

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL
COMMITTEE, ODISHA HELD ON 10TH FEBRUARY, 2021**

The SEAC met on 10th February, 2021 at 03:00 PM in the Conference Hall of Odisha State Pollution Control Board, Bhubaneswar under the Chairmanship of Sri B.P. Singh. The following members were present in the meeting.

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|------------------------------|---|----------|
| 1. Sri. B. P. Singh | - | Chairman |
| 2. Dr D. Swain | - | Member |
| 3. Sri. J. K. Mahapatra | - | Member |
| 4. Prof. (Dr.) B.K. Satpathy | - | Member |
| 5. Er. K.R. Acharya | - | Member |
| 6. Dr. K.C.S Panigrahi | - | Member |

CONSIDERATION OF MINOR MINERAL PROPOSALS

A. NEW PROPOSALS (20 Nos.):

The committee verified 20 nos. of minor mineral proposals on the basis of MoEF&CC, Govt. of India OM no. F. No. L-I 1011/175/2018-IA-II (M), dated 12.12.2018. The case-wise proceedings and observations of the committee are detailed in Table as per **Annexure – A**. The proposals of following categories are:

Total no. of proposals	Type of proposals	No. of proposal	Decisions of the committee
20	Stone Quarries and other (12)	03	The committee considered the proposals as B2 category and recommended for Environmental Clearance.
		09	Clarification to be sought from the concerned Tahasildar.
	River Sand (08)	05	The committee considered the proposals as B2 category and recommended for Environmental Clearance.
		03	Clarification to be sought from the concerned Tahasildar.

B. COMPLIANCE RECEIVED (11 Nos.):

The committee verified 11 nos. of minor mineral proposals (compliance received) on the basis of MoEF&CC, Govt. of India OM no. F. No. L-I 1011/175/2018-IA-II (M), dated 12.12.2018. The case-wise proceedings and observations of the committee are detailed in Table as per **Annexure – A**. The proposals of following categories are:

Total no. of proposals	Type of proposals	No. of proposal	Decisions of the committee
11	Stone Quarries and other (08)	04	The committee considered the proposals as B2 category and recommended for Environmental Clearance.

Total no. of proposals	Type of proposals	No. of proposal	Decisions of the committee
		02	Clarification to be sought from the concerned Tahasildar.
		02	Returned the proposal to SEIAA
	River Sand (03)	03	The committee considered the proposals as B2 category and recommended for Environmental Clearance.

CONSIDERATION OF CATEGORY B PROPOSALS (COMPLIANCE RECEIVED):

I) PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S CHROME SAGAR FOR CHROME ORE BENEFICIATION UNIT OF THROUGHPUT CAPACITY 18,500 TPA & REFRACTORY MIX PLANT, AT VILLAGE PUBALA, DISTRICT OF JAJPUR, ODISHA - EC

1. This is a proposal for Environmental Clearance of of M/s. Chrome Sagar for Chrome Ore Beneficiation Unit of throughput capacity 18,500 TPA & Refractory mix plant, at village Pubala, district of Jajpur, Odisha of Sri Rajendra Kumar Thatoi.
2. The project falls under Category 2 (b), B2 (Throughput <20,000 TPA) as per schedule of EIA Notification dated 14th Sep, 2006, as amended from time to time.
3. The proposed expansion project is for additional installation of chrome ore beneficiation unit with throughput of 18500 TPA within the existing campus of M/s Chrome Sagar at Vill: Pubala, P.O. Sukinda, Dist: Jajpur, Odisha.
4. The existing project for production of Chrome mortar and Chrome monolithic and again obtained Consent to establish for the existing chrome monolithic unit and Chrome refractory mortar of 12,000 TPA capacity obtained from Odisha state pollution control Board vide letter no. 1482/KNG/IND-266 dated 09.08.2019 and Consent to Operate for the unit has been obtained vide letter no. 1687/KNG/IND-266 dated 07.09.2019
5. ToR was issued vide Online Proposal No: SIA/OR/IND/48689/2019 and SEIAA File No: 48689/09-IND/12-2019. The presentation at SEAC, Odisha for approval of ToR was held on 29.01.2020 and ToR Approved Vide letter no: 8365/SEIAA dated 17.07.2019. Application for Environment Clearance was made on 21.08.2020.
6. The proponent has applied to consider their project as Category-B2 as per MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 as throughput of Mineral Beneficiation activity is less than 20,000 TPA involving only physical beneficiation.
7. The MoEF&CC, Govt. of India O.M. No. J/13012/12/2013-IA-II(I), dated 24.12.2013 stipulates the Mineral Beneficiation activity listed in the schedule as Category-B will be treated as Category-B2 with throughput ≤ 20,000 TPA, involving only physical beneficiation.
8. The total land of M/s Chrome Sagar is 2.2 Acres which is purchased by the project proponent. No additional land is required for the above additional installation of beneficiation unit. No forest land involved. The nearest river is Brahamani river located at a distance of 8.5 Km from the project site. There is the proposal for construction rain

water harvesting structure for fulfilment of water requirement for the project over an area of 728 Sq.m.

9. The land area required for the project will be 2.2 acres which comes under agricultural waste land category which has been converted Gharabari Kissam and belongs to the project proponent. Plot No: 1138, 1139/1640 & 1278/1641; Khata No.: 267/39.
10. The proposed area is featured under the topo sheet No. 45T/13 bounded by Latitude:20° 12' 36"N Longitude:85° 31' 31"E. The mining lease area is also accessible NH-200 at 2.5 km. and Sukinda – Hatibari road 5 km. The nearest railway station is Sukinda Road railway station and Jajpur road railway station which are situated at a distance of 17 km and 25 km from the proposed area. Nearest airport is Biju Pattnaik Bhubaneswar Airport 80 Kms from project site. Nearest river is Brahmani River at 9.5 km and Jhamra river at 5 km. Nearest town is Sukinda at 4.5 km. Nearest forest Pubala Protected forest at 0.5km. Nearest habitation is within 3km from project site. There is no wild life sanctuary, corridor, National park, biosphere reserve located within 10 Km buffer zone of the project site.
11. Raw material linkage has been established for the proposed plant from M/s B.C. Mohanty Mines, Sukinda and from OMC Ltd. The project is well accessible for transportation of raw material and product. The project is accessible through a 50 ft wide road which connect to NH – 200 and Sukinda road railway station also located at a distance of 17Km from the project site.
12. The process is a beneficiation process of conversion of low grade chrome ore having content less than 40% of Cr₂O₃ into semi high grade ore having content 50-65% of Cr₂O₃.
13. Generation of solid waste (tailings generated = 3600 TPA having <10% Cr₂O₃) will be properly stored in an impervious platform in earmarked area and will be blended with chrome refractory mortar and sold. So there will be no waste generation from the proposed project. However taking into consideration of maximum storage of 6 years an area of 0.648 Acres has been demarcated for tailing pond.
14. **Total Water Requirement:** The total water requirement of the project is estimated as 68 KLD. The makeup water requirement for beneficiation plant will be 5 KLD and 2 KLD water required for dust suppression and green belt development will be sourced from Rain water reservoir and the drinking water requirement of 1 KLD will be sourced from bore well.
15. **Power Requirement:** The total power requirement is estimated as 100 KVA. It is proposed to draw the power from the NESCO.
16. **Green area:** Greenbelt is being/ will be developed in 2938 Sq.m 33 % of total project area. There is the proposal for plantation of 675 saplings within the project site.
17. **Baseline Environmental Studies** were conducted during winter season i.e. from 01-December-2019 to 29th February 2020. Ambient air quality monitoring has been carried out at 8 locations during 01-December-2019 to 29th February 2020 (winter season) and the data submitted.
18. No/ R&R is involved. The proposed expansion is within the existing plant premises

without any further land acquisition.

