

**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

AGENDA NO.152.01	
Proposal No.	SIA/OR/MIN/445425/2023
Date of application	22.09.2023
File no.	445425/110-MINB1/09-2023
Project Type	Proposal for Expansion of production capacity
Category	B1
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for EC for Enhancement in Production of Iron ore from 0.41 million TPA to 3 million TPA ROM with total excavation of 4.073 million TPA (ROM of 3 million TPA + 1.073 million TPA waste) and setting up a 100 TPH Jigging & Washing Plant, two mobile Jaw Crushers of 200 TPH capacity each, two mobile Cone Crushers of 200 TPH capacity each & two Vibratory Dry Screen Plants of 200 TPH Capacity each in Sanindpur Iron & Manganese Mines over an area of 70.917 ha. of M/s National Enterprises
Name of the company/Organization	National Enterprises Sri Charanjit Singh Grewal, Proprietor
Location of Project	Village- Sanindpur under Block & Tehsil- Koida, Subdivision- Bonai, Dist – Sundargarh
ToR Date	03.11.2022
Name of the Consultant	M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar

**Proposal in brief:**

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


1. This proposal is for Environmental Clearance of M/s National Enterprises for enhancement in production of Iron Ore from 0.41 million TPA to 3 million TPA ROM with total excavation of 4.073 million TPA (ROM of 3 million TPA + 1.073 million TPA waste) and setting up a 100 TPH Jigging & Washing Plant, two mobile Jaw Crushers of 200 TPH capacity each, two mobile Cone Crushers of 200 TPH capacity each & two Vibratory Dry Screen Plants of 200 TPH Capacity each in Sanindpur Iron & Manganese Mines over an area of 70.917 ha located at Village- Sanindpur under Block & Tehsil- Koida, Subdivision- Bonai, Dist – Sundargarh of Sri Charanjit Singh Grewal
2. **Category:** This project falls under Category "B" or Schedule 1(a): Mining of Mineral & 2(b): Mineral Beneficiation as per EIA Notification dated 14<sup>th</sup> Sept, 2006 and its amendments.
3. The PP has obtained stage-II FC from MoEF & CC, vide file no. 8-10-2015-Fc dt. 06.10.2020 for diversion of 54.399 ha of forest land including safety zone of 6.841 ha within total lease area of 70.917 ha for mining of Iron & Manganese in San-Indupur Mines in favour of M/s National Enterprise in Sundargarh District in Odisha.
4. The project proponent has obtained CTO vide letter no. 5266 dt. 31.03.2023 valid upto 31.03.2024 for production Iron ore 0.41 MTPA.
5. The ML deed executed from 10.09.2000 to 09.09.2020 and supplementary lease deed was made on 30.04.2021 and now, the lease is valid upto 09.09.2030.



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

6. **TOR details:** Terms of Reference was issued by SEIAA, Odisha vide letter no: - SIA/OR/MIN/76663/2022 on 03.11.2022 for the proposed project.
7. Sanindpur Iron & Manganese Mines over an area of 70.917 Ha. has obtained Environmental Clearance from MoEF&CC, Govt. of India, vide letter no. J-11015/375/2008-IA. II (M), dated 28.06.2013 for production of 410,000 (0.41 million) TPA of iron ore.
8. **Public hearing details:** The Public hearing was conducted successfully on 05.04.2023 at 10.00 AM in the weekly market ground of Sanindpur village.
9. **List of Statutory Clearances obtained earlier -**
  - a) Sanindpur Iron & Manganese Mines lease area has 54.399 ha of forest land.
  - b) Permission letter has been obtained from Water Resources Deptt. Govt. of Odisha for use of 50000 litres/day (0.02cusec) of surface water from Teheri nala.
  - c) The modification of Review of Mining Plan for enhancement of production capacity from 0.41 million TPA to 3 million TPA due to change in working proposals for the balance plan period from 2022-23 to 2024-25 is approved by IBM Regional Office, Bhubaneswar vide letter no. MRMP/A/36-ORI/BHU/2021-22, dt. 23.03.2022.
  - d) The DFO, Bonai had issued show cause for violating the section 2 of FC Act 1980 and requested to stop mining within DLC land vide letter No. 4344/6F on dated 22.08.2009.
  - e) Mining operation within lease area was stopped by the Deputy Director of Mines, Koira from 26.08.2010 on the ground of non-maintenance of environmental clearance as required under EIA Notification 2006. Later, the mining operation within the lease area restarted in June, 2021 only after obtaining the permission from the DDM, Koira vide letter no. 1786/Mines, dated 20.05.2021.
  - f) The Environmental Clearance for production level of 0.41 million TPA of Iron ore has been obtained from MoEF vide letter no J-11015/375/2008-IA.II(M), dated 28.06.2013.
  - g) Stage-II Forest Clearance has also been obtained vide MoEF& CC letter No. 8-10/2015-FC, dated 06.10.2020 over an area of 54.399 ha. (Including safety zone of 6.841 ha.)
  - h) Consent to Operate has been issued by SPCB, Odisha vide order No. 5118/IND-I-CON-5633, dated 26.03.2021 and valid up to 31.03.2022. Later the validity of CTO was extended till 31.03.2023 vide letter no. 5136/IND-I-CON-5633 on 30.03.2022.
  - i) The PP has submitted certified compliance report dt. 28.08.2023 of IRO, MoEF & CC, BBSR
10. **Location and connectivity:** Sanindpur Iron & Manganese Mines is coming under village Sanindpur of Bonai Sub-division in Sundargarh District. It is located at a distance of 6km from Koida Town which is in WSW direction from the project site. A concrete road connecting Rugudihi (11 km from project site in north direction) to Koida via Katasahi & Sanindpur runs at a distance of 350m from the proposed mines. Both Rugudihi & Koida are located on NH-520. Sundargarh, the district head quarter and Bonai, the sub-divisional headquarter are 190km (in West direction) & 58km (in SW direction) away respectively. State capital Bhubaneswar is 290km away; Barbil, the nearest railhead of SE railway is situated at a distance of 30km in NE direction and Barsuan railway siding is at a distance of 35km in SW direction. Veer Surendra Sai Airport, Jharsuguda is 180km away whereas Biju Patnaik International Airport, Bhubaneswar is 290km in South of the project site. Village Sanindpur is located 500m away in the west of the Mining Lease area. The nearest water bodies are Teheri nallah and Suna nallah, which merges at the southern boundary of the lease area and passes along the eastern side of the mining lease. The project falls under Survey of India bearing **Topo sheet no. F45N5 (73 G/5)**. Similipal Biosphere Reserve is 71.1km from the project site.

## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

- 
11. **Baseline study conducted:** Baseline study was conducted during post-monsoon season of 2022 i.e. from 1<sup>st</sup> October 2022 till 31<sup>st</sup> December, 2022.
- Ambient Air monitoring:** Ambient Air Quality was monitored at eight sampling stations, which were selected taking into account the predominant wind direction, population zone, sensitive receptors like reserved forests etc., and the monitoring were conducted for a period of three months with the frequency of monitoring for 2 days per week at each sampling station. All the 12 air quality parameters were coming within the range as specified by CPCB. PM<sub>10</sub> is within range of 64.1 µg/m<sup>3</sup> to 79.4 µg/m<sup>3</sup>, PM<sub>2.5</sub> is within range of 31.2 µg/m<sup>3</sup> to 43.9 µg/m<sup>3</sup>, SO<sub>2</sub> is within range of 4.14 µg/m<sup>3</sup> to 8.98 µg/m<sup>3</sup> and NO<sub>x</sub> is within range of 10.18 µg/m<sup>3</sup> to 25.44 µg/m<sup>3</sup>.
  - Water quality monitoring:** Water quality parameters of Five Surface and Five Ground water resources within 10km radius of the study area was studied to assess the water environment and evaluate anticipated impact of the project. The water samples were collected and analyzed for physical, chemical and microbiological characteristics as per CPCB guidelines and approved methods in the NABL and MoEF&CC accredited laboratory. The result of all the surface & ground water samples collected shows that the water quality are within the permissible norms stipulated by CPCB.
  - Ambient Noise monitoring:** Noise level in the study area was monitored at eight sites. The measurements were carried out continuously for the 24-hour period. Noise levels vary from 48.59 to 67.48 dB(A) during daytime and 37.46dB(A) to 54.8 dB(A) during night time. It is, therefore, concluded that the noise levels within the habitation/ residential area are well within the specified standards.
  - Soil monitoring:** Soil samples were collected from five locations including one from project site; from 30 cm depth with a stainless-steel scoop. The pH of the samples ranged from 6.28 to 6.84 which is slightly acidic for agricultural soils and the bulk density varies from 1.24 to 1.38 gm/cc. The soils are of medium fertility and may require addition of fertilizers during plantation and greenbelt development.
12. **Water requirement:** The total water requirement shall be 75 m<sup>3</sup>/day for mining operation and 440 KLD for Jigging Plant operation. Out of the 75 KLD water, 15 KLD will be used for drinking and washing purpose, 55 KLD for dust suppression in haul road, screening, crushing area & wheel washing and 5 KLD will be consumed by plantation. The company has permission to draw 50 KLD water from Teherai nala, balance 25 KLD water requirement shall be fulfilled from ground water source; after 1year rain water harvesting ponds shall fulfil the water requirement for non-domestic uses.
13. **Wastewater details:** About 11 KLD of waste water will be generated from the office, Security camp & washing area. Hence, a 12 KLD STP based on MBBR technology will be installed to treat the waste water. The treated water will be used in plantation and dust suppression; the sludge will be used as manure in plantation.
14. **Rainwater harvesting details:** They have planned to implement the techniques of Rain Water Harvesting (RWH) over the roofs of offices, rest sheds and by making percolation tanks in Sanindpur Iron & Manganese Mines to cater to the needs of daily water requirement. The mines have one rain water collection pond of 10m long, 8m wide and 2m deep. Now with the proposed expansion, it has been planned to expand the existing pond to 30m length X 30m width X 3m depth and construct one larger pond of 50m long X 80m wide X 4m deep to store rain water collected from mining pit and mineral storage area.
15. **Mining Plan Details:**
- Year Wise Production of Iron Ore :**



