



सत्यमेव जयते

File No: 497564/25-IND1/10-2024

Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), ODISHA)



Date 23/04/2025



To,

Sri. Suman Swain, Proprietor
M/s Prime Industries
Prime Industries, Plot No 29 & 32, Rahanja Industrial Estate, IDCO, Rahanja, Bhadrak, Pin- 756111
sumanswain329@gmail.com

Subject: Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -regarding.

Sir/Madam,

This is in reference to your application submitted to SEIAA,Odisha vide proposal number SIA/OR/IND1/497564/2024 dated 11/10/2024 for grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 and as amended thereof.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC24B0901OR5784111N
(ii) File No.	497564/25-IND1/10-2024
(iii) Clearance Type	Fresh EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	2(b) Mineral beneficiation proposed Setting up of Chrome Ore Beneficiation Plant over an area of 1.098Acres with throughput Capacity of 18,500 TPA within the existing Chrome Monolithic Unit located in Rahanja Industrial Estate, Village- Rahanja, Tahasil- Bhadrak, District- Bhadrak
(vii) Name of Project	
(viii) Name of Company/Organization	M/s Prime Industries
(ix) Location of Project (District, State)	Rahanja Industrial Estate, Village- Rahanja, Tahasil- Bhadrak, District- Bhadrak
(x) Issuing Authority	SEIAA, Odisha
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

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 Report were submitted to the SEIAA, Odisha for an appraisal by the State Level Expert Appraisal Committee(SEAC) under the provision of EIA notification 2006 and its subsequent amendments thereto.
4. The above-mentioned proposal has been considered for EC by SEAC in its meeting held on 01.02.2025. The minutes of the meeting and all the project documents as submitted by project proponent 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 project along with the salient features of the project as submitted by the project proponent in Form-1(Part A, B and C)/ EIA & EMP Report and as presented before SEAC is annexed to this EC as Annexure- 2.
6. The SEAC, after detailed deliberations made by the Project Proponent and the EIA Consultant, in its meeting held on 01.02.2025 under the provisions of EIA Notification 2006 and its subsequent amendments, recommended the proposal for grant of Environmental Clearance (EC) valid for a period of 10 years, stipulating various conditions.
7. The matter was again examined in the State Environment Impact Assessment Authority (SEIAA), Odisha in its 193rd meeting held on 07.04.2025, recommendation of SEAC and in accordance with the EIA Notification, 2006 and further amendments thereto. After detailed deliberation, the Authority approved the Environmental Clearance with standard and specific conditions as recommended by SEAC.
8. Environmental Clearance (EC) is granted to the project valid for a period of 10 years under the provisions of EIA Notification No. S.O. 1533 (E) dated the 14th September, 2006 of the Government of India in the erstwhile Ministry of Environment and Forests, as amended from time to time for proposed "Setting up of Chrome Ore Beneficiation Plant over an area of 1.098Acres with throughput Capacity of 18,500 TPA within the existing Chrome Monolithic Unit located in Rahanja Industrial Estate, Village- Rahanja, Tahasil- Bhadrak, District- Bhadrak by M/s Prime Industries'' with the following stipulations, environmental conditions and safeguards as given in Annexure- 1.
9. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
10. The Environmental Clearance to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
11. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
12. This issues with the approval of the Competent Authority.

Copy To

1. Joint Secretary (IA Division), Ministry of Environment, Forests and Climate Change Govt. of India, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110003 for information.
2. Additional Chief Secretary, Forests & Environment Dept., Government of Odisha for information.
3. Member Secretary, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar for information and necessary action.
4. Additional Principal Conservator of Forests, Regional Office (RO), Ministry of Environment & Forests, A/3, Chandrasekharpur, Bhubaneswar for information and necessary action.
5. Regional Director, CGWA, South Eastern Region, Bhujal Bhawan, Khandagiri, Bhubaneswar, Pin-751030 for Information and necessary action.
6. Collector & DM, Bhadrak, District-Bhadrak for Information and necessary action.
7. Secretary, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for kind information.
8. Guard file for record/Website/Parivesh Portal.

