director, IA CMD, MOEFCC, New Delhi
- 11. Guard File/Record File/Monitoring File.



Details of the proposal are as per the EIA/EMP report

S. No.	Particulars	Details				
a.	Terms of Reference for undertaking EIA study	28.04.2023				
b.	Period of baseline data collection	1stMarch 2022 to	31 st May 2022			
c.	Date of Public Consultation	26 th April 2023				
d.	Action plan to address the PH issues		7.1 Cr have been earma		n.	
e.	Location of the project		ora, Champa Tehsil,		_	
f.	Latitude and	Point No.	Coordin	ates		
	Longitude of the		Latitude	Longitude		
	project site	1.	22° 0'57.90"N	82°39'52.53"E		
		2.	22° 0'28.07"N	82°39'44.03"E		
		3.	21°59'54.21"N	82°40'2.43"E		
		4.	21°59'40.40"N	82°40'5.58"E		
		5.	21°59'47.59"N	82°40'27.96"E		
		6.	21°59'51.69"N	82°40'49.48"E		
		7.	22° 0'4.36"N	82°40'47.98"E		
		8.	22° 0'4.14"N	82°40'42.09"E		
		9.	22° 0'25.04"N	82°40'32.09"E		
	7	10.	22° 0'28.43"N	82°40'25.26"E		
	3	11.	22° 0'50.56"N	82°40'23.48"E		
	6	12. 22° 0'52.91"N 82°40'7.25"E				
g.	Total land	Total land 243.47	76 Ha. (601.52 Acres)			
h.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	Existing plant is located in 243.476 Ha. (601.52 acres) of land. Land allotted by CSIDC. Hence land diversion not required. No additional land is envisaged for proposed expansion project.				
i.	Existence of habitation & involvement of R&R, if any	Nearest habitation is Kotadabri Village, adjacent to existing plant in North Direction. There are no habitations in the existing Steel plant. Hence, no rehabilitation and resettlement is involved.				
j.	Elevation of the project site	244 to 258 m above MSL				
k.	Involvement of Forest land if any.	Total land – 243.476 Ha., out of which 39.25 Ha. of land is allotted by State Forest Department, Chhattisgarh to the Prakash Industries Ltd. after obtaining Stage # 1 & Stage # 2 clearances from MoEF, New Delhi which are submitted. The remaining 204.226 Ha. is allotted by Chhattisgarh State Industrial Development Corporation (CSIDC). PP has submitted its application to District Forest Officer, Janjgir-Champa to obtain a letter from them that the Forest				

S. No.	Particulars	Details					
1100		Land was diverted for Prakash Industries Ltd. and the stamped receipted copy of application is submitted.					
1.	Water body exists	Project Site:					
-	within the project site as well as study area	Water Body		Dista	ance		
	as well as study area	Nil		N/	A		
		Study area:					
		Water Bo	ody	Distance	Direction		
			·	(Kms.)			
	10	Hasdeo River		0.14	Е		
	6.,,	Son Nadi		8.0	SE		
m.	Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area	Nil					
n.	Project cost	The capital cost	of the p	proposed projec	t is Rs. 471 Crs.		
0.	EMP cost	The capital cost for environmental protection measures is proposed as Rs. 21.9 Crores. The annual recurring cost towards the environmental protection measures is proposed as Rs. 5.968 Crores.					
p.	Employment			ration from th	proposed project /		
q.	opportunity Water and Power	expansion is 13		romant is 28	225 m2/day water		
4.	requirement	Existing Water requirement is 28,235 m3/day, water requirement is sourced from Hasdeo river and permission for the same has been obtained from Water Resources department, Govt. of Chhattisgarh. 2 nos. of agreements have been entered with Water Resources department, Govt. of Chhattisgarh for 23,000 m3/day & 5,000 m3/day vide agreements dated 10th December 2004 for 23,000 m3/day & 24th April 2015 respectively. The water requirement for the proposed expansion project is estimated as 1751 m3/day and will be sourced from Hasdeo River. The total water requirement of existing & proposed project is 30,486 m³/day & considering use of about 6,412 m3 /day of treated effluent, balance requirement of fresh water is 24,074 m³/day.					
		Captive Power proposed Expar which Power r	Plant. To required	The total power oject estimated will be met 1	MW is obtained from requirement after the as 261.95 MW, out of partly from 240 MW 21.95 MW from State		