19. The tailing generated from the project will be 6500 TPA (10% Cr₂O₃) which will be completely utilized in the existing chrome monolithic unit resulting in zero discharge from the proposed beneficiation plant.
20. The project generates employment opportunities for 10 personnel which includes operator -2, supervisor 2, 3 no of semi-skilled labour and 3 no of unskilled labour.
21. The project has been considered under B2 Category (Mineral beneficiation with throughput <20,000 TPA) and exempted from public hearing.
22. The capital cost of the project is ` 1.05 Crores and the capital cost for environmental protection measures is proposed as ` 16 Lakhs. The annual recurring cost towards the environmental protection measures is proposed as ` 4.5 Lakhs. The detailed CER plan has been provided in the EIA and cost of CER will be 9.5 Lakhs.
23. The proponent has mentioned that there is no court case or violation under EIA Notification for the project or related activity.
24. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a briefing on the proposal before the Committee.
25. The SEAC in its meeting held on Dt: 30.09.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of sub-Committee of SEAC.
26. The project proponent has furnished compliances as desired by the committee vide letter no. Nil dated 02.11. 2020 and same has been verified in its meeting held on 02.12.2020 as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(i)	Detailed proposal for Zero Liquid Discharge (ZLD) with water balance	The proposed project will be operated with zero liquid discharge. The detail proposal for ZLD and water balance attached as Annexure 1
(ii)	Tailing pond capacity is exactly to the waste generation which might overflow / leaked. This shall be clarified how it will be managed. Showing tailing pond design with dimensions taking in to account tailing generation of 20MT/day (32 M ³ / day) and the waste water inside it	Capacity of the proposed settling tank for tailing= 5m x 5m x4m = 100 cu.m. Tailing generated per day = 32 Cu.m Water with tailing = 24 Cu.m Total tailing with water = 56 Cu.m 56 Cu.m of tailing will be settled in the settling tank and water is being pumped to the process and settled material will pass through filter press and tailing will be disposed in tailing dumping yard. The tailing generated daily basis will be shifted as raw material in the monolithic unit.
(iii)	Adequacy of Tailing pond, its capacity and steps to prevent leaching of hexavalent chromium shall be furnished	As described above the Settling tank (Tailing pond) is of 100 cu.m capacity and it is adequate for settling of 56 cu.m of tailing generated from the process. The tailing pond will be provided with 150mm RCC which is enough to prevent leaching of hexavalent

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		chromium.
(iv)	Detailed design and specifications of ETP and its adequacy	Detail design and specification of ETP has been attached as Annexure 2
(v)	Detailed design and specification of chrome ore storage area	<p>The raw material requirement for beneficiation unit will be 18500 TPA i.e. 66 TPD. The raw material of chrome ore beneficiation plant is low grade chrome ore (26-40% Cr₂O₃).</p> <p>The storage area demarcated for raw material will be 1274 Sq.m. which can store raw material for 60 days. (6400 cu.m capacity)</p> <p>Raw material will be stored in a silo of 5 m depth of above capacity as per the advice of the Hon'ble Committee.</p> <p>The raw material storage silo will be provided with RCC wall and flooring to prevent leaching and airborne of dust particle.</p>
(vi)	Mitigation measures to control PM _{2.5} and PM ₁₀ . Predictive simulated value of PM _{2.5} and PM ₁₀ with commissioning of this project and surrounding similar new projects be submitted using the model for three-dimensional concentration	<p>The proposed beneficiation plant will be established within the existing campus of the chrome monolithic unit. The simulation modeling was carried out taking into account of both the existing and proposed expansion unit. There is no similar project exists within 5 km radius of the project site.</p> <p>The details of the modeling study carried out for the project and the proposed mitigation measures for control of PM₁₀ and PM_{2.5} has been attached as Annexure 3.</p>
(vii)	Soil testing report showing actual value of hexavalent chromium	Soil testing report showing the actual value of hexavalent chromium attached as Annexure 4
(viii)	Traffic density study result is to be submitted w.r.t future vehicular movements. Traffic density study process details be furnished. Are MCC AND MCTC methods of traffic density study is recommended for this kind of traffic? Is a standard commission viza-vis the findings of the study be indicated. Has this study been undertaken with important traffic intersection points at public roads i.e NH/SH/District road etc?. The study and the recommendation be rectified by a domain expert. Otherwise, a fresh study be undertaken by a domain expert	<p>The daily additional traffic load due to the plant operation in full capacity will be as follows:</p> <ol style="list-style-type: none"> 1. Raw material transported from Mining to plant site =66 TPD 2. Truck capacity - 15 Tons 3. Trucks utilized for transportation of Raw material = 5 nos per day (Max) 4. Product transport from the plant to user agency = 40 TPD 5. Trucks utilized for transportation of product = 3 nos per day (max) 6. So the additional truck load for the road = 8 nos / day (Max) <p>The traffic for finished product and raw material from the plant site to the highway metering point will be maximum 8 nos of trucks per day. This traffic has no</p>

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>additional load on this way till metering point.</p> <p>MCC method is being followed here for traffic density study due to easier and less time consuming method as per recommendation of IRC. The details of traffic study has been attached as Annexure 5.</p>
(ix)	<p>Status of road side plantation on kaliapani plant road 25 km with steps proposed for its continuity</p>	<p>The distance from Kaliapani mining site to Ichapur metering point on NH is 22 Km. There is existing plantation on the road side and being maintained.</p> <p>The connecting road from Ichapur (on NH 200) to the plant site is of 3 Km distance.</p> <p>The proponent proposed for plantation along both side of throad connecting the plant site and the highway a distance of 3.0 Km. There will be proposal for plantation of 2000 saplings along both side of the road with a spacing of 2.5m. The saplings proposed for plantation are <i>Mangifera indica</i>, <i>Azadiracta indica</i>, <i>Bombax ceiba</i>, <i>Delonix regia</i>, <i>Cassia siamea</i>, <i>Albizia lebbeck</i>, <i>Terminalia chebulae</i>, <i>Terminalia bellirica</i>, <i>Emblca officinalis</i>, <i>Mangifera indica</i>, <i>Terminalia arjuna</i>, <i>Terminalia alata</i>, <i>Gmelia arborea</i>, <i>Syzygium cuminii</i>, <i>Cassia fistula</i>, <i>Anthocephalus kadamba</i>, <i>Acacia nilotica</i>, <i>Eucalyptus sps</i></p>
(x)	<p>Tabulated form of existing features and proposed features is to be submitted</p>	<p>Submitted in compliance report.</p>
(xi)	<p>Details of Rain water harvesting. Adequacy of rain water harvesting pond with scope for increasing its capacity shall be furnished</p>	<p>Details of rain water harvesting and scope for increasing the capacity is being attached Annexure 6</p>
(xii)	<p>Five Reserve forests are nearby to the project site. Details about how to reduce impact of chrome leaching to the nearby forest area. Additional impact on the environment due to the establishment of chrome ore beneficiation unit</p>	<p>Though there are 5 RF within the 10 Km buffer zone of the project site out of which Pubala protected forest is located at a distance of 500m from the project site.</p> <p>As the project operate with zero liquid discharge technology no waste water discharge will be there outside the plant premises.</p> <p>The anticipated impact of the proposed Chrome ore beneficiation unit on the surrounding environment is as below:</p> <ul style="list-style-type: none"> • Dust generation due to vehicular movement may have an impact on the nearby scrub vegetation. • The transport route and its periphery does not possess an active agricultural field. • As per the air quality modeling the maximum incremental ground level concentration is 1.05 µg/m³ and resultant concentration at a distance of 100m in SE direction (140°) will be 78.65 µg/m³, which is within the plant premises. There is no