Annexure 1

Specific EC Conditions for (Mineral Beneficiation)

1. Specific Conditions

S. No	EC Conditions
1.1	<p>i) The waste water that will be generated from the tailings shall be treated in ETP wherein hexavalent Chromium shall be reduced to trivalent Chromium by dosing it with appropriate standard chemical following due technical procedure.</p> <p>ii) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.</p> <p>iii) Project proponent shall explore Nanotechnology techniques for treatment of hexavalent chromium (Cr6+) in surface run off and treatment of tailing effluent and comply the progress annually.</p> <p>iv) Project proponent shall provide filter press for dewater the tailing.</p> <p>v) PP shall carry out the plantation at least in a single row all around the plant boundary.</p> <p>vi) The PP shall make all efforts to adopt ZLD.</p>

Standard EC Conditions for (Mineral beneficiation)

1. Statutory Compliance

S. No	EC Conditions
1.1	<p>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.</p>
1.2	<p>The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.</p>
1.3	<p>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.</p>
1.4	<p>The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.</p>
1.5	<p>The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden(in case of the presence of Schedule-I species in the 10Km study area). The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report.</p>
1.6	<p>The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.</p>
1.7	<p>The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.</p>

S. No	EC Conditions
1.8	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

2. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.
2.2	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
2.3	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.
2.4	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission 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, as applicable.
2.5	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
2.6	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986. 9) The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to S02 and NOx 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.
2.7	The project proponent shall install system to carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to S02 and NOx 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.
2.8	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation.
2.9	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of

S. No	EC Conditions
	SPCB along with six-monthly monitoring report.
2.10	The project proponent use leak proof trucks/dumpers carrying raw materials and cover them with tarpaulin.
2.11	The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
2.12	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.13	Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
2.14	Pollution control system in the plant shall be provided as per the CREP Guidelines of CPCB.
2.15	The project proponent shall adopt the Clean Air practices. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels.
2.16	The particulate matter emissions from the process stacks shall be less than 30 mg/Nm ³ and measures shall be undertaken. Efficient Air monitoring equipment shall be installed.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The project proponent shall monitor water quality 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.
3.2	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3.3	Adhere to 'Zero Liquid Discharge'
3.4	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
3.5	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.
3.6	The project proponent shall practice rainwater harvesting to maximum possible extent.
3.7	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.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	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.
4.2	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.

5. Energy Conservation Measures

S. No	EC Conditions
5.1	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;
5.2	Provide LED lights in offices and residential areas.

6. Waste Management

S. No	EC Conditions
6.1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.

7. Green Belt And Emp

S. No	EC Conditions
7.1	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant. The PP shall plant "Ek Ped Maa Ke Naam" and the plantation shall be carried out in the earmarked greenbelt area as a part of tree plantation campaign and the details of the same shall be uploaded in the MeriLiFE Portal (https://merilife.nic.in).

8. Water Quality Monitoring And Preservation In Case Of Beneficiation Plant

S. No	EC Conditions
8.1	Tailing management plan shall be implemented as included in EIA report.

9. Public Hearing And Human Health Issues

S. No	EC Conditions
9.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and

S. No	EC Conditions
	Disaster Management Plan shall be implemented.
9.2	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
9.3	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.
9.4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

10. Corporate Environment Responsibility

S. No	EC Conditions
10.1	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest I wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the RO, MoEF&CC as a part of six-monthly report.
10.2	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.
10.3	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Regional Office of Ministry along with the Six Monthly Compliance Report.
10.4	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

11. Miscellaneous

S. No	EC Conditions
11.1	The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance by SEIAA and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of Parivesh Portal at https://parivesh.nic.in/ . The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of

S. No	EC Conditions
	MoEF&CC, Bhubaneswar for compliance and in addition this shall also be displayed in the project proponent's website permanently.
11.2	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.
11.3	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.
11.4	It shall be mandatory for the project management to submit half yearly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / Integrated Regional Office of the MoEF & CC, Bhubaneswar in soft copies on 1st day of June and December of each calendar year. No hard copy of six monthly compliance report shall be accepted to SEIAA. The proponent shall also upload the compliance report including results of monitored data, as applicable in the website of the Ministry for monitoring of EC Conditions, failing which EC is liable to be revoked.
11.5	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.
11.6	The project proponent shall inform the Regional Office as well as the SPCB,SEIAA, 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.
11.7	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
11.8	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 State Expert Appraisal Committee.
11.9	No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA,Odisha.
11.10	The above conditions will 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 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court and any other Court of Law relating to the subject matter.
11.11	The PP shall put all the environment related expenditure, expenditure related to Action Plan on the 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 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.
11.12	Concealing factual data or submission of false/fabricated data may result in revocation of this

S. No	EC Conditions
	environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11.13	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
11.14	The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
11.15	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.
11.16	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.