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

Production Year	Saleable Ore (+55% Fe) in Ton	Mineral Rejects (45% -55% Fe) in Ton	ROM of Iron ore production in Ton	OB Quantity in cum
3 <sup>rd</sup> Year (2022-23)	7,00,560	4,35,575	11,36,135 (5,82,500 cum)	1,98,250 (3,96,500 Ton)
4 <sup>th</sup> Year (2023-24)	17,83,740	4,35,050	22,18,790 (10,98,000 cum)	3,79,800 (7,59,600 Ton)
5 <sup>th</sup> Year (2024-25)	23,04,330	6,95,800	30,00,130 (14,94,900 cum)	5,36,470 (10,72,940 Ton)

- b) **Details of Minerals:** Iron ore will be extracted from the mines. There is enhance in production of iron ore to maximum ROM of 30,00,060 (3 million) TPA (23,15,460 TPA of +55% grade iron ore and 6,84,600 TPA of +45 to +55% grade iron ore).
- c) **Method of Mining:** Opencast mechanized method of mining will be adopted with drilling & blasting, on double shift basis with the deployment of 30m/h DTH drill, 5T capacity excavators, 35t capacity dumpers /tippers. The bench height will be maintained up to 9 m and width up to 10 m. The slope of individual bench will be 80° and overall slope of the pit will be 42°. Benches will be formed in a top downward manner. It has been proposed to blast maximum up to 6m high benches to achieve optimum results in term of fragmentation, economy and minimum impact on the surrounding environment. So the depth of hole in this mine will be 10% more i.e. up to 6.6 m. Explosives to be used in ore zone are of Class-II booster & column charge with accessories like OD, Nonel, Excel, safety fuse & detonating cord. Blasting pattern will be staggered (V type) with delay interval of 25 millisecond. Power factor in development /waste has been assumed to be 7kg /t. Secondary blasting will not be required.
- d) **Details of crushers/screen/beneficiation plant if any with capacity and numbers, water requirement for the project, plantation details, green belt details:** ROM will be upgraded in the ML area in respect of size and grade by way of dry crushing and screening. Dry processing plant in the ML area consists of crushing & screening plants used for iron ore breaking & sizing. There is proposal to install two mobile Jaw Crushers of 200 TPH capacity each, two mobile Cone Crushers of 200 TPH capacity each & two Vibratory Dry Screen Plants of 200 TPH Capacity each. Apart from these, there is proposal to install a 100 TPH Jigging & Washing Plant within the lease, based on Washing & Jigging technology to beneficiate of 0.3 million Tons per Annum (MTPA) of low grade Iron ore.
- e) **Number of top soil dumps with area and capacity, no. of waste /reject dump with area and capacity during the plan period and at the conceptual stage, backfilling plan if any:** No top soil will be generated in the mining process as the top surface is lateritic. Solid waste to the tune of 8,96,280m<sup>3</sup> (maximum annual production) will be produced and shifted to the dump-III, which is already spread over 3.65 ha. Conceptually the dump occupies 5.951 ha. and maintain the height up to 37m in five tires. Conceptually, 50% of the waste material will be used in backfilling of mined out area and balance to be used in road maintenance. During the 4th year of mining, backfilling will be started to reclaim 29.32 ha, balance 12.301 ha. will be converted to water body with accumulated rain water
- f) **Land use as per mining plan at the end of plan period and at conceptual stage:**

Sl. No.	Head	At present (Ha.)	At the end of SOM Period (Ha.)	At the end of conceptual period (Ha.)



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

a)	Area under Mining	19.160	33.558	44.990
b)	Overburden / Waste dump	5.060	7.367	7.367
c)	Mineral storage	14.957	14.957	2.137
d)	Infrastructure (Office, canteen, rest shelter, weigh bridge, etc )	1.570	1.570	1.570
e)	Road	1.960	2.212	2.212
f)	Beneficiation Plant area	---	3.000	3.000
g)	Others (settling pond, check dam, garland drain, etc)	0.101	1.628	1.628
	<b>Sub-Total</b>	<b>42.808</b>	<b>64.292</b>	<b>62.904</b>
h)	Green belt in safety zone	1.350	3.850	3.850
i)	Plantation in untouched area	1.840	1.840	1.840
j)	Untouched area	24.919	0.935	2.323
	<b>Total</b>	<b>70.917</b>	<b>70.917</b>	<b>70.917</b>

- 16. Power Requirement & solar power details:** The electricity requirement will be about 40 KW-hr/day and this requirement will be fulfilled by TPWODL (TATA Power Western Odisha Distribution Limited). The company proposed to utilize solar power to the extent possible in order to utilize the renewable source of energy. There is a proposal to install 80 nos. of Solar Lighting Poles (10 near the entry gate, 10 near the exit gate and remaining along the lease boundary). These poles will have individual Solar PV Panel to generate 72-Watt energy, if only 4 hours of clear sunlight available throughout the day time.
- 17. Solid waste generation:** During the process of mining, the only solid waste material to be produced is the top lateritic cover i.e. over burden. The existing dumps have waste materials which are of grade below 45% Fe of laterite, shale, BHJ, BHQ, etc. Solid waste to the tune of 8,96,280m<sup>3</sup> (maximum annual production) will be produced & shifted to the dump-III. Conceptually, 50% of the waste material will be used in backfilling of mined out area and balance to be used in road maintenance. Tailings of quantity 31,659 TPA will be generated from the 100 TPH Capacity Mineral Beneficiation Plant based on Washing & Jigging technology to beneficiate of 0.3 million TPA of low-grade Iron ore.
- 18. Mitigation of solid waste produced:** The dump will be surrounded by retaining wall of 1.5m height & 1m width. Any rain cut which may develop in dump slope is proposed to be checked by no. of small check dams. Garland drains at the toe of the dump will be connected to settling tank. Coir matting will be tried to stabilize the waste dump slopes. Gradually reclamation of the entire, waste/overburden dump will be taken up. Three nos. of Slurry Ponds shall be provided to take care of the thickener underflow. The clarified water from the Slurry Pond shall be re-circulated back to both the Circuit. 31,659 TPA of tailing sludge will be sent to the Sludge Bay (Tailing Sludge). The tailing sludge will be dewatered using filter press, the end press mud will be dried in plant area and stored in the Tailing storage area provided. The Dried tailings shall be used for cement industries in manufacturing of cement and in the Brick Manufacturing.
- 19. Greenbelt Development:** Till now 1.35ha of the safety zone is covered by 2000 plantations (but survivability is 50% to 60% due to lateritic top); plantation within the lease area has started only in the year 2020-21. During the conceptual period, 58,300 nos. of plants will be planted on the backfilled area of 29.32ha. Apart from it, 7.367 ha of the conceptual dump area will be terraced & plantation will be



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

developed on each terrace; 2.137ha of mineral storage area, 3ha of beneficiation area and 4.2ha Greenbelt area along the Suna Nala will also be covered under plantation.

20. **Total Employment:** With the enhancement in production there will be scope for additional 52 persons (at present the mines has 52 persons as direct employee) in the leasehold area to carry on the mining and ancillary operations in two shifts. No colony is planned as most of the workers will be from local villages.
21. **Project Cost:** Estimated Capital cost for the project is 40 crores. The capital cost of EMP after the proposed increase in production is calculated to be Rs 400 lakhs & recurring cost is Rs 90 lakhs. Based on demands in Public Hearing & assessment of local situation, a sum of Rs 35 lakhs will be spend under CSR activities in first two years and Rs 28 lakhs shall be spend every year under developmental activities.
22. **Environment Consultant:** The Environment consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee.
23. The SEAC in its meeting held on dated **13-10-2023** decided to take decision on the proposal after receipt of the following information/documents from the proponent: 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	Views of SEAC
1.	Site Specific Wildlife Conservation Plan furnished was obtained in 2014. In view of enhancement of production, it shall be revisited by the concerned DFO in consultation with Chief Wildlife Warden to modify/add/revise the stipulations as per present conditions. The project proponent shall assess the requirement of fresh water (ground water/surface water) and furnish copy of permission from CGWA/Water Resources Deptt., Govt. of Odisha.	As per the DFO, Bonai Division, the implementation of Site-Specific Wildlife Conservation Plan approved on 12.05.2014 has started from 2022-23. Hence, revalidation of the Plan shall be done after implementation; the letter from DFO in this regard is attached as <b>Annexure – I</b> . M/s National Enterprise has applied to CGWA vide application number 21- 4/5426/OR/MIN/2023, dated 20.11.2023 to extract ground water of 98 KLD. The application copy is attached as <b>Annexure- II</b> .	-
2.	Traffic study report vetted by institute of repute.	Traffic study was carried out at three sites i.e. RCC road towards Koida, RCC road towards Rugudihi & NH-520. The study report was vetted by IIT, Bhubaneswar and given as <b>Annexure- III</b> .	-
3.	Details of parking plaza size, no. of vehicles, floor area along with layout of the parking area. The parking area shall be concreted/blacktopped to control fugitive emission.	In order to transport iron ore of 10,000.4 T/day, heavy vehicles like 35 T capacity truck /tippers plying on the road will be 286 (in case of 300 working days), if used ones daily.	-



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

		To accommodate at least 170 nos. of trucks at any moment of time an area of 125m X 80m i.e. 1 ha area shall be developed as parking plaza towards northern part of the ML area. This area will be made up of RCC having separate entry & exit gate and basic facilities like washroom, rest room having drinking water, etc. the map is given as <b>Annexure – IV</b> .	
4.	Details of Surface Runoff Treatment System and rainwater storage pond in the ML area based on sound calculations. The drainage network and the flow from different watershed within the mining area to the sedimentation pond(s) are required to be shown on a plan.	Details of Surface Runoff Treatment System and rainwater storage pond in the ML area is given in Chapter 4. At the end of the life of the mines there will be two nos. of settling ponds within the ML area. The detailed calculation is given as <b>Annexure – V</b> .	-
5.	The project proponent shall install Filter press for the dry stacking of the tailings generated from the process.	Agreed, we will install Filter Press for the dry stacking of the tailings.	-
6.	Garland drains shall be provided at the Dry stacking area of tailings.	Agreed, we will construct Garland drains around the Dry stacking area of tailings.	-
7.	The dry stacking area shall be lined with Geotextile material and an entire management plan for the same shall be submitted.	Agreed, the management plan for dry stacking area is given as <b>Annexure – VI</b> . The tailing sludge will be dewatered using filter press, the end press mud will be stored in the tailing storage area, which will be lined with geotextile materials and surrounded by garland drain.	
8.	Details of moisture content in the pressed tailings and designed pressure of the filter press. Also, the proponent shall furnish details of tailing constituents and mineral analysis report of the tailing.	There is proposal for quality upgradation of sub-grade iron ore through wet beneficiation process using Jigging Plant. So, no tailings are there at present in the lease area for analysis. Hence, we undertake to submit the details of constituents of pressed tailings including moisture content along with the half yearly EC compliances reports; the undertaking is given as <b>Annexure- VII</b> .	Undertaking submitted for conducting detailed analysis of constituents of pressed tailings including moisture content.