Unit configuration and capacity

S. No.	Details of Unit	Capacity as per EC dated 03.11.2010	Capacity under operation	Capacity already lapsed	Proposed Expansio n (Capacity)	Capacity After Proposed Expansion
	[1]	[2]	[3]	[4]	[5]	[6] = [3] + [5]
1.	Sponge Iron Plant (DRI Plant)	2.0 MTPA	1.2 MTPA	0.8 MTPA		1.2 MTPA
	Captive Power Plant-	I	_/_			
	a) Co-generation Power Plant (WHRB)	100 MW	75 MW	25 MW		75 MW
	b) Coal based power plant	187.5 MW	162.5 MW	25 MW	2.5 MW	165 MW
	c) BF gas-based power plant	20 MW		20 MW		S
	Ingots /Billets/Blooms IF-AOD-LRF / BF – EAF - LD Converter route	2.0 MTPA	1.25 MTPA	0.75 MTPA		1.25 MTPA
	Wire Rod / TMT Mill	0.6 MTPA	GREE	0.6 MTPA	1.0 MTPA (4x0.25 MTPA)	1.0 MTPA (4x0.25 MTPA)
	Coal Gasifier for Wire Rod / TMT Mill			P1	5 x 8000 Nm ³ /hr.	5 x 8000 Nm³/hr.
	Blast Furnace	1.0 MTPA		1.0 MTPA		
	Ferro Alloys	1,15,000 TPA (9 x 7.5 MVA)	1,15,000 TPA			1,15,000 TPA (9 x 7.5 MVA)
	Sinter Plant	1.45 MTPA	0.1 MTPA	1.35 MTPA		0.1 MTPA
	Oxygen Plant	800 TPD	8 TPD	792 TPD	8 TPD (2x4 TPD)	16 TPD
	Iron Ore Beneficiation Plant				1.0 MTPA	1.0 MTPA
	Iron Ore Palletization Plant				1.5 MTPA	1.5 MTPA

S. No.	Details of Unit	Capacity as per EC dated 03.11.2010	Capacity under operation	Capacity already lapsed	Proposed Expansio n (Capacity)	Capacity After Proposed Expansion
	Coal Gasifier for Pelletization Plant				5 x 8000 Nm ³ /hr.	5 x 8000 Nm³/hr.
	Coal Washery				2x1.0 MTPA	2x1.0 MTPA



Specific and General EC 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. PP shall obtain a letter from State Forest Department that the declared Forest Land was diverted for Prakash Industries Ltd.
- v. Kotadabri Village is adjacent to existing plant in North direction along with other sensitive areas 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.
- vi. Hasdeo River is at a distance of 0.14 km in South along with other water bodies near within the study area. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.
- vii. Water requirement of 30,486 m³/day shall be obtained from Hasdeo river (24,074 m³/day) and treated effluent (6,412 m³/day). PP shall obtain necessary permission in this regard from Competent Authority. No ground water abstraction is permitted.
- viii. Three tier Green Belt shall be maintained in 40% of the project area 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 sensitive areas nearby project site. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- ix. All the commitments made towards socio-economic development of the nearby villages shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 amounting to Rs. 7.1 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

- x. PP shall undertake village adoption programme and prepare and implement the action plan to develop them into a model village.
- xi. The project proponent shall strictly comply with the observations of IRO and submit the status to IRO, MoEFCC.

B. General Conditions

I. Statutory compliance:

- i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.
- ii. This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

II. Air quality monitoring and preservation

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission as well as 04 Nos. Continuous Ambient Air Quality Station (CAAQMS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NOx in reference to SO₂ and NOx 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. No Ferro-chrome production shall be carried out without prior Environmental clearance from MOEF&CC.

- xxiv. Hoppers of the coal crushing unit and other washery units shall be fitted with high efficiency bag filters/mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points of closed belt conveyor systems and from transportation roads.
- xxv. The raw coal, washed coal and coal wastes (rejects) shall be stacked properly at earmarked site (s) within stockyards fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored mineral does not catch fire.
- xxvi. The temporary reject sites should appropriate planned and designed to avoid air and water pollution from such sites.
- xxvii. During operational phase at Captive Power Plant, Action Plan to monitor coke/coal dust exposures in different process plants using personal and area air samplers and to compare with permissible limits as per Indian Factories Act, 1948 shall be implemented.
- xxviii. The coal dust should be monitored at coal unloading, crushing, furnace areas and should be within 2 mg/m³, respirable dust fraction containing less than 5% quartz as per Indian Factories Act, 1948.
- xxix. Online stack monitoring system for IF and RHF shall be installed and monitoring report shall be submitted to the concerned Regional Office of the MoEF&CC along with the six monthly compliance report.
- xxx. Low NOx Burners will be installed at Reheating Furnace for control of Gaseous emissions generated while using PNG.