12. Green Belt

S. No	EC Conditions
12.1	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.
12.2	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

13. Environment Management

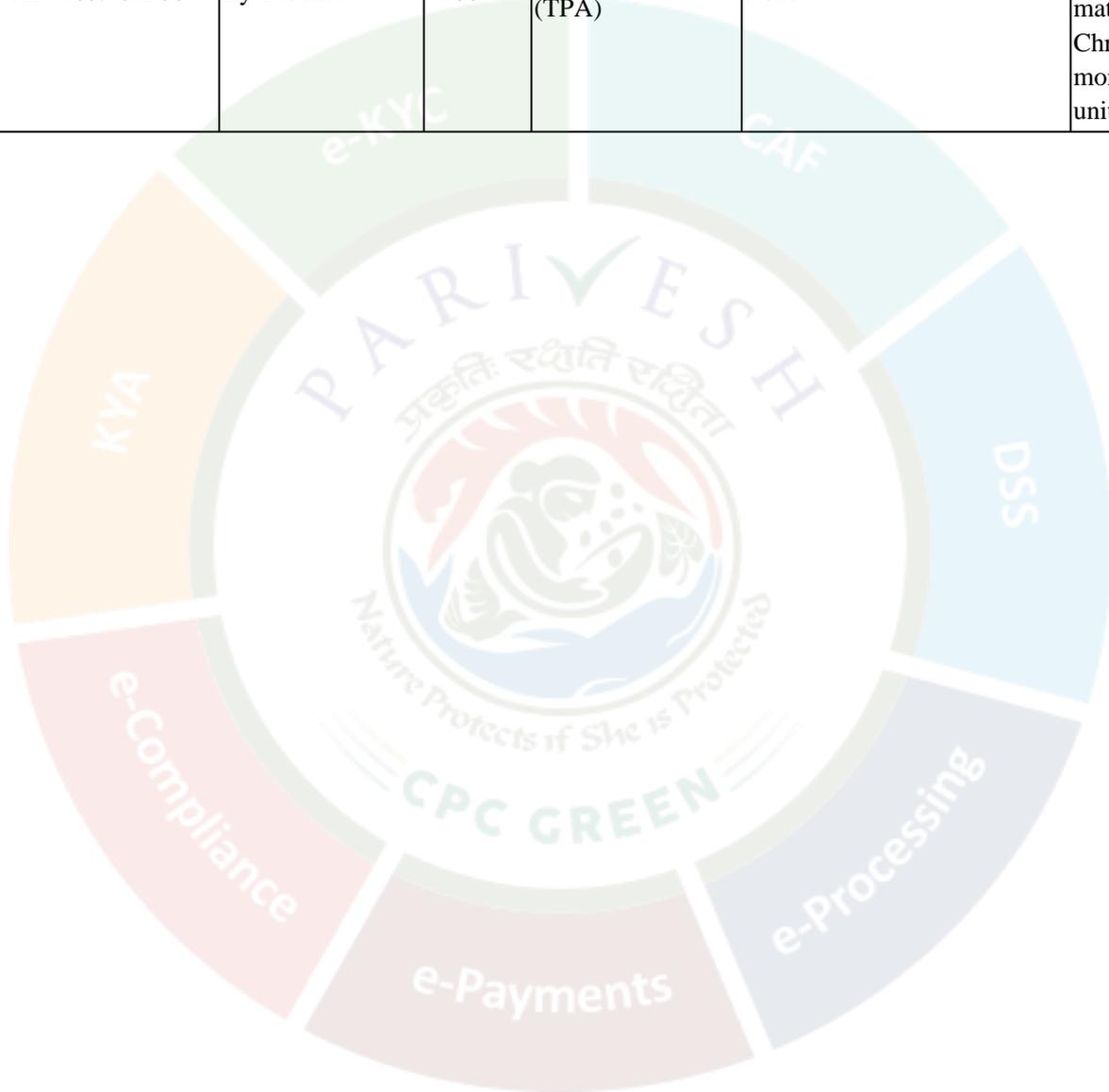
S. No	EC Conditions
13.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt nearby villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
13.2	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.