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>direct impact of dust pollution on the protected forest.</p> <ul style="list-style-type: none"> • There is no wild animal under schedule I/ schedule II found within the protected forest. • The proposed mitigation measure will be as below • The crushing unit will be provided with pollution control measures like bag filter and stationary water sprinklers to settle down the dust within the plant premises thereby reducing the fugitive dust. • Water sprinklers will be installed at the dust prone areas to reduce the dust generation. • The plant operation will be carried out in the day time and transportation of raw material and products will be limited to day time only. • There will be three tier green belt development along the boundary to attenuate air and noise pollution. Plantation has been already initiated within the plant premises
(xiii)	Alternative Biological Method for conversion of Hexavalent Chromium	<p>Considering the plant capacity as a tiny plant the method being selected as a established and easy operative method. Considering the investment capacity, the chemical dosing method is best feasible at present.</p> <p>The important point for consideration here is the treatment is applicable for surface runoff during rainy season only. In other season the water is being completely recycled and preserved for process. Hence no treatment is required.</p> <p>Biological process may be recurring a continuous maintenance of the microbes which may not be feasible for this tiny plant.</p>
(xiv)	Land schedule and kissam of land	The proposed beneficiation plant will be established within the existing premises of monolithic unit. No additional land acquisition will be there for the unit. Existing Land Document attached Annexure 7
(xv)	Land conversion document for industrial use	The proposed beneficiation plant will be established within the existing premises of monolithic unit. No additional land acquisition will be there for the unit. Existing Land Document attached Annexure 7
(xvi)	Certificate from the State Pollution Control Board w.r.t. to compliance to Consent to Establish and Consent to Operate conditions of existing units	Certificate from regional office, OSPCB attached Annexure 8

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent												
(xvii)	Area required for the expansion	Total area available is 8904 Sq.m. with already constructed boundary wall. The existing monolithic unit covers an area of 3128 sq.m. The proposed COB and accessory plant require 5776 sq.m. Hence no additional land acquisition is required for this beneficiation plant.												
(xviii)	Existing product with capacity	<table border="1"> <thead> <tr> <th>Product</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>Existing Unit</td> <td></td> </tr> <tr> <td>Chrome monolithic</td> <td>12000 TPA</td> </tr> <tr> <td>Chrome Refractory mortar</td> <td>12000 TPA</td> </tr> <tr> <td>Proposed Expansion</td> <td></td> </tr> <tr> <td>Chrome Concentrate Unit</td> <td>18500 TPA (Throughput)</td> </tr> </tbody> </table>	Product	Quantity	Existing Unit		Chrome monolithic	12000 TPA	Chrome Refractory mortar	12000 TPA	Proposed Expansion		Chrome Concentrate Unit	18500 TPA (Throughput)
Product	Quantity													
Existing Unit														
Chrome monolithic	12000 TPA													
Chrome Refractory mortar	12000 TPA													
Proposed Expansion														
Chrome Concentrate Unit	18500 TPA (Throughput)													
(xix)	Year of commencement of production of existing unit	Consent to operate was granted vide letter no. 2355/Con-266 dated 06.12.2018 only for production of Chrome refractory mortar and Chrome monolithic. Copy of CTE and CTO attached. Annexure 9												
(xx)	Detailed Material Balance	Material balance attached Annexure 10												
(xxi)	Temporary changes in condition of nearby forests and contribution of project in it with steps for improvement shall be furnished	<p>The impact on the forest is only due to dust emission due to vehicular movement.</p> <p>The pollution control measures will be adopted for reducing the pollution within the plant premises and proper green belt will be developed to reduce the emission from the plant area.</p> <p>The air pollution due to the proposed beneficiation process will be confined within the premises. Only impact on forest is due to vehicular transportation which will be minimized by following measures</p> <ul style="list-style-type: none"> • There is the proposal for plantation along both side of the road connecting to the main road. • The trucks used for transportation of raw material and product will be covered reducing dust emission. • There will be water sprinkling (12 KL tanker) arrangement on the connecting road to reduce dust emission. 												
(xxii)	Leachate management from tailing stack and tailing disposal management be submitted if tailings are not used just in time on generation	The tailing will be settled in the settling pit of 5x5x2m capacity. After settling the tailing will be stacked in the tailing dump yard. Garland drain will be constructed along the tailing stack and any leachate out of the tailing dump will pass through the garland drain which connects to the ETP.												
(xxiii)	Has any socio-economic study undertaken? If so, the report be submitted. Is not, be undertaken by an institute of repute and report submitted	The socio-economic study has been carried out for the project and incorporated as a part of EIA report. Further the report is attached for reference. Annexure 11												

27. The SEAC in its meeting held on Dt: 02.12.2020 decided to take decision on the proposal after a detailed site visit by the Sub-Committee of SEAC.
28. The sub-Committee of SEAC visited the project site on dated 21.12.2020 and following observations and recommendations were made:
- I) A narrow kucha road (about 3 km) inside the forest from Ichhapur (on NH 200) exists up to the plant side and in a very bad shape & appeared to have not maintained at all. The proponent stated that this is a revenue road and dedicatedly used by their monolithic unit for transportation of their raw materials and finished goods.
 - II) The existing unit is found to have the following:
 - a) Only one gate is being used both for material entry and exit including employees.
 - b) About 60 small sal trees (may be one- to two-year-old) found alongside the boundary of the unit.
 - c) Heaps (stacks) of raw material (chrome ore), lumps of chrome ore after screening and finished material (monolithic) found without cover (except finished goods) in the open yard without garland drain and leachate arresting arrangement.
 - d) A small pond looking like a 'Chua' full with water without RCC embankment and flooring was found and must be overflowing during rainy season and getting discharged to outside, contaminating soil nearby agricultural fields and ground water with hexavalent chromium and cannot be treated as a "zero Discharge Unit".
 - e) No open drain was found inside the existing plant and a half constructed concrete tanks found at North-East corner, which is claimed to be the settling tanks under construction by the proponent.
 - f) The existing ramp for to & fro movement of the loaded raw material vehicle for screening is found to be very unsafe.
 - g) Lateral space (road) between South side boundary wall and the existing monolithic unit is very narrow and no road / space is available for free movement of any vehicle including a fire tender if necessary.
 - h) On verification of the land documents, it was seen that the kism of the land is "Gharabari" instead of conversion to "Industrial use", contrary to the condition of Consent to Establish of State Pollution Control Board, Odisha.
 - i) During the discussion at the time of site visit, the proponent stated that they will be purchasing the adjacent land shortly for better management by revising the plant layout.
 - j) The vehicles carrying the finished goods ply through the Govt. land till it reaches village roads about 500 meters away from the plant site and passes through few villages till it reaches the main NH.
 - k) A bore well without necessary NOC / permission from appropriate authority exists.
 - l) No provision of renewable power.

With the above observations, it may be inferred that the existing monolithic unit is operating without following any standard norms for Environment Protection and pollution control including without conversion of the land to “Industrial use”.

In view of the above facts, the sub-committee recommend the following for compliance by the proponent before consideration of EC for addl. chrome ore beneficiation unit inside the existing premises.

- 1) Conversion of the “Kisam” of the land to “Industrial use”.
- 2) Revised lay out of the plant incorporating all the required features, namely:
 - a) Documents that the narrow road being use from NH 200 to plant site is revenue road inside the forest and permission from Revenue authority for the purpose being used now and in future including construction and perennial maintenance of the road as per the advice of the appropriate Govt. authority.
 - b)
 - (i) Material gate (entry & exit) separately with separate gates for employees.
 - (ii) Green belt, covered stack yard both for raw material and finished material with garland drain and leachate management, Tailing ponds (settling tanks) – more than one with proper embankment design and flooring to prevent leachate with design by subject expert having tailing management drain management, water harvesting pond with recharging pits (if any), fire tender corridor, ETP, STE, WTP etc.
 - (iii) Construction of hard RCC surface to handle raw-material and finished products.
 - (iv) Re-built of the ramp.
 - (v) Provision & detail plan thereof for use of renewable energy / solar power.
 - c) To superimpose the existing set up / infrastructure / features of the plant on the revised layout to make assessment of the adequacy of the space of the existing unit for addl. Beneficiation plant.
 - d) Necessary permission from the appropriate authority of the Govt. to use the land (about 500 mtrs) as haulage road for plying of vehicles carrying finished materials till it reaches the village road, the construction of the some road and perennial maintenance of the same with plantation on both sides of the haulage road as necessary in consultation of the local Govt. forest authority.
 - e) Permission from village Panchayat to use the village road passing through few villages.