III. Water quality monitoring and preservation

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

- vii. All stockyards shall have impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains and catch pits to trap the run off material and shall be implemented as per the action plan submitted in EIA/EMP report.
- viii. Rain water harvesting shall be implemented to recharge/harvest water as per the action plan submitted in the EIA/EMP report.
- ix. The project proponent shall provide the ETP for effluents of rolling mills to meet the standards prescribed in G.S.R 277 (E) 31st March 2012 (applicable to IF/EAF) as amended from time to time.
- x. The effluent discharge (mine waste water, workshop effluent) shall be monitored in terms of the parameters notified under the Water Act, 1974 Coal Industry Standards vide GSR 742 (E) dated 25.9.2000 and as amended from time to time by the Central Pollution Control Board.
- xi. Heavy metal content in raw coal and washed coal shall be analysed once in a year and records maintained thereof.
- xii. The rejects should preferably be utilized in FBC power plant or disposed off through sale for its gainful utilization. If the coal washery rejects are to be disposed off, it should be done in a safe and sustainable manner with adequate compaction and post closure arrangement to avoid water pollution due to leachate from rejects and surface run of from reject dumping sites.
- xiii. An Integrated Surface Water Management Plan for the washery area up to its buffer zone considering the presence of any river/rivulet/pond/lake etc. with impact of coal washing activities on it, shall be prepared, submitted to MoEFCC and implemented.
- xiv. Waste Water shall be effectively treated and recycled completely either for washery operations or maintenance of green belt around the plant.
- xv. Rainwater harvesting in the washery premises shall be implemented for conservation and augmentation of ground water resources in consultation with Central Ground Water Board.
- xvi. No ground water shall be used for coal washing unless otherwise permitted in writing by competent authority (CGWA) or MoEFCC. The make-up water requirement of washery should not exceed 1.5 m³/tonne of raw coal.
- xvii. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operations. The monitoring of ground water levels shall be carried out four times a year i.e. pre-monsoon, monsoon, post-monsoon and winter. The ground water quality shall be monitored once a year, and the data thus collected shall be sent regularly to MOEFCC/RO.
- xviii. The project proponent shall take all precautionary measures to ensure riverine/riparian ecosystem in and around the coal mine up to a distance of 5 km. A riverine/riparian ecosystem conservation and management plan should be prepared and implemented in consultation with the irrigation / water resource department in the state government
 - xix. Air Cooled condensers shall be used in the captive power plant.
 - xx. Tailing management plan shall be implemented as included in EIA report.
- xxxi. Tailings from Iron Ore beneficiation plant shall be dewatered in filter press and no slime /tailing pond shall be permitted.

IV. Noise monitoring and prevention

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

V. Energy Conservation measures

- i. Use torpedo ladle for hot metal transfer as far as possible. If ladles not used, provide covers for open top ladles.
- ii. Restrict Gas flaring to < 1%.
- iii. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- iv. Provide LED lights in their offices and residential areas.
- v. The project proponent shall provide waste heat recovery system (pre-heating of combustion air) at the flue gases of reheating furnaces.
- vi. Practice hot charging of slabs and billets/blooms as far as possible.
- vii. Ensure installation of regenerative type burners on all reheating furnaces.
- viii. The project proponent shall provide waste heat recovery system on the DRI Kilns.
- ix. The dolochar generated shall be used for power generation.
- x. Tar shall be recovered from producer gas and shall be sold to registered processors and phenolic water shall be incinerated in After Burn Chamber (ABC) of DRI kilns.
- xi. The PP shall implement the guidelines on sponge iron plants issued by the CPCB/SPCB in this regard.

VI. Waste management

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

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

- v. A proper action plan must be implemented to dispose of the electronic waste generated in the industry.
- vi. Solid waste utilization
 - a. PP shall install a slag crusher to convert steel slag into aggregate for use in construction industry, fine sand for use as flux in steel plant, sand in brick making and as lime in cement making.
 - b. PP shall recycle/reuse solid waste generated in the plant as far as possible.
 - c. Used refractories shall be recycled as far as possible.
- vii. 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. Rejects from coal washery shall only be used either in the captive power plant (or) in the Thermal Power Plants meeting emission standards.