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Beneficiated Chrome Ore	Product	13800	Tons per Annum	Road	Throughput

Name of the product /By-product	Product / By-product	Quantity	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
			(TPA)		of beneficiation unit is 18500 TPA
Tailing with <10% Cr ₂ O ₃	By-Product	4700	Tons per Annum (TPA)	Road	Tailing generated will be used as raw material in Chrome monolithic unit



Annexure-2

1. Proposal in Brief:

The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEIAA, are given as under:-

- (i) This is a proposal of M/s Prime Industries for Environmental Clearance of proposed Setting up of Chrome Ore Beneficiation Plant over an area of 1.098 Acres with throughput Capacity of 18,500 TPA within the existing Chrome Monolithic Unit located in Rahanja Industrial Estate, Village- Rahanja, Tahasil- Bhadrak, District- Bhadrak filed by Sri. Suman Swain, Proprietor.
- (ii) Category: The proposed project comes under sector 2 (b) - Mineral beneficiation and Category B2 (<20000 TPA) as per EIA Notification 2006 and subsequent amendments.
- (iii) TOR details: Terms of Reference was granted by SEIAA vide letter no. TO23B0901OR5761880N dtd. 27.08.2024
- (iv) Location and Connectivity –The proposed project is located in village Rahanja, IDCO Plot No-29 & 32, Rahanja Industrial State of Bhadrak District, Odisha. The site is bounded by geo-coordinates Latitude: 21°07'18.8" N & Longitude:86°32'43.2" E bearing Toposheet No.: F45O/12; NH 16 is located at a distance of 0.17Km, SEE from the project site. Nearest railway station is at Ranital road railway station located at a distance of 3.30 Km & from the project site. Balasore Bhadrak Cuttack Road is located at a distance of 0.18km, SEE from the project site.
- (v) Project details: The existing unit is operating the chrome monolithic unit with the consent to establish vide CTE letter no 409 dated 03.03.2015 and valid consent to vide letter no. 1003/CTO-2846/2015 on dated 19.05.2022 which is valid for the period up to 31.03.2026 from Odisha State Pollution Control Board. Presently the unit is manufacturing of Chrome monolithics capacity 18,000 MT/Annum, Refractory Mortar having capacity 18,000 MT/Annum and Ferro Alloy Metals (reclaimed from Ferro alloy slag) quantity of 720MT/annum in existing plant premises. Now application for EC is made for throughput capacity of the Chrome beneficiation unit of 18500 TPA.
- (vi) Summary of products generated by the project

Units	Products and By Products	Existing	Additional	After Expansion
TPA	Chrome Monolithic	18000		18000
	Refractory Mortar	18000		18000
	Ferro Alloy Metals (Reclaimed from Ferro alloy slag)	720		720
	Beneficiated Chrome Ore	--	13800	13800

(vii) Land use Details:-

Sl. No	Land use	Area (sq. meter)
1	Main plant	600
2	Solid Waste management	225
3	Raw materials Storage area	800
4	Road, parking area	535
5	Green belt	1063
Total		3223

- (viii) Details of waste generated and its management: The major solid waste will be the tailings generated from beneficiation process. The quantity of tailings to be 4700 TPA having <10% Cr₂O₃. The tailings generated will be utilized for blending in the chrome refractory mortar plant and there will be no solid waste dumping in long term. The tailings will be stored in the tailing dump. After drying the tailings will be blended in the chrome refractory mortar as per the demand of the customer. An area has been demarcated for storage of tailings within the plant premises. After beneficiation the tailings will flow down to the settling tank. The capacity of the tailing's disposal area will be 225 sq. m which can store dry tailings upto two months. The tailings generated daily basis will be shifted as raw materials in the monolithic unit.
- (ix) Baseline Study Details: The baseline data will be collected in the period of December 2023 to February 2024.

