



File No: IA-J-11011/154/2022-IA-II(IND-I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Date **12/10/2023**



To,

M/s. SATVIK ENTERPRISES LIMITED
1, Park Lane , KOLKATA, WEST BENGAL, Pin- 700016
vikash@satvikindia.com

Subject: Installation of Ferro-Alloy Plant (SAF 2x9 MVA) and Chrome Ore Briquette Plant (10 TPH) by M/s. Satvik Enterprises Limited located at Mouza: Sahebdihi, PS: Barjora, District: Bankura, West Bengal -Grant of Environmental Clearance Regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/WB/IND1/433174/2023 dated 13/06/2023 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. The proposed project activity is listed at S. No. 3(a) Metallurgical Industries (ferrous & non-ferrous) under Category "A" of the schedule of the EIA Notification, 2006 and being appraised at Central Level.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23A1005WB5765751N
(ii) File No.	IA-J-11011/154/2022-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	Proposed Installation of Ferro-Alloy Plant (SAF 2x9 MVA) and Ferro-Chrome Briquetting Plant (10 TPH)
(viii) Name of Company/Organization	M/s SATVIK ENTERPRISES LIMITED
(ix) Location of Project (District, State)	BANKURA, WEST BENGAL
(x) Issuing Authority	MoEF&CC
(xi) Applicability of General Conditions as per	No

EIA Notification, 2006

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-1(Part A, B and C)/ EIA & EMP Reports were submitted to the MoEF&CC for an appraisal by the undefined under the provision of EIA notification 2006 and its subsequent amendments. Further, the PP has uploaded the information on portal on **01.08.2023**.

4. The above-mentioned proposal has been considered in 39th meeting of Expert Appraisal Committee (Industry-1 Sector) held during **6th-7th July, 2023**. Further MoM of 39th EAC was corrected in the MoM of 41st meeting of the EAC for Industry-I sector held on 2nd & 4th & 8th August, 2023. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed from the PARIVESH portal by scanning the QR Code above or through the following web link [click here](#).

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 2** and PH Action Plan is given at **Annexure 3**.

6. The EAC, in its meeting held during 6-7th July, 2023, inter-alia, deliberated the following:

(i). The instant proposal is for installation of Ferro-Alloy Plant (SAF 2x9 MVA) and Chrome Ore Briquette Plant (10 TPH).

(ii). 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.

(iii). 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.

(iv). 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.

(v). The total project area is 2.18 ha (5.38 acres) which has been acquired and is in possession of the Company. Land has been converted for industrial use.

(vi). There are two schools in the nearby areas namely Hat Ashuria High School & Suripara Primary School which are located around 0.8 kms and 1.03 kms. distance from the project site in E & SE direction respectively. There is also an ITI college located at a distance of 0.2 km in NE direction and Harirampur Kali Temple at a distance of 1.5 in WSW direction. The EAC is of the opinion that PP shall strictly implement the environmental safeguard measures proposed to minimise the impact on these ESA's.

(vii). The fresh water requirement for the proposed project is estimated as 70 m³ /day, which will be met from the water supply of Barjora Gram Panchayat Samity.

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

(ix). M/s Satvik Enterprises Limited has earmarked 0.72 Hectares (1.78 acres) of land (33% of 2.18 hectares/5.38 acres) for Green Belt Development within its proposed plant site. Around 1800 number of trees (@2500 nos. of tree per hectares) has been considered under plantation programme in greenbelt development and the greenbelt development will be completed with the commissioning of the project. The EAC deliberated on the greenbelt action plan along with the budget earmarked and is of the opinion that as committed, the greenbelt shall be completed in the monsoons of 2023.

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

(xi). 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.

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

(xiii). 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.

(xiv). 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.

(xv) 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 39th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 6-7th July, 2023, based on information & clarifications provided by the project proponent and after detailed deliberations recommended the instant proposal for grant of Environment Clearance under the provisions of EIA Notification, 2006 subject to stipulation of following specific conditions and general conditions (at **Annexure 4**) as per the Ministry's Office Memorandum No. 22-34/2018-III dated 9/8/2018 based on project specific requirements.