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

		The designed pressure of the filter press which will be installed in the mines is 10 Bar (g), whereas the operating pressure will be +7.5 Bar (g).	
9.	Detailed material balance showing mineralogical and metallurgical (such as Fe, Mn, Cr, P, S, V etc.) analysis of the feed, beneficiated concentrate product and reject tailings stream.	National Enterprises has sought EC for setting up a wet beneficiation plant through jigging process. So, no beneficiated concentrate product and reject tailings are there at present in the lease area for analysis. Hence, we undertake to submit the details of constituents of beneficiated concentrate product and reject tailings with the half yearly EC compliances reports; the undertaking is given as <b>Annexure- VII</b> . However, we have report of the complete elemental analysis of sub grade iron ore fines which will be act as feed is attached as <b>Annexure- VIII</b> .	Undertaking submitted to submit the analysis report for details of constituents of beneficiated concentrate product and reject tailings.  However, report of the complete elemental analysis of sub grade iron ore fines has been submitted.
10.	Water balance report for the beneficiation plant involving each operational process.	Water balance report for each operational process in the beneficiation plant is attached as <b>Annexure – IX</b> .	-
11.	Detailed report on complete elemental analysis along with mineralogical, metallurgical and petrological analysis.	The complete elemental analysis of sub grade iron ore fines is carried out and the analysis report is attached as <b>Annexure- VIII</b> .	Report on complete elemental analysis of sub grade iron ore fines has been submitted.
12.	Compliance report for ToR condition (point no. xv) for photographs of the proposed site. Proponent shall also furnish the photographs along with geo-coordinates with date & time of sampling carried out for baseline study.	The baseline environmental data generation from the site and surroundings of Sanindpur iron and manganese mines was carried out during post-monsoon season from October 1st 2022 till December 31st 2022. Photographs of monitoring time are given as <b>Annexure- X</b> .	-
13.	The project proponent shall revisit the EMP cost analysis and modify accordingly.	The costs regarding implementation of Environmental Management Plan is revised and the updated capital cost and recurring cost per annum works	-





**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

		out to be Rs. 440 lakhs (Rupees Four hundred Forty lakhs only) & Rs. 105 lakhs (Rupees One hundred Five lakhs only) respectively; the details of the budget is attached as <b>Annexure- XI</b> .	
14.	Submit layout of the whole lease area showing garland drain, nearest nala, surface drainage, solid waste dump site, stacking plant and other units.	The lay our map of the whole lease area showing garland drain around dump, solid waste dump site, proposed beneficiation plant site, nearest nala, propose parking plaza, etc is attached <b>Annexure – IV</b> .	-
15.	Compliance report to NEERI recommendations.	Compliance of Recommendation of CSIRNEERI Report on “Carrying Capacity Study for Environmentally Sustainable Iron and Manganese Ore Mining Activity in Keonjhar, Sundargarh and Mayurbhanj districts of Odisha State” is given in Compliances to toR conditions section of the EIA /EMP Report. However, as per the instruction of the SEAC, we are submitting that as <b>Annexure –XII</b> .	-
16.	Clarify the quantity of materials to be transported separately by road and by rail.	The nearest railway siding to Sanindpur Iron & Manganese Mines are at Barbil or Baruan. Barbil, the nearest railhead, is situated at a distance of 30km in NE direction and Barsuan railway siding is at a distance of 35km in SW direction. Thus, the iron ore produced from the mines will be transported by 35T capacity trucks through Koida to Rugudihi RCC road and then either through NH-520 to Barbil or via Tensa town to Barsuan to the consumers.	-
17.	Quantity/details of raw material to be processed at mines and to be sold directly.	The Sanindpur Iron & Manganese Mines has applied for a maximum iron ore production of 3 million TPA ROM; it includes 23,04,330 TPA of ore having +55% Fe and 6,95,800 TPA of ore having 45%-55% Fe. Ore	-



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

		<p>having +55% Fe will be sold directly in open market and remaining will be subjected to dry or wet beneficiation process, The sub-grade ore shall consist of 2,43,530 TPA of ore having -10 MM size, which will be subjected to quality upgradation by wet beneficiation process using Jigging technology and quality of the remaining 4,52,270 TPA of ore having +10 MM size will be upgraded by dry beneficiation process involving existing /proposed Crusher and Screening Plants.</p>	
18.	Layout of Overburden dump site and its management.	<p>At present in the Sanindpur Iron &amp; Manganese Mines, there are three numbers of OB dumps i.e. OB Dump -I over an area of 0.283 ha, OB Dump -II over an area of 0.619 ha and OB Dump -III over an area of 4.518 ha. Dump -I &amp; II are in non-active condition whereas OB Dump -III is in active condition. Solid waste to the tune of 8,96,280m<sup>3</sup> (maximum annual production) will be produced and shifted to the dump-III. Retreating method will be adopted for the disposal of waste at the dumping site. The dumps-III is having retaining wall of 250m long, made up of boulders. The wall is of maximum 1.5m height and the top surface is of 1m flat. Retaining walls are having weep holes to drain out water. The wall is followed by 0.6m deep, 1m wide and 200m long garland drain. Conceptually the retaining wall will be 300m long &amp; garland drain will be 250m long, other dimensions remaining the same (refer Annexure - IV).</p>	-

**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

19.	EMP cost estimated to be very less. This has to be re-estimated and submitted.	The capital cost and recurring cost for implementing the Environmental Management Plan is re-estimated to be Rs. 440 lakhs (Rupees Four hundred Forty lakhs only) & Rs. 105 lakhs (Rupees One hundred Five lakhs only) respectively; the details of the budget is attached as <b>Annexure- XI</b> .	-
20.	Complete tailing management to be submitted.	One of the end products of beneficiation process is tailings whose management plan is given as <b>Annexure – XIII</b> .	-
21.	As from the KML file no green belt could be observed properly, the PP needs to submit a fresh KML file and a video of green belt for further evaluation.	Photo of recent KML file is attached as <b>Annexure – XIV</b> . The video is mailed separately.	-
22.	Scientific study for measures against blast vibration and fly rocks by domain experts.	According to the DGMS circulars, the safe PPV for industrial buildings under the frequency range of 8 to 25 Hz is 20mm/sec. In the present study the measured PPV and frequency matches this configuration, in which office building and crusher will have no adverse impacts. Analysis of the blast vibration data of the Peak Particle Velocities (PPVs) for various blasts was recorded. It was found that for the different blast PPV varies and it is related to that of the charge per delay. In most of the blasting operation PPV is found to be within the limits. The Blast Vibration Study Report is given as <b>Annexure- XV</b> .	-
23.	Scientific study for slope stability of mine benches and dumps by domain experts.	The Slope Stability Report provides very useful information about the dump slope and mines bench of Sanindpur Iron & Manganese Mines. The study report is attached as <b>Annexure – XVI</b> .	-



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

		The mean factor of the dump slope of the area is about 1.15, which is critically stable. Safety factor varied from 0.85 to 1.45 for the depth of 10 m to 40 m for the slope angle 20 degree to 40 degree. It showed that with the increase in height of the bench or depth of the mine safety factor of the bench decreases indicating less stability of the concerned slope.	
24.	Status of implementation of "Wildlife management plan" effective from 2014.	As per the DFO, Bonai Division, the implementation of management plan suggested in the Site-Specific Wildlife conservation Plan has started in 2022-23. A letter from the DFO in this regard is attached as <b>Annexure – I</b> .	-
25.	Achievement status of "Green belt development program of previous EC".	As per the certified compliance report of previous EC for Sanindpur Iron & Manganese Mines issued by IRO, Bhubaneswar of MoEF&CC on 23.08.2023, the specific condition no. 10 regarding plantation is fully complied. The copy of the observation status is attached as <b>Annexure – XVII</b> .	-

24. Any deficiencies/omission have been noticed in the above documents- Nil

1. **Whether SEAC recommended the proposal** – The proposal was placed in SEAC meeting held on 02.12.2023 and the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – B** and following specific conditions:
- i) The project proponent shall maintain adequate greenbelt in the lease area.
  - ii) OB dump sites shall be managed properly as proposed.
  - iii) The additional fines generated due to proposed enhancement shall be managed properly.
  - iv) Tailings generated from the Beneficiation process shall be managed as proposed.
  - v) Proper Air Pollution Control measures shall be provided to control dust emission and local dust generation.
  - vi) Both dust suppression and extraction system shall be provided in the crushing and screening units to control fugitive emission.
  - vii) The project proponent shall obtain permission from the concerned authority for usage of surface water.
  - viii) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
  - ix) Traffic management shall be done as per recommendation of Traffic Management Study Report duly



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

vetted by institute of repute.

- x) As a part of six-monthly compliance, the PP shall submit the status of Tailing Pond and its annual make-up to ascertain its capacity to take care of expansion in production including mineralogical & chemical analysis of excavated ore, dump materials and rejects. Also, actual layout after expansion may be submitted as a part of six-monthly compliance to the SEIAA, Odisha and Regional Office, MoEF&CC, Govt. of India, Bhubaneswar.
- xi) Adequate measures shall be adopted for management of noise, vibration and fly rocks.
- xii) Bench and dump slopes are to be designed and maintained so that their failure is avoided.
- xiii) Permission from Water Resources dept. to be taken for usage of ground water.

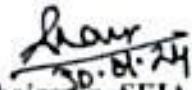
**Decision of Authority: ADS**

After detailed deliberation, the Authority decided that the PP is required to submit an ore transport plan in compliance to Suggested Ore Transport mode two (SOTM-2) i.e. Minimum 70% by public railway siding through conveyor belt maximum 30% by road- direct to destination or other public railway siding or above option along with an undertaking to carry out the same on their own cost.