VII. Green Belt

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

VIII. Public hearing and Human health issues

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

- iii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP. Safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iv. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

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

X. Miscellaneous

- i. The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ii. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

- v. Action plan for developing connecting and internal road in terms of MSA as per IRC guidelines shall be implemented
- vi. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
- vii. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- viii. The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- ix. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- x. The recommendations of the approved Site-Specific Wildlife Management Plan (in case of involvement of Schedule-I species) shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.
- xi. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.
- xii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xiii. 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.

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

S.NO	MAJOR AC HEAI		YEAI	R OF IMPLEME	ENTATION	TOTAL EXPEN DITUR E (Rs. in Lakhs)
		e-K	1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	,
A). Bas	sed <mark>on</mark> Need Ba udv	ased &				
1	Education		Ι,			
/	i)Providing support to Model Anganwadi	Physica 1 Nos. & village	P= 1	1 no. in Kosmanda(v)	1 no. in Hathneora(v)	20
	Centre in consultation with State Women and Child Developmen t Department	Budget in Lakhs		10	10	p\$\$
				10	10	20
D) =		~	7	7.5	Total (A)	20
1	Impart training to the local villagers for	Physica 1 Nos. & village		e in Hathneora vil	llage	150
	skill developmen t. a)DISHA Centre" along with necessary infrastructur e for various vocational training program for employment generation in association with National	Budget in Lakhs	50 e-Payn	50	50	

S.NO	MAJOR AC HEAI		YEAR OF IMPLEMENTATION			TOTAL EXPEN DITUR E (Rs. in Lakhs)
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
	Skill Developmen t Mission (Automobile Repair, Welding, Electrical, Computer Hardware, Soft skills like computer programs etc.)	e.K	P.I	ES		
2	Developmen t of Social, Religious, Cultural activity building, cowshed developmen t	Physica 1 Nos. & village Budget in Lakhs		Hathneora (v)		75
3	Relaying of existing road from Kosmanda to Hathneora Village (stretch of 2.7 Kms)	Physica 1 Nos. & village Budget in Lakhs	CPC G	She is Protes	Kosmanda to Hathneora Village	50
4	Providing drinking water facility in Kotadabri & Saragaon villages	Physica 1 Nos. & village Budget in Lakhs	Kotadabri(v) & Sargoan (v)	Sivni (v) & hathneora (v)	e.PIQ	20
5	Speed Breakers will be provided in front of main gate & Hathneora, Champa villages	Physica 1 Nos. & village Budget in Lakhs	Hathneora(v), Champa(v)			10

S.NO	MAJOR AC HEAL		YEAR	TOTAL EXPEN DITUR E (Rs. in Lakhs)		
			1st Year (Rs. in Lakhs)	2nd Year (Rs. in Lakhs)	3rd Year (Rs. in Lakhs)	
6	Constructio n of Primary Health center with	Physica 1 Nos. & village		Hathneora(v)		
	Ambulance in Hathneora, village to take care of health requirement s of the	Budget in Lakhs	1C	125	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	125
7	surrounding villages. Constructio n of class rooms in	Physica 1 Nos.& village	6 nos. of rooms in Hathneora (v	4 nos. of rooms in Kosmanda	6 nos. of rooms in Champa	
	schools of size 8m x 5m x3 m	Budget in Lakhs	60	(v) 40	60	160
8	Plantation in nearby villages & along the Roads	Physica 1 Nos. & village	2000 nos. Each in each Hathneora (v) & Kotadabri	2000 nos. in each Champa (v)	2000 nos. in Kosmanda (v)	40
	30/1	Budget in Lakhs	(v) 20	10	10	
9	Burial sites developmen t at Hathneora	Physica 1 Nos. & village Budget in Lakhs	e- <u>E</u> ayn	ients	Construction of Burial sites at Hathneora (v)	60
	Providing LED Street lighting with solar panels	Physica 1 Nos. & village	20 nos. in Hathneora	20 nos. in Champa (v) &)	10 nos. in Kosmanda(v	10
		Budget in Lakhs	4	4	2	
		Total B TOTA L	149 159	309 319	232	690
	Grand Total(A+B)					710

S.NO	MAJOR ACTIVITY HEADS	YEAR	OF IMPLEM	ENTATION	TOTAL EXPEN DITUR E (Rs. in Lakhs)
		1st Year (Rs. in	2nd Year (Rs. in	3rd Year (Rs. in Lakhs)	
		Lakhs)	Lakhs)	(======================================	

Recurring expenditures under CSR as per companies Act 2014

• Health checkup will be carried out periodically in surrounding villages i.e., Hathneora, Kotadabri, Champa, Kosmanda villages @ Rs 5.0 Lakhs every year.