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

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

10. Concealing factual data or submission of false/fabricated data and failure to comply with any of the

conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

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

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

13. This issues with approval of the competent authority.

(Dr. R. B. Lal)

Scientist 'F'/Director

Tele-fax: 011-20819346

Email-rb.lal@nic.in

Copy To

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

Annexure 1

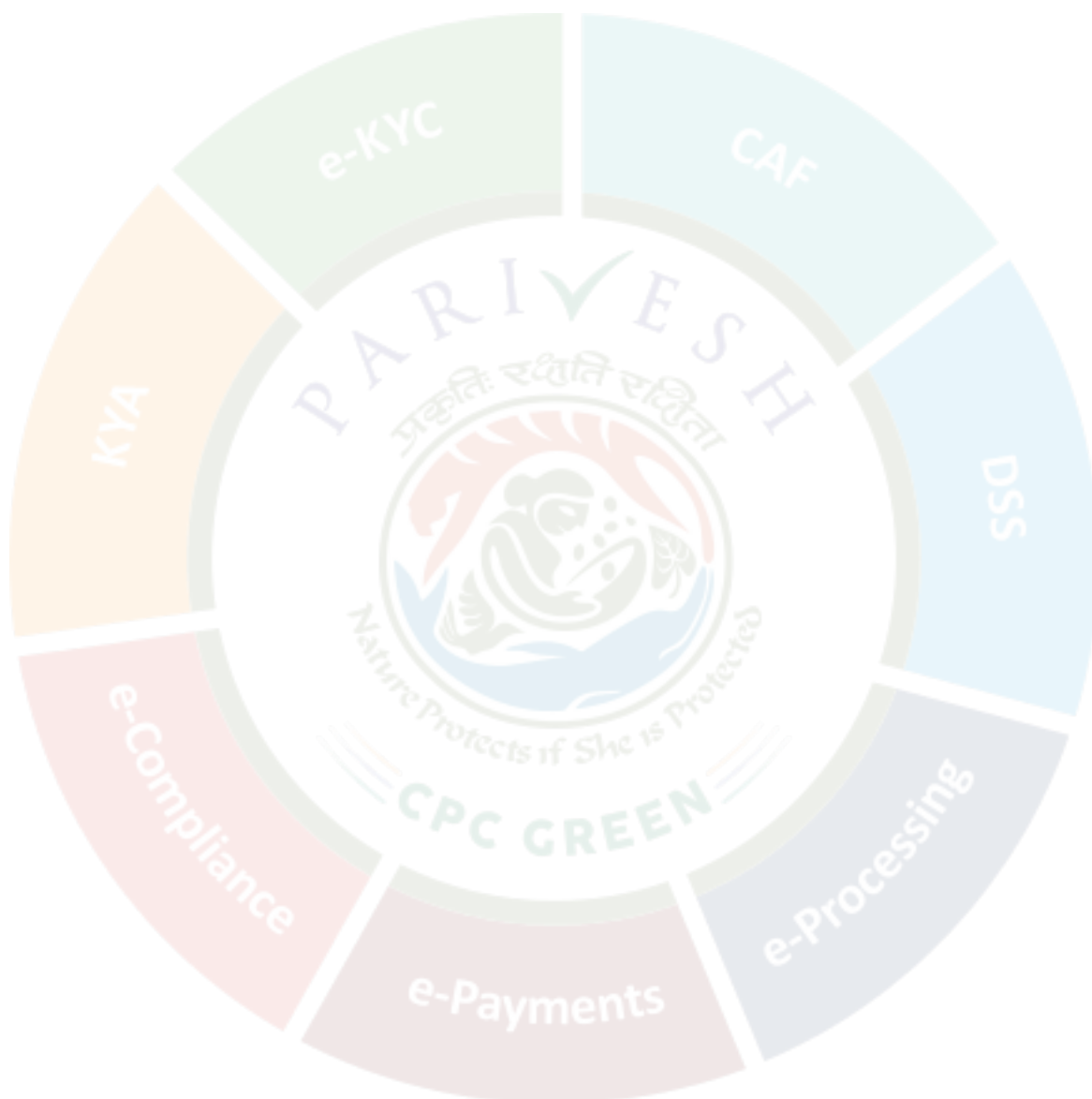
Additional EC Conditions

The Specific and General Conditions are enclosed at Annexure.

Environmental Site Settings

Sl. No.	Particulars	Details	Remarks
i.	Total land	The proposed project will be installed on total 2.18 hectares (5.38 acres) of land, which has been acquired and is in possession of the Company.	Land use: Industrial land.
ii.	Land acquisition details as per MoEF&CC O.M. dated 7/10/2014	2.18 hectares (5.38 acres)	The land for the proposed project is already under the possession of the Company.
iii.	Existence of habitation & involvement of R&R, if any.	The proposed project will be installed on total 2.18 hectares (5.38 acres) of land, which has been acquired and is in possession of the Company.	Total land is under the possession of the company. No additional land is involved in the project. Hence, R & R issue is not applicable.
iv.	Latitude and Longitude of the project site	Latitude: 23°23'54.60"N to 23°24'59.32"N & Longitude: 87°17'15.69"E to 87°17'24.19"E	-
v.	Elevation of the project site	Above Mean Sea Level (AMSL): 272 ft (83m)	-
vi.	Involvement of Forest land if any.	No forest land is involved	-
vii.	Water body exists within the project site as well as study area	Project site: No water body exists within the project site	-
		Study area : (1) River Damodar – 6.7 km from project site in NE direction.	
viii.	Existence of ESZ/ ESA/ national park/ wildlife sanctuary/ biosphere reserve/ tiger reserve/	Nil.	-