29. The SEAC in its meeting held on Dt: 22.01.2021 decided to take decision on the proposal after receipt of the following information / document as recommended by the sub-Committee of SEAC.

- 1) Conversion of the “Kisam” of the land to “Industrial use”.
- 2) Revised lay out of the plant incorporating all the required features, namely:

- a) Documents that the narrow road being use from NH 200 to plant site is revenue road inside the forest and permission from Revenue authority for the purpose being used now and in future including construction and perennial maintenance of the road as per the advice of the appropriate Govt. authority.
- b)
- (i) Material gate (entry & exit) separately with separate gates for employees.
 - (ii) Green belt, covered stack yard both for raw material and finished material with garland drain and leachate management, Tailing ponds (settling tanks) – more than one with proper embankment design and flooring to prevent leachate with design by subject expert having tailing management drain management, water harvesting pond with recharging pits (if any), fire tender corridor, ETP, STE, WTP etc.
 - (iii) Construction of hard RCC surface to handle raw-material and finished products.
 - (iv) Re-built of the ramp.
 - (v) Provision & detail plan thereof for use of renewable energy / solar power.
- c) To superimpose the existing set up / infrastructure / features of the plant on the revised layout to make assessment of the adequacy of the space of the existing unit for addl. Beneficiation plant.
- d) Necessary permission from the appropriate authority of the Govt. to use the land (about 500 mtrs) as haulage road for plying of vehicles carrying finished materials till it reaches the village road, the construction of the some road and perennial maintenance of the same with plantation on both sides of the haulage road as necessary in consultation of the local Govt. forest authority.
- e) Permission from village Panchayat to use the village road passing through few villages.

30. The project proponent has furnished compliances as desired by the committee vide letter no. Nil dated 02.02. 2021 and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Conversion of the “Kisam” of the land to “Industrial use”.	During conversion proposal, the application was made to convert industrial land and same attached as Annexure 1 . After recommendations of SEAC they have applied again for conversion of land which is attached as Annexure 2 .	The proponent has carried out industrial activity in the land without conversion of the same for industrial purpose.
(ii)	Documents that the narrow road being use from NH 200 to plant site is revenue road inside the forest and permission from Revenue	The road used for transportation of the raw material and product from the plant site to NH200 is of 30 ft road. This is a panchayat	-----

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	authority for the purpose being used now and in future including construction and perennial maintenance of the road as per the advice of the appropriate Govt. authority	Road and permission from the village panchayat has been obtained & same has attached as Annexure 3 .	
(iii)	<ul style="list-style-type: none"> • Material gate (entry & exit) separately with separate gates for employees. • Green belt, covered stack yard both for raw material and finished material with garland drain and leachate management, Tailing ponds (settling tanks) – more than one with proper embankment design and flooring to prevent leachate with design by subject expert having tailing management drain management, water harvesting pond with recharging pits (if any), fire tender corridor, ETP, STE, WTP etc. • Construction of hard RCC surface to handle raw-material and finished products. • Re-built of the ramp. • Provision & detail plan thereof for use of renewable energy / solar power. 	<p>Separate entry and exit gate will be there for both entry and exit and for employees. (given in layout plan)</p> <p>Green belt plan revised (Annexure 4).</p> <p>Details land use break up with details of raw material and product storage, details of the paved area, construction of drain etc has been attached as Annexure 5.</p> <p>ETP design attached Annexure 6</p> <p>Revised rain water harvesting plan attached Annexure 7.</p> <p>Revised layout plan showing green belt area, drainage with separate settling pits for raw material storage, product and surface water drain, ETP, tailing pond etc has been given as Annexure 8.</p> <p>All the raw material and finished product surface will be concreted and will be rebuilt the ramp.</p> <p>A proposal for solar power of will be installed for outdoor lighting with capacity 10 KW. The solar lights will be installed along the internal road of the plant (8 nos). along the boundary (10 Nos), Approach road from plant to the village road (15 nos).</p>	-----
(iv)	To superimpose the existing set up / infrastructure / features of the plant on the revised layout to make	There is an existing shed of 600 sq.m having existing grinding unit used for chrome monolithic product. In the	Area requirement for tailing pond etc. has to be clearly indicated in the layout map and

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	assessment of the adequacy of the space of the existing unit for addl. Beneficiation plant	expansion programme the addition spiral, hydrocyclone will be installed in the same shed premises. No additional shed will be constructed for the installation of above equipment. Additional rain water harvesting, ETP, settling pits, drainage network will be constructed within the existing premises. Revised layout plan showing all details is attached. Annexure 8	submitted. Moreover, the existing land acquired for the monolithic plant in which they have already established the plant. For the Chrome Ore beneficiation plant, they required to acquire additional land.
(v)	Necessary permission from the appropriate authority of the Govt. to use the land (about 500 mtrs) as haulage road for plying of vehicles carrying finished materials till it reaches the village road, the construction of the same road and perennial maintenance of the same with plantation on both sides of the haulage road as necessary in consultation of the local Govt. forest authority	Permission has been obtained from panchayat. The construction and regular maintenance of the haulage road will be done by the project proponent. Annexure 3	-----
(vi)	Permission from village Panchayat to use the village road passing through few villages	Permission from villagers will be taken for use of village road. Annexure 3	Authenticity of the certificate issued by the Sarpanch need to be verified.

After detailed discussion, the SEAC decided to take decision on the proposal after they submit the following information / documents:

- a) The proponent has carried out industrial activity in the land without conversion of the same for industrial purpose. Copy of conversion certificate has to be furnished.
- b) Certificate from the State Pollution Control Board w.r.t. to compliance to Consent to Establish and Consent to Operate conditions of existing units as the proponent has only furnished the Consent to Operate and Consent to Establish order of the State Pollution Control Board not the compliance certificate to consent conditions. Moreover, the validity period of Consent to Operate has already expired.
- c) Area requirement for tailing pond etc. has to be clearly indicated in the layout map and submitted. Moreover, the existing land acquired for the monolithic plant in which they have already established the plant. For the Chrome Ore beneficiation plant, they may have to acquire additional land, If land is insufficient to accommodate all the features of beneficiation plant by superimposing it over the existing unit.
- d) Permission obtained from Gram Panchayat needs to be authenticated / endorsed by concerned local BDO.

II) PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR EXISTING SPONGE IRON PLANT OF 100 TPD (2 X 50 TPD) SPONGE IRON PRODUCTION ALONG WITH 23 TPD DOLCHAR AND 3 TPD ESP DUST, WITH PROPOSED CHANGE IN PRODUCT MIX I.E. 64 TPD REDUCED MAGNETITE IRON ORE AND 107 TPD REDUCED MANGANESE ORE (ALONG WITH DOLCHAR) AND 3 TPD ESP DUST FROM THE SAME KILNS WITHIN THE EXISTING FACILITY BY CHANGE IN RAW MATERIAL MIX FROM IRON ORE TO LOW GRADE MN ORE ASSOCIATED WITH IRON ORE (25-30% FE & 25-30% MN) FOR M/S. SUMRIT METALIKS PVT. LTD. AT VILLAGE SOYABALI, DIST KEONJHAR - EC.