**APPROVED BY**

  
Member Secretary, SEIAA

  
Member, SEIAA

  
Chairman, SEIAA



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

AGENDA NO.152.02	
Proposal No.	SIA/OR/IND1/431883/2023
Date of application	03.06.2023
File No.	431883/39-IND1/06-2023
Project Type	EC
Category	B1
Project/Activity including Schedule No.	2(b)- Mineral beneficiation
Name of the Project	Proposal for EC for Installation of Patabali COB Plant of Capacity 4,95,000 TPA throughput at Village: - Patabali Tehsil:- Danagadi, District:- Jajapur , Odisha of M/s Ferro Alloys Corporation Ltd.
Name of the company/Organization	Sandeep Kittana Acharya, Chief HSE Ferro Alloys Corporation Ltd.
Location of Project	Village:-Patabali Tehsil:-Danagadi, District:- Jajapur , Odisha
ToR issue Date	23.12.2022
Name of Consultant	M/s. Ardra Consulting Services Pvt. Ltd.
<p><b>1. Proposal in brief:</b> The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.</p> <p>(i) This proposal is for Environmental Clearance of M/s Ferro Alloys Corporation Ltd. for Patabali COB Plant of Capacity 4,95,000 TPA throughput over an area of 21.95 Ac. at Village Patabali Tehsil:-Danagadi, District:- Jajpur of Sri Sandeep Kittana Acharya.</p> <p>(ii) <b>Category:</b> As per EIA Notification 2006 and its subsequent amendments, the proposed project falls under Schedule 2(b)- Mineral beneficiation of Category "B1"</p> <p>(iii) <b>TOR details:</b> SEIAA granted Terms of Reference (TOR) for the proposed project vide file No. SIA/OR/IND/77824/2022 dated 23 December 2022.</p> <p>(iv) <b>Public hearing details:</b> The Public Hearing was held on 21.4.2023 (at 11:00 A.M.) at village Patabali under Danagadi tehsil of Jajpur district for Environmental Clearance in respect of M/s Ferro Alloys Corporation Limited, for Installation &amp; operation of Patabali Chrome Ore Beneficiation Plant of Capacity 4, 95,000 TPA throughput at Village-Patabali, Tehsil-Danagadi, District- Jajpur, Odisha. Issues raised during public hearing are health, education, women empowerment, air water and noise pollution control measures, pollution control measures for Ganda Nallah, water conservation, solid waste management, local employment, local area development. Total expenses incurred for action plan of public hearing is Rs. 4,11,00,000.</p> <p>(v) <b>Location and connectivity:</b> The project site is located at Village - Patabali, Tehsil - Danagadi, and District - Jajpur of Odisha State. The site falls under the Survey of India Toposheet No. F45N-16 &amp; F45O-4 bounded by Latitude-21° 5' 24.345" N &amp; 21°5' 37.637"N and Longitude-85° 57' 54.942" E &amp; 85°58'6.328"E. The plant footprint will have an area of 21.95 acres located at Village - Patabali, Tehsil - Danagadi, District- Jajpur, Odisha. The project area is accessible through road to the nearby Expressway and is well connected to Duburi, Chandikhole, Jajpur Road and Paradeep through road network. There is no wildlife sanctuary or notified eco-sensitive area within 10 km radius of the project area. The project is situated about 2km from Tomka Railway station. The National Highway No-16 is about 15km and Keonjhar- Paradeep Expressway is 0.01km away from the project area. There is no major habitation around the project area and the nearest habitation is Patbali Village at 500m away from the project boundary. There are no 1st or 2nd order natural drainage system within the project area.</p>	



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

- (vi) **Baseline study:** Baseline study of the study area was conducted during Summer Season (March to May 2022).
- Ambient Air Quality Monitoring reveals that the concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> for all the 8 AAQM stations in the study area on a 24 hourly basis were found between 31.20 to 57.30 µg/m<sup>3</sup> and 16.40 to 28.40 µg/m<sup>3</sup> respectively. The high value of Particulate pollutant was observed at plant site which can be attributed to industrial activities and vehicular movement. The concentrations of SO<sub>2</sub> and NO<sub>x</sub> were found to be in range of 5.10 to 8.80 µg/m<sup>3</sup> and 10.10 to 16.50 µg/m<sup>3</sup> respectively.
  - Ambient noise levels were measured at 7 locations around the project site. Noise levels vary from 48.6 to 58.04 Leq dB(A) during day time and from 34.07 to 41.08 Leq dB(A) during night time.
  - The ground water analysis for all the 5 sampling stations shows that pH value varies from 6.94 to 7.82 & Total Hardness varies from 96 to 125 mg/L.
  - Surface water analysis for all the 6 sampling stations shows that pH varied from 7.30 to 8.19, Total Hardness varies from 90 to 126 mg/L. & Total Dissolved Solids varies from 68 to 220mg/L.
  - Soil monitoring was carried out at 6 locations and the analysis results show pH value ranging from 6.9 to 7.5, which shows that the soil is acidic in nature. Organic Matter ranges from 0.62 to 0.92% in the soil samples. Nitrogen is found it ranges from 189.6 to 199.2 Kg/hectare and Phosphorous is from 6.8 to 7.8kg/ha, whereas the Potassium is found to be ranging from 108 to 123 Kg/ha. Soil of the area is found to be suitable for agricultural purposes.

**STUDY PERIOD: MARCH - 2022 TO MAY -2022**

MONITORING STATION	PARAMETER S	RESULTS	STANDARD
AAQ PARAMETERS AT 8 LOCATIONS	PM <sub>2.5</sub>	16.4 to 28.4 µg/m <sup>3</sup>	60 µg/m <sup>3</sup>
	PM <sub>10</sub>	31.2 to 57.3 µg/m <sup>3</sup>	100 µg/m <sup>3</sup>
	SO <sub>2</sub>	5.1 to 8.8 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
	NO <sub>x</sub>	10.1 to 16.5 µg/m <sup>3</sup>	80 µg/m <sup>3</sup>
	CO	0.11 to 0.66 mg/m <sup>3</sup>	4 mg/m <sup>3</sup>
AAQ MODELLING (Incremental GLCs)	PM <sub>10</sub>	0.0007 to 0.03 µg/m <sup>3</sup>	
	CO	0.005 to 0.330 µg/m <sup>3</sup>	
GROUND WATER QUALITY AT 5 LOCATION	pH	6.73 to 7.82	6.5 to 8.5
	Total Hardness	87.36 to 125 mg/l	200 mg/l
	Chlorides	25.91 to 38.99 mg/l	250
SURFACE WATER QUALITY AT 6 LOCATIONS	pH	7.3 to 8.19	5.5 to 8.50 mg/l
	Total Hardness	84 to 126 mg/l	-
	Chlorides	29 to 39.96 mg/l	600 mg/l
	BOD	2.2 to 2.8 mg/l	3.0 mg/l



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

	COD	14-20 mg/l	-
	DO	4.7 to 6.1 mg/l.	4( Minimum)
WATER LEVEL	Depth From surface	2.4 mtr to 11.20 Mtr	Varies
NOISE LEVELS AT 7 LOCATIONS	Day Time	48.6 to 58.04	65 dB
	Night time	34.07 to 41.08	55 B

(vii) **Size & Magnitude of Operation:** Chrome ore beneficiation plant of 4, 95,000 Ton/yr feed for maximum production of chrome ore concentrate of 2,97,000Ton/yr (with average 60% recovery rate). The plant will be setup within an area of 21.95acres and the greenbelt will be developed in an area of 7.24acres.

(viii) **Land use pattern:**

Sl No.	Land use pattern	Area (Ha.)	Area (Acres)
a)	Truck Parking Area	0.391	0.97
b)	Rom Storage	0.640	1.58
c)	Beneficiation Plant	1.121	2.77
d)	Tsf(Tailing Storage Facility)	1.776	4.39
e)	ETP	0.016	0.04
f)	STP	0.016	0.04
g)	WTP	0.021	0.05
h)	Concentrate Yard	0.177	0.44
i)	Other Infrastructure & Road	1.682	4.15
j)	Electrical Package (Receiving Substation +Electrical Building)	0.113	0.28
k)	Green Belt	2.930	7.24
TOTAL		8.883	21.95

(ix) **Process technology:** The process involves beneficiation of less than 40% Chromite Ore to upgrade it to 48%-52% concentrate. This includes the Hopper, Crusher, Washing, Ball Mill, Zigging and Gravity separation units. The wet tailings will be processed in Thickener followed by Filter press to produce Tailing Cakes, which will be stacked inside the premises in a designated area with impervious lining. The finished product concentrate shall be stored in sheds and raw material shall be stored in separate area and handled by wheel loader for feeding and loading purposes.

(x) **Raw Material:** The Raw Material used will be Chrome Ore of below 40% Grade Cr<sub>2</sub>O<sub>3</sub> with 10% moisture with recovery rate equivalent to 40-60%. The finished products generated will be Chrome Concentrate Cr<sub>2</sub>O<sub>3</sub> with 7-8% moisture. The total quantity of Raw material as throughput is estimated at 4,95,000 TPA.

(xi) **Power Requirement:** The specific Power Consumption will be 20 KWHr/Ton of Ore Processing at the proposed Plant and accordingly, to process 4,95,000 TPA Chrome Ore, 2.5





## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

MWH Power is required for this proposed Plant which will be sourced from TPNODL. There will requirement of diesel 46.26MT/Annum, which will be sourced from outside on demand. In Case of Power Failure situation, it is envisaged that a D.G Set of 500 KVA of Kirloskar/Cummins make will be installed which will operate as emergency power back up for the plant during the power cut.

- (xii) **Water Requirement:** The makeup water requirement for the proposed project will be 485 KLD including 10 KLD domestic water.