Sl. No.	Particulars	Details	Remarks
	elephant reserve etc. if any within the studyarea		



Unit configuration and capacity

Sl. No.	Units	Capacity
1.	Submerged Arc Furnaces (2x9 MVA)	32,800 TPA Si-Mn (High, Medium or Low Carbon grades) or 44,400 TPA Fe-Mn (High, Medium or Low Carbon grades) or 15,200 TPA Fe-Si or 33,600 TPA Fe-Cr
2.	Ferro-Chrome Briquetting Plant	10 TPH
Note: Depending on market demand, M/s. Satvik Enterprises Limited may produce MC/LC grades of Silico Manganese or MC/LC grades Ferro Manganese (Using Converter by blowing Oxygen), without any additional impact on environment.		

Action plan as per MoEFCC O.M. dated 30/09/2020

It has been decided to develop one nearby village namely Hat Asuria by addressing the socio-economic needs of the villagers. The point-wise compliance to the issues, raised during PH meeting along with the action plan and budgetary provision has been presented as follows:

Public Hearing related						
Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
• Generation of employment for the local people and youths	In the proposed project, top priority will be given to the local people of Hat-Asuria village based on their academic qualification.	Physical Target (2 Years)	Construction of a 2 – room building (total carpet area: 1200 sqft.) at Hat-Asuria with infrastructure development like installation of 4 sewing machines, 4 computer systems & 2 machines for making hand craft items along with necessary raw materials for training purpose.			20
	Skill development to unemployed local youths through National Skill Development Corporation, Govt. of India	Budget in Lakhs	10	10	-	

Public Hearing related						
Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
	Scheme. Construction of a building along with the necessary infrastructures for this purpose like different machinery for industries.					
• Hat Asuria School development work	Financial support will be given to the Hat Asuria School for the renovation / repairing work through extension of building / class room/ development of libraries / provision of computers for educational development purpose.	Physical Target (3 years)	Development of existing building by creating extra space of 500 sq.ft at village Hatasuria school	Development of library in the Hat Asuria School.	Supply of 30 nos. of computers with printers to Hat Asuria School	17
		Budget in Lakhs	5	3	9	
• Local road development work	Construction of metal	Physical Target	Development of 1 km metal road	Development of 1 km metal road	-	48