Period	December 2023 To February 2024	Applicable Standards
AAQM Parameters at 8 locations	PM _{2.5} – 25.8 to 38.3 µg/cu. m	60 µg/cu. m
	PM ₁₀ – 45.0 to 73.4 µg/cu. m	100 µg/cu. m
	SO ₂ – 5.15 to 11.13 µg/cu. m	80 µg/cu. m
	NO _x – 9.1 to 20.6 µg/cu. m	80 µg/cu. M
Ground water Quality at 7 Locations	pH – 6.6 to 7.2	6.5 to 8.5
	Total Hardness – 116 to 192 mg/l	600 mg/l
	Chloride - 12 to 32 mg/l	250 mg/l
	Fluorides – 0.3 to 0.45 mg/l	1.5 mg/l
	TDS – 184 to 460 mg/l	1000 mg/l
	Heavy metals: BDL (Cd <0.001, As <0.01, Hg<0.0001) mg/l Detection limits of analysis method	Heavy metals: (Cd <0.003, As <0.01, Hg<0.001) mg/l
Surface water at 4 locations	pH – 7 to 8.2	
	Dissolved Oxygen – 6.3 to 7.1 mg/l	
	Biochemical Oxygen Demand – 2 to 2.8 mg/l	
	Chemical Oxygen demand – 10 to 20 mg/l	
Noise at 8 locations	Day (dBA Leq) - 41.56 to 73.9	55
	Night (dBA Leq) - 34.77 to 60.72	45
Soil Quality at 4 locations	pH –4.4 to 5.2, Potassium –56.4 to 168 mg/ kg, Phosphorous –13.2 to 18.0 mg/ kg, Organic Carbon % –0.54 to 1.26, Electrical Conductivity- 29.5 to 69 (µs/Cm)	

- (x) Water Requirement and wastewater management: The water requirement will be met from rain water harvesting pond. The total water requirement is 153 KLD. About 10KLD of makeup water will be utilized in the process of beneficiation and rest 3KLD will be utilised in Dust Suppression, Green Belt and Domestic use. The water utilized in the process will be recycled resulting in zero discharge of wastewater. The tailing pond of adequate capacity will be

constructed with suitable impervious lining to prevent percolation into ground water. The makeup water will be sourced from ground water and RWH pond.

- (xi) Power Requirement: The power requirement is estimated as 100 KVA and will be procured from TPCODL, Odisha. They have also proposed to install 125 kVA DG set.
- (xii) Rainwater Harvesting Details: There will be construction of rainwater recharge pit used for recharge of rain water in the premises with capacity 1938.18 cu.m.

Location	Area in Sq. m.	Rainfall annum (m)	per runoff coefficient	Total Harvestable quantity (Cu. m.)/ Annum
Corrugated Roof	161.53	1.5	0.9	218.06
Roof top	121.13	1.5	0.8	145.35
Paved area and Road	1305.21	1.5	0.6	1174.6
Green area	1333.90	1.5	0.2	400.17
Total	2921.77			1938.18

- (xiii) Greenbelt Development: Green belt will be developed over an area of 1333 sq.m area with 300 saplings.

Location	Area Under Plantation (Sq.m)	No. of saplings Proposed	Species Proposed
Green Belt around the plant boundary. Near entrance gate	1110 (3m width)	250	<i>Coconut, Cassia siamea, Gmelia arborea, Tectona grandis, Alstonia scholaris, Azadirachta indica, Mangifera indica, Bamboo sps, Phylanthus emblica, Punica granatum, Psidium guajva, Mimosa elengii, Hibiscus rosa sinensis, Nerium oliander.</i>
Plantation in open space (SE part of plant)	223 Sq.m	50	<i>Dalbergia sisoo, Cassia siamea, Gmelia arborea, Acacia sps, Tectona grandis, Alstonia scholaris</i>
Total	1333.0	300	
The proposed green belt will be developed within 1 year of the plant operation.			