Sl No.	Particulars	Quantity	Source	Mode
1.	Fresh Water Requirement (KLD)	485 KLD	Ground water	Borewell
2.	Power Requirement	2.5 MWH	TPNODL	Under ground Cable
3.	Fuel Requirement (Diesel)	46.26 MT/Annum	Supplier	Road

- (xiii) **Waste water management:** The waste water discharged from COB plant will be passing through tailing thickener and filter system and the same water will be recycled & used as process water for the COB Plant. Part of the recycling water will be taking to the ETP and the treated water from ETP will be used for dust suppression, afforestation & other industrial use purpose.
- (xiv) **Tailing generation and management:** In the given beneficiation process, 40% by volume tailings will be generated in the form of filter cakes, which needs to be managed efficiently. The Tailing Generation is been calculated as below. Considering the range of concentrate recovery is 40-60% the tailing generation has been taken in higher side i.e. 60% tailing generation. 2,97,000 TPA tailings will be generated. Temporary storing in designated area of 297000 TPA and the accumulated solids from tailing storage yard/facility shall be transferred and disposed for the purpose of backfilling of mine void/reclamation.
- (xv) **Greenbelt:** Based on the agro climatic conditions of the region, location of the plant and physico bio chemical properties of the soil strata in addition to the nature of pollutants and their rate of dispersion, Local plant species have been identified for green belt development. The green belt will be developed over 33% of the total project area. Species to be planted are *Shorea robusta*, *Terminalia bellirica*, *Terminalia chebula*, *Terminalia alata*, *Pterocapus marsupium*, *Madhuca indica*, *Anogeissus latifolia*, *Diospyros melanoxylon*, *Dendro calamusstrictus*, *Cleistanthus collinus*, *Cassia fistula*, *Carissa spinarum*, *Combretum roxburghii* etc.
- (xvi) **Rainwater harvesting:** The estimated hourly runoff from the area is estimated at 15.206 m<sup>3</sup>. Considering 90 days of rainfall per year, the daily and annual rainfall is 121.648 m<sup>3</sup> and 10948 m<sup>3</sup> respectively. This harvestable water has been planned to be stored in an open rainwater harvesting pond of capacity: 1245 Sqm x 4 = 4980 cum.
- (xvii) **Manpower Requirement:** The project will generate 84 nos. of manpower, out of which 25 skilled, semi-skilled 36 & unskilled and the rest 23 nos will be recruited as Administrative & Operating personnel and around 250 people will be indirectly engaged in various operations.
- (xviii) **Project cost:** The total investment in the project is estimated to be around Rs 55.4 Crores and out of which the firm will take a term loan of Rs 45 Crores and the remaining will be contributed by the promoters from their own source. EMP Cost is Rs. 720 Lakhs (capital Cost) & Rs.90 Lakhs (Recurring Cost).



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

Sl. No.	Particulars	Capital Investment (Rs. in lacs)	Recurring Investment (Rs. in lacs)
a)	Air Pollution Control	115	5
b)	Water Pollution Control	45	2
c)	Noise Pollution Control	17	2
d)	Environment Monitoring & Management	87	15
e)	Occupational Health	7	2
f)	Risk control measures	5	Included in the Environmental Monitoring
g)	Safety & Disaster Management Plan	20	5
h)	Green Belt	13	6
i)	PH compliance	411	53
<b>Sub Total</b>		<b>720</b>	<b>90</b>

(xix) **Environment Consultant:** The Environment consultant **M/s Ardra Consulting Services Pvt. Ltd, Bhubaneswar, Odisha** along with the proponent made a presentation on the proposal before the Committee.

(xx) The SEAC in its meeting held on 05-07-2023 decided to take the decision on the proposal after receipt of the following from the proponent. 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	Views of SEAC
a)	Since, part of the land has not been acquired, land document and status of land acquisition of project area to be submitted.	The total project area is 21.95 acre. Out of which, Records of Rights (ROR) has been obtained from the office of Tahasildar Danagadi for 18.30 acre. The said area has also been converted into Industrial purpose (copy of ROR Enclosed). MOU has been signed and executed with the present owners of the balance land for transfer of ownership as well as consent for possession the said land. Presently the total project area is within the boundary and under the actual physical possession of FACOR. Mutation for the balance land is under process. The ROR and MOU are attached in <b>Annexure-1</b> .	Complied
b)	Permission /Clearance from water resources department for use of ground water.	The evidence of NOC from water resource department is attached in <b>Annexure-2</b> based on which permission from CGWA is been sought for.	Water Resource dept. has asked the project proponent to apply for Ground water since there is n

**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

			water supply to that area.
c)	Design/layout of proposed 6 meter height of tailing storage and its management.	The height of tailing storage and its management is attached in <b>Annexure-3</b> .	complied
d)	Chemical analysis of the tailings for hexavalent chromium.	The Plant has not started any production and hence no tailings are generated yet. However based on the empirical derivation for Chemical Balance and other similar tailing Analysis, the chemical composition of tailings will be Cr <sub>2</sub> O <sub>3</sub> -8.87%; FeO (T)-36.21%; Al <sub>2</sub> O <sub>3</sub> -9.82%; SiO <sub>2</sub> -29.88% and MgO-3.02%. From the Leachate test of composite sample of Chrome Ore Tailings extracted with water is Cr (VI): 1.6 ppm and total Cr: 3.1 ppm.	-
e)	Water analysis report of Nala, water bodies near habitation and samples of ground water collected from the study area for contents of hexavalent chromium, manganese and other heavy metal elements such as vanadium, mercury etc.	The water analysis report of both Ground Water & Surface Water within the study area is attached in <b>Annexure-4</b> . In all the samples Heavy metal are in below detection limits.	complied
f)	Ensure that the differences between the reduced level of the bottom of rainwater harvesting pits and the reduced level of ground water during rainy season are adequate for effective recharge of collected rainwater and submit the report for the same.	As in <b>Annexure 5</b> .	submitted
g)	Explore the possibility for the installation of permanent storage tanks/ ponds for rainwater and its use as per the requirement.	Acknowledging the advice, it is now planned to harvest rooftop rainwater and store it in underground concrete storage tanks for reuse along with the makeup water for beneficiation process.	-
h)	Explore the possibility for the application of membrane technology for waste water treatment.	It is well taken and due to the treatment of Ferrous Sulphate for conversion of Hexavalent Chromium to Trivalent chromium along with coagulation and settling, the introduction of Membrane filters along with coagulated particle segregation shall be adopted for the waste water treatment.	-
i)	Changes made in EIA report in tabular form before and after public hearing.	The detail changes in the EIA before & after Public Hearing is tabularized in the <b>Annexure-6</b> .	submitted



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

Considering the information furnished and the presentation made by the consultant, **M/s Ardra Consulting Services Pvt. Ltd, Bhubaneswar, Odisha** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions below mentioned specific conditions:

(ii) Any deficiencies/omission have been noticed in the above documents- Nil

**2. Whether SEAC recommended the proposal** – The proposal was placed in the SEAC meeting held on 11.09.2023 and the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions below mentioned 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) The PP shall obtain NOC to use the Panchayat roads from the concerned BDO for transportation of both input materials and finished products including the responsibility of maintaining the road if damaged by such transportation.

(iii) 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.

(iv) The PP shall make all efforts to adopt ZLD.

3. The proposal was placed in 143<sup>rd</sup> SEIAA meeting held on 23.11.2023 & 24.11.2023 and the authority perused the recommendation of SEAC and decided that the PP should prepared a Standard Operating Procedure (SOP) for ensuring the recommendation (i) and (iii) of SEAC along with a specific action plan to adopt Zero Liquid Discharge (ZLD).

4. The PP has submitted the ADS reply on 20.12.2023 raised by SEIAA, Odisha

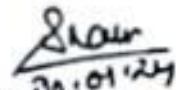
### Decision of Authority: Approved

After detailed deliberations, the Authority decided to **grant Environmental Clearance** with usual stipulated conditions along with SEAC recommended specific conditions as applicable for chrome ore beneficiation plan.

  
Member Secretary, SEIAA

APPROVED BY

  
Member, SEIAA

  
20.01.24  
Chairman, SEIAA

**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**



**AGENDA NO.152.03**

Proposal No.	SIA/OR/MIN/306711/2023
Date of application	25.11.2023
File no.	SEIAA-537/09-2020
Project Type	Proposal for Amendment of EC only change the Co-ordinates (Latitude & Longitude) of the lease area in granted EC as per the approved modification of mining plan
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for Amendment of EC of Kulaganisalo Sand Quarry (Luna River) over an area of 12.355 acres or 5.00 hectares in village Kulaganisalo under Nischintakoili Tahasil of Cuttack District, Odisha.
Name of the company/Organization	Sri Shaikh Tullah
Location of Project	village Kulaganisalo under Nischintakoili Tahasil of Cuttack District, Odisha.
ToR Date	N/A
Name of the Consultant	N/A

**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 SEAC/SEIAA, are given as under.

- (i) This is a proposal for amendment of EC of Kulaganisalo Sand Quarry (Luna River) over an area of 12.355 acres or 5.00 hectares in village Kulaganisalo under Nischintakoili Tahasil of Cuttack District, Odisha
- (ii) The project proponent has obtained EC from SEIAA, Odisha vide EC letter no. 9927/SEIAA dated 07.12.2020 and EC transfer on 09.03.2023 for Kulaganisalo Sand Quarry (Luna River) over an area of 12.355 acres or 5.00 hectares in village Kulaganisalo under Nischintakoili Tahasil of Cuttack District, Odisha.
- (iii) As course of change of river flow, the mining plan has been modified and approved vide letter no. 13827 dt. 17.11.2023 without changing Khat no. and Plot no. of the lease area, production quantity and total lease area are same based DGPS survey.
- (iv) The ADM, Cuttack vide letter no.793 dt. 26.06.2023 and the Sub-Collector, Cuttack vide 13400 dt. 26.10.2023 has mentioned that the modification of mining plan be taken up involving all stake holders as per Rule 28, Section (8) & (9) of OMMC Rules, 2016 may please be carried out immediately
- (v) Any deficiencies/omission have been noticed in the above documents- Nil

**2. Whether SEAC recommended the proposal –** The proposal was placed in SEAC meeting held on 08.01.2024 and the decided as follows:

- i) The SEAC in its meeting held on dated 24.11.2020 recommended the proposal for grant of Environmental Clearance.
- ii) The SEIAA granted EC to the proposal vide letter no. 9927/SEIAA dated 07.12.2020.
- iii) The SEIAA granted Transfer of EC to the proposal on 09.03.2023.
- iv) The Project Proponent has now submitted fresh proposal for Modification of EC for change in the Co-ordinates (Latitude & Longitude) of the lease area in the EC letter as per the Approved Modification of Mining Plan.



### Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

- v) Since, SEAC has already recommended the proposal to SEIAA. Hence, the SEAC decided to return this proposal to SEIAA, Odisha as decision will be taken by the SEIAA for the present revised proposal.

#### Decision of Authority: Approved

The Authority observed that there is a marginal change in the lease hold area and the Sub-Collector, Cuttack vide their letter no. 13400 dt. 26.10.2023 has directed for modification of Mining Plan as per Rule-28, Sec 7 & 9 OMC Rule-2016.

Since, the proposed mining area is adjoining to old mining lease area in the same river stretch. After detailed deliberation, the Authority opined that there is no change in the Environmental Impact Assessment (EIA) of the project. Accordingly, the proposal for amendment of EC in regard to change of Co-ordinates (Latitude & Longitude) of the lease area for which EC granted vide letter no. 9927/SEIAA dated 07.12.2020 is approved.