1. The proposal is for Environmental Clearance for existing Sponge Iron plant of 100 TPD (2 X 50 TPD) sponge iron production along with 23 TPD Dolchar and 3 TPD ESP dust, with proposed change in product mix i.e. 64 TPD reduced Magnetite iron ore and 107 TPD reduced Manganese ore (along with dolchar) and 3 TPD ESP dust from the same kilns within the existing facility by change in raw material mix from iron ore to low grade Mn Ore associated with iron ore (25-30% Fe & 25-30% Mn) for M/s. Sumrit Metaliks Pvt. Ltd. at village Soyabali, Dist Keonjhar, Odisha
2. The project falls under Category- B, under section-3 (a) as per the prevailing EIA Notification, dated 14th September 2006 and amendments thereafter. ToR for this project has been granted by SEIAA vide letter No. 8994/SEIAA dated 18.09.2020. Public hearing has been exempted under para-7(II) of EIA Notification, 2006 and amended thereafter.
3. M/s Sumrit Metaliks Private Limited has already existed Sponge Iron plant at village Soyabali, Dist Keonjhar, Odisha-758035 over an area of 12 acres (4.85Ha). The project area is bounded by Coordinates of Latitude & Longitude 22°04'35.93"N & 85°24'41.42"E respectively and Topo Sheet No.F45H8. The site is well connected with Rail, Road. The access road from Plant to Barbil Municipality road is 0.7 Km only. The Nearest railway station Barbil is at 4.7 KM.
4. This is an existing DRI Plant to manufacture sponge iron having capacity (2 x 50 TPD). Towards production of 100 TPD sponge, raw materials used are 150Ton/day Iron Ore (+62% Fe), 90 Ton/day Coal and 4 Ton/day Dolomite. So in totality the throughput is 244 Ton/day.
5. As there is variance in sponge iron market and further the cost of production and sale value of sponge per ton basis is almost equal, so SMPL has planned to change in product mix i.e. 64 TPD reduced Magnetite iron ore and 107 TPD reduced Manganese ore (along with Dolchar) and 3 TPD ESP dust from the same kilns within the existing facility by change in raw material mix from iron ore to low grade Mn Ore associated with iron ore (25-30% Fe & 25-30% Mn).
6. Magnetite iron ore and enriched manganese Ore will be transported to nearby steel and ferromanganese plant through covered trucks by road or in forms of briquette as per the customer requirement. The capital cost of the briquette unit is coming around Rs 10 Crores.
7. There are no such notified ecological sensitive area in the 10 KM bufferzone. Reserve Forests like Thakurani R.F. – 0.3 KM (N), Baitarani RF – 5.0 KM (SE), Sidhamath RF – 3.0 KM (SW), Uliburu RF – 6.5 KM (NW) and Water Bodies, Karo River – 6.0KM (NW), Suna Nadi – 4.5 KM(SE), Baitarani River –8.9 KM (SE) are located in the buffer zone.

8. The total water requirement is 100m³/day from 2 bore-well inside the plant. NOC from CGWA already granted for the existing plant facility and the same will be continued. PP submitted that agreement with State water resource department also made.
9. 7500KWH per day Power Consumption from State GRID is already granted for existing facility and the same will be continued. For the emergency power supply to the essential loads DG sets of 500 KVA and 300 KVA is already available.
10. As it is an existing project, there are already 105 persons (direct & indirect) workings for plant related activities.
11. Raw materials for proposed alternate process are Coal 45TPD, Dolomite 2 TPD & Low-grade Mn Ore associated with iron ore 197 TPD will be transported by road. The proposed change in product mix i.e. output will be Magnetite Iron Ore (50 Ton to 80 Ton), Mn Ore along with Dolchar (100 Ton to 120 Ton) and ESP/bag dust 3 T so Total =174 T/day. There is no change in the unit operation with partial reduction in Kiln process. There will be hardly increase in additional 3 truck/day. So there will be no such load in traffic.
12. The existing unit has disposed the kiln accretion material at the earmarked solid waste dump area. Dump has been stabilized with grass and plantation and further retaining wall with garland drain at the toe of the dump. Fly ash has been stored at earmarked area inside plant premise. In the proposed alternate process there will be no solid waste in the form of Dolchar.
13. There will be decrease in the gaseous emission due to decrease in coal burning. Coal Consumption will decrease by 50%. Low grade ore shall be utilized, which is very important from the mineral conservation point. In this process Dolchar & ESP dust will mix with roasted enriched Mn ore which will directly use as raw material for Ferro Manganese plant. So there will be no generation of solid wastes. Dolchar (CaO) & ESP dust (SiO₂) will be given advantage for further process as flux during ferroalloy making. The green briquettes made by roasted fines carry these constituents inherently which reduces the carbon and dolomite requirement during smelting reduction.
14. Reduction in CO₂ emission for proposed alternate proposal considering 330 days operation is 12372.684. So there will be 32.71% of reduction of CO₂. PP informed that, domestic waste water generated from the unit is directed to soak pit via septic tank.
15. Green belt around the plant premises already existed towards prevention of fugitive dust particle to go outside, if any. Till the year 2019-20, 3930 no's of plantation already done covering 1.76 Ha i.e. 36% of the total land use.
16. Baseline study was carried out from December 2019 to February 2020 for Air, water, Soil, Noise etc.
17. The monitoring to study the present environmental condition in terms of its components at the location was carried out from December 2019 to February 2020 for Air, water, Sil, Noise etc. The Air quality parameters at all stations are well within the limits prescribed by MoEF&CC and CPCB. All the noise values are within the prescribed standard. All the baseline values for ground water, surface water is within the permissible limit as per the drinking water standard.