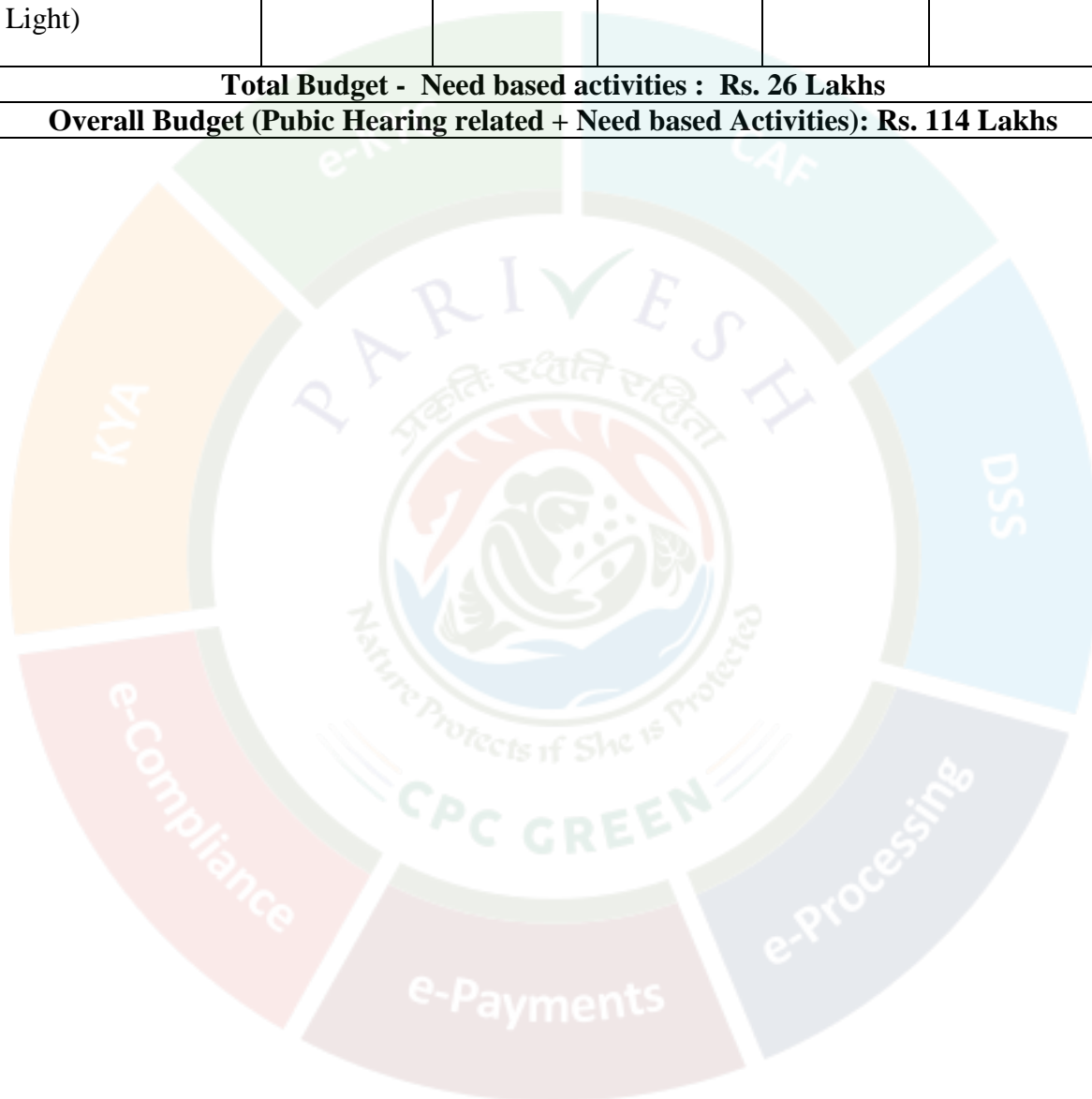
Public Hearing related						
Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
	road (2 km) (@Rs. 24,00,000/- per Km) in the Hat asuria village.	(2 years)	at Hat-Asuria	at Hat-Asuria		
		Budget in Lakhs	24	24	-	
• Extend financial help to poor for the education of their children	• Scholarship will be given to the meritorious and needy students of Hat-Asuria Village.	Physical Target : every year	Scholarship will be given to the economically poor students by sponsoring them for education after conducting competitive examination			-
		Budget	Shall be included in the CSR budget of the company			
• Steps to be taken to control environmental pollution especially operation of Air Pollution Control Device during operation of the unit	• Adequate control measures like installation of ESP, Bag filters, dust suppression system, sprinklers & stacks of adequate height at relevant places will be installed. • Air borne dust shall be	Physical Target	The physical Target for the entire activities shall be achieved in 3 years.			-
		Budget in Lakhs	Included in the EMP Cost.			

Public Hearing related						
Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
	<p>controlled by mobile water tanker inside the plant premises.</p> <ul style="list-style-type: none"> • Maintenance of air pollution control equipment shall be done at regular intervals. • All roads shall be paved on which movement of raw materials or products will take place inside the plant premises. • No waste water will be discharged outside the plant area. The plant is designed as a zero-discharge plant. The 					

Public Hearing related						
Concerns raised during Public Hearing	Physical Activity and Action Plan	Particulars	YEAR OF IMPLEMENTATION			Total Expenditure (Rs. in Lakhs)
			1 st Year	2 nd Year	3 rd Year	
	entire wastewater r will be recirculated and recycled. • The equipment shall comply with the Statutory limit of 85 dB(A) (at 1 m. from the source). Noise Reduction Systems will be provided.					
• Betterment of Water Supply	Development of Drinking Water Infrastructure - 6 numbers Tube well / Hand Pump in nearby villages (@ Rs. 50,000/- per Tube Well / Hand Pump).	Physical Target (3 years)	Providing 2 nos. Tubewell at village Hat Asuria	Providing 2 nos. Tubewell at village Hat Asuria	Providing 2 nos. Tubewell at village Hat Asuria	3
		Budget in Lakhs	1	1	1	
Total Budget - Public Hearing related: Rs. 88 Lakhs						