  
Member Secretary, SEIAA

APPROVED BY

  
Member, SEIAA

  
20/01/24  
Chairman, SEIAA

**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**



**AGENDA NO.152.04**

Proposal No.	SIA/OR/MIN/306713/2023
Date of application	25.11.2023
File no.	SEIAA-535/09-2020
Project Type	Proposal for Amendment of EC only change the Co-ordinates (Latitude & Longitude) of the lease area in granted EC as per the approved modification of mining plan
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for Amendment of EC of Sahadebpur Sand Quarry over an area 12.355 acres or 5.00 hectares in village Sahadebpur under Nischintakoili Tahasil of Cuttack District Odisha.
Name of the company/Organization	Sri Bramahananda Behera
Location of Project	village Sahadebpur under Nischintakoili Tahasil of Cuttack District Odisha
ToR Date	N/A
Name of the Consultant	N/A

**I. Proposal in brief:**

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

- (ii) This is a proposal for amendment of EC of Sahadebpur Sand Quarry over an area 12.355 acres or 5.00 hectares in village Sahadebpur under Nischintakoili Tahasil of Cuttack District Odisha.
- (iii) The project proponent has obtained EC from SEIAA, Odisha vide EC letter no. 9910/SEIAA dated 07.12.2020 and EC transfer on 31.03.2023 for Sahadebpur Sand Quarry over an area 12.355 acres or 5.00 hectares in village Sahadebpur under Nischintakoili Tahasil of Cuttack District Odisha..
- (iv) As course of change of river flow, the mining plan has been modified and approved vide letter no. 13824 dt. 17.11.2023 without changing Khat no. and Plot no. of the lease area, production quantity and total lease area are same based DGPS survey.
- (v) The ADM, Cuttack vide letter no.793 dt. 26.06.2023 and the Sub-Collector, Cuttack vide 13400 dt. 26.10.2023 has mentioned that the modification of mining plan be taken up involving all stake holders as per Rule 28, Section (8) & (9) of OMMC Rules , 2016 may please be carried out immediately
- (vi) Any deficiencies/omission have been noticed in the above documents- Nil

1. **Whether SEAC recommended the proposal** – The proposal was placed in SEAC meeting held on 08.01.2024 and the decided as follows:

- i) The SEAC in its meeting held on dated 24.11.2020 recommended the proposal for grant of Environmental Clearance.
- ii) The SEIAA granted EC to the proposal vide letter no. 9910/SEIAA dated 07.12.2020.
- iii) The SEIAA granted Transfer of EC to the proposal on 31.03.2023.
- iv) The Project Proponent has now submitted fresh proposal for Modification of EC for change in the Co-ordinates (Latitude & Longitude) of the lease area in the EC letter as per the Approved Modification of Mining Plan.
- v) Since, SEAC has already recommended the proposal to SEIAA. Hence, the SEAC decided to return this proposal to SEIAA, Odisha as decision will be taken by the SEIAA for the present revised proposal.



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

**Decision of Authority: Approved**

The Authority observed that there is a marginal change in the lease hold area and the Sub-Collector, Cuttack vide their letter no. 13400 dt. 26.10.2023 has directed for modification of Mining Plan as per Rule-28, Sec 7 & 9 OMC Rule-2016.

Since, the proposed mining area is adjoining to old mining lease area in the same river stretch. After detailed deliberation, the Authority opined that there is no change in the Environmental Impact Assessment (EIA) of the project. Accordingly, the proposal for amendment of EC in regard to change of Co-ordinates (Latitude & Longitude) of the lease area for which EC granted vide letter no. 9910/SEIAA dated 07.12.2020 is approved.

**APPROVED BY**

  
Member Secretary, SEIAA

  
Member, SEIAA

  
20.11.24  
Chairman, SEIAA



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**



**AGENDA NO.152.05**

Proposal No.	SIA/OR/MIN/306939/2023
Date of application	04.12.2023
File no.	
Project Type	Proposal for Amendment of EC only change the Co-ordinates (Latitude & Longitude) of the lease area in granted EC as per the approved modification of mining plan
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for Amendment of EC of Khentalo Mahanadi Sand Quarry over an area 12.355 acres or 5.00 hectares in village Khentalo under Kishannagar Tahasil in Cuttack District Odisha
Name of the company/Organization	Sri Debi Tripathy
Location of Project	village Khentalo under Kishannagar Tahasil in Cuttack District Odisha
ToR Date	N/A
Name of the Consultant	N/A

**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 SEAC/SEIAA, are given as under.

- (ii) This is a proposal for amendment of EC of Khentalo Mahanadi Sand Quarry over an area 12.355 acres or 5.00 hectares in village Khentalo under Kishannagar Tahasil in Cuttack District Odisha.
- (iii) The project proponent has obtained EC from SEIAA, Odisha vide EC letter no. 10078/SEIAA dated 16.12.2020 and EC transfer vide letter no.4878/SEIAA dt. 13.07.2022 and EC amended on 12.07.2023 for Khentalo Mahanadi Sand Quarry over an area 12.355 acres or 5.00 hectares in village Khentalo under Kishannagar Tahasil in Cuttack District Odisha.
- (iv) As course of change of river flow, the mining plan has been modified and approved vide letter no. 13818 dt. 17.11.2023 without changing Khat no. and Plot no. of the lease area, production quantity and total lease area are same based DGPS survey.
- (v) The ADM, Cuttack vide letter no.793 dt. 26.06.2023 and the Sub-Collector, Cuttack vide 13400 dt. 26.10.2023 has mentioned that the modification of mining plan be taken up involving all stake holders as per Rule 28, Section (8) & (9) of OMMC Rules , 2016 may please be carried out immediately
- (vi) Any deficiencies/omission have been noticed in the above documents- Nil

**1. Whether SEAC recommended the proposal –** The proposal was placed in SEAC meeting held on 08.01.2024 and the decided as follows:

- i) The SEAC in its meeting held on dated 24.11.2020 recommended the proposal for grant of Environmental Clearance.
- ii) The SEIAA granted EC to the proposal vide letter no. 10078/SEIAA dated 16.12.2020.
- iii) The SEIAA granted Transfer of EC to the proposal on 4878/SEIAA dt. 13.07.2022 and EC amended on 12.07.2023.
- iv) The Project Proponent has now submitted fresh proposal for Modification of EC for change in the Co-ordinates (Latitude & Longitude) of the lease area in the EC letter as per the Approved Modification of Mining Plan.



### Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

- v) Since, SEAC has already recommended the proposal to SEIAA. Hence, the SEAC decided to return this proposal to SEIAA, Odisha as decision will be taken by the SEIAA for the present revised proposal.

#### Decision of Authority: Approved

The Authority observed that there is a marginal change in the lease hold area and the Sub-Collector, Cuttack vide their letter no. 13400 dt. 26.10.2023 has directed for modification of Mining Plan as per Rule-28, Sec 7 & 9 OMC Rule-2016.

Since, the proposed mining area is adjoining to old mining lease area in the same river stretch. After detailed deliberation, the Authority opined that there is no change in the Environmental Impact Assessment (EIA) of the project. Accordingly, the proposal for amendment of EC in regard to change of Co-ordinates (Latitude & Longitude) of the lease area for which EC granted vide letter no. 10078/SEIAA dated 16.12.2020 is approved.

#### APPROVED BY

  
Member Secretary, SEIAA

  
Member, SEIAA

  
30.01.24  
Chairman, SEIAA



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

<b>AGENDA NO.152.06</b>	
Proposal No.	SIA/OR/MIN/306949/2023
Date of application	04.12.2023
File no.	SEIAA-659/09-2020
Project Type	Proposal for Amendment of EC only change the Co-ordinates (Latitude & Longitude) of the lease area in granted EC as per the approved modification of mining plan
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for Amendment of EC of Barda Mahanadi Sand Quarry over an area of 12.355 acres or 5.00 hectares in village Barda under Kishannagar Tahasil in Cuttack District Odisha
Name of the company/Organization	Sri Debi Tripathy
Location of Project	village Barda under Kishannagar Tahasil in Cuttack District Odisha
ToR Date	N/A
Name of the Consultant	N/A

**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 SEAC/SEIAA, are given as under.

- (ii) This is a proposal for amendment of EC of Barda Mahanadi Sand Quarry over an area of 12.355 acres or 5.00 hectares in village Barda under Kishannagar Tahasil in Cuttack District Odisha.
- (iii) The project proponent has obtained EC from SEIAA, Odisha vide EC letter no. 10082/SEIAA dated 16.12.2020 and EC transfer vide letter no.4856/SEIAA dt. 13.07.2022 Barda Mahanadi Sand Quarry over an area of 12.355 acres or 5.00 hectares in village Barda under Kishannagar Tahasil in Cuttack District Odisha.
- (iv) As course of change of river flow, the mining plan has been modified and approved vide letter no. 13821 dt. 17.11.2023 without changing Khat no. and Plot no. of the lease area, production quantity and total lease area are same based DGPS survey.
- (v) The ADM, Cuttack vide letter no.793 dt. 26.06.2023 and the Sub-Collector, Cuttack vide 13400 dt. 26.10.2023 has mentioned that the modification of mining plan be taken up involving all stake holders as per Rule 28, Section (8) & (9) of OMMC Rules , 2016 may please be carried out immediately
- (vi) Any deficiencies/omission have been noticed in the above documents- Nil

**1. Whether SEAC recommended the proposal –** The proposal was placed in SEAC meeting held on 08.01.2024 and the decided as follows:

- i) The SEAC in its meeting held on dated 24.11.2020 recommended the proposal for grant of Environmental Clearance.
- ii) The SEIAA granted EC to the proposal vide letter no. 10082/SEIAA dated 16.12.2020.
- iii) The SEIAA granted Transfer of EC to the proposal on 4856/SEIAA dt. 13.07.2022
- iv) The Project Proponent has now submitted fresh proposal for Modification of EC for change in the Co-ordinates (Latitude & Longitude) of the lease area in the EC letter as per the Approved Modification of Mining Plan.



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

- v) Since, SEAC has already recommended the proposal to SEIAA. Hence, the SEAC decided to return this proposal to SEIAA, Odisha as decision will be taken by the SEIAA for the present revised proposal.

**Decision of Authority: Approved**

The Authority observed that there is a marginal change in the lease hold area and the Sub-Collector, Cuttack vide their letter no. 13400 dt. 26.10.2023 has directed for modification of Mining Plan as per Rule-28, Sec 7 & 9 OMC Rule-2016.