- (xiv) Total Employment: Proposed employment generation from proposed project will be 12 direct employments which includes operators - 2, supervisors 2, 4 no. of semi-skilled labours and 4 no. of unskilled labours.
- (xv) Project Cost and EMP, CSR Cost: Total project cost is approx. 5.195 Crores rupees and proposed EMP cost will be 32.0 lakhs and CSR cost will be 10.0 Lakhs.

Table: EMP Cost

Sl. No	Particulars	Amount (Rs. in Lakhs)
Capital Cost		
01	Pollution Control Measures	20.00
02	Acoustics	5.00
03	Env. monitoring and management	3.00
04	Green Belt Development	2.0
05	Occupational Health & safety	2.0
Total		32.0

Recurring Cost		
01	Environmental Monitoring	3.00
02	Occupational health & safety	1.00
03	Greenbelt Development and maintenance	1.0
Total		5.0

Table: CSR PLAN

Activities	Proposed Location	Frequency/ No.	Expenditure/ Annum (Rs.)
Mobile health checkup camp	Rahanja	Twice/ Annum	1,00,000.00
Solar Street light	Rahanja Village	20 nos	4,00,000.00
Funds for furniture, repair and maintenance of the school building, annual sports and for annual function in primary school	Primary school	--	1,00,000.00
Providing Drinking water facility through tanker to the nearby Basti	Rahanja	Daily	4,00,000.00
Total			10,00,000.00

- (xvi) Environment Consultant: The Environment consultant M/s Kalyani Laboratories Pvt Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
- (xvii) The SEAC in its meeting held on dated 06-11-2024 recommended the following to be submitted for further processing of EC application: The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Project proponent shall explore Nanotechnology techniques for treatment of hexavalent chromium (Cr ⁶⁺) in surface run off.	The proponent will explore the nanotechnology technique for the treatment of hexavalent chromium in the surface runoff.
ii)	Traffic study report shall be vetted by Institute of Repute.	Vetted traffic study report is attached as Annexure I.
iii)	Project proponent shall provide filter press for dewater the tailing, include clarifier in ETP and submit details of ETP.	The proponent will provide filter press for dewatering of tailing and clarifier will be included in the ETP. Details of ETP is submitted as Annexure 2.
iv)	PP shall carry out the plantation at least in a single row all around the plant boundary.	Detail plantation plan is attached as Annexure 3.
v)	ETP flow sheet to be submitted.	Attached as Annexure 2.

2. Whether SEAC recommended the proposal – Yes. The proposal was placed in SEAC meeting held on 01.02.2025 for consideration of EC. Considering the information furnished and the presentation made by the environment consultant, M/s Kalyani Laboratories Private Limited, Bhubaneswar, Odisha along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions in addition to the following specific conditions:-

- i) The waste water that will be generated from the tailings shall be treated in ETP wherein hexavalent Chromium shall be reduced to trivalent Chromium by dosing it with appropriate standard chemical following due technical procedure.
 - ii) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.
 - iii) Project proponent shall explore Nanotechnology techniques for treatment of hexavalent chromium (Cr6+) in surface run off and treatment of tailing effluent and comply the progress annually.
 - iv) Project proponent shall provide filter press for dewater the tailing.
 - v) PP shall carry out the plantation at least in a single row all around the plant boundary.
 - vi) The PP shall make all efforts to adopt ZLD.
3. Decision of Authority: Approved:- The proposal was placed in the 193rd meeting of SEIAA held on 07.04.2025 for consideration of EC. After detailed deliberation, the Authority approved the Environmental Clearance with standard and specific conditions as recommended by SEAC as follows:-.
- (i) The waste water that will be generated from the tailings shall be treated in ETP wherein hexavalent Chromium shall be reduced to trivalent Chromium by dosing it with appropriate standard chemical following due technical procedure.
 - (ii) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.
 - (iii) Project proponent shall explore Nanotechnology techniques for treatment of hexavalent chromium (Cr6+) in surface run off and treatment of tailing effluent and comply the progress annually.
 - (iv) Project proponent shall provide filter press for dewater the tailing.
 - (v) PP shall carry out the plantation at least in a single row all around the plant boundary.
 - (vi) The PP shall make all efforts to adopt ZLD.