Need based Activities					
Need based Activities	Particulars	Year of Implementation			Total Expenditure (Rs. in Lakhs)
		1 st Year	2 nd Year	3 rd Year	
Providing Dustbins (300 nos @Rs. 1000/- per unit) in nearby villages (under Swachh Bharat Scheme) for waste segregation and handling	Physical Target: 3 years	100 nos. Dustbins at village Hat-Asuria	100 nos. Dustbins at village Ghutgoria	100 nos. Dustbins at village Bishanpur	3
	Budget : Rs. 3.0 Lakhs	Rs. 1 Lakhs	Rs. 1 Lakhs	Rs.1 Lakhs	
Rain Water Harvesting ponds in nearby villages (2 nos. @ Rs. 5 Lakhs per pond).	Physical Target: 2 years	1 Rain Water Harvesting Pond at village Hat-Asuria	1 Rain Water Harvesting Pond at village Ghutgoria	-	10
	Budget : Rs. 10 Lakhs	Rs. 5 Lakhs	Rs. 5 Lakhs	-	
Construction of 4 no of ground water Recharging system for rainwater in nearby villages (@ Rs. 2.5 lakhs per system).	Physical Target: 2 years	2 nos. of ground water Recharging system at village Hat-Asuria	2 nos. of ground water Recharging system at village Hat-Asuria	-	10
	Budget : Rs. 10 Lakhs	Rs. 5 Lakhs	Rs. 5 Lakhs	-	
Street Lighting (Solar) provision at suitable public places in and around the nearby villages (15 numbers, @ Rs.	Physical Target: 2 years	Providing 5 nos. Solar light at village Hat-Asuria	Providing 5 nos. Solar light at village Hat-Asuria	Providing 5 nos. Solar light at village Harirampur	3
	Budget in Lakhs	1	1	1	

Need based Activities					
Need based Activities	Particulars	Year of Implementation			Total Expenditure (Rs. in Lakhs)
		1 st Year	2 nd Year	3 rd Year	
20,000/- per Solar Light)					
Total Budget - Need based activities : Rs. 26 Lakhs					
Overall Budget (Pubic Hearing related + Need based Activities): Rs. 114 Lakhs					



A. Specific conditions:

- i. The project proponent shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- ii. The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- iii. There are two schools in the nearby areas namely Hat Ashuria High School & Suripara Primary School which are located around 0.8 kms and 1.03 kms. distance from the project site in E & SE direction respectively. There is also an ITI college located at a distance of 0.2 km in NE direction and Harirampur Kali Temple at a distance of 1.5 in WSW direction. Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on these ESA's. 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.
- iv. The water requirement of 70 m³/day shall be obtained from from the water supply of Barjora Gram Panchayat Samity after obtaining necessary permission from the Competent Authority. No ground water extraction is permitted.
- v. Three tier Green Belt shall be developed in at least 33% of the project area in the monsoons of 2023 with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. 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 ESA's. The Unit shall also provide green belt around the two educational institutions in the close vicinity of the industry. Compliance status in this regard, shall be submitted to concerned Regional Office of the MoEF&CC.
- vi. 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. 1.14 Crores shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.
- vii. As committed, PP shall adopt Hatsuria Village and prepare and implement the action plan to develop it into 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. 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 02 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 carry out 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 (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.
- iii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- iv. Sampling facility at process stacks shall be provided as per CPCB guidelines for manual monitoring of emissions.
- v. Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.
- vi. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.
- vii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
- viii. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. The project proponent use leak proof trucks/dumpers carrying coal and other raw materials and cover them with tarpaulin.
- ix. Recycle and reuse iron ore fines, coal and coke fines, lime fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after briquetting/ agglomeration.

- x. The project proponent shall provide primary and secondary fume extraction system at all heat treatment furnaces.
- xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
- xii. Design the ventilation system for adequate air changes as per prevailing norms for all tunnels, motor houses, Oil Cellars.
- xiii. Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
- xiv. The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.
- xv. Bag filters shall be cleaned regularly and efficiency of bag filter system shall be monitored at regular intervals.
- xvi. Water Sprinklers/Water mist system shall be installed near raw material yards, operational units and other strategic locations to control fugitive emissions from the plant.
- xvii. The particulate matter emissions from the process stacks shall be less than 30 mg/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. The Project proponent shall fix carbon monoxide detectors with critical alarms 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.

IV. Noise monitoring and prevention

- i. Noise pollution shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and amendments thereof, and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
- ii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.

V. Energy Conservation measures

- i. Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- ii. Provide LED lights in their offices and residential areas.

VI. Waste management

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

VII. Green Belt

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

dust pollution from exposed soil surface.

VIII. Public hearing and Human health issues

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

IX. Environment Management

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

X. Miscellaneous

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

to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

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

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