18. The comparison of Air Quality Modelling for PM10, PM2.5, SO2 & NOx shows that the pollution loads for proposed change in product mix relatively less than the existing one.
19. The project has already spent Rs 81.50 lakhs towards various pollution measures for the existing plant. An amount of Rs 17.85 lakhs has been proposed for yearly recurring cost.
20. The total project cost for Sponge Iron Plant was Rs. 12 Crore. For the present proposal additional 25.00 Lakh shall be invested for Augmentation.
21. The project has already spent Rs 16.12 lacs under CSR in the last three years for various socio-economic developments.
22. The project comes under brown field project, the project cost is less than Rs.100 crore, the total project cost is Rs.12 crore of 1% of CER budget is Rs.12 lakhs. However, Management has decided to spend Rs 24 Lacs.
23. The proposed change in the Product Mix with necessary change in raw material mix, the overall pollution load is reduced with a significant reduction in carbon foot print and reduction in solid waste along with optimization of the process to make the project economically viable.
24. The project proponent along with their consultant **M/s Ardra Consulting Services Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal before the SEAC
25. The SEAC in its meeting held on Dt: 14.12.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent.
26. The project proponent has furnished compliances as desired by the committee vide letter no. SMPL/SEAC/EC/2020-21/02 dated 03.02. 2021 and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Copy of land conversion document of existing unit for industrial use	Existing plant spreads over Land of 12 acres (4.85 Ha) of land. The land is in the name of Sumrit Metaliks Pvt. Ltd. under kissam Karakhana. The land conversion details is attached Annexure-1	-----
(ii)	Copy of latest certified compliance report to the conditions of Consent to Operate of existing unit from State Pollution Control Board, Odisha, Bhubaneswar	The latest certified compliance report to the conditions of Consent to Operate of existing unit is certified by the SPCB, Odisha. The certified compliance report is attached as Annexure-2	-----
(iii)	Details of fly ash and kiln ash management	The existing unit has disposed the kiln accretion material at the earmarked solid waste dump area. The dump	Specific condition to be stipulated in EC.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	including fly ash inventory/sale and disposal management	<p>slopes are vegetated with application of grass seeds and plantation. Garland drain and settling pit has been provided at the dump yard with runoff drainage system. Dump with retaining wall & plantation is attached as Photo-1.</p> <p>However, for the proposed alternate process there will be no such generation of fly ash. Both Dolchar and SiO₂ (fly ash) will sold to Ferromanganese plant along with reduced Manganese Ore, as it used as a flux. So, their presence is favourable in the Mn concentrate.</p>	(inform of a legal affidavit for Ash Management as per SoP of SPCB/CPCB/Govt. guideline)
(iv)	Water balance diagram for monsoon period with quantities and waste water management	<p>As per the utilization of water is concerned, 80 cum/day (makeup water) is being used in process cooling. 10 cum / day domestic water usage and 10 cum /day for plantation purpose. Waste water generated form domestic usages i.e. 6 cum /day is being treated in soak pit vis septic tank used for peripheral gardening along with 10 cum /day of fresh water. So overall there is no such discharge if waste water outside plant premises.</p> <p>During the rainy season, only surface runoff is being channelized through garland drain to settling pit towards recharge of ground water. The internal recharge volume through roof-top and surface run-off management is coming around 31317cum/Year.</p> <p>During monsoon season for plantation purpose out of 10 cum, 5 cum will be used form settling pit. So overall quantity will be 95 cum/day.</p> <p>Water balance diagram for monsoon period with quantities is attached as Annexure-3</p>	Specific condition to be stipulated in EC.
(v)	Details calculation and plant Layout showing location of	Rainwater harvesting structures with calculation for existing and proposed is attached as Annexure-4	Specific condition to be stipulated in EC.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	rain harvesting recharging pits and quantity to be harvested and recharged (existing and proposed)		
(vi)	Documents supporting previous water consumption in the plant and records of Piezometer if existing in the premises	Initially NOC from CGWA granted vide letter No. 21-4(160)/SER/CGWA/2009-128 dated 07.07.2009 for withdrawal of ground water 100 Cum/day. Further it got renewed in 2015. On 29th October-2018 it got again renewed vide letter No. CGWA/NOC/IND/ORIG/2018/4209 for the same quantity. Accordingly, agreement done with Baitarani Water resource dept. and water tax being paid regularly. The earlier NOC from CGWA with monthly flow meter reading and piezometer records from April-2019 to March 2020 is attached as Annexure- 5A & 5B.	Specific condition to be stipulated in EC. (Ground water level monitoring using piezometer reading)
(vii)	Documents related to permission letter from WR Deptt, Govt. of Odisha respectively for drawl of ground water	Agreement has been done with Executive Engineer, Baitarani division, Salapada towards drawl of ground water. Agreement copy is attached as Annexure-6	-----
(viii)	Material Balance of the process with details of chemistry/chemical equation and molecular weight of raw materials, product and losses at minimum, mean and maximum level	Material balance of the process with chemical equation and molecular weight of raw materials, product and losses at minimum, mean and maximum level is attached as Annexure-7	-----
(ix)	Details of Distribution of saplings to local villagers under CSR activity	In the last four years Sumrit Metaliks Pvt. Ltd. have distributed 475 no's of saplings to the villagers of Soyabahals. The year wise sapling distribution with species is attached as Annexure-8	-----
(x)	Study report on carbon dioxide estimation and social	The study report on carbon dioxide estimation has been prepared by NABET Accredited Functional Area	Specific condition to be stipulated in EC.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	economic study by an institute of repute	Expert (FA) on Air Pollution is attached Annexure-9 . Socio-economic study of the area is prepared by Ardra Consulting Services, BBSR which is accredited by Nabakrushna Chodhury Centre for Development Studies (NCDS) is attached as Annexure-10	
(xi)	Details of greenbelt (existing and proposed) including plantation alongside haulage road	Out of 4.85 Ha plant premises, 1.76 Ha used as green belt area which is more than 36% of the total land use. Apart from this plantation has been extensively done inside the plant premises i.e. near office, both side of the internal road etc. A total of 4330 saplings have been planted inside the plant premises. Details of plantation (existing & proposed) with Photos is attached as Annexure-11 .	Specific condition to be stipulated in EC.
(xii)	Leachate management of reduced Manganese ore stock as Dolomite is included in it	Dolomite is generated by addition of Dolomite & coal ash remained in the material. In the proposed alternate process addition of dolomite is reduced by 50% & coal ash is reduced by 70% (by reduction of 50% coal with low ash) So the reduction in generation of Dolomite is 68.27%. There will be no such generation of solid wastes as Dolomite as it will be go with the reduced Manganese to the Ferro alloys plant due to below benefits; The CaO, MgO, SiO ₂ , etc. are main component of Dolomite which are reported in non-magnetic Mn concentrate which reduce the need of dolomite in the ferro alloy making. Presence of aluminosilicates of coal ash of coal ash increase binding characteristics furring briquetting of Mn concentrates. Presence of unburnt carbon helps to produce coal composite briquettes which help in ferroalloys making process.	Specific condition to be stipulated in EC.
(xiii)	Details of renewable/solar energy and its	At present there is no such consumption of renewable/solar energy. Further, we have proposed use of	Specific condition to be stipulated in EC.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	percentage of total power consumption (existing and proposed)	renewable energy by the means of solar panel i.e. 5 KW for office and another 5 KW for approach road and working points at plant. In this regard we have collected quotation from the vendor and the work is in approval stage by the management. Quotation of the proposal is attached as Annexure-12	
(xiv)	Measures proposed to arrest/reduce noise level in core zone	<p>The existing plant has already adopted measures towards control of noise like;</p> <ul style="list-style-type: none"> • All instrument and equipment are being lubricated time to time and provided with enclosures to reduce noise transmission. • Vibrator isolators are provided to reduce vibration and noise. • Central control rooms which are provided for operation and supervision of plant & equipment are air-conditioned, insulated and free from plant noise. • Use of proper PPE by the person having exposure high induced noise level. • Extensive plantation has been done around the safety zone, road etc. 	Specific condition to be stipulated in EC.
(xv)	Coal stock yard/storage management including retaining wall, drain management and stock yard coverage with sprinkling facility	The coal is stored under shed inside the plant premises; we have 3 No's of movable/ flexible high efficiency sprinklers to suppress the dust generated during shifting to the feeding hopper. However, we have blacktopped the internal road to reduce the dust generation. Photo graphs of coal stock management is attached as Photo-2	Specific condition to be stipulated in EC.
(xvi)	DG sets start at with detail calculation including installation drawing of the layout	There are 2 No's of DG sets i.e. 500 KVA and 380 KVA, both are make – CATERPILLAR. Both are in Standby, In-case of power failure, Power is being supplied from both DG sets, so that plant can be run as usual. The detail layout for both the DG sets is attached as Annexure-13	Specific condition to be stipulated in EC.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(xvii)	Runoff water management of the whole Plant – Existing and proposed	The details of run-off water management of the plant both existing & proposed is attached as Annexure-4	Specific condition to be stipulated in EC.
(xviii)	Reclamation of existing dumping yard of Dolchar	The existing dumping yard of Dolchar with fly ash stabilized with application of grass, vetiver. Further retaining wall with garland drain has been provided at the toe of the dump. The fly ash with dolchar will be utilized for road making.	Specific condition to be stipulated in EC.
(xix)	Effect of reduction in Dolomite on reduction of pollution load	Dolchar is generated by addition of Dolomite & coal ash remained in the material. In the proposed alternate process addition of dolomite is reduced by 50% & coal ash is reduced by 70% by reduction of 50% coal with low ash) So the reduction in generation of Dolchar is 68.27%. The CaO, MgO, SiO ₂ , etc. are main component of Dolchar which are reported in non-magnetic Mn concentrate which reduce the need of dolomite in the ferro alloy making. Presence of alumino silicates of coal ash of coal ash increase binding characteristics during briquetting of Mn concentrates.	Specific condition to be stipulated in EC.
(xx)	Identification of occupational health hazards of both employees and neighboring habitats and proposed perennial remedial measures	The major occupational health hazards for employees are Dust exposure, Discomfort for respiration, Skin & Eye irritation & Stress. For neighboring habitat there may be chance of dust exposure, skin & eye irritation etc. The details with proposed remedial measure and budgetary provision is attached as Annexure-14	Specific condition to be stipulated in EC. (in form of a legal affidavit for periodically visit by professionally qualified occupational health expert with frequency to be indicated i.e. once in 6 months)
(xxi)	Environment Management Capital and EMP in Physical terms vis-a-vis investment indicated in monetary terms	The existing Capital cost for environmental pollution control measures is Rs 81.50 lakhs and year wise recurring cost is about Rs 17.85 lakhs. The details item wise expenditure towards environmental measures is attached as Annexure-15	Specific condition to be stipulated in EC.
(xxii)	Status of physical condition and maintenance of	The approach road connecting to the plant gate is being maintained properly by the use of grader on regular interval	Specific condition to be stipulated in EC.