Since, the proposed mining area is adjoining to old mining lease area in the same river stretch. After detailed deliberation, the Authority opined that there is no change in the Environmental Impact Assessment (EIA) of the project. Accordingly, the proposal for amendment of EC in regard to change of Co-ordinates (Latitude & Longitude) of the lease area for which EC granted vide letter no. 10082/SEIAA dated 16.12.2020 is approved.

**APPROVED BY**

  
Member Secretary, SEIAA

  
Member, SEIAA

  
36.01.24  
Chairman, SEIAA

## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024



<b>AGENDA No.152.07</b>	
Proposal No.	SIA/OR/MIN/451950/2023
Date of application	10.11.2023
File no.	451950/988-MINB2/11-2023
Project Type	New proposal for EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for EC of Karanda Black Stone Quarry No-10 over an area of 1.60 Acre or 0.647 hain Village Karanda under Hindo Tahasil, Dhenkanal, Odisha
Name of the company/Organization	Sri Ajit Naik
Location of Project	Village Karanda under Hindo Tahasil, Dhenkanal, Odisha
ToR Date	N/A
Name of the Consultant	N/A

**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 SEAC/SEIAA, are given as under.

- i) This is a proposal for mining of stone from Karanda Black Stone Quarry No-10 over an area of 1.60 Acre or 0.647 hain Village Karanda under Hindo Tahasil, Dhenkanal, Odisha.
- ii) The mining area is a part of Survey of India Toposheet No. E45T6 and is bounded between the Latitude - 20°42'29.80"N to 20°42'34.44"N and Longitude - 85°21'55.76"E to 85°21'00.90"E
- iii) The mining lease is an identified sairat source in the DSR. The Karanda Black Stone Quarry No-10 sairat source will be leased out under the OMMC Rules, 2016 by Tahasildar, Hindo to the successful bidder (lessee) on the basis of public auction for a lease period of 5 years.
- iv) Documents submitted: -Form-1, PFR, checklist, Mining Plan and approval letter, DLC, DSR, Village sheet, Cluster certificate from Tahasildar, topo map etc.
- v) Whether submitted KML file of the lease area-Yes
- vi) Whether submitted scrutiny fee-Yes, of Rs. 1000/- vide e Challan Reference Id No. 35CF38870F dt. 09.11.2023
- vii) Distance from nearest sanctuary/ESZ- Tikarpada WLS-24.96 Km
- viii) Whether the lease area coming in DLC report-No, as certified by Tahasildar, Hindol vide letter no. 3525 dt. 01.09.2023
- ix) Whether the lease area reflecting in DSR-Yes
- x) Method of mining-Semi-mechanized and both drilling and blasting will be occur
- xi) Distance from nearest road bridge-0.70 km, village road -1.30 km
- xii) Whether it is part of cluster -No
- xiii) Whether EC obtained earlier-No
- xiv) Date of approval of mining plan- the Joint Director Geology, Zonal Survey, Dhenkanal vide letter no/ 61 dt. 18.01.2023
- xv) Production capacity per annum-4128 cum/annum (max.), total production in 5 years period-20640 cum, Geological reserve-35683 cum and Mineable reserve-20642 cum
- xvi) Whether the DSR has been prepared as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020- No
- xvii) The EMP budget provision of Rs. 1.0 Lakh-(capital cost) and Rs. 25,000/--(Recurring Cost)
- xviii) Any deficiencies/omission have been noticed in the above documents- Nil



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

2. **Whether SEAC recommended the proposal** – The proposal was placed in SEAC meeting held on 28<sup>th</sup>, 29<sup>th</sup> & 30<sup>th</sup> December 2023 and the SEAC recommended the proposal for grant of EC with usual conditions along with specific stipulation for stone quarry.
- Consent / NoC shall be obtained from the concerned authority if village road is to be used for transportation. The said road shall also be maintained by the lessee.
  - In view of likely revision of DSR the mention of this deposit with final coordinates is to be ensured
  - Plantation programme to be completed within first two years and to be maintained in remaining years.
  - Depth of Mining as proposed should not be beyond 6m from the ground level.
  - Mitigation measures for flying Rock for safety be put in place.
  - Stone quarry project proponent need to maintain periodic health check-up records of their employees and ensure use of face mask by workers in crushing and handling sections

### Decision Of Authority: Approved

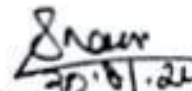
After detailed deliberations, the Authority decided to **grant Environmental Clearance** with usual stipulated conditions as applicable for stone quarry.

- Maximum depth of mining 6.0 meter and maximum quantity of extraction shall be limited to **4128 cum** in 1<sup>st</sup> year and **4128 cum** in 2<sup>nd</sup> year as per mining plan.
- The validity of EC is for 1<sup>st</sup> year and 2<sup>nd</sup> year or validity of DSR or validity of lease period whichever is earlier.
- The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).
- The Project Proponent (lease holder) shall deposit Rs.50,000/-, with the respective District Environment Society for raising 100 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.
- The PP will implement the EMP cost of Rs. 1.0 Lakh (Capital Cost) and Rs. 25,000/- (Recurring Cost)

APPROVED BY

  
Member Secretary, SEIAA

  
Member, SEIAA

  
30.01.24  
Chairman, SEIAA

## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024



### **AGENDA NO.152.08**

Proposal No.	SIA/OR/MIN/ 301911 /2023
Date of application	25.11.2023
File no.	SIA/OR/MIN/289422/2022
Project Type	Proposal for Amendment of EC based replenishment study report of sand
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for Amendment of EC of Kalika Prasad Sand Quarry over an area 12.35 Acres or 4.990 Hectares in village Kalika Prasad under Dampada Tahasil Cuttack District Odisha
Name of the company/Organization	Sri Krushna Swain
Location of Project	village Kalika Prasad under Dampada Tahasil Cuttack District Odisha
ToR Date	N/A
Name of the Consultant	N/A

### **3. Proposal in brief:**

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

- (vi) This is a proposal for amendment of EC of Kalika Prasad Sand Quarry over an area 12.35 Acres or 4.990 Hectares in village Kalika Prasad under Dampada Tahasil Cuttack District Odisha.
- (vii) The project proponent has obtained EC from SEIAA, Odisha vide EC letter no. EC22B001OR130604 dt. 17.08.2022 and EC transfer vide letter no. 5298/SEIAA dt. 29.08.2022 for Kalika Prasad Sand Quarry over an area 12.35 Acres or 4.990 Hectares in village Kalika Prasad under Dampada Tahasil Cuttack District Odisha.
- (viii) During EC application the PP has submitted required documents along with mining plan where it is mentioned that mineable reserve of the proposed sand was 86136 cum with depth of sand deposition was 2.0 meter and proposed for annual extraction-80000 cum.
- (ix) The SEIAA also granted EC for 1<sup>st</sup> year production 10000 cum with depth of mining 1.0 meter.
- (x) There is an EC conditions point no. 7.1 to 7.2 in page no. 04 that "Pending carrying out of the study & submission of the report, this clearance is being granted in an adhoc manner and is liable to be revoked after one year i.e. after 30<sup>th</sup> November 2023 if satisfactory replenishment study report is not submitted."
- (xi) The PP has submitted EC compliance report and mentioned that 10000 cum sand already extracted from the source in 1<sup>st</sup> year.
- (xii) Now, the PP has submitted amendment of EC application and submitted replenishment study report by ORSAC empanel agency M/s. GEOID Resource Pvt. Ltd. with mentioned that pre-monsoon volume of sand 16985 cum and Post-monsoon volume is 27301 cum and quantity of sand replenished in the said sand bed 4014 cum and proposed production for next year is 4014 cum cum.
- (xiii) Any deficiencies/omission have been noticed in the above documents-Nil

**4. Whether SEAC recommended the proposal –** The proposal was placed in SEAC meeting held on 13<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup> & 18<sup>th</sup> November 2023 and after discussion, the SEAC recommended sand mining limiting to Replenishment sand volume of **4014.00 cum** per annum.

**Decision of Authority: Approved**



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

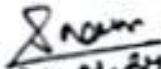
After detailed deliberation in the matter, the Authority decided to allow amendment of EC as per the SEAC recommendation with the following specific condition:

- Maximum quantity of extraction of sand shall be allowed to **4014 cum per year** for the rest of the lease period i.e. for the 2<sup>nd</sup> year, 3<sup>rd</sup> year, 4<sup>th</sup> year and 5<sup>th</sup> year. The PP is required to carry out the Annual rate of replenishment study (ARRS) through ORSAC empanel agency in subsequent year and submit the report to SEIAA, Odisha.
- The validity of EC is the validity of DSR or validity of lease period whichever is earlier.

  
Member Secretary, SEIAA

APPROVED BY

  
Member, SEIAA

  
201 01 24  
Chairman, SEIAA



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024



### AGENDA NO.152.09

Proposal No.	SIA/OR/MIN/438878/2023
Date of application	02.08.2023
File no.	438878/594-MINB2/08-2023
Project Type	Proposal for fresh EC
Category	B2
Project/Activity including Schedule No.	1(a) Mining of minerals
Name of the Project	Proposal for EC of Paktia Quartz & Quartzite Mine Over an area of 8.85 Acres or 3.581 Hectares in village Paktia under Saraskana Tahasil of Mayurbhanj District, Odisha.
Name of the company/Organization	Sri Lalit Dash
Location of Project	village Paktia under Saraskana Tahasil of Mayurbhanj District, Odisha.
ToR Date	24.05.2021
Name of the Consultant	M/s Srushti Seva Private Limited, Nagpur

#### **Proposal in brief:**

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

1. This proposal is for Environmental Clearance for Paktia Quartz & Quartzite Mine Over an area of 8.85 Acres or 3.581 Hectares in village Paktia under Saraskana Tahasil of Mayurbhanj District of Sri Lalit Das.
2. **Category:** The project falls under category "B" or activity 1 (a) – Mining of Minerals under EIA Notification dated 14th September 2006 as amended from time to time.
3. This application is for extension of lease period and expansion of production from the Environmental Clearance issued by DEIAA, Mayurbhanj for the lease period, vide Ref. No. DEIAA/119 dated 21.06.2017 for production of 1,06,287 MT of Quartz & Quartzite in the plan period.
4. Environmental Clearance is sought for the production of 52,012MT/annum, of Quartz & Quartzite and 607 MT/annum of sub grade material. The ML area is 8.85 Acre or 3.581 ha, out of which only 1.85 ha will be utilized for mining & allied activities during the Plan period.
5. Mining Lease was granted in favour of Shri Lalit Kumar Dash on 30.12.2000 for 20 years vide letter No.- III (c) M-2/2000-1698ISM, and the said lease was Executed on 30.03.2001 for 20 years, which was expired on 29.03.2021.
6. The lessee has carried out mining operation in the lease till the expiry of the lease period upto 29.03.2021 and before completion of lease period the Lessee has applied for Extension of Mining lease u/s 8 A (3) of MMDR Amendments Act 2015 & u/r 66(1) of OMMC Rules, 2016.
7. The Internal verification Committee (IVC) meeting held on 08.05.2023 and IVC have recommended to extend the lease period u/r 66(1) of OMMC Rules, 2016 for fifty years from the original lease deed.
8. Dept of Steel and Mines Govt. of Odisha has extended the lease period upto 29.03.2051 vide letter no. 6298 dated 21.06.2023 with condition to obtain all statutory clearance.
9. The mining operation was undertaken with all statutory clearances.
10. The Environmental Clearance was obtained from DEIAA, Mayurbhanj for the lease period, vide Ref. No. DEIAA/119 dated 21.06.2017 for production of 1,06,287 MT. in the plan period.
11. Total lease area of 3.581 ha. is non-forest Govt. waste land.



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

12. The scheme of mining has been approved vide letter no.: 2848/Mines, Dated 30.03.2019 by Directorate of Mines, Bhubaneswar, Govt of Odisha.
13. Quartz & Quartzite is under Specified Minor Mineral Category.
14. DSR of Mayurbhanj district has been approved on 28.12.2019 & the said lease details has been shown as identified source in SI No- 1 after Page No. 48 of Quartz and Quartzite.
15. **Location and connectivity:** The Paktia Quartz & Quartzite Mines is in the village - Paktia under Saraskana Tahasil, in the district of Mayurbhanj of Odisha State. The area is featured in toposheet no 73J/7 (F4517) and is bounded between Latitude: 22°19'05.32920" to 22°19'13.55160"N, Longitude: 86°28'41.47680" to 86°28'49.06920"E. The nearest National highway is Chennai-Kolkata (NH 06) at a distance of 20 Km. The nearest Railway station is at Bangiriposi at a distance of 20 Km. There is no eco sensitive zone situated within 10Kms from the lease area. However, reserve forest is at a distance of 5.5 kms & water body is located within the buffer zone of the lease area at 2.5 kms. Road Bridge at 14.0 kms and Rail bridge at 93.2 kms. River embankment at 2.5 kms and electric transmission line at 0.2 kms. Village road at 1 km and habitation at Paktia at 0.2 km.
16. **Reserves:** As estimated the total geological reserve is about 4,15,462 MT, out of which 3,93,153 MT have been considered as mineable reserves.
17. **Total production:** (52,012MT/annum) quartz and quartzite (26852 cum/Annum) from excavation and (25160 cum/Annum) from dump working and (607 MT/annum) of Sub Grade Material. During 5 years of plan period 132934 MT of Quartz & Quartzite from mine working, 107030 MT of Quartz & Quartzite from dump working will be excavated and 3005 MT of sub grade will be generated.

Year	Quartzite from mine working in MT	Quartzite from dump working in MT	Sub-grade generation in cum	Waste generation in cum
1st Year	24200	18171	547	1095
2nd Year	25747	20209	582	1165
3rd Year	29946	19612	677	1355
4th Year	26189	23878	592	1185
5th Year	26852	25160	607	1215
<b>Total</b>	<b>132934</b>	<b>107030</b>	<b>3005</b>	<b>6015</b>

18. **Method of mining:** Opencast semi-mechanized method will be adopted using machineries such as Excavator, compressor & jack-hammer (if required), screening vibrator etc. for screening. Bench parameter will be kept at 3m height and 3m width. Overall pit slope will be 75°-85°. Excavation & separation of Quartz & Quartzite is done in two phases. One is removal of Quartz & Quartzite from the quarry face; it is the main stage. The second phase is sorting-sizing-screening/cleaning of excavated material as per the required size. Manual labours with crow-bar and pick-axe will be used for segregating the waste material from the useful material. Shallow hole Blasting shall be carried out using safety fuse with ordinary detonator.

**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

**19. Post mining land use:**

Purpose	Existing	Plan Period	Conceptual Period	Total Area In Ha.
Mining	0.390	0.549	0.911	1.850
Dumping	0.016	0.098	0.164	0.278
Ore stack yard	0.014	0.118	0.006	0.138
Road	0.157	0.007	----	0.164
Plantation	0.560	0.200	0.140	0.900
Screening Plant & Machineries, Infrastructure Site service R. shed and office	0.045	0.005	--	0.050
Topsoil stack	0.012	--	--	0.012
Sub-grade stack	--	0.120	--	0.120
Total	1.194	1.097	1.221	3.512
Unused	--	---	--	0.069
<b>Total Lease Area</b>				<b>3.581</b>

20. **Waste generation and its management:** During plan period 16,306 cum of waste will be generated. Total waste will be dumped over 0.098 ha. of area. Further non saleable ore as sub-grade of 3005 cum will excavated in 5 year also will stacked over 0.12 ha. of land. Further 34,807 cum of intercalated waste will be generated during conceptual period which will be accommodated within a surface area of 2776 sq. meter. The dump will be maintained below 28 ° slope with a height of 15 meter. There will be 3 terraces with 5 meter each. The sub-grade material to generate will be utilized for blending. There is one top soil dump of 0.012 ha. size to accommodate top soil if any.
21. **Water requirement:** 2 m<sup>3</sup>/day (1 m<sup>3</sup> for dust suppression, 0.5 m<sup>3</sup> for Plantation & 0.5 m<sup>3</sup> for drinking purpose). As the requirement of water is not so huge, the mine will draw water as per suitability in accordance to the existing guidelines.
22. **Greenbelt:** A total 420 saplings have been planted as on 31.03.2018 over 0.264 ha. And regularly funds have been deposited towards DMF Trust & OEMF Trust. Total 320 trees shall be planted over an area of 0.20 ha. during plan period.
23. **Manpower:** Administrative & supervisory personnel will be 3 numbers and 19 workers will be employed under skilled (4), semi-skilled (8) & un-skilled (4) category in the mine.
24. **Project cost:** Total cost of the project will be Rs. 40 Lakhs (approx.) and a budget of Rs. 7.1 lakhs is proposed as EMP cost for the lease area. Lessee will spend towards CSR activities about Rs. 4 lakhs for the peripheral development towards education, Health check-up camp and maintenance of roads etc.
25. **Environment Consultant:** The Environment consultant M/s Srushti Seva Private Limited, Nagpur along with the proponent made a presentation on the proposal before the Committee on 01.09.2023.



## Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024

The SEAC in its meeting held on dated **01-09-2023** decided to take the decision on the proposal after receipt of the following from the proponent. 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	Views of SEAC
1.	Copy of lease extension documents of the concerned authority.	The lease is extended for fifty years from 30.03.2001 to 29.03.2051 by the recommendation on internal verification Committee (IVC), meeting held on 08.05.2023. IVC recommendation attached as <b>Appendix-1.</b>	submitted
2.	Certificates from concerned DFO that the proposed quarry does not come under DLC land and distance of the proposed quarry from Similipal Wildlife Sanctuary and distance from its Eco-Sensitive Zone.	The lease area belongs to Patharbani Kissam & no DLC forest land involved. The distance of Similipal WL Sanctuary from the lease area is 22.472 Km Letter from DFO, Baripada Forest Division is attached as <b>Appendix -2.</b>	submitted
3.	Note on Blasting management and flying rocks assessed properly from experts.	Detailed note on Blasting Management & Assessment of flying rocks is attached as <b>Appendix -3.</b>	submitted
4.	Past production figures since the inception of the mine till now duly certified from Mining Officer.	Production figure duly certified by Mining Officer, Baripada from the inception of mines to till date is attached as <b>Appendix - 4.</b>	submitted
5.	Copies of Consent to Establish and Consent to Operate of the mine.	Previous CTE & CTO copies of mine are attached as <b>Appendix 5A &amp; 5B</b>	submitted
6.	Environmental Clearance granted by DEIAA valid up to 2021. No mining activity has been carried out after 2021. Supportive documents to this effect shall be submitted.	Production figure duly certified by Mining Officer, Baripada from the inception of mines to till date is attached as <b>Appendix - 4.</b>	---
7.	RL of the mineralised area pre and post mining as per the approved mining plan along with the RL of ground water during rainy and summer seasons in the ML area.	Top RL pre mining & bottom RL Post mining of the mineralized area during mining plan period is 217m RL & 200m RL respectively. Ground water RL during rainy and summer seasons in the ML area varies from 194m RL to 192m RL respectively. Map showing RL of mineralized zone and	submitted



**Agenda of 152<sup>nd</sup> Meeting of SEIAA, Odisha held on 25.01.2024**

ground water level is attached as Appendix -6.

Considering the information furnished and the presentation made by the consultant **M/s Srushti Seva Private Limited, Nagpur** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – D**.

2. **Whether SEAC recommended the proposal** – The proposal was placed in SEAC meeting held on 02.12.2023 and after discussion, the SEAC recommended the proposal for grant of EC.

**Decision Of Authority: Approved**

After detailed deliberations, the Authority decided to **grant Environmental Clearance** with usual stipulated conditions as applicable for quartzite mine.

- Maximum quantity of extraction shall be limited to 26852 cum/annum from excavation and 25160 cum/annum from dump working and 607 MT/annum of Sub Grade Material as per mining plan.
- The validity of EC is for validity of DSR or validity of lease period whichever is earlier.
- The Grant of EC for further period will be considered after submission of approved DSR by SEIAA as per the MoEF& CC, Govt. of India Notification S.O. 3611(E) dated 25.07.2018, Sustainable sand mining guidelines-2016 and Enforcement & Monitoring Guideline for sand mining-2020 and also as per the Hon'ble Supreme Court order vide its order dated 10.11.2021 in Civil Appeal Nos. 3661-3662 of 2020 (State of Bihar Vrs. Pawan Kumar and Others).
- The Project Proponent (lease holder) shall deposit Rs.1,75,000/-, with the respective District Environment Society for raising 350 plants (minimum @100 trees per Ha) of native species within 2 years in a suitable location adjoining to quarry.
- The PP will implement the EMP cost of Rs. 7.1 Lakh and Rs. 4.0 Lakh for CER cost.

  
Member Secretary, SEIAA

APPROVED BY  
  
Member, SEIAA

  
20.01.24  
Chairman, SEIAA