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	approach roads	along with continuous water sprinkling by water tanker. However, the road connecting Barbil-Thakurani-Soyabahal-Jindal is already black topped. Further, the road passing near the plant's main gate has already been surveyed by Govt. of Odisha and demarcated with survey pillar for construction of pucca road from Serenda to Nalda. The photographs of the roads are attached as Photo-3	

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Ardra Consulting Services Pvt. Ltd., Bhubaneswar** on behalf of the project proponent, the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 7 years with stipulated conditions as per **Annexure – C**.

III) PROPOSAL FOR EXTENSION OF VALIDITY OF EC FOR LOKAMARI DECORATIVE STONE MINES FOR PRODUCTION OF 10,140 CUM PER ANNUM OVER AN AREA OF 4.178 HA LOCATED AT VILLAGE LOKAMARI, GANJAM, ODISHA OF MR. LLIYAS AHMED KHAN (EC)

1. This is a proposal for Extension of validity of Environmental Clearance of M/s. Lokamari Decorative Stone Mines for production of 10,140 Cum per Annum over an area of 4.178 Ha located at village Lokamari, Ganjam, Odisha
2. This is an Ongoing Project. Environmental Clearance was granted by SEIAA, Odisha vide letter no.917/SEIAA, dated 26.03.2013, valid up to 25.03.2018 (5 years).
3. Lokamari Decorative Stone Quarry over 4.178 ha in village Lokamari under Badagarh P.S., Sorada Tehsil of Ganjam District was executed in favour of Mr. Iliyas Ahmed Khan on 27.05.2000 for a period of 10 years i.e. 27.05.2000 to 26.05.2010.
4. The entire ML area is Non Forest land falls under Abad Ajogya Anabadi. There is no forest land within the ML area. The lessee has applied for renewal of mining lease to the competent authority on 20.02.2010 and was under deemed extension.
5. The Scheme of Mining prepared and submitted under Rule 18 of GCDR, 1999 for a period of 5 year from 2016-16 to 2019-2020 was approved by Directorate of Mine on 28.10.2015. Mining operations are suspended since April 2015 for want of statutory approvals. During the intervening period of OMMC Rule, 2016 came into force w.e.f. 15.12.2016, the mining lease was extended upto 26.05.2030 vide letter no. 66881//SM dated 07.09.2019.
6. The Lokamari Decorative Stone Quarry is well connected by a well weathered road from Lokamari village and which is about 6 km (NW Direction) from Bargarh on Sorada-Seragarh State Highway. Nearest railway station is Berhampur which is at a distance of 70km from the ML area. The ML area is covered under Survey of India Toposheet No. E45A6 and is bounded by latitude 19040'35.5" to 19040'45.2 N and 84022'57.6' to 84023'66.2 E. The area falls under Parbat kissam. All type of infrastructure facilities like Water, Electricity, dispensary, schools etc are available in Lokamari village.

7. The mining shall be carried out by Opencast Semi-Mechanized method to achieve the peak rated production capacity of 10140 Cu M/Annum. The mineable reserve as estimated is 81160 Cu M.
8. During the plan period (2020-21 to 2024-25), the planned production is 39900 Cu M. Based on the present reserve and planned production, the life of the mine is estimated to be 9.12 year. It has been proposed that the mining will be carried out in a systematic and scientific manner by adopting semi-mechanized open cast method of mining by developing the existing pit. The pit will be extended laterally as well as depth towards west. The height of the benches of the quarry will be kept 3 mtr and width will be 3m or more than the height. The individual slope of benches will be 80° whereas the overall slope of the proposed quarry would be kept 37°.
9. Opencast semi-mechanized method will be adopted using machineries such as Excavator, Line offset, compressor, jack-hammer, wire ropes and drill rods etc. Firstly the weathered zone of 2m will be scraped from the top. After removal of weathered zone granite block will be dismounted from the face of the quarry and sized in to blocks for cutting & polishing as finished product. Removal of blocks from the quarry face will be carried out by wire-saw cutting method. The accurately cut blocks will be dislodged from the quarry face to be further handled by the hydraulic excavator for its shifting to the processing yard or stock yard as per the requirement.
10. The sized block will be transported through 20 ton capacity Hyva tippers.
11. The depth of the conceptual quarry has been considered up to the probable limit, i.e., up-to 129.00 mRL. The ultimate extent and size of the quarry will be 165m x 145 m. Ultimate pit slope at the time of closure of mine will be around 45°.
12. During the proposed plan period a total of 59850 m³ of waste will be generated due to course of mining. However about 30% of the generated waste will be utilized for maintenance and construction of the haul road, approach and existing roads in the surrounding areas periodically. Therefore a total of 17955 m³ of waste will be utilized for construction and maintenance of roads and remaining 41895 m³ of waste will be dumped over the existing waste dump of area 212 m². There will be two terraces in proposed waste dump and height of terrace will be 7.5 m. The proposed dump slope should be maintained at 28°.
13. The Environment Consultant M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar along with the proponent made a detailed presentation on the proposal before the Committee.
14. The SEAC in its meeting held on Dt: 12.06.2020 decided to take decision on the proposal after receipt of the following information / documents from the proponent.
15. The project proponent has furnished compliances as desired by the committee and same has been verified as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(i)	Detailed compliance to EC conditions duly certified by MoEF&CC,	The Compliance to the EC issued vide letter no. 917/SEIAA dated 26.03.2013 is enclosed as	Compliance to EC conditions duly certified by

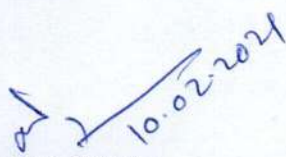
Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	Regional Office, Bhubaneswar shall be furnished	Annexure I and the same is being submitted for certified copy to the Regional Office, MOEF&CC.	MoEF&CC, Regional Office, Bhubaneswar not furnished
(ii)	Undertaking for maintenance of safety zone and OB there as priority shall be furnished. Entire planting shall be completed before start of mining	An Undertaking in this regard is enclosed as Annexure II .	-----
(iii)	Permission of Irrigation Department for drawal of water from Rushikulya River	There is no proposal to withdraw water from Rushikulya River for the project. The requirement of water is very minimal and shall be made from already accumulated in the pit. Drinking water required for the work force shall be met from the nearby village.	Detailed source of water has to be given.
(iv)	Harvesting of rain water and its use in dust suppression and waste dump reclamation	The lease area of Lokamari Decorative Stone quarry comprises of a single hillock sloping in all the direction with its peak at its centre. The highest and lowest altitude of the area is 141mRL and 129 mRL respectively and the granite is well exposed over the whole area. Hence, the rain water gets accumulated over the quarried area over the eastern part of the ML area over 0.265 ha and the same shall be used for dust suppression and waste dump reclamation. However, the lessee has proposed to 5 nos. of construct recharge pits along the eastern boundary and northern boundary.	-----
(v)	Details of haulage road to be used for transportation	Presently, haulage road has been developed on the eastern side of the ML area which run adjacent to the safety zone of the eastern side of the ML area to the north and then connects with the road(SH36) which shall be used for transporting the materials to the destination. The haulage road is 4mt width and 450m length. The same shall be used during the futuristic mining operation	Permission from the Gram Panchayat shall be obtained for use of haulage road.


Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
(vi)	CSR activities in surrounding/concerned village	The CSR activities already undertaken by the lessee in the Lokamari village were construction of temple, supply of books & notebooks to the school. providing training to the local youth for skill development, construction of village road and various donations during puja to the locals. Till date, the lessee has spent 10.12 lakhs towards peripheral development	-----
(vii)	Copy of sabik kissam record showing no forest land duly certified by the concerned Tahasildar	The document is enclosed as Annexure III.	-----
(viii)	Garland drain length and cross section with adequacy	Garland drain of 150 mt has been constructed along the toe of waste dump area towards the northern side of the lease area which is connected to the settling pond. The cross section of the garland drain is enclosed herewith as Annexure IV.	-----
(ix)	Revised Google map showing location of mine and indicating different activities within 500 meters	The revised Google map showing buffer boundary as 500 metres from ML boundary is enclosed herewith as Annexure V.	-----
(x)	Other mines (i.e. names, lease areas and capacities) within 500 meters from the periphery of the lease area	There are no other mines within 500 meters from the periphery of the lease area. The certificate from the Mining Office, Ganjam Circle is enclosed as Annexure VI.	-----
(xi)	Average production plan, types of vehicles used in transportation and the time period along with frequency of transportation of materials	Total production will be 10140 cum. and 20 ton capacity Hyvas/Tippers will be used and on an average 1-2 trailers shall be required per day.	-----
(xii)	Copy of mining lease document indicating the lease period	Mining Lease document is enclosed herewith as Annexure VII. However, a supplementary mining lease document shall be obtained only after submission of extension of validity of Environmental Clearance.	-----
(xiii)	Letter of Steel & Mines Department, Govt. of Odisha indicating that	Department of Steel & Mines, GoO has issued letter vide no. 6681/SM, Bhubaneswar dated 07.09.2019 for	-----

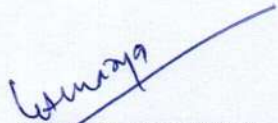
Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	the mining lease is in force and in favour of the lessee i.e. M/s. Lokamari Decorative Stone Mines	extension of validity period of lease upto 26.05.2030 and is enclosed as Annexure VIII.	

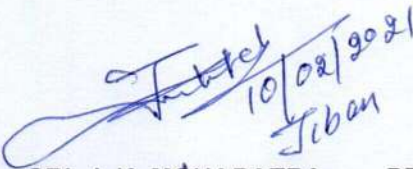
After detailed discussion, the SEAC decided to take decision on the proposal after receipt of the following information / documents from the proponent

- Compliance to EC conditions duly certified by MoEF&CC, Regional Office, Bhubaneswar
- Detailed source of water
- Permission from the Gram Panchayat for use of haulage road



SRI B.P. SINGH
CHAIRMAN, SEAC


(DR.) D. SWAIN
MEMBER, SEAC

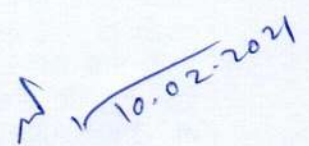

ER. K.R. ACHARYA
MEMBER, SEAC


SRI. J. K. MOHAPATRA
MEMBER, SEAC


PROF.(DR.) B.K. SATPATHY
MEMBER, SEAC


DR. K.C.S PANIGRAHI
MEMBER, SEAC

APPROVED


CHAIRMAN, SEAC

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF M/S. SUMRIT METALIKS PVT. LTD. FOR EXISTING SPONGE IRON PLANT OF 100 TPD (2 X 50 TPD) SPONGE IRON PRODUCTION ALONG WITH 23 TPD DOLCHAR AND 3 TPD ESP DUST, WITH PROPOSED CHANGE IN PRODUCT MIX I.E. 64 TPD REDUCED MAGNETITE IRON ORE AND 107 TPD REDUCED MANGANESE ORE (ALONG WITH DOLCHAR) AND 3 TPD ESP DUST FROM THE SAME KILNS WITHIN THE EXISTING FACILITY BY CHANGE IN RAW MATERIAL MIX FROM IRON ORE TO LOW GRADE MN ORE ASSOCIATED WITH IRON ORE (25-30% FE & 25-30% MN), AT - VILLAGE SOYABALI, DIST - KEONJHAR - EC.

A. SPECIFIC CONDITIONS:

- i. The proponent shall achieve the proposed change in product mix i.e., 64 TPD reduced Magnetite Iron Ore and 107 TPD reduced Manganese Ore (along with dolchar) and 3 TPD ESP dust from the same kilns within the existing facility by change in raw material mix from Iron Ore to low grade Mn Ore associated with Iron Ore (25-30% Fe & 25-30% Mn).
- ii. Under no circumstances, the unit shall install any additional plant facilities and machineries (including DRI Kiln) to achieve the proposed production capacity.

B. GENERAL CONDITIONS:

I. Statutory compliance:

- i. 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.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. 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, (in case of the presence of schedule-I species in the study area)
- iv. 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.
- v. 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.
- vi. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

II. Air quality monitoring and preservation

- i. 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 (G.S.R 414 (E) dated 30th May 2008 as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)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 recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through laboratories recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
 - iii. The project proponent shall install system carryout Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5} in reference to PM emission, and SO₂ and NO_x in reference to SO₂ and NO_x emissions) within and outside the plant area (at least at four locations one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions, (case to case basis small plants: Manual; Large plants: Continuous)
 - iv. 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.
 - 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 mechanised bag cleaning facilities for better maintenance of bags.
 - vii. Provide pollution control system in the sponge iron plant as per the CREP Guidelines of CPCB.
 - viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
 - 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 ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation;
 - xi. Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.

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 (G.S.R 414 (E) dated 30th May 2008; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) 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 recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories, (case to case basis small plants: Manual; Large plants: Continuous)
- 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 recognised under Environment (Protection) Act, 1986 and NABL accredited laboratories.

- iii. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- iv. Adhere to 'Zero Liquid Discharge'.
- v. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
- vi. 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.
- vii. The project proponent shall practice rainwater harvesting to maximum possible extent.
- viii. The project proponent shall make efforts to minimise water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

- i. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as well as to SEIAA, Odisha 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. Used refractories shall be recycled as far as possible.
- ii. The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- iii. Kitchen waste shall be composted or converted to biogas for further use.(to be decided on case to case basis depending on type and size of plant)

VII. Green Belt

- i. 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
- ii. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.

VIII. Public hearing and Human health issues

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (H1RA) 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 of Factory Act.
- 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 as per the Factories Act.

IX. Corporate Environment Responsibility

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
- iv. 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 Ministry/Regional Office along with the Six-Monthly Compliance Report.
- v. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
- vi. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Sponge Iron plants shall be implemented.

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 environmental 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, NO_x (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. 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.
- vi. 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.
- vii. 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.
- viii. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- ix. No further expansion or modifications in the plant shall be carried out without prior approval of SEIAA, Odisha and MoEF&CC, Govt. of India as applicable.
- x. 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.
- xi. The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xii. The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xiii. The Regional Office of MoEF&CC, Govt. of India 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.
- xiv. 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.
- xv. 